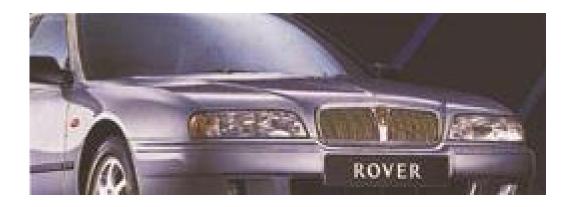
# 600 SERIES



## Owner's Handbook

Instruktieboekje
Manuel du Conducteur
Betriebsanleitung
Manuale di Istruzioni
Manual del Conductor
Manual do Proprietário





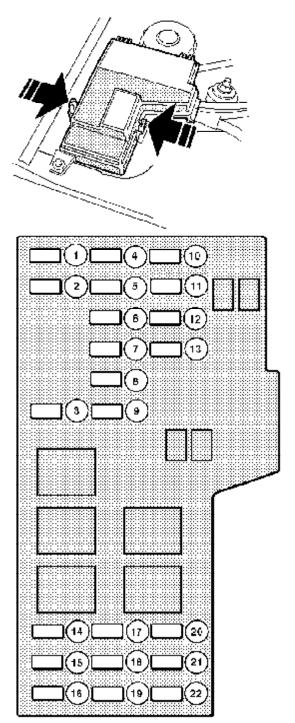
## 6 0 0 S E R I E S

## Important Information

The information on the following pages, replaces that shown under 'Engine compartment fuse box' (pages 105 & 106) and provides supplementary information to the 'Bulb replacement' section in the Owner's Handbook, RCL 0197ENX.

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## **Fuses**



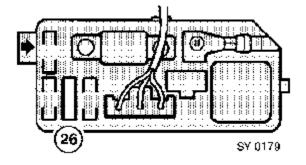
#### **Engine compartment fuse box**

The fuse box is located to the rear of the engine compartment on the right hand side. Push the tabs (arrowed in illustration) to remove the cover.

**NOTE:** You are advised against removing or replacing any fuse, relay or fusible link from the engine compartment fuse box, other than those identified in the illustration.

#### **ABS FUSEBOX - 623 models**

The fuse box is located at the right hand side of the engine compartment. Press clip on end (arrowed) to release cover.



26 - 20 amp - ABS control unit

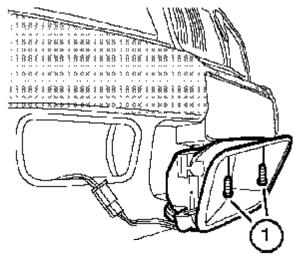
## **Fuses**

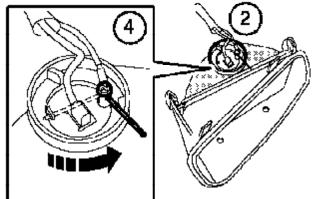
### **ENGINE COMPARTMENT FUSE BOX**

| Fuse No                         | Rating (amps) | These units not operating                 |
|---------------------------------|---------------|---|
|                                 |               |   |
| 1<br>2<br>3<br>4<br>5<br>6<br>7 | 10            | Tail lights                               |
| 2                               | 20            | Central door locking, anti-theft alarm    |
| 3                               | 20            | Cooling fan                               |
| 4                               | 30            | Sunroof                                   |
| 5                               | 10            | Lights                                    |
| 6                               | 30            | Cooling fan <sup>2</sup>                  |
|                                 | 15            | Interior light                            |
| 8                               | 15            | Cooling fan                               |
|                                 | 10            | Diagnostics <sup>2</sup>                  |
| 9                               | 10            | Engine management system                  |
| 10                              | 20            | Front seat height adjustment <sup>1</sup> |
| 11                              | 10            | Front fog lights 1                        |
|                                 | 30            | Cooling fan 2                             |
| 12                              | 20            | Front seat '                              |
|                                 | 15            | Front fog lights <sup>2</sup>             |
| 13                              | 7.5           | Radio/cassette player                     |
| 14                              | 20            | Window - rear left                        |
| 15                              | 20            | Window - rear right                       |
| 16                              | 20            | Window - front left                       |
| 17                              | 20            | Window - front right                      |
| 18                              | 20            | Headlight - right                         |
| 19                              | 20            | Stop lights, horn                         |
| 20                              | 20            | Headlight - left                          |
| 21                              | 10            | -   |
| 22                              | 10            | Hazard warning lights, anti-theft alarm   |

<sup>&</sup>lt;sup>1</sup> 618, 620Si & 623 models 620ti & Diesel models

## Bulb Replacement



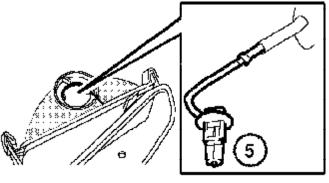


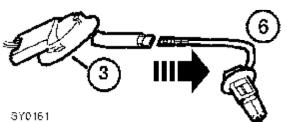


- 1. Remove two retaining screws from the top of the light surround.
- 2. Using a flat bladed screwdriver, carefully prise the light unit out of the bumper.
- 3. Pull back the rubber cover (shown in bottom illustration).
- 4. Unclip the retaining pin and rotate.
- 5. Pull the bulb holder out of the light unit.
- 6. Uncover the bulb connector by sliding the protective sleeve up the wire. Pull the connector to remove.

Replace the bulb assembly with Part number GLB 453, rated at 55 Watts, available from a Rover dealer.

When refitting the light unit into the bumper, ensure that both tabs on the bottom of the unit are securely clipped behind the retaining ridge of the aperture in the bumper.





#### **WARNING!**

DO NOT adjust or remove any screw other than those identified in the illustrations.

### **Contents**

| Windows               | 28  |
|-----------------------|---|
| Sunroof               | 30  |
| Heating & Ventilation | 32<br>37  |
|                       |   |
|                       | 41  |
|                       | 42  |
| Loud carrying         | 12  |
| G CONTROLS            |   |
| Fuel system           | 60  |
|                       | 62  |
|                       | 64  |
| Fascia switches       | 65  |
| Brakes                | 67  |
| TENANCE               |   |
| Brakes & clutch       | 84  |
| Power steering        | 85  |
| Wipers & washers      | 86  |
| Battery               | 88  |
| Tyres                 | 91  |
| Cleaning & car care   | 93  |
| Y INFORMATION         |   |
| Fuses                 | 103   |
|                       | 107   |
| •                     |   |
| ICAL DATA             |   |
| Index                 | 118   |
|                       | 110   |
|                       |   |
|                       |   |
|                       | Sunroof Heating & Ventilation Interior equipment In-Car entertainment Load carrying  Fuel system Lights & indicators Wipers & washers Fascia switches Brakes  TENANCE  Brakes & clutch Power steering Wipers & washers Battery Tyres Cleaning & car care  INFORMATION  Fuses Bulb replacement |

## Introduction

Welcome to your new Rover. This handbook, together with the other publications in the literature pack, provides all the information you need to gain maximum pleasure from owning and driving your new car.

For your convenience, the handbook is divided into the following sections, each dealing with a particular aspect of driving or caring for the car. You will find it worthwhile to take a little time to read each one, and get to know your new Rover as soon as you possibly can.

**'Before you drive'** - this section covers seat adjustment, seat belts and heating controls and deals with everything you need to know to settle comfortably into the car before you drive.

**'Driving controls'** - here the functions and operation of the switches, instruments and driving controls are explained.

'Maintenance' - this part includes information about the maintenance checks that you, the owner, should carry out on a daily or weekly basis.

**Emergency information** - this section will help to solve those unavoidable little emergencies that occur from time to time; like replacing bulbs and fuses, or changing a wheel.

**'Technical data'** - here you will find the technical specification for your car.

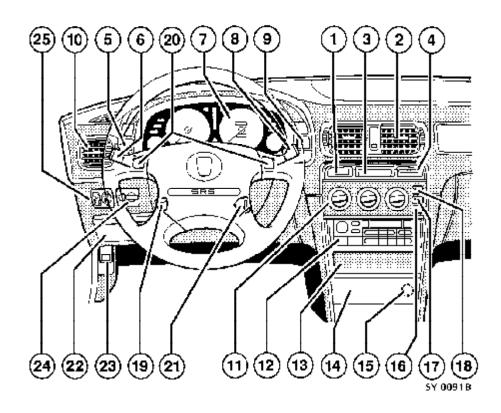
#### **WARNING!**

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

The specification of each Rover vehicle will vary according to territorial requirements and also from model to model within the vehicle range. Some of the information published in this handbook, therefore, may not apply to your car. If you are in any doubt, then contact your dealer.

Rover operate a policy of constant product improvement and therefore reserve the right to change specifications without notice at any time. Whilst every effort is made to ensure complete accuracy of the information in this handbook, no liabilities for inaccuracies or the consequences thereof, including loss or damage to property, or injury to persons, can be accepted by the manufacturer or the dealer who supplied the handbook, except in respect of personal injury caused by the negligence of the manufacturer or the dealer.

## **Controls**



- 1. Hazard warning light switch
- 2. Fresh air vents
- 3. Clock/radio display
- 4. Clock adjustment controls
- 5. Rear fog guard lights switch
- 6. Lighting and direction indicator controls
- 7. Instrument and warning light panel
- 8. Windscreen wiper/washer controls
- 9. Rear screen demister switch
- 10. Fresh air vents
- 11. Heater controls
- 12. Radio/cassette player
- 13. Oddments tray

- 14. Ashtray
- 15. Cigar lighter
- 16. Air conditioning switch
- 17. Air recirculation switch
- 18. Fresh air switch
- 19. Steering column height adjuster
- 20. Horn switch panels
- 21. Starter switch
- 22. Driver's personal storage
- 23. Bonnet release lever
- 24. Instrument panel dimmer
- 25. Headlight levelling control

## ANTI-THEFT SECURITY PRECAUTIONS

# Always adopt this simple "five point" drill whenever you leave your car - even for just a few minutes:

- Fully close all windows (and sunroof).
- Remove any valuables (or hide them in the luggage compartment).
- Remove the starter key and handset.
- Engage the steering lock (by slightly turning the steering wheel until it locks).
- Lock all the doors and activate the alarm.

Even when you have done all these things, there is still much you can do to make your car a less inviting target for the thief.

#### **BE SAFE, NOT SORRY!**

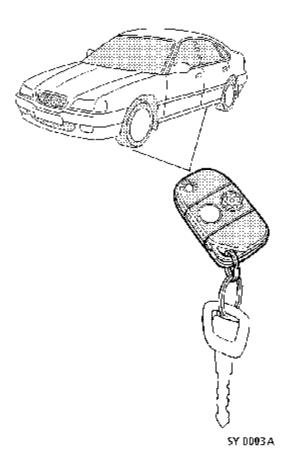
- Try to park where your car can be seen by householders or passers-by.
- At night always park in well lit areas and try to avoid dimly lit side streets.
- Never leave vehicle documents in the car - these are a real bonus for the thief.
- If you have a garage, use it and don't risk leaving the key and handset in the starter switch.

#### **ALARM SYSTEM**

Your car is fitted with a sophisticated electronic anti-theft alarm and engine immobilisation system. In order to ensure maximum security and minimum inconvenience, you are strongly advised to gain a full understanding of the alarm system by thoroughly reading this section of the handbook.

# FOR MAXIMUM SECURITY ALWAYS USE THE HANDSET TO LOCK AND UNLOCK THE CAR

(except when the car is to be locked with passengers or animals inside, or with a window or sunroof open - see 'Locking using the key').



## LOCKING THE CAR AND ARMING THE ALARM

Before locking the car and arming the alarm, ensure all doors, windows, sunroof, bonnet and luggage compartment apertures are securely closed.

#### Locking with the handset

Aim the handset at the car and briefly press the dimpled button. If the doors lock correctly, the hazard warning lights will flash three times and the alarm system indicator lights (positioned next to the front door sill locking buttons) start to flash.

Each time the car is locked using the handset, a coded signal is transmitted to a receiver inside the car, which activates the following security features:

- the central door locking system (all the door locks are activated).
- the perimetric alarm (protects the door, bonnet and luggage compartment apertures).
- interior space protection (protects the space inside the passenger compartment).
- engine immobilisation.

Once armed, the alarm will sound if any door or other aperture is opened, or if (after a checking period of 15 seconds) any movement is detected inside the passenger compartment (see 'Interior space protection').

If the hazard warning lights fail to flash when the handset is used to lock the car, this indicates that either the bonnet, luggage compartment or a door is not fully closed, in which case the alarm will still be armed and the engine immobilised, but interior space protection will not have been activated.

Once the open door or aperture is closed, the hazard warning lights will flash three times and the alarm system will arm itself as described previously.

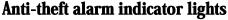
#### Unlocking with the handset

Aim the handset at the car and briefly press the PLAIN button; the hazard warning lights flash once, and the alarm is disarmed immediately.

If the handset fails to unlock the car, use the key and resynchronise the handset (see item 6 under 'Handset battery').

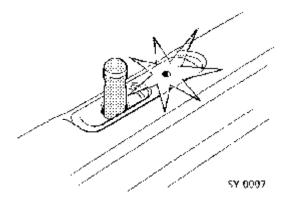
#### If the alarm sounds

To silence the alarm, press either handset button, or operate the door locks using the key. Once activated the alarm will sound for approximately 30 seconds before switching itself off, and can be triggered up to three times in total before needing to be reset.



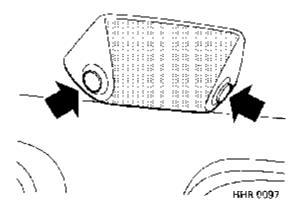
After locking, the RED indicator lights on the front door window sills flash rapidly while the alarm system is arming itself.

After 10 seconds, the indicator lights adjust to a slower frequency, and continue flashing as an anti-theft deterrent until such time as the alarm is disarmed.



#### **Interior space protection**

Interior space protection is only activated when the alarm is armed using the handset. Twin sensors situated at the top of the right hand door pillar, monitor the interior space and activate the alarm if an intrusion into the passenger compartment is detected (entry gained through a window or sunroof, for example).



#### **ENGINE IMMOBILISATION**

Engine immobilisation is an important aspect of the car's security system, and includes a feature known as 'passive immobilisation', designed to safeguard the car from theft should the driver forget to lock the doors. The engine is automatically immobilised whenever any of the following conditions occur:

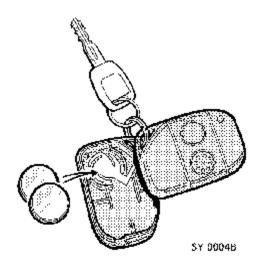
- 1. When the car is locked using the handset.
- 2. When the car is locked using the key.
- 3. Immediately the starter switch is turned off.

#### **IMPORTANT**

It is almost impossible to leave the car unattended without the engine being immobilised automatically. For this reason it is important that all drivers are fully aware of the following:

The engine immobilisation system relies on a transponder in the key to re-mobilise the engine.

The engine can only be re-mobilised by inserting a key with the correct transponder signal into the starter switch.



#### HANDSET BATTERY

The handset batteries should last for approximately three years dependent upon use. When the batteries need replacing it will be apparent from the following symptoms:

- Each time the handset is operated, the indicator lights on the front door sills flash rapidly until the door is opened.
- The operating range of the handset will reduce.

Always fit Panasonic CR2016 replacement batteries (available from a Rover dealer) and adopt the following replacement procedure:

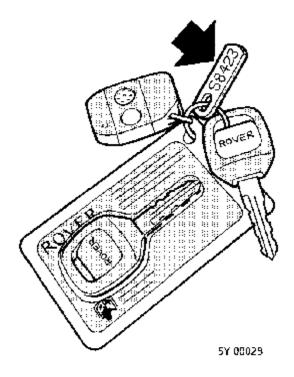
- 1) Carefully prise the handset apart, start from the keyring end using a coin or small screwdriver. Avoid damaging the seal between the two halves of the case and DO NOT allow dirt or moisture to get inside the handset.
- 2) Slide the batteries out of the clip, taking care to avoid touching the circuit board or the contact surfaces of the clip.
- 3) Press and hold each button in turn for at least five seconds (this will drain any residual power from the handset).

- 4) Fit the new batteries, ensuring that correct polarity is maintained (positive ('+') side facing up). Finger marks will adversely affect battery life; if possible, avoid touching the flat surfaces of the battery and wipe them clean before fitting.
- 5) Reassemble the two halves of the handset.
- 6) Unlock the car using the key, then operate the lock button of the handset at least four times.

The handset is now ready for use.

#### **WARNING!**

The handset contains delicate electronic circuits and must be protected from impact and water damage, high temperatures and humidity, direct sunlight and the effects of solvents, waxes and abrasive cleaners.



#### **KEY AND HANDSET NUMBERS**

You have been supplied with two remote control handsets, a pair of identical keys and a RED learning key.

The key number is stamped on a tag (arrowed in illustration) attached to the key ring. Check that the key number has been entered in the space provided on your Security Information card.

#### **WARNING!**

Keep the Security Information card, key tag, spare key and handset in a safe place - NOT IN THE CAR!

If a key or handset is lost, contact a Rover dealer, who can supply replacement or additional keys and handsets.

**NOTE:** Always take the RED learning key, the remaining handsets and starter keys with you when attempting to obtain replacements.

#### LEARNING (RED) KEY

The RED key is an essential part of the security equipment, without which it will be impossible for your dealer to obtain replacement or additional keys. ALWAYS adhere to the following:

- Keep the key in its container and store it in a safe place, not in the car.
- Ensure that you have this key with you when visiting your dealer to obtain additional or replacement keys.
- DO NOT attempt to use the key to unlock your car or start the engine - you may inadvertently invalidate the signals from your BLACK starter keys.
- It is vital that this key always remains in the possession of the car owner. When you sell your car, the key MUST be passed on to the new owner.

#### Locking using the key

The two identical keys operate all locks, including the luggage compartment and glovebox. To operate the door locks, turn the key towards the front of the car to lock.

Locking the car with the key instead of the handset restricts security protection to the perimetric alarm (doors, bonnet and luggage compartment) and engine immobilisation only. Interior space protection will not be activated!

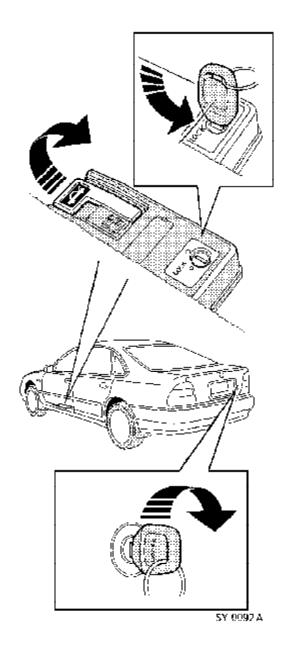
#### **Door sill locking buttons**

All doors can be locked from inside the car by pushing down the locking button on each door sill.

**NOTE:** When the driver's door locking button is operated, the central locking system operates all four door locks together.

#### **WARNING!**

ALWAYS remove the starter key and handset from the car before disconnecting the battery - reconnection of the battery may activate the central door locking and thereby lock the keys inside.



#### **LUGGAGE COMPARTMENT**

To open, use the key in the boot lock or, from inside the car, lift the release lever adjacent to the driver's seat.

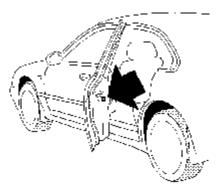
To close, press down on the boot lid.

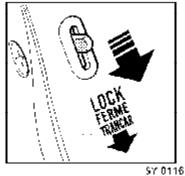
The luggage compartment is automatically locked when the boot lid is closed. However, whenever you leave the car, always turn the lock next to the release lever. This lock inhibits the boot release lever, providing additional security for the luggage compartment in the event of a thief breaking into the passenger compartment.

**NOTE:** The luggage compartment light switches on automatically when the boot lid is opened.

#### **WARNING!**

Do not drive with the luggage compartment open as poisonous exhaust gases will enter the car.





#### **CHILD-PROOF LOCKS**

Move the lever down to engage (rear door locks only).

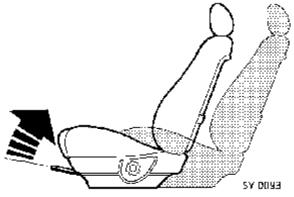
With the child-proof locks engaged, the rear doors cannot be opened from inside the car, thereby avoiding the risk of a child accidentally opening a rear door while the car is moving.

#### Glove box lid

Use the key to lock and unlock the glove box.

#### **WARNING!**

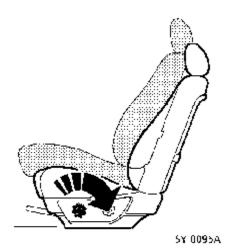
DO NOT drive with the glovebox open. An open glovebox could cause injury to a front seat passenger in the event of a collision.



#### MANUAL ADJUSTMENT

#### Forward/backward adjustment

Lift the bar to slide the seat forward or back. Make sure that the seat is locked in position before driving.



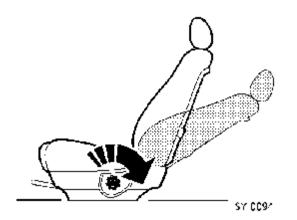
#### Height adjustment

(Driver's seat only)
Rotate the hand wheel to raise or lower the cushion.

#### **WARNING!**

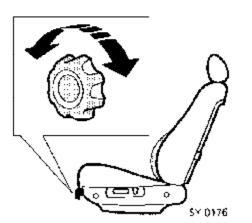
- DO NOT adjust the seats while the car is in motion.
- DO NOT allow occupants to travel with the seat backs reclined steeply rearwards. Optimum benefit is obtained from the seat belt, with the seat back angle set to 25 degrees from the upright (vertical) position.

## Seats



**Backrest adjustment**Rotate the handwheel to adjust the backrest to the required angle (see warning).

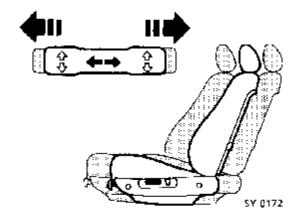


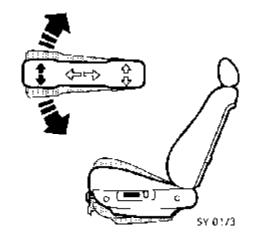


**Lumbar support adjustment** (driver's seat only) Rotate hand wheel to adjust lumbar support.

### **ELECTRICAL ADJUSTMENT**

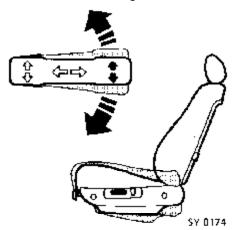
(driver's seat only)

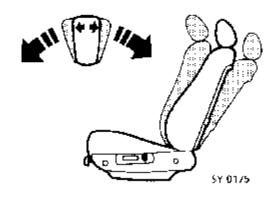




#### Cushion height adjustment - front

#### Forward/backward adjustment





Cushion height adjustment - rear

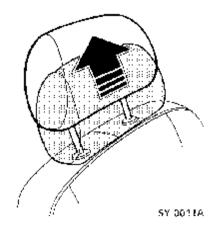
**Backrest adjustment** 

## **Lumbar support adjustment** See 'Manual Adjustment'.

#### **WARNING!**

- DO NOT adjust the seats while the car is in motion.
- DO NOT allow front seat occupants to travel with the seat backs reclined steeply rearwards. Optimum benefit is obtained from the seat belt with the seat back angle set to 25 degrees from the upright (vertical) position.

### Seats



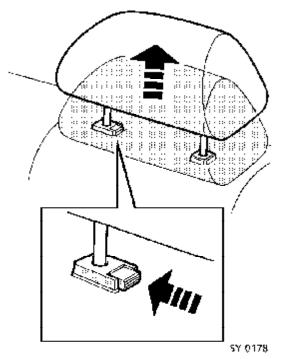
#### **HEAD RESTRAINTS**

Head restraints are designed to restrain rearward movement of the head in the event of an accident or sudden stop - a properly adjusted head restraint can considerably reduce the risk of neck and head injuries.

#### Front head restraints

Lift or push down on the padded cushion to adjust the height of a restraint, so that the padded cushion is level with the back of the head.

Turn the right hand bevelled mounting a quarter turn anti-clockwise to unlock the head restraint and enable it to be removed from the seat. After replacement, turn the mounting clockwise to lock the head restraint to the seat.



#### Rear head restraints

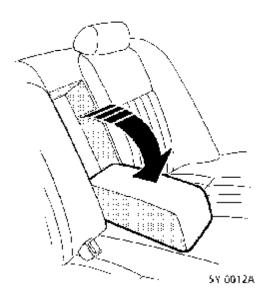
Depress the button to remove a head restraint.

#### **WARNING!**

DO NOT drive or carry passengers with the head restraints removed from occupied seats.

Where possible, adjust the height of a head restraint so that the cushion is level with the back of the head - NOT THE NECK!

## Seats



#### **Rear seat armrest**

#### **SEAT BELT SAFETY**

The seat belts supplied with your car are intended for use by adult sized occupants, and must be used by one occupant ONLY. Seat belts are life saving equipment. In a collision unrestrained passengers can be thrown around inside, or possibly thrown out of the car, resulting in injury to themselves and to other occupants as well.

#### ENSURE that ALL passengers are securely strapped in at all times.

- ALWAYS adjust seat belts to eliminate any slack in the webbing. DO NOT slacken the webbing by pulling the belt away from the body - to be fully effective, the seat belt must remain in full contact with the body at all times.
- ALWAYS fit the lap strap across the pelvis (never across the abdomen), and ensure that the diagonal strap passes across the chest without slipping off the shoulder or pressing against the neck.
- DO NOT fit more than one person into a belt, or use a seat belt that is twisted or obstructed in any way that could impede its smooth operation.
- DO NOT wear seat belts over hard or fragile items in clothing, such as pens, keys, spectacles etc.
- DO NOT allow occupants to travel with the seat backs reclined steeply rearwards. Optimum benefit is obtained from the seat belt, with the seat back angle set to 25 degrees from the upright (vertical) position.

- DO NOT allow a baby or infant to be carried on the lap. The force of a crash can increase effective body weight by as much as 30 times, making it impossible to hold on to the child.
- DO NOT allow foreign matter (particularly sugary food and drink particles) to enter the seat belt buckles - such substances can render the buckles inoperative.
- Always replace a seat belt assembly that has withstood the strain of a severe vehicle impact, or one where the webbing shows signs of fraying.
- DO use the seat belts to secure large items of luggage that are to be carried on the seats - in the event of an accident, insecure items become flying missiles capable of causing serious injury.
- Pregnant women should ask their doctor for advice about the safest way to wear seat belts.
- DO NOT use the centre rear seat belt to secure child safety seats.

#### **WARNING!**

The airbag supplementary restraint system (SRS) is designed to add to the overall effectiveness of the seat belts, it DOES NOT replace them. SEAT BELTS MUST ALWAYS BE WORN!

Ensure that all seat belts are worn correctly - an improperly worn seat belt increases the risk of death or serious injury in the event of a collision.

The centre rear seat belt is NOT designed to secure child safety seats - DO NOT install any child restraint/safety seat in the central rear seating position.

#### **CHILD SEATS**

The seat belts fitted to the car are designed for adults and larger children. For safety, it is recommended that all infants and young children are restrained in a child safety seat appropriate to their age and size, correctly fitted to the rear seat of the car. A range of suitable safety seats approved for use in Rover cars is available from your dealer.



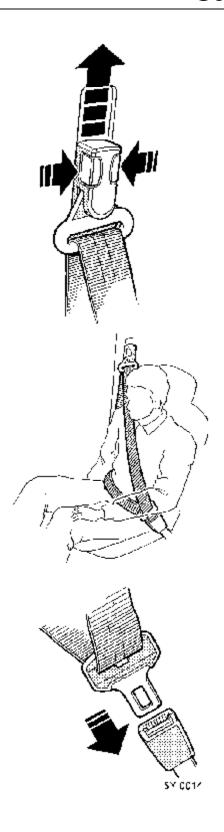
The above symbol affixed to the fascia panel of your car, warns against the use of a REAR FACING child seat in the front passenger seat, when a passenger airbag is fitted. This type of child seat could cause serious injury to your child in the event of an airbag deployment.

#### **WARNING!**

Accident statistics show that children are safer when properly restrained in the rear seating positions than in the front.

DO NOT install rearward facing child seats in any front passenger seat position if an airbag supplementary restraint system is fitted to the car.

NEVER leave a child unattended in the car.



To minimise injury in the event of an accident, it is important that seat belts are worn correctly. Read the instructions below and the advice contained under the heading 'Seat Belt Safety' on a previous page.

#### **Fastening the belt**

Pull the seat belt steadily across the body and, ensuring the webbing is not twisted, insert the chromed tongue plate into the buckle nearest the wearer - a 'click' indicates that the belt is securely locked.

Seat belts are designed to bear upon the bony structure of the body (pelvis, chest and shoulders) and can only be worn safely with the seats in the normal UPRIGHT position.

Position the lap belt as low as possible across the hips, ensuring it does NOT cross the abdomen.

## Adjusting the upper anchorage point (front seat belts only)

To reduce the likelihood of injury in an accident, the seat belt upper anchorage point should be adjusted so that the belt webbing crosses the shoulder MIDWAY BETWEEN THE NECK AND THE EDGE OF THE SHOULDER.

Adjust the height of the front seat anchorage point, by squeezing the buttons (arrowed in illustration) and sliding the anchor up or down.

**NOTE:** Where possible rear seat passengers should adjust their position (moving nearer to or further away from the centre of the car) to enable the seat belt webbing to cross the shoulder without pressing the neck.

#### Releasing the belt

Press the RED button attached to the seat belt buckle to release the belt.



The central rear seating position is also fitted with a three point shoulder/lap belt, which should pass over the right hand shoulder.

#### **WARNING!**

The centre rear seat belt is NOT designed to secure child safety seats - DO NOT install any child restraint/safety seat in the central rear seating position.

#### **CARING FOR SEAT BELTS**

Regularly inspect the belt webbing for signs of wear, paying particular attention to the fixing points and adjusters. Always replace a seat belt that has withstood the strain of a severe vehicle impact, or one where the webbing shows signs of fraying.

#### Three tests for checking seat belts

- 1) With the seat belt fastened, give the webbing near the buckle a quick upward pull the buckle should remain securely locked!
- 2) With the seat belt unfastened, unreel the webbing to the limit of its travel. Check that unreeling is free from snatches and snags.
- 3) With the webbing half unreeled, hold the tongue plate and give it a quick forward pull the mechanism must lock automatically and prevent any further unreeling!

If a seat belt should fail any of these tests, contact your dealer immediately.

#### **WARNING!**

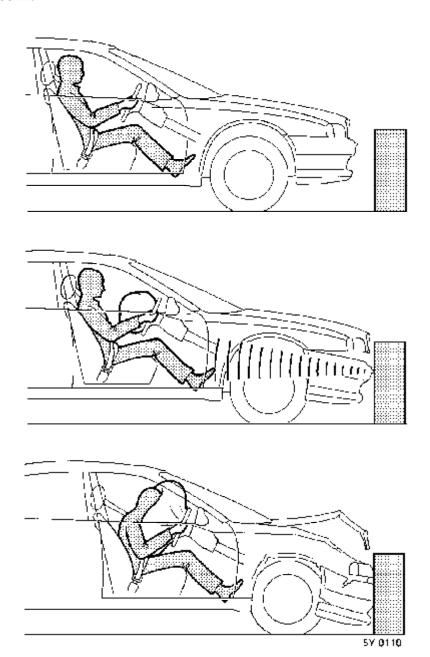
Always replace a seat belt assembly that has withstood the strain of a severe vehicle impact, or one where the webbing shows signs of fraying.

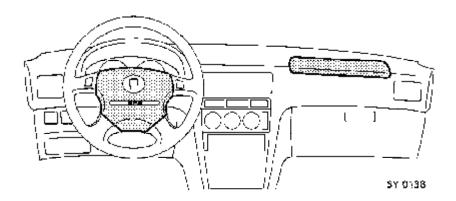


The airbag supplementary restraint system (SRS) provides additional protection for either the driver, or the driver and front seat passenger, in the event of a severe frontal impact on the vehicle.



Always remember; the airbag is a supplementary restraint system that provides ADDITIONAL protection in a frontal impact only; it does not replace the need to wear a seat belt. For maximum safety protection in all crash situations, a seat belt MUST be worn.





#### How the airbag SRS works

The airbag supplementary restraint system includes either; a single airbag module (mounted in the steering wheel centre pad) for the driver, or twin airbag modules (where shown in illustration) for both the driver and the front seat passenger.

In the event of a collision involving a frontal impact, a sensor monitors the force of the impact to determine whether the airbag(s) should be inflated. Airbags will only inflate in severe frontal collisions and will not inflate at all in the event of side or rear impacts, roll over accidents, or minor frontal impacts.

Inflation is instantaneous and accompanied by a loud noise. Also evident may be traces of smoke and powder, neither of which are injurious or indicative of a malfunction of the airbag system.

After inflation an airbag module will deflate immediately, thereby ensuring that the driver's visibility is not impaired.

#### **WARNING!**

After inflation some airbag components are hot - DO NOT touch until they have cooled.

An airbag inflates with considerable force and can cause facial abrasions and other injuries. The injurious affects of airbag inflation can be minimised by ensuring driver and passenger are seated correctly with the seat moved back as far as is practical, and wearing seat belts correctly.

NEVER attach accessory items to an airbag module cover (steering wheel centre pad or fascia panel) which could interfere with the inflation of the airbag or, if the airbag inflates, be propelled inside the car causing injury to the occupants.

#### Safety information

Even with an airbag SRS, the driver must ALWAYS wear a seat belt, because:

 Inflation and deflation take place very quickly and will not provide protection against the effects of secondary impacts that can sometimes occur during multiple collisions.

#### In addition:

- DO NOT allow a front seat passenger to obstruct the operation of the airbag by placing feet, knees or any other part of their person in contact with, or in close proximity to the airbag module.
- In cars where a front passenger seat airbag is fitted, airbag inflation could cause serious injury to a child. For optimum safety, it is recommended that children should travel in the rear of the car at all times.



#### Airbag SRS warning light

The warning light, mounted on the instrument panel, will alert you to any malfunction of the airbag SRS. The system should be checked by your Rover dealer if:

- The warning light fails to illuminate when the starter switch is turned to position 'II'.
- The warning light fails to extinguish after approximately six seconds.
- The warning light flashes or illuminates continuously while the car is being driven.

#### Service information

After a period of 10 years from the date of registration (or date of installation of a replacement airbag SRS), some components will need to be replaced (see the airbag modules replacement date shown on page 2 of the Service Portfolio book). To ensure absolute safety, this work must ONLY be carried out by a Rover dealer who should stamp and sign the appropriate page of the Service Portfolio once the work is complete.

In addition, ALWAYS contact your Rover dealer if:

- an airbag module inflates.
- the front of the car is damaged (even if the airbag has not inflated).
- any part of an airbag module cover (the steering wheel pad or fascia panel) shows signs of cracking or damage.

#### **WARNING!**

DO NOT attempt to service, repair, replace or modify any part of the airbag SRS; tampering with any airbag component or wiring in the vicinity of an airbag component could cause inadvertent activation of the system resulting in personal injury.

#### **IMPORTANT**

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

ALWAYS seek the assistance of a Rover dealer to carry out any of the following:

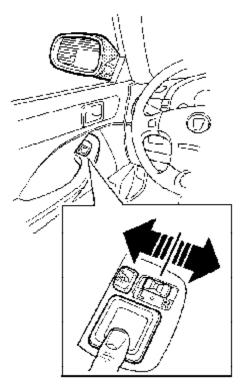
- Removal or repair of any wiring or component in the vicinity of the airbag SRS components (yellow wiring harness), including; the steering wheel, steering column, instrument and fascia panels.
- Installation of electronic equipment such as; a mobile telephone, two-way radio or in-car entertainment system.
- Attachment of accessories to, or modification of, the front of the car.

#### In addition:

If you sell your car, be sure to inform the new owner that the car has an airbag SRS system, and make the new owner aware of the airbag module replacement date shown in the Service Portfolio.

If the car is to be scrapped; uninflated airbags are potentially very dangerous and must be safely deployed in a controlled environment before a vehicle is scrapped.

## **Mirrors**





#### **EXTERIOR MIRRORS**

(Electrical operation)

#### Adjustment:

- 1) Move the mirror selector switch in the direction of the mirror to be adjusted ('L' or 'R').
- 2) With the starter switch turned to position 'II', press the appropriate edge of the adjustment switch to move the mirror glass up/down/left or right.
- 3) When adjustment is complete, return the selector switch to the OFF position (midway between 'L' and 'R').

**NOTE:** The mirror body is designed to fold rearwards or forwards on impact, and return under spring assistance. However, always exercise special care when negotiating narrow openings.

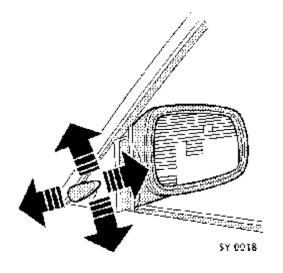
#### **Heating elements**

All electrically controlled door mirrors are equipped with heating elements to disperse ice and mist.

To switch the heating elements on or off, press the button on the left side of the mirror switch (arrowed in illustration). The indicator light in the button illuminates whenever the heating elements are on. Remember to switch off once the mirrors are free from ice or mist.

**NOTE:** The heating elements will only operate when the starter switch is at position 'II'.

## **Mirrors**

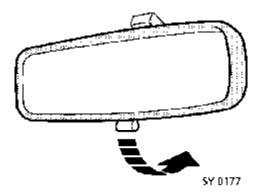


#### **EXTERIOR MIRRORS**

(Manual operation)

Manually operated mirrors are adjusted by moving the lever shown in the illustration.

The mirror body is designed to fold rearwards or forwards on impact, and can only be moved manually in order to negotiate narrow openings.



#### **INTERIOR MIRROR**

The interior mirror can be dipped to reduce glare from following vehicles. At night, move the lever at the base of the mirror forward to 'dip' the mirror. Normal visibility is restored by pulling the lever back to its original position.

#### **WARNING!**

In some circumstances the view reflected in a 'dipped mirror' can confuse the driver as to the precise position of following vehicles.

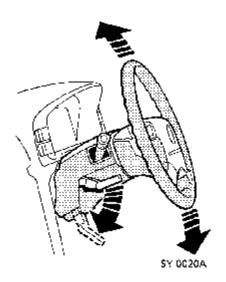
Remember to take additional care!

#### **VANITY MIRROR**

To use the vanity mirror, pull down the passenger's sun visor.

To avoid possible scorching of the seats by the sun reflected in the vanity mirror, always return the visor to its stowed position when not in use.

## Steering Column



#### STEERING COLUMN ADJUSTMENT

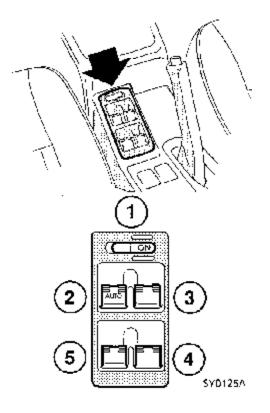
The angle of the steering column can be adjusted to suit your driving position:

- 1) With the car stationary, push the locking lever fully down to free the steering column.
- 2) Move the steering wheel (up or down) into a position which is comfortable, making sure the instrument panel is clearly visible.
- 3) When adjustment is complete, pull the locking lever fully up to lock the steering column in position.

#### **WARNING!**

DO NOT adjust the angle of the steering column while the car is in motion. This is extremely dangerous!

## **Windows**



#### **DRIVER'S CONTROL PANEL**

- 1. Isolation switch
- 2. Driver's window
- 3. Front passenger window
- 4. Right hand rear window
- 5. Left hand rear window

**NOTE:** Cars fitted with electric REAR windows also have individual window switches mounted on each rear door.

#### **WARNING!**

Accidental closing of an electrically operated window on fingers, hands or on any other vulnerable parts of the body, can result in serious injury!

Always heed the following precautions:

- ISOLATE the rear window switches when carrying children.
- ENSURE children are kept clear whilst raising or lowering windows.
- DO NOT leave children alone in the car.
- ENSURE that all adult passengers are familiar with the controls and the potential dangers of electrically operated windows.

### Windows

#### **OPERATING THE WINDOWS**

The electric windows can only be operated when the starter switch is at position 'II'.

#### **Driver's window:**

The driver's window is operated from the centrally positioned control panel.

To partially open the driver's window, push the switch down LIGHTLY - the window will stop opening as soon as the switch is released.

To fully open the driver's window, push the 'AUTO' switch down FIRMLY and release it - the window will continue opening until either it is fully open or it is stopped by pulling the switch up.

To close the driver's window, pull the switch up, the window will stop moving as soon as the switch is released.

#### Passenger windows:

All of the passenger windows can be operated from the central control panel.

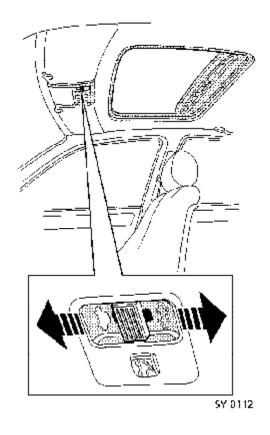
Push the appropriate switch down to open and pull up to close - the window will stop moving as soon as the switch is released. In addition, the rear windows can also be controlled by the individual switches mounted on each rear door.

#### **Isolation switch**

The isolation switch (arrowed in illustration) controls power to the front passenger and rear window switches.

It is important to prevent any possibility of injury through unintentional operation of the windows. When carrying children, isolate the rear windows by pressing the isolation switch down to the OFF position.

## Sunroof



#### **SUNROOF OPERATION**

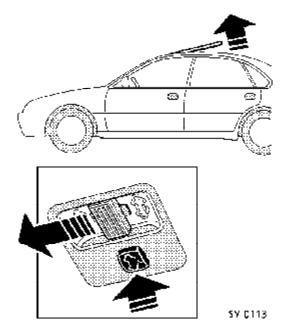
In order to operate the sunroof, the starter switch must be turned to position **'II'**.

#### **Opening and closing**

To open the roof, pull the switch to the rear.

To close the roof, push the switch forward.

**NOTE:** The louvred visor slides open automatically with the sunroof, but must be closed manually. Rear edge tilt ventilation will be increased by opening the visor.



#### Tilting the rear edge

To raise the rear edge of the roof, press the button (arrowed in illustration). To return the tilted roof to the closed position, push the 'OPEN/CLOSE' switch forward.

#### **WARNING!**

DO NOT open or close the sunroof in sub-zero temperatures or when the roof is covered with snow or ice - damage to the motor or roof panel could occur.

## Sunroof

#### **WARNING!**

Accidental closing of the sunroof on fingers, hands or on any other vulnerable part of the body can result in very serious injury.

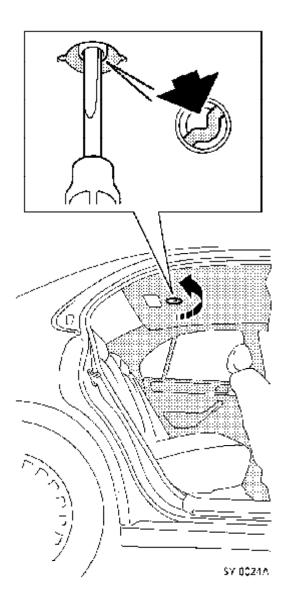
Always heed the following precautions:

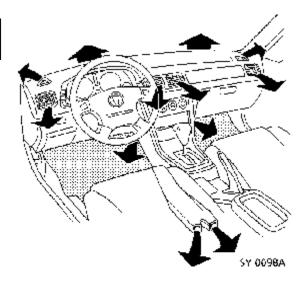
- ENSURE passengers are kept clear whilst closing the sunroof.
- DO NOT leave children alone in the car.
- ENSURE that all adult passengers are familiar with the controls and the potential dangers of operating the electric sunroof.
- DO NOT allow passengers to extend any part of their bodies through the sunroof while the car is moving.

#### **EMERGENCY OPERATION**

If the electric motor will not close the sunroof, follow the procedure below:

- 1) Check the fuse for the sunroof motor (see *'Fuses'*), and replace the fuse if necessary.
- 2) If the sunroof motor still does not operate satisfactorily, the roof may be closed manually using a flat bladed screwdriver with a blade width of approximately 5 mm, as follows:
- 3) Use the screwdriver to remove the round plug in the centre of the roof lining (above the rear seats).
- 4) Fit the screwdriver into the recess (arrowed in illustration) in the drive spindle and turn until the roof is fully closed.





#### 1. Air distribution control

- Face level vents only.
- Foot and face level vents.
- Foot level vents (also provides some air to windscreen and window vents).
- Foot level, windscreen and side window vents.
- Windscreen and side window vents.

## 2. Air temperature control

BLUE: Unheated air RED: Heated air

#### 3. Blower switch

Turn the switch clockwise to increase the blower speed.

### 4. Fresh air supply button

With this button pressed, the heating and ventilation system distributes fresh air drawn in from outside the car.

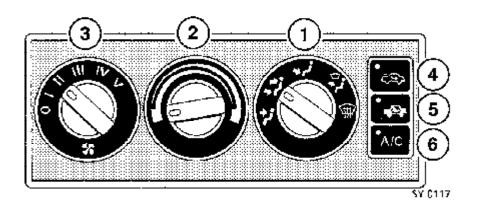
## 5. Recirculated air supply button

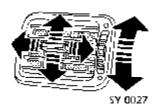
With this button pressed, the heating and ventilation system recirculates the air already inside the car. This prevents the entry of traffic fumes, and also enables warmer air to be used to defrost the windscreen in cold weather when the engine is cold.

**NOTE:** Leaving the system in recirculation mode can cause the windscreen to mist. If this happens, press the 'fresh air supply' button immediately.

## 6. Air conditioning switch

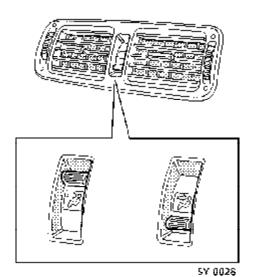
Press to operate. The indicator light in the switch illuminates when the air conditioning is switched on and the blower is operating.





### **Face level vents**

Rotate the thumbwheel to open or close the vents. Direct the air flow by moving the control in the centre of the louvres either up or down or from side to side.



### **Centre face level vents**

Moving the control up bypasses the heater unit, thus permitting a flow of fresh, unheated, air, which can be used to keep your face cool without affecting the heat output from the rest of the heating system.

Move the control down to obtain heated air - this will vary in temperature and intensity according to the settings of the heater unit.

#### **USING YOUR HEATER**

Fresh air enters the heater through the air intake grille in front of the windscreen and is extracted through vents near the rear window. The air intake grille must always be kept clear of obstructions, including snow and ice.

The heating system uses heat from the engine to warm the air inside the car. For this reason the heater unit will not operate unless the engine is running, and full heating is not available until the engine has reached its normal operating temperature.

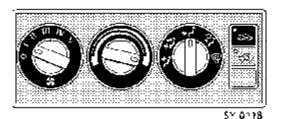
The following examples show some basic heating and ventilation settings. Further adjustment of the air distribution, temperature and blower controls will result in a wider range of options, enabling you to obtain the best use from the heater at all times.

Remember; with the blower switched off, the volume of air entering the car is dependent on driving speed alone.

**NOTE:** Footwell ducts beneath the front seats provide heating for rear passengers. Do not obstruct them by placing luggage under the seats.

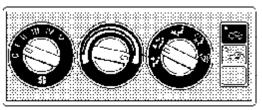
#### Heating

Set the controls as shown with the blower at the slowest speed (position 1) until the temperature gauge shows that the engine is warming up. Open the side face level vents to emit heated air only.



**Rapid heating** (in cold weather)
Set the controls as shown with the blower at the slowest speed (position 1) until the temperature gauge shows that the engine is warming up.
Adjust the centre face level vents to obtain heated air and open the side face level vents.

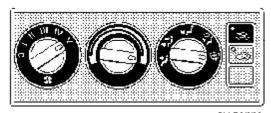
When the car interior reaches a satisfactory temperature, adjust the temperature control and blower speed to the most comfortable setting.



SY 0119A

#### **Defrost windscreen**

Set the controls as shown. To obtain maximum heated air flow from windscreen and side window vents, keep the face level vents closed. Initially set the blower at the slowest speed until the engine starts to warm-up.



SY 0120A

#### AIR CONDITIONING

The air conditioner provides additional cooling and reduces moisture from the air.

### Using the air conditioning

The air conditioning should only be used when the engine is running. It is also important to keep the windows and sunroof closed and to adjust the face level vents to deliver fan assisted air during operation.

**NOTE:** In conditions of high humidity, slight screen misting may be experienced when the air conditioning system is turned on. This is a natural occurrence on most automotive air conditioning systems. It is not a fault; misting will clear after a few seconds once the air conditioning system is operating.

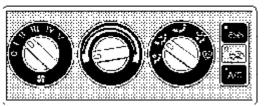
Operation of the air conditioning system places an extra load on the engine which, in very hot conditions when the engine is required to work unusually hard, could result in high engine temperatures. If the pointer reaches the RED zone of the temperature gauge, the air conditioning system is designed to cut out and resume operation when engine temperature returns to normal.

All air conditioning systems need to be operated for a short time every week (even in winter), to maintain them in peak condition. Surplus water produced by the dehumidifying process is expelled from the system via drain tubes beneath the car. This may result in a small pool of water forming on the road when the car is stationary and is not a cause for concern.

**NOTE:** The air conditioner will only operate when the blower is switched on. It will not operate with the blower switched off, nor when the temperature is near freezing point.

### Cooling the car

After starting the engine, press the 'A/C' switch to operate the air conditioner. Set the heating and ventilation controls as shown and vary the blower speed to suit your requirements.



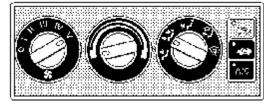
SY 0121

## Rapid cooling

To cool the car rapidly:

Start the engine and switch on the air conditioning. Set the blower to maximum speed and press the 'recirculated air supply button' (this will prevent warm air being drawn into the car from outside).

Once the interior is cool, press the 'fresh air supply button' to allow air to be drawn in from outside the car, and reset the blower as required.

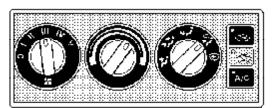


SY 0122A



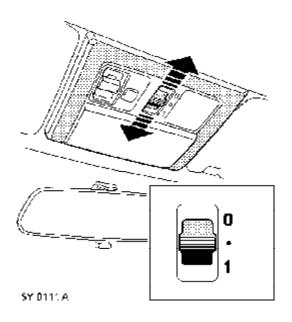
Air conditioning reduces moisture from the air and can be used to demist windows quickly in damp weather. Used in conjunction with the heater, it also makes the interior of the car warm and dry.

This setting is ideal for most driving conditions when the outside temperature is above freezing point. After switching on the air conditioner, set the controls as shown. Then adjust the temperature control and blower speed as required.



SY 0123A

**NOTE:** If the car interior is particularly hot when you start the engine, it will take time for the air conditioner to become fully effective. It is best to ventilate the car for a short while by operating the blower at a fast speed, with windows and sunroof open, before switching on the air conditioning. Remember to close the windows and sun roof when you operate the air conditioner.



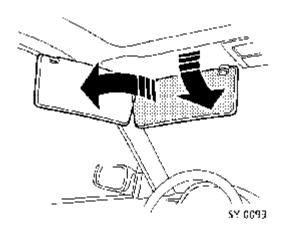
#### **INTERIOR LIGHT**

## Switch positions:

- '0' Light permanently off
- - Light illuminates automatically when a door is opened
- '1' Light stays on continuously

**NOTE:** Some cars are fitted with a second interior light at the rear. This light is controlled automatically by the switch described above.

With the switch in the centre position, both front and rear interior lights illuminate automatically whenever a door is opened, and remain illuminated for 8 seconds after all the doors are closed.



### **SUN VISOR**

To shield your eyes from the sun, pull the visor down from the roof; the visor can be used to shield the upper part of the windscreen or the side window as required.

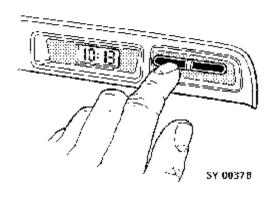
**NOTE:** The front passenger's sun visor is fitted with a vanity mirror on the underside.

#### LUGGAGE COMPARTMENT LIGHT

Illuminates automatically when the boot lid is raised.

#### **GLOVEBOX LIGHT**

Operates automatically when the exterior lights are switched on and the glovebox lid is opened.

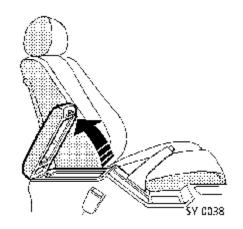


## **CLOCK**

The digital clock display illuminates when the starter switch is turned on and dims for night viewing when the side lights are switched on.

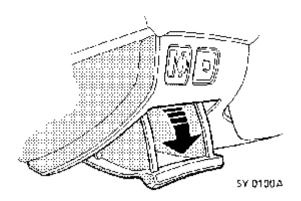
Press the left button to set the hours and the right button to set the minutes. If both buttons are pressed at the same time, the display will change between 24 hour and 12 hour displays.

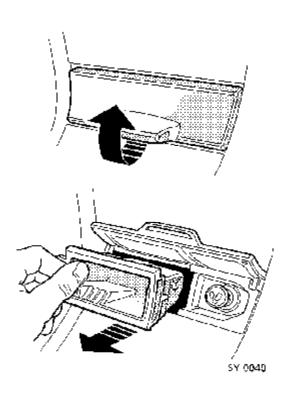
**NOTE:** If the battery is disconnected, the clock will need to be reset.



#### **CASSETTE STORAGE**

## **DRIVER'S PERSONAL STORAGE**



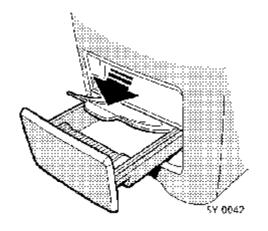


## FRONT ASHTRAY

Lift flap to open. To empty the ashtray, pull out the drawer as shown.

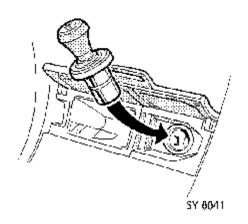
## **WARNING!**

Ashtrays are fire hazards - DO NOT use for waste paper or other combustible material.



### **REAR ASHTRAY**

To remove the ashtray for emptying, open fully and press down on the metal release plate (arrowed in illustration).



#### **CIGAR LIGHTER**

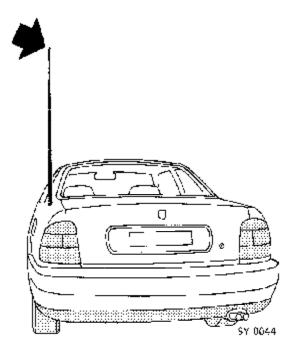
Push the lighter in to heat up. When ready, the lighter will partially eject and can then be withdrawn for use. DO NOT hold the lighter in while it is heating - this could cause it to overheat.

**NOTE:** The cigar lighter operates with the starter switch at position 'I' or 'II'.

## **WARNING!**

- Hold the cigar lighter by the handle ONLY!
- DO NOT plug accessories into the cigar socket unless they are approved for this use by Rover.

## In-Car Entertainment



#### **RADIO AERIAL**

Your car is equipped with a mast aerial built into the left hand rear wing. The aerial is electrically operated and extends automatically whenever the radio/cassette player is switched on, retracting again when the set is switched off.

### **Aerial height**

ALWAYS check the available headroom before turning the radio/cassette player on, and remember to switch the set off before entering or leaving a garage or car park with insufficient headroom.

For aerial cleaning information, see 'Cleaning & Car Care'.

### **WARNING!**

NEVER enter an automatic car wash with the radio/cassette player switched on.

## **Icy weather conditions**

In very low temperatures, water on the aerial sections may freeze, preventing the aerial from fully extending or retracting. DO NOT manually force the aerial to move. Instead, use a de-icing fluid or wait for the aerial sections to thaw naturally.

## Load Carrying

#### **REAR WINDOW SHELF**

#### **WARNING!**

DO NOT carry hard, heavy or sharply pointed objects on the rear window shelf - they could damage the rear window demisting element or become dangerous projectiles in the event of an accident or emergency braking.

#### **TOW BARS & ROOF RACKS**

Only fit accessories that have been designed and tested for your car. Your dealer will provide details of Rover approved tow bars and roof racks.

#### **Tow bars**

The permissible maximum towing weight, the maximum rear axle weight and towing hitch load are given in *Technical Data'*. In the interest of safety, these must not be exceeded!

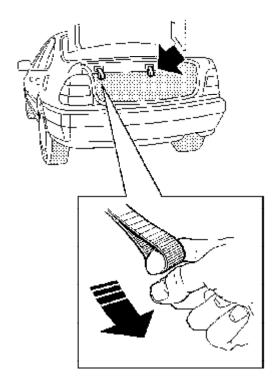
#### **Roof racks**

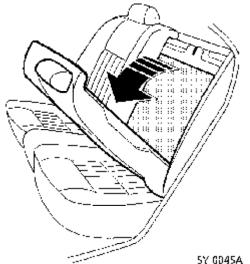
The load must NEVER exceed that given in *Technical Data'*, and must include the weight of the roof rack within the total load.

#### **WARNING!**

- A loaded roof rack can reduce the stability of your car, particularly when cornering and encountering crosswinds.
- All loads should be evenly distributed, and secured within the periphery of the rack.

## Load Carrying





### FOLDING THE REAR SEATS

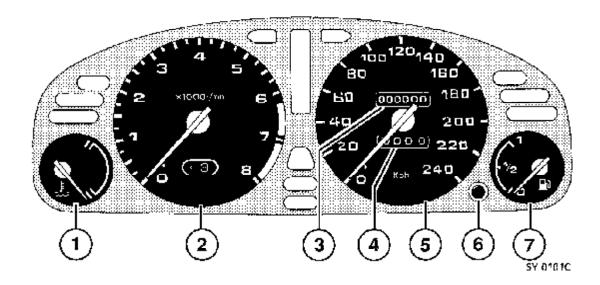
The rear seat backrest can be folded forward in two parts to allow longer items of luggage to be carried.

To release part or the whole of the backrest, pull either one or both of the loops located in the luggage compartment.

Return the backrest to its normal position by pushing it firmly against the rear window shelf. Make sure it is securely latched in place by pulling the backrest forwards, and check that the seat belts are not trapped behind the backrest.

### **WARNING!**

DO NOT drive with the backrest folded down and the boot lid open poisonous fumes containing carbon monoxide will be drawn into the interior of the car!



#### **INSTRUMENTS**

### 1. Temperature gauge

Once the engine coolant has reached its normal operating temperature, the pointer should remain in the middle part of the gauge.

**NOTE:** In severe driving conditions, such as very hot weather or extended hill climbing, the pointer may reach the upper WHITE mark. If it rises to the RED mark, the coolant is too hot; you should stop the car as soon as possible and seek qualified assistance.

#### 2. Tachometer

Indicates engine speed in revolutions per minute. To protect the engine from damage, NEVER allow the tachometer pointer to enter the RED sector.

#### 3. Total distance recorder

### 4. Trip recorder

Records individual journey distances. Before starting a journey, press the trip recorder reset button to 'zero' the reading.

### 5. Speedometer

Indicates road speed in miles per hour and/or kilometres per hour.

## 6. Trip recorder reset button

Press to return trip recorder to zero.

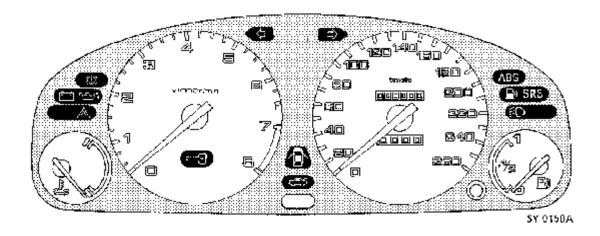
## 7. Fuel gauge

The pointer indicates the fuel level, even when the starter switch is turned off. After refuelling, the gauge slowly changes to the new level after the starter switch is turned on (position 'II').

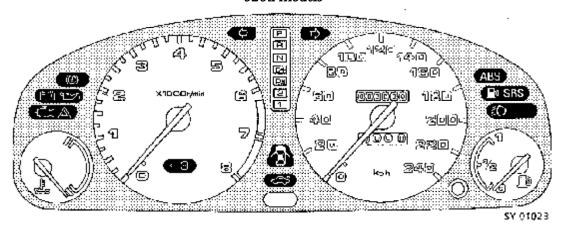
**NOTE:** Driving on twisting or hilly roads may disturb the accuracy of the gauge. It is advisable to check the fuel level when the car is on level ground.

#### WARNING!

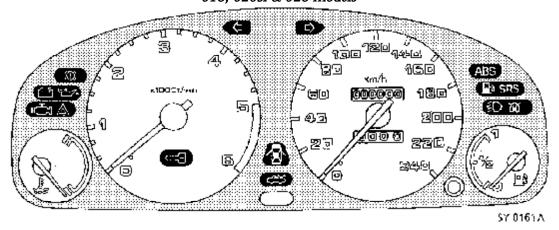
NEVER allow the car to run out of fuel (the resultant misfire may destroy the catalytic converter).



## 620ti models



## 618, 620Si & 623 models



Diesel models



## Handbrake & brake system

The light illuminates when the handbrake is applied and

extinguishes when it is fully released. If the light illuminates while the handbrake is released, a fault with the braking system is indicated and you should seek qualified assistance urgently.



### **Battery charging**

The light illuminates when the starter switch is turned to position

**'II'** and extinguishes as soon as the engine is running. If it remains on, or illuminates whilst driving, a fault with the charging system is indicated. Seek qualified assistance urgently.



### Low oil pressure

The light illuminates when the starter switch is turned to position

'II' and extinguishes when the engine is started. If the light remains on or illuminates whilst driving, serious engine damage could occur. Pull off the road as soon as it is safe and STOP THE ENGINE IMMEDIATELY. Seek qualified assistance before driving.



## **Engine check**

The light illuminates briefly when the starter switch is turned

to position **'II'**. If it illuminates at any other time one of the engine's emission control systems may be faulty. Seek qualified assistance.



#### **Engine immobiliser**

The light illuminates when the starter switch is turned to position

**'II'** and extinguishes within three seconds. The light flashes five times when the starter switch is turned off. If the light fails to illuminate, flashes continuously, or is on all the time, consult your dealer.



### Hazard warning lights

Illuminates in conjunction with the direction indicator warning

lights when the hazard lights are operated.



#### **Direction indicators**

The left or right warning light flashes in time with the direction

indicators when they are operated. If either light fails to illuminate or flashes very rapidly, this means that one of the indicator lights is not operating.



## Door open

The light illuminates when any of the doors are not fully closed.

DO NOT drive the car with the light illuminated.



# Luggage compartment open

This light illuminates if the boot lid is open. DO NOT drive the car with the light illuminated.

ABS

## Anti-lock braking system

The warning light illuminates when the starter switch is turned

to position 'II' and extinguishes after three seconds. If the light illuminates at any other time, there is a fault in the system, in which case stop the car in a safe place and turn off the engine. Reset the system by restarting the engine.

If the light remains on or illuminates again while you are driving, on completion of your journey seek advice from your dealer before further vehicle use.



#### Low fuel

The low fuel warning light illuminates when the fuel

remaining is 9 litres or less - you should refuel at the first opportunity.



# Airbag supplementary restraint system

The light illuminates when the starter switch is turned to position 'II' and extinguishes within approximately six seconds. If the light fails to illuminate or illuminates once the engine is started, the system is faulty seek qualified assistance urgently.



## Headlight main beam

Illuminates when the headlights are on main beam.



**Glow plugs** (Diesel only) Illuminates when the starter switch is turned to position **'II'**.

When the engine is cold wait for the light to extinguish before starting.

# **Automatic gearbox selector lever positions**

**'P'** - Park

'R' - Reverse

'**N'** - Neutral

'D4' - Drive (4 speed)

**'D3'** - Drive (3 speed)

'2' - 2nd gear only

**'1'** - 1st gear only

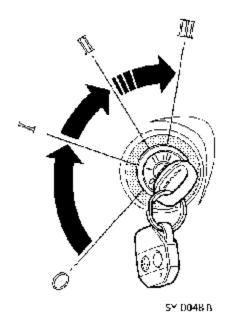


### 'D4' indicator

(Automatics only)

The indicator light illuminates when the starter switch is turned to position 'II' and extinguishes after three seconds. If the 'D4' indicator light flashes while driving (in any selector lever position), it indicates a possible transmission problem. If this occurs, AVOID

rapid acceleration and have the system checked by your dealer as soon as possible.



#### STARTER SWITCH & STEERING LOCK

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

## 'O' - Steering locked

With the key removed the steering column will be locked, and most electrical circuits are non-operational.

## 'I' - Steering unlocked

Turn the switch to position 'I' to unlock the steering. The radio/cassette player can now be operated.

#### 'II' - Electrical circuits on

With the switch in position  ${}^{\prime}\mathbf{H}^{\prime}$ , all instruments, lights and electrical circuits are operational.

## 'III' - Starter motor operates

Turn the switch to position **'III'** to operate the starter motor; release the key as soon as the engine starts (the key will automatically return to position **'II'**).

#### WARNING!

DO NOT leave the key in the starter switch for long periods (half a day or more) when the car is not in use.

With the key in the starter switch and the engine turned off (position '0'), current is drawn from the battery to power the car's lock-out prevention system. This could discharge the battery and make it difficult to start the engine.

#### **STEERING LOCK**

### To unlock the steering:

Insert the key FULLY and turn the starter switch to position 'I' - a small movement of the steering wheel may be necessary to disengage the lock.

## To lock the steering:

With the starter switch turned to position 'O', withdraw the key and turn the steering wheel until the lock engages.

#### **WARNING!**

Once the steering lock is engaged, it is impossible to steer the car.

DO NOT remove the key or turn the starter switch to position 'O' while the car is in motion!

#### **PETROL MODELS**

#### **WARNING!**

Before starting the engine ENSURE you are familiar with the procedures below.

Catalytic converters are easily damaged through improper use, particularly if the wrong fuel is used, or if an engine misfire occurs - before starting the engine you should be aware of the precautions detailed in the 'Catalytic converter' section.

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.

### Starting the engine

- 1) Check that the handbrake is on and that the gear lever is in neutral ('P' or 'N' for automatic transmission).
- 2) Switch off all electrical equipment, including air conditioning.
- 3) Turn the starter switch to position **'III'** and release the key as soon as the engine has started.

DO NOT press the accelerator pedal while starting and DO NOT operate the starter for more than 15 seconds at a time. If the engine fails to start, stop cranking the engine but DO NOT turn the starter switch fully off. Wait for at least 10 seconds before trying again.

#### Turbo models

Allow the engine to idle for **10 seconds** to enable oil to reach the turbocharger bearings before driving.

**NOTE:** In freezing conditions, or when the battery is in a low state of charge, depress the clutch before starting and hold it down until the engine is running.



### Warming up

In the interest of fuel economy, it is advisable to drive the vehicle soon after starting, remembering that harsh acceleration or labouring the engine before the normal operating temperature has been reached can damage the engine.

# 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, FULLY depress
  the accelerator pedal while operating the
  starter. This will clear the engine of excess
  fuel. Ensure the starter motor is not operated
  for more than 15 seconds and release the
  accelerator as soon as the engine has started.
  If the engine fails to start, stop
  cranking the engine but DO NOT
  turn the starter switch fully off. Wait
  for at least 10 seconds before trying
  again.

Under no circumstances should the accelerator pedal be pumped during starting.

**NOTE:** Adopt the above procedure as normal practice if starting the car in cold weather at high altitudes (above 2,400 m).

### Switching off - Turbo models

To avoid the possibility of damage to the turbocharger bearings, always let the engine idle for 10 seconds before switching off.

After switching off, the cooling fan may operate for 10 minutes to prevent the engine overheating.

#### WARNING!

If the bonnet is opened during this period, keep clear of fans.

#### **DIESEL MODELS**

#### **WARNING!**

Before starting the engine ENSURE you are familiar with the procedures below.

Catalytic converters are easily damaged through improper use, particularly if the wrong fuel is used, or if an engine misfire occurs - before starting the engine you should be aware of the precautions detailed in the 'Catalytic converter' section.

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.

#### Starting the engine

- 1) Check that the handbrake is applied and that the gear lever is in neutral.
- 2) Switch off all unnecessary electrical equipment.
- 3) Insert the key and turn the starter switch to position 'II'. Wait until the glow plug warning light extinguishes.
- 4) Turn and hold the key in position 'III' to operate the starter motor; DO NOT press the accelerator pedal during starting, and RELEASE THE KEY as soon as the engine is running. If the engine stalls you MUST return the starter switch to position 'O', then turn the starter switch to position 'II' and wait until the glow plug warning light goes out before attempting to restart; the engine will not start by turning the starter switch from position 'II'.

**NOTE:** When the battery is in a low state of charge, depress the clutch pedal while starting and hold it down until the engine is running.

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

### Starting in cold climates

In temperatures of -10° C and below, partially depress the accelerator pedal and fully depress the clutch pedal while starting. Keep the pedals in this position until the engine is running. Note that engine cranking times will increase - but must not exceed 15 seconds - and that the battery charging and oil pressure warning lights may take several seconds to extinguish.

## Warming up

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

## **WARNING!**

The engine must not be run above fast idle speed until the oil pressure warning light extinguishes. This will ensure that the engine and tubocharger bearings are properly lubricated before being run at normal driving speeds.

### **Switching off**

To avoid the possibility of damaging the turbocharger bearings through inadequate lubrication, ALWAYS allow the engine to idle for 10 seconds before switching off.

#### **ALL MODELS**

#### **Parking**

After bringing the car to a stop, ALWAYS apply the handbrake and select neutral ('P' for cars with automatic transmission), before releasing the footbrake and switching off the engine.

#### **WARNING!**

After switching off, cooling fans may continue rotating for several minutes to prevent the engine from overheating. In some circumstances cooling fans may commence operating up to 4 minutes after the engine is switched off. If the bonnet is opened keep clear of fans whenever the engine is warm.

#### **RUNNING-IN**

The engine, gearbox, brakes and tyres need time to 'bed-in' and adjust to the demands of everyday motoring. During the first 1,000 km it is essential that you drive with consideration for the running-in process and heed the following advice:

- DO NOT allow the engine to exceed 3,000 rev/min in any gear.
- DO NOT operate at full throttle in any gear.
- DO NOT allow the engine to labour in any gear.
- AVOID heavy braking.

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 manufacturers service schedule.

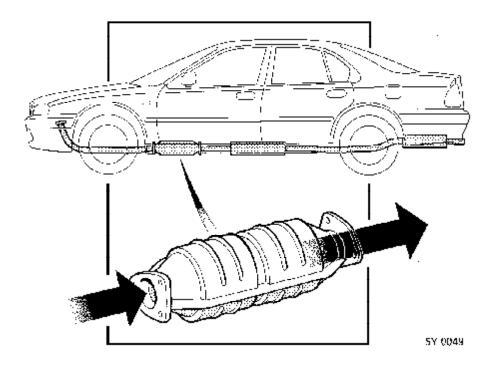
On automatic gearbox models, driving with the gearshift in 'D4', will provide the best fuel economy.

Items such as, the condition of the air cleaner element, tyre pressures and wheel alignment can 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 even 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.

Always remember; driving gently saves fuel!

# Catalytic Converter



The exhaust system on your car incorporates a catalytic converter which converts poisonous exhaust emissions from the engine into environmentally less harmful gases, thereby reducing atmospheric pollution.

### **WARNING!**

The catalytic converter can be easily damaged through improper use, particularly if the wrong fuel is used. For this reason it is VERY IMPORTANT that you heed the following precautions:

## Filling up with fuel:

• Use ONLY fuel recommended for your car (see 'Fuel system').

## Starting the engine:

- DO NOT continue operating the starter if the engine fails to start after a few attempts (unburnt fuel may be drawn into the exhaust system, thereby damaging the catalyst) - seek qualified assistance.
- If a misfire is suspected when starting, DO NOT drive the car, or attempt to clear the misfire by pressing the accelerator pedal.
- DO NOT attempt to push or tow start the car. Instead, switch off immediately and seek qualified assistance.

## Catalytic Converter

## Driving the car:

- Provided the engine has reached its normal operating temperature, if a misfire is suspected or the car lacks power while driving, it may be driven SLOWLY (at risk of catalyst damage) to a Rover dealer for assistance.
- NEVER allow the car to run out of fuel (the resultant misfire could destroy the catalyst).
- An engine burning excessive oil (blue smoke from the exhaust) will progressively reduce catalyst efficiency.
- On rough terrain, DO NOT allow the underside of the car to be subjected to heavy impacts which could damage the catalytic converter.
- Do not overload or excessively 'rev' the engine.

## Switching off:

 DO NOT switch off the engine whilst the car is in motion with a forward or reverse drive gear selected.

#### Vehicle maintenance:

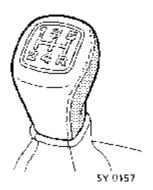
- Any engine misfire, loss of engine performance or engine run-on, could seriously damage the catalytic converter. For this reason, it is vital that unqualified persons do not tamper with the engine, and that regular maintenance is carried out by a Rover dealer in accordance with the service interval plan included in the Service Portfolio book.
- DO NOT run the engine with a spark plug or lead removed, or use any device that requires an insert into a spark plug.



Exhaust temperatures can be extremely high; DO NOT park on ground where combustible materials such as dry grass or leaves could come in contact with the exhaust system - in dry weather a fire could result.



## Manual Gearbox



#### MANUAL GEARBOX

The gear positions are indicated on the gear lever knob.

Synchromesh engagement is provided on all forward gears, and in the neutral position the gear lever is spring loaded to rest naturally between 3rd and 4th gears.

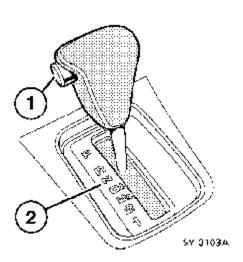
## Selecting reverse gear

Before selecting reverse gear, ENSURE THE CAR IS STATIONARY; then fully depress the clutch pedal and pause briefly before moving the gear lever into position.

## **Precautions while driving**

- DO NOT rest your hand on the gear lever while driving; pressure transmitted from your hand may cause premature wear to the gear selector mechanism.
- DO NOT rest your foot on the clutch pedal whilst driving; excessive wear to the clutch will result!

## Automatic Gearbox



#### **GEAR SELECTOR**

## 1. Selector locking button

The selector locking mechanism prevents accidental selection of 'P', 'R', '2' and '1'. To select any of these positions, the selector locking button must be pressed before the selector lever is moved. The button must also be pressed before the selector lever can be released from the 'P' position.

## 2. Selector lever positions

The display in the centre of the instrument panel indicates the position of the selector lever. There are seven positions as follows:

#### 'P' - Park:

This position mechanically locks the transmission. Select 'P' whenever the engine is to be switched on or off. To avoid transmission damage, ENSURE the car is completely stationary with the handbrake on before selecting 'Park'.

#### 'R' - Reverse:

Select ONLY when the car is stationary with the brakes applied.

#### 'N' - Neutral:

Select when the car is stationary and the engine is required to idle for a brief period (at traffic lights for example).

#### 'D4' - Drive:

Select this position for normal driving; fully automatic gear changes occur throughout all forward gears depending upon vehicle speed and accelerator position. **Engine braking will not occur in first gear**.

#### 'D3' - Drive:

This position is similar to 'D4', but automatic gear selection is confined to the first three gears only. Select this position when towing in hilly terrain, or to provide engine braking when descending inclines.

## '2' - 2nd gear only:

This position locks the transmission in second gear. Use when engine braking is required to descend steep hills, or for moving the car from rest on loose or slippery surfaces.

**NOTE:** With the selector in this position, the transmission will not automatically downshift to first gear when the car comes to a halt.

## '1' - 1st gear only:

With the selector in this position, the transmission is locked in first gear. By upshifting and downshifting through '1', 2', 'D3' and 'D4' the transmission can be operated in a similar manner to a manual gearbox, but without the need for a clutch.

## Automatic Gearbox

#### **WARNING!**

DO NOT select 'P' or 'R' unless the car is stationary.

DO NOT select 'D3', 'D4', '2' or '1' when the car is moving backwards.

DO NOT press the selector button when selecting 'N' from a forward or reverse drive position.

**NOTE:** A car with an automatic gearbox cannot be started by towing or pushing.

# USING THE AUTOMATIC TRANSMISSION

The following information is important - particularly for drivers who are unused to driving cars with automatic transmission.

## **Starting**

The engine can ONLY be started with the selector lever in the 'N' and 'P' positions.

- ALWAYS apply the handbrake and footbrake before starting the engine.
- KEEP BOTH BRAKES APPLIED while moving the selector to a drive position.
- NEVER 'rev' the engine while selecting a forward or reverse gear, or while the car is stationary with a drive gear selected.
- ALWAYS keep the brakes applied until you are ready to move off - remember, once a 'drive' position has been selected, an 'automatic' will tend to creep forward (or backward).

### Increasing acceleration in 'D3' and 'D4'

Firmly push the accelerator pedal to the FULL extent of its travel. Below certain speeds this will cause an immediate down change in the gearbox, resulting in rapid acceleration - useful for fast overtaking and for maintaining speed on an incline.

Full depression of the accelerator will also delay up-changes, again resulting in rapid acceleration.

With 'D4' selected, on long inclines the transmission may change back and forth between 3rd and 4th ratios resulting in a loss of momentum. This can be prevented by selecting the 'D3' position and confining the gearbox to the three lower gears.

## **Maximum speeds**

The maximum speeds for the forward drive gears are shown below. If these are exceeded (engine rev/min enters the red zone of the tachometer), a computer controlled limiter will automatically cause the engine to cut in and out. The engine will run normally once speeds have been reduced.

'1' - 52 km/h

'2' - 110 km/h

'D3' - 147 km/h

**'D4'** - Top Speed

## Automatic Gearbox

### **Parking**

After bringing the car to a stop, ALWAYS apply the handbrake and select 'P' before releasing the footbrake and switching off the engine.

### Freeing the car from snow or mud

Attempt to drive the car forwards and then backwards (selecting 'D4' and 'R' alternately) in order to 'rock' the car free. Use light throttle ONLY and ALWAYS apply the footbrake between gear selections.

#### **TOWING!**

Extensive use of the 'D3' selector position is recommended when towing trailers, particularly for the following conditions:

- Driving up long hills.
- Negotiating twisting roads.
- Driving in congested traffic at low speeds.



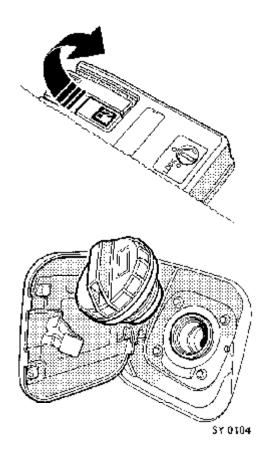
## 'D4' indicator light

If the 'D4' indicator light flashes when driving (in any selector

lever position), a possible transmission problem is indicated. If this occurs, AVOID rapid acceleration and have the system checked by your dealer as soon as possible.



## Fuel System



#### **FUEL FILLER FLAP**

The fuel filler is located in the rear right-hand wing. Pull lever to release flap.

#### **FUEL FILLER CAP**

Unscrew to remove. When replacing, tighten the cap until it clicks.

Remember to close the filler flap after refuelling.

### **WARNING!**

To avoid any sudden discharge of fuel caused by excessive air pressure, the cap is designed to allow the fuel tank to vent during the first half turn. DO NOT fully remove the cap until the pressure has been released.

#### **TYPE OF FUEL**

### Petrol engines:

The RON value (octane rating) of petroleum commonly available at garage forecourts will vary in different countries. The RON value quoted below is a MINIMUM requirement and can be safely exceeded.

## USE ONLY UNLEADED PETROL 95 RON minimum (to EN 228 specification)

In an emergency (and ONLY if 95 RON fuel is unavailable) lower octane rated fuel can be used for very limited periods of moderate speed motoring, provided engine 'knocking' does not occur.

#### **WARNING!**

USE ONLY UNLEADED PETROL

Serious damage to the catalytic converter will occur if incorrect fuel is used.

## Diesel engines:

# USE ONLY DIESEL FUEL (to EN 590 specification)

The quality of diesel fuel 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 1%; 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.

## Fuel System

#### **FUEL FILLING**

Filling station pumps are equipped with automatic cut-off sensing to avoid fuel spillage; only fill the tank 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 cars:

The filler tube on petrol cars is designed to only accept a narrow filler nozzle of the type found on pumps that deliver solely UNLEADED fuel. A flap lies across the entrance to the filler neck. Always insert the filler nozzle sufficiently to fully open the flap before filling.

#### Diesel cars:

The fuel filling system used for car commercial pumps is designed to fill at a maximum of 45 litres per minute. Use of pumps with a higher fill rate will result in premature pump cut-off and fuel spillage.

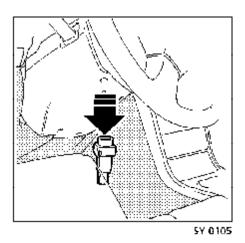
## **Empty fuel tank**

NEVER allow the car to run out of fuel - the resultant misfire may destroy the catalytic converter. In the event of the fuel tank running dry contact your Rover dealer before attempting to start the engine.

#### SAFETY ON THE FORECOURT

Petroleum gases are highly inflammable 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.
- Do not overfill the tank.



#### **FUEL CUT-OFF SWITCH**

(Petrol engine models only)

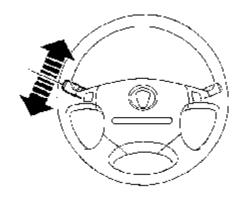
The fuel cut-off switch is a safety device which, in the event of a collision or sudden impact, automatically cuts off the fuel supply.

The switch is located behind the front ashtray on the left hand side. After the switch has been activated as a result of an impact or collision, it must be reset by pressing the rubber top (arrowed in illustration) before the engine can be restarted.

#### **WARNING!**

ALWAYS check for fuel leaks before resetting the fuel cut-off switch.

## Lights & Indicators

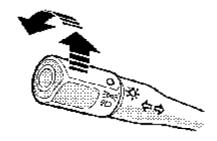


#### **DIRECTION INDICATORS**

Move the lever fully down to indicate a LEFT turn, or fully up to indicate a RIGHT turn. The indicators will cancel automatically once the turn has been completed.

Hold the lever half-way up or down against spring pressure to indicate a lane change.

The appropriate GREEN warning light on the instrument panel will flash in time with the direction indicators.



#### **SIDE AND HEADLIGHTS**

**First position:** side, tail and panel lights illuminate.

**Second position:** headlights illuminate.



## Headlight main and dipped beams

Pull the lever fully towards the steering wheel to change headlight beams (the BLUE warning light on the instrument panel will glow when the headlights are on main beam).

To briefly flash the main beams on and off, pull the lever part way towards the steering wheel and then release.

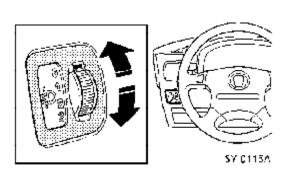
**NOTE:** On some cars the graphic symbols on the lighting switch may differ from those shown in the illustration above.

## 'Lights on' warning buzzer

If the lights are left on after the starter is switched off and a door is opened, a warning buzzer will sound. The buzzer will cease as soon as the lights are switched off or when the doors are closed.

## Lights & Indicators





## Headlight adjuster

The angle of the dipped headlight beams is affected by the distribution of passenger and luggage weight within the car. It is important that the headlights are adjusted to ensure that the point at which they meet the road surface provides adequate illumination ahead of the car without dazzling other road users.

Using the following load conditions as a guide, adjust the headlights by rotating the adjuster wheel (arrowed in illustration).

#### Position 0:

Driver and front seat passenger only (no luggage).

#### Position 1:

Driver and FOUR passengers (no luggage).

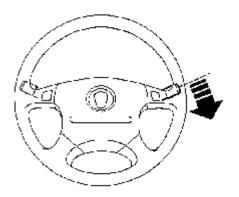
#### Position 2:

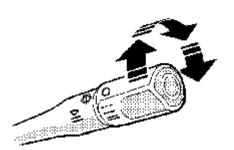
Driver, FOUR passengers and FULL luggage compartment.

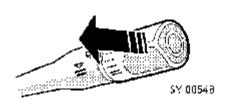
#### Position 3:

Driver, NO passengers and FULL luggage compartment.

# Wipers & Washers







**NOTE:** On some cars the graphic symbols on the wiper switch may differ from those shown in the illustration above.

#### WIPER AND WASHER CONTROLS

The wipers and washers will only operate when the starter is switched to position 'II'.

### Single wipe

Pull the lever down and release immediately.

**NOTE:** With the lever held down the wipers will continue operating at high speed until it is released.

- Intermittent wipe
  Turn switch to first position.
- Normal speed wipe
   Turn switch to second position
- **Fast speed wipe**Turn switch to third position

#### Windscreen washer

Pull the lever towards the steering wheel. The windscreen washers will operate for as long as the lever is held in this position.

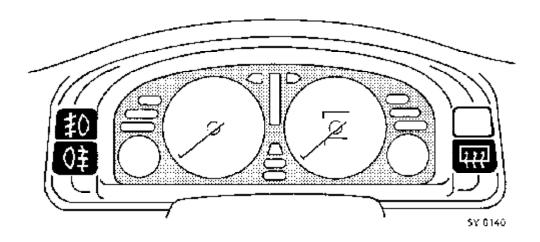
**NOTE:** The wipers operate automatically during windscreen washing.

### **IMPORTANT**

DO NOT operate the wipers on a dry screen. In freezing or very hot conditions, ensure that the blades are not frozen or stuck to the glass.

In winter, remove snow or ice from around the arms and blades, including the wiped area of the windscreen and the heater air intakes.

## Fascia Switches



**≇0** Pr

## Front fog lights

Press to operate; the indicator light in the switch illuminates

when the fog lights are on and extinguishes when they are switched off. The lights operate ONLY with the starter switch at position 'II' and with the side or headlights switched on.



## Rear fog guard lights

Press to operate; the indicator light in the switch illuminates

when the rear fog guard lights are on, and extinguishes when they are switched off. The rear fog guard lights operate in conjunction with the headlights and will only illuminate when the headlights are switched on.



#### Rear screen demister

Press to operate; the indicator light in the switch illuminates

whenever the demister is on, and extinguishes when the demister is turned off.

DO NOT stick labels over the rear screen demister heating elements.

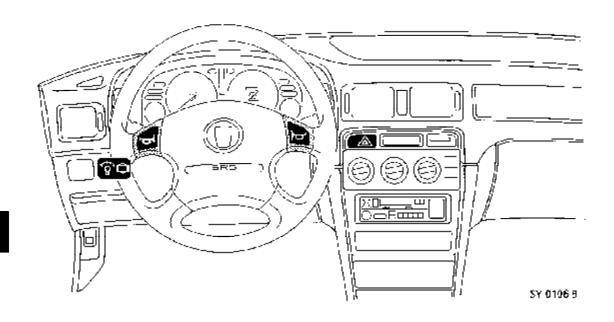
### **WARNING!**

The demister uses significant power from the battery. Remember to switch the demister off when not in use, and operate ONLY when the engine is running.

### **WARNING!**

Use the front or rear fog lights ONLY when visibility is severely restricted - other road users will be dazzled in clear conditions!

## Fascia Switches



Horn
To operate, press either of the switch panels identified with the horn symbol at the extreme top left or right of the steering wheel centre pad.

Hazard warning lights
Press to operate. All the direction indicators will flash together. Use ONLY in an emergency to warn other road users when your vehicle is causing an obstruction or is in a hazardous situation.

Instrument illumination
Rotate the thumbwheel to increase or reduce the intensity of illumination as required.

## **Brakes**

#### **BRAKING SYSTEM**

The hydraulic braking system is equipped with disc brakes on all four wheels.

As a safety precaution, the system operates through dual circuits; if one circuit should fail, the other will continue to function. However, in the event of brake failure, if the car must be driven with only one circuit operational, then you should drive with extreme caution and be aware that much greater pedal effort and longer stopping distances will be required.

The braking system is servo assisted. If the engine stops, this assistance will be lost, requiring greater pedal effort and resulting in longer stopping distances. Always seek qualified assistance urgently if any problem with the braking system is noted.

### **Brake pads**

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

Regular servicing will ensure that the brake pads are examined for wear and changed whenever necessary to ensure optimum performance.

### **Brake warning light**

If the warning light on the instrument panel illuminates when driving, and the handbrake is fully released, a fault is indicated. Stop the car and seek qualified assistance before continuing.



### **Brake wear indicators**

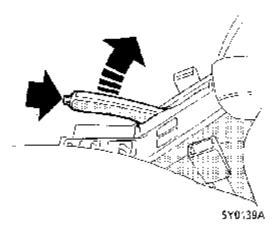
All disc brakes are fitted with audible brake wear indicators. When the brake pads need replacing, a distinctive metallic 'screeching' sound will be heard (this is not to be confused with the sound of the brakes squeaking which sometimes occurs during light braking and is usually caused by dust on the braking surfaces).

### **WARNING!**

DO NOT rest your foot on the brake pedal while driving; this may overheat the brakes reducing their efficiency and causing excessive wear.

If the brake warning light illuminates while driving, stop the car as soon as safety permits and seek qualified assistance before continuing.

NEVER move the car without the engine running; servo assistance may not be available. The brakes will still function, but greater pedal pressure will be required.



### **HANDBRAKE**

To apply the handbrake, pull the lever up. Always apply the handbrake FULLY whenever you park the car.

To release, pull the lever up slightly, depress the button and lower the lever (the warning light on the instrument panel will extinguish when the handbrake is fully released).

The handbrake operates on the rear wheels only and should not require adjustment. In normal use handbrake travel should be between 7 and 11 notches; however, on an incline, longer travel may be needed. If the handbrake fails to hold the car, consult your Dealer.

### **WARNING!**

DO NOT drive with the handbrake applied; this could damage the rear brakes and axles, and will also prevent the anti-lock braking system from functioning correctly.

### ANTI-LOCK BRAKING SYSTEM

(where fitted)

The anti-lock braking system prevents the wheels from locking, thereby helping to maintain steering control. No special driving techniques or effort is required from the driver.

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

### Anti-lock braking in action

In 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.

Always remember, no matter how hard you brake, STEERING CONTROL WILL ALWAYS BE MAINTAINED!

On soft surfaces such as powdery snow, sand or gravel, braking distances may be greater than those achievable on a car without anti-lock braking. This is because the action of locked wheels on soft surfaces is to build up a wedge of material in front of the wheels which assists in bringing the car 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 engine is started 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 when the starter switch is turned on and extinguish very shortly after the engine has started. If the light fails to extinguish or illuminates again whilst driving, there is a fault in the system. On completion of your journey, seek advice from your dealer before further vehicle use.

In addition, when starting the engine, a single 'knock' may be heard coming from the engine compartment. Very slight movement may also be felt at the brake pedal. Both are normal symptoms of the anti-lock braking system self checking process.

**NOTE:** Even if the anti-lock braking system is faulty, normal braking performance will still be available.

### WARNING!

The anti-lock braking system cannot overcome the physical limitations of stopping the car in too short a distance, cornering at high speed, or aquaplaning, i.e. where a layer of water prevents adequate contact between the tyres and the road surface.

The fact that the car is equipped with anti-lock braking must never tempt the driver into taking risks that could affect his/her safety or that of other road users. Drivers still have a duty to drive within normal safety margins, having due consideration for the prevailing road surface, weather and traffic conditions.

# Maintenance

The safe, reliable, and economical performance of your car will depend largely on how well it is maintained.

Maintenance is the owner's responsibility, and you should ensure that all routine services and warranty inspections are carried out by a Rover dealer at the recommended intervals. These are shown in the Service Portfolio book included in the literature pack. This book also provides a complete record of the services and inspections carried out on your car - ensure your Rover dealer has correctly endorsed the appropriate page at the conclusion of each service.

### **OWNER MAINTENANCE**

In addition to the routine services and inspections described in the Service Portfolio book, the following simple checks must be carried out more frequently. You can do these yourself and advice is given on the pages that follow.

### Daily checks:

- Operation of lights, horn, direction indicators, wipers, washers and warning lights.
- Operation of seat belts and brakes.
- Look for fluid deposits on the floor beneath the car which may indicate a fluid leak.

### Weekly checks:

- Engine oil level.
- Cooling system level.
- Operate air conditioning (see 'Heating & ventilation').
- Condition and pressure of tyres.
- Brake, clutch and power steering fluid levels.
- Screen washer reservoir level.

### Monthly checks:

Automatic gearbox oil level.

**NOTE:** Any significant or sudden drop in fluid levels, or uneven tyre wear should be reported to your dealer without delay.

### **Emission control**

Your car is fitted with emission and evaporative control equipment designed to meet specific territorial and legal requirements. You should be aware that unauthorised replacement, modification or tampering with this equipment by an owner or motor vehicle repairer could be unlawful and subject to legal penalties.

In addition, engine settings must not be tampered with. These have been established to ensure that your car complies with stringent exhaust emission regulations. Incorrect engine settings may adversely affect exhaust emissions, engine performance and fuel consumption, as well as causing high temperatures, which could result in damage to the catalytic converter and the car.

# Maintenance

### SAFETY IN THE GARAGE

### If you need to carry out maintenance on your vehicle, observe the following safety precautions at all times:

- ALWAYS keep hands, tools and items of clothing clear of all drive belts and pulleys (see 'Warning' below).
- DO NOT touch exhaust or cooling system components until they are cool.
- DO NOT touch electrical leads or components with the starter switch turned on.
- NEVER leave the engine running in an unventilated area - exhaust gases are poisonous and extremely dangerous.
- DO NOT work beneath the car with a vehicle lifting jack as the only means of support.
- Ensure sparks and naked lights are kept away from the engine compartment.
- Remove all metal wrist bands and jewellery, before working in the engine compartment and NEVER allow the battery terminals or leads to make contact with tools or other metal parts of the car.

### Poisonous liquids

Most liquids used in motor vehicles are poisonous and should not be consumed or brought into contact with open wounds (these substances include; battery acid, anti-freeze, brake, clutch and power steering fluid, petrol, diesel, oil and windscreen washer additives).

Obey all instructions printed on labels and containers!

### Used engine oil

Prolonged contact with engine oil may cause serious skin disorders, including dermatitis and cancer of the skin. Wash thoroughly after contact.

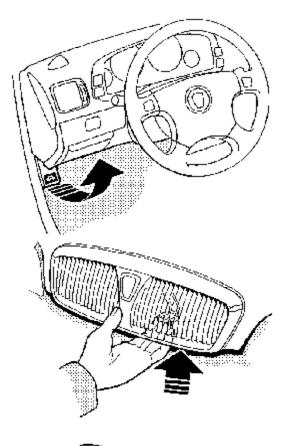
### PROTECT THE ENVIRONMENT!

It is illegal to pollute drains, water courses or soil. Use authorised waste disposal sites and garages which provide facilities for the receipt of discarded batteries, used oil and toxic chemicals. If in doubt contact your Local Authority for advice.

### **WARNING!**

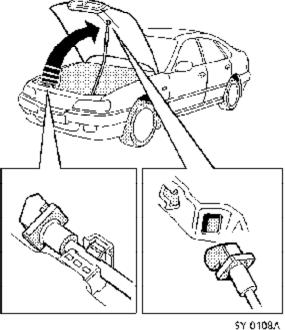
Cooling fans may operate after the engine is switched off. Keep clear of all fans while working in the engine compartment.

# Bonnet Opening



• Pull the bonnet release handle.





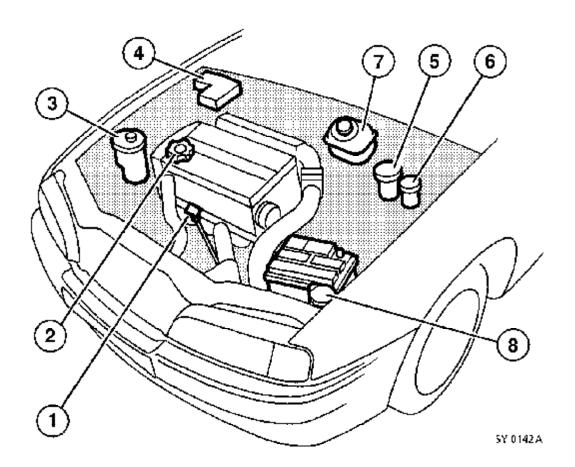
• Raise the bonnet, and then fit the support stay into the 'arrowed' cut-out in the underside of the bonnet.

### **Closing the bonnet**

Replace the support stay in its retaining clip, then lower the bonnet, allowing it to drop for the last 10 centimetres approx.

Check that the lock is FULLY engaged by attempting to lift the front edge of the bonnet. This should be free of all movement.

# Engine Compartment



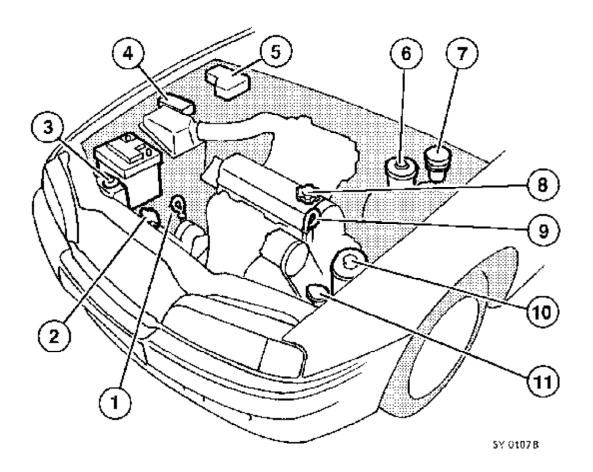
### 620ti model

- 1. Engine oil dipstick
- 2. Engine oil filler cap
- 3. Power steering reservoir
- 4. Fusebox engine compartment
- 5. Brake fluid reservoir
- 6. Clutch fluid reservoir
- 7. Cooling filler cap and cooling system reservoir
- 8. Washer reservoir

### **WARNING!**

Before carrying out maintenance checks or working in the engine compartment, ALWAYS observe the safety precautions listed under 'Safety in the garage' at the beginning of the Maintenance section of this handbook.

# Engine Compartment



### All petrol models except 620ti

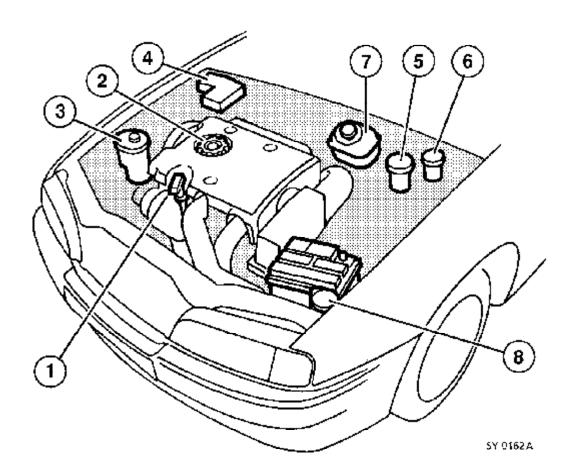
- 1. Automatic gearbox oil dipstick
- 2. Radiator cap
- 3. Cooling system reservoir
- 4. Fusebox anti-lock braking system (fuses to be examined by a Rover dealer ONLY)
- 5. Fusebox
- 6. Brake fluid reservoir
- 7. Clutch fluid reservoir
- 8. Engine oil filler cap
- 9. Engine oil dipstick

- 10. Power steering reservoir
- 11. Washer reservoir

### **WARNING!**

Before carrying out maintenance checks or working in the engine compartment, ALWAYS observe the safety precautions listed under 'Safety in the garage' at the beginning of the Maintenance section of this handbook.

# Engine Compartment



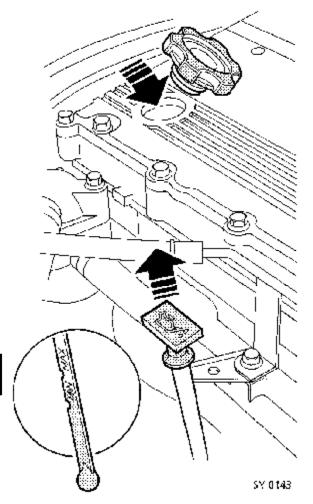
### Diesel models

- 1. Engine oil dipstick
- 2. Engine oil filler cap
- 3. Power steering reservoir
- 4. Fusebox engine compartment
- 5. Brake fluid reservoir
- 6. Clutch fluid reservoir
- 7. Cooling filler cap and cooling system reservoir
- 8. Washer reservoir

### **WARNING!**

Before carrying out maintenance checks or working in the engine compartment, ALWAYS observe the safety precautions listed under 'Safety in the garage' at the beginning of the Maintenance section of this handbook.

# Engine



Oil level - 620ti model

### **OIL LEVEL CHECK & TOP-UP**

Check the oil level when the engine is cold and with the car resting on level ground.

Withdraw the dipstick and wipe the blade clean, then re-insert the dipstick and withdraw again to check the level. The level must be maintained between the 'MIN' and 'MAX' marks on the dipstick.

### DO NOT fill above the maximum mark!

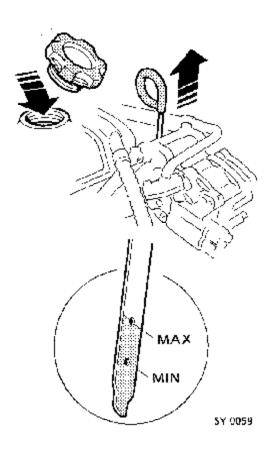
To add engine oil, unscrew the filler cap on top of the valve cover. Pour in the oil and ensure the cap is replaced and fully tightened afterwards.

After adding oil, wait for a few minutes and then recheck the level.

### **WARNING!**

Driving the car with the engine oil level below the lower mark on the dipstick will damage the engine.

# Engine



### Oil specification

### For Petrol engines:

Use any brand of 10W/40 engine oil meeting the minimum specification: *RES.22.OL.G 4* or *ACEA A2:96.* 

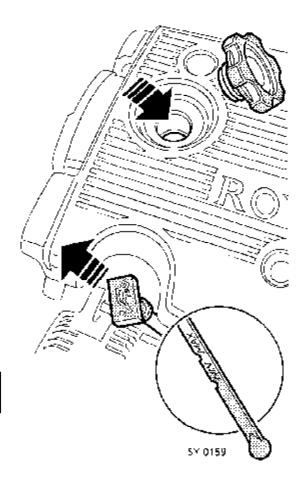
Oils within these specifications are suitable for use in the temperature range  $-20^{\circ}$  C to  $+30^{\circ}$  C. For continual operation in climates where temperatures usually exceed or fall below these limits, seek advice from your dealer.

### **WARNING!**

Driving the car with the engine oil level below the lower mark on the dipstick will damage the engine.



# Engine



### Oil level - Diesel models

### Oil specification

### For Diesel engines:

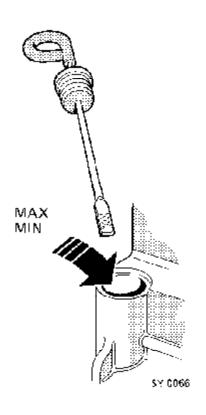
Use any brand of 10W/40 or 15W/40 engine oil meeting the minimum specification: *RES.22.OL.PD2* or *ACEA B2:96*.

Oils within these specifications are suitable for use in the temperature range  $-20^{\circ}$  C to  $+30^{\circ}$  C. For continual operation in climates where temperatures usually exceed or fall below these limits, seek advice from your dealer.

### **WARNING!**

Driving the car with the engine oil level below the lower mark on the dipstick will damage the engine.

# Automatic Transmission



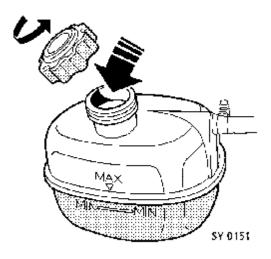
### **OIL LEVEL CHECK & TOP-UP**

Run the engine until it has reached its normal operating temperature and then check the oil level with the engine switched off and with the car resting on level ground.

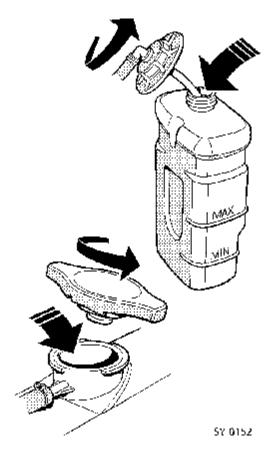
Withdraw the dipstick and wipe the blade clean, then re-insert the dipstick and withdraw again to check the level. The level must be maintained between the maximum and minimum levels marked on the dipstick.

If required, add *Unipart Transmatic ATF* into the dipstick tube to top-up. Ensure the level does not exceed the maximum level mark on the dipstick.

# Cooling System



Cooling system reservoir and filler cap - 620ti and Diesel models



Cooling system reservoir and filler cap - all petrol models except 620ti

### **WARNING!**

Anti-freeze is poisonous and can be fatal if swallowed. If accidental consumption of anti-freeze is suspected, seek appropriate medical attention immediately.

Take precautions to prevent anti-freeze coming in contact with the skin or eyes. If this should happen, rinse immediately with plenty of water.

DO NOT remove either the reservoir or radiator caps when the cooling system is hot - escaping steam or water could cause serious injury.

### TOPPING-UP

The coolant level should be checked weekly WHEN THE SYSTEM IS COLD, and topped up with a mixture of 50% anti-freeze and 50% water.

Top up the reservoir to the 'MAX' mark shown on the exterior. If the level falls appreciably during a short period, suspect leakage or overheating and arrange for your dealer to examine the vehicle.

If the reservoir is completely empty, you must also check and, if necessary, top-up the coolant in the radiator, as follows:

- 1) Ensure the engine is cool.
- 2) Without pressing down, turn the filler cap anti-clockwise until it stops. This will relieve any pressure in the cooling system.
- 3) Remove the filler cap by pressing down and turning anti-clockwise.
- 4) If necessary, add coolant until the level reaches the base of the filler neck.
- 5) Replace and tighten the filler cap.

# Cooling System

### Anti-freeze

The cooling system was filled with the correct anti-freeze and water mixture from new. Anti-freeze not only prevents the water from freezing in frost conditions but also ensures maximum corrosion prevention and, therefore, must be maintained throughout the life of the vehicle **in all climates**.

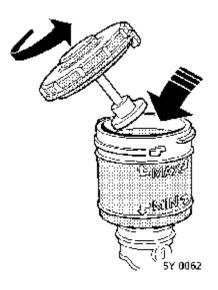
The anti-freeze content of the coolant must be maintained at a minimum of 50% and must not exceed 60%. To ensure that the anti-corrosion properties of the coolant are retained, the anti-freeze content should be checked by your dealer once a year.

For maximum corrosion prevention, use *Unipart Superplus 3 Anti-Freeze and Summer Coolant.* If this is unavailable, use an ethylene glycol based anti-freeze which meets specification BS 6580 and BS 5117.

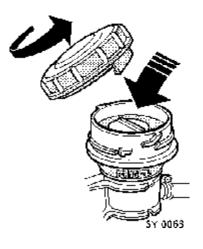
### **WARNING!**

DO NOT use anti-freeze to any specification other than that indicated above, or add rust inhibitors or other additives to the coolant - these may not be compatible with the coolant or engine components.

# Brakes & Clutch



Brake fluid reservoir (all models)



Clutch fluid reservoir (manual gearbox models only)

### **BRAKE & CLUTCH FLUID LEVELS**

Fluid levels in the brake and clutch reservoirs may fall slightly during normal use, but should not drop below the 'MIN' mark. If there is any appreciable drop in level over a short period, consult your dealer.

### Topping-up

Wipe the filler caps clean before removing to prevent dirt from entering the reservoirs. Top-up the brake reservoir to the 'MAX' mark and the clutch reservoir to within 10 mm of the top using a recommended fluid:

AP New Premium Super DOT 4 brake fluid. Castrol Universal DOT 4 brake fluid.

Use only new fluid from an airtight container (old fluid from uncapped containers will absorb moisture, and adversely affect braking performance).

To refit the cap, press down firmly while turning clockwise - this will ensure the cap is securely locked in position.

### **WARNING!**

- DO NOT drive the car if the fluid level is below the 'MIN' mark.
- Brake fluid will damage painted surfaces: Soak up any spillage with an absorbent cloth immediately and wash the area with a mixture of car shampoo and water.
- If brake fluid should come into contact with the skin or eyes, rinse immediately with plenty of water.
- Brake fluid must be completely replaced every two years regardless of mileage.

# Power Steering



### **POWER STEERING FLUID LEVEL**

Check and top-up the fluid level ONLY when the engine is cold. You should also ensure that the steering wheel is not turned between stopping the engine and checking the fluid level.

Wipe the filler cap clean before removing, and top-up to the 'upper level' mark with *Unipart Power Steering fluid.* Ensure no dirt enters the reservoir and do not overfill!

### **WARNING!**

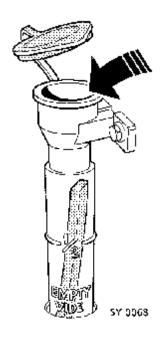
If the fluid level has dropped below the 'lower level' mark, the reservoir must be topped-up BEFORE the engine is started, otherwise severe damage to the steering pump could result.

Emergency operation only!

Any large or sudden drop in the fluid level must be investigated by a Rover dealer immediately.

If it can be established that fluid loss is slow, then the reservoir may be topped-up to the 'upper level' mark to enable the car to be driven to the nearest Rover dealer for examination.

# Wipers & Washers



### WINDSCREEN WASHERS

Check the reservoir level every week by looking at the float - it should be at the top of the neck when the reservoir is full. Top-up with a mixture of water and a good quality, proprietary screenwash.

### **WARNING!**

Do not use an anti-freeze or vinegar/water solution in the screen washer reservoir - anti-freeze will damage painted surfaces, while vinegar can damage the windscreen washer pump.

### Washer jets

The washer jets are set during manufacture and must NOT be adjusted.

In the event of a jet becoming blocked, take your car to a Rover dealer. DO NOT attempt to clear the blockage!

### WIPER BLADES

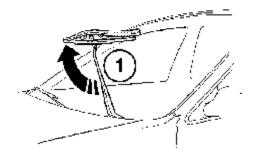
Periodically check the condition of the wiper blades. Replace the blades if signs of hardness or cracking in the rubber are found, or if the wipers leave streaks or unwiped areas on the windscreen during use. Never allow the blades to wipe a dry screen for prolonged periods, and ensure the windscreen is cleaned regularly with an approved glass cleaner (always clean the screen before fitting replacement wiper blades).

Refer to 'Cleaning & Car Care' for washing instructions.

Only fit replacement wiper blades that are identical to the original specification.

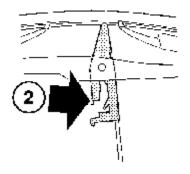
**NOTE:** The wiper blade on the drivers side has an anti lift aerofoil.

# Wipers & Washers

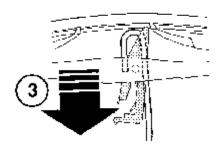


### WIPER BLADE REPLACEMENT

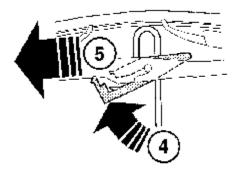
• Lift the wiper arm away from the windscreen and hold the blade at 90° to the arm as shown (1).



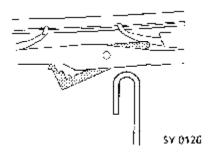
• Depress the retaining clip (2) and, at the same time, start to ease the wiper blade down the arm in the direction shown (3).



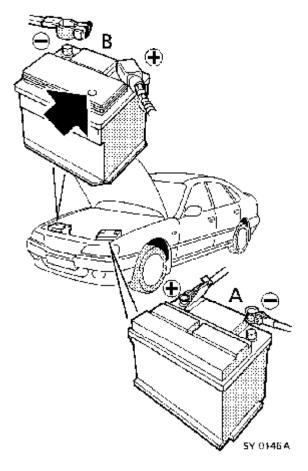
• Turn the retaining clip pivot until it is almost in line with the wiper blade (4), then pull the blade in the direction of the arrow (5). Disengage the wiper blade from the arm.



Fitting a replacement blade is a reversal of this process. However, in particular, note how the hooked end of the wiper arm is inserted through the slot in the retaining clip pivot (4), BEFORE the pivot is returned to its normal operating position parallel with the wiper arm (2).



# Battery



Battery 'A' - 620 petrol turbo and diesel models
Battery 'B' - all other models

### **WARNING!**

- Batteries contain sulphuric acid. If acid should come into contact with the eyes or skin, wash IMMEDIATELY with cold water and seek medical advice.
- During normal use, batteries emit explosive hydrogen gas sufficient to cause severe explosions capable of causing serious personal injury ensure sparks and naked lights are kept well away from the engine compartment.
- For safety, remove all metal wrist bands and jewellery before working in the engine compartment, and NEVER allow the battery terminals or leads to make contact with tools or other metal parts of the car.

### **Battery maintenance**

The battery is designed to be maintenance free so no topping-up is required.

The battery fitted to some models has a battery condition indicator (arrowed in illustration).

Occasionally check the colour showing in the indicator window - a label on the top of the battery explains the test indicator colours.

# Battery

### **WARNING!**

- ONLY fit a replacement battery of the same type and specification as the original. Other batteries may vary in size and have different terminal positions, capable of creating a potential fire hazard when connected to the car's electrical system.
- To avoid damaging the electrical system, ensure correct polarity when refitting the battery.
- After disconnection of the vehicle battery, the handset may need to be re-synchronised (see item 6 of 'Handset battery').
- ALWAYS remove the starter key and handset from the car before disconnecting the battery reconnection of the battery may activate the central door locking and thereby lock the keys inside.

### **Battery removal**

Before disconnecting the battery, turn the starter switch to position '0', switch off all electrical equipment and remove the starter key.

ALWAYS disconnect the negative ('-') terminal first. When replacing the battery, connect the positive ('+') terminal first. While disconnecting, do not allow the battery terminals to make contact with metal parts of the car.

To release the battery from the car, undo the battery clamping plate or rods.

**NOTE:** Used batteries are potentially hazardous - disposal should be at authorised waste disposal sites ONLY.

### **IMPORTANT**

In the case of a battery that has become discharged while the alarm system is armed, you should be aware that the alarm may start sounding as soon as battery power is restored (when a replacement battery is installed, or booster cables are connected). If the alarm starts sounding, disarm the alarm by pressing a handset button or unlocking the doors with the key.

# Battery

### **Battery charging**

Before charging, ensure the battery is REMOVED FROM THE CAR - charging the battery with the cables connected can cause serious damage to the car's electrical system.

If your battery has an electrolyte level marked on the casing, ensure the electrolyte is at or above this level before charging. If the electrolyte is below this level, refer to your dealer.

Batteries generate explosive gases, contain corrosive acid and produce levels of electric current high enough to cause serious burns. While charging always heed the following precautions:

- Make sure the battery charger is disconnected from its power supply before connecting its leads to the battery terminals.
- Make sure the leads are securely clamped before switching on the charger, and DO NOT move the clamps while the charger is switched on.
- Shield your eyes or avoid leaning over the battery.
- Keep the area around the top of the battery well ventilated.
- Keep naked lights clear of the battery (batteries emit inflammable hydrogen during and after charging).
- When charging is finished, switch off the charger BEFORE disconnecting the charging leads and then leave the battery for an hour before reconnection to the car.

# **Tyres**

### **WARNING!**

DEFECTIVE TYRES ARE DANGEROUS! DO NOT drive your car if any tyre is excessively worn or damaged, or is inflated to an incorrect pressure.

Incorrect tyres can affect the stability and handling characteristics of your car - only fit replacement tyres that are identical to the original specification.

### **CARING FOR YOUR TYRES**

Always drive with consideration for the condition of the tyres, and frequently inspect the tread and side walls for any sign of distortion, damage or wear.

The most common causes of tyre failure are:

- Bumping against kerbs
- Driving over deep pot holes
- Driving with under or over-inflated tyres.

### Tyre pressures

Correctly inflated tyres will ensure that you enjoy the best combination of tread life, ride comfort, fuel economy and road handling.

Check the pressures at least every week (including the spare wheel) preferably when the tyres are cold (be aware that the car can be driven up to 1.6 km before the tyres start to warm up).

Air pressure naturally increases in warm tyres; if it is necessary to check the tyres when they are warm (after the car has been driven for a while, even in cold weather), you should expect the pressures to have increased by between 0.3 and 0.4 bar. In this circumstance, DO NOT let air out of the tyres in order to match the recommended pressures.

The recommended pressures are shown in *Technical Data* 'at the rear of the book.

Remember; incorrectly inflated tyres may wear rapidly or unevenly, are more easily damaged, and can seriously affect the car's road handling characteristics and fuel economy.

### **Snow chains**

Unsuitable snow chains could damage the tyres, wheels, suspension, brakes or bodywork of your car. Only fit snow chains that are recommended by a Rover dealer and have been approved by Rover for use on your car.

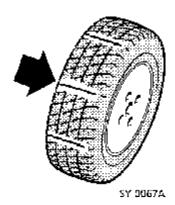
Cars fitted with 205/55 ZR16 tyres MUST BE fitted with 195/60 VR15 tyres on 5.5 x 15 in wheels before snow chains can be used. The original wheels and tyres must be refitted as soon as conditions allow.

Always observe the following recommendations:

- Fit snow chains to the front wheels only.
- Always adhere to the snow chain fitting and retensioning instructions and the speed limitations for varying road conditions.
- Avoid tyre damage and excessive chain wear by removing snow chains when driving over long stretches of snow free road.



# **Tyres**



### Tyre wear indicators

The tyres have wear indicators moulded into the tread pattern. When the tread has worn down to 1.6 mm, the indicators will come to the surface of the tread pattern, producing the effect of a continuous band of rubber across the width of the tyre.

The indicators provide warning that there is insufficient tread remaining to provide good traction, particularly on wet roads. For safety, a tyre MUST be replaced as soon as a wear indicator becomes visible.

If tyre wear is uneven or becomes abnormally excessive, the wheel alignment should be checked by your dealer.

### Valve caps

Keep the valve caps screwed down firmly. They prevent dirt from entering the valve.

### **Punctured tyres**

Your tyres will not normally leak when penetrated by a sharp object, provided it is left in the tyre. Drive with due caution until the spare wheel can be fitted. However, punctured or damaged tyres must be permanently repaired or replaced AS SOON AS POSSIBLE.

### Replacement tyres

Wheel rims and tyres are matched to suit the handling characteristics of the vehicle. To be safe, ONLY fit replacement tyres identical to the original specification.

**NOTE:** Tyre sizes are shown in 'Technical Data'.

# Cleaning & Car Care



### **WASHING YOUR CAR**

Road dirt, oil, and deposits from birds and trees can permanently spoil the paint finish. Wash your car frequently using a clean, grit free sponge and generous quantities of cold or lukewarm water containing a car shampoo. Rinse and dry off with a chamois leather.

- In hot weather, DO NOT wash the car in direct sunlight move the car into the shade!
- DO NOT use hot water!
- DO NOT use detergent soap products or washing up liquid.

During winter months when salt has been used on the roads, use a hose to wash the underside. Pay particular attention to wheelarches and panel seams, and to removing accumulations of mud.

When using a hose, do not direct the jet into the heater air intake ducts, or through the wheel trim apertures onto the brake components, or at the door, sunroof or window seals, where water pressure could penetrate the seals.

### WARNING!

Some high pressure cleaning systems available on garage forecourts are sufficiently powerful to penetrate door and window seals and damage rubbing strips and locking mechanisms. Never aim the water jet directly at components that might easily be damaged.

### Getting rid of tar spots

Use white spirit to remove tar spots and stubborn grease stains from paintwork. Then wash immediately with soapy water to remove all traces of the spirit.

### **Body protection**

After washing, inspect the paintwork for damage. Treat paint chips and scratches with a Rover touch-up pencil. If the damage has revealed bare metal, use a coloured primer first, then apply the base coat and finish off with a lacquer pencil, if appropriate. Carry out this treatment after washing, but before polishing or waxing.

However, take care to ensure that car polish and body cleaning compounds are not applied to the window glass or seals.

More extensive damage to paint or bodywork must be repaired in accordance with the manufacturer's recommendations. Failure to do this will invalidate the Anti-Corrosion Warranty!

### Windows and mirrors

Regularly clean the windows, inside and out, using an approved glass cleaner.

Windscreen: In particular, ALWAYS clean the windscreen AFTER using a car wash with wax and BEFORE fitting replacement wiper blades.

# Cleaning & Car Care

Rear window: Clean the inside of the rear window with a soft cloth, using a side to side motion to avoid damaging the heating elements. DO NOT scrape the glass or use an abrasive cleaning fluid.

*Mirrors:* Mirror glass is particularly susceptible to damage - DO NOT use abrasive cleaning compounds or metal scrapers.

### Wiper blades

Regularly wash the wiper blades with warm soapy water (NEVER use a spirit or petrol based solvent).

### Radio aerial

Approximately once a month extend the aerial and wipe with a damp cloth. DO NOT oil the aerial or clean with silicon based car care products.

**NOTE:** The electric mast aerial extends automatically whenever the radio/cassette player is switched on and retracts when the set is switched off - NEVER enter an automatic car wash with the radio/cassette player switched on.

### LOOKING AFTER THE INTERIOR

- Clean plastic-faced or cloth covered surfaces with diluted upholstery cleaner.
- Leather seats, steering wheel and trim features should be cleaned with warm water and a non-detergent soap. Dry and polish the leather with a dry, clean, lint-free cloth. DO NOT use petrol, detergents, furniture creams or polishes!
- Sweep carpets with a brush or vacuum cleaner and clean with diluted upholstery cleaner.

Clock & radio

 Clean with a dry cloth only. DO NOT use cleaning fluids or sprays. **Seat belts** 

 Extend belts, then use warm water and a non-detergent soap to clean. Allow to dry naturally, and do not retract until completely dry.

SRS airbag

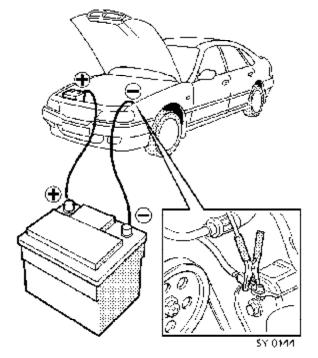
 To prevent airbag SRS damage, the steering wheel centre pad airbag and the passenger side airbag cover should ONLY be cleaned sparingly with a damp cloth and upholstery cleaner.

DO NOT allow these areas to be flooded with the liquid, and DO NOT use petrol, detergent, furniture cream or polishes.

# Emergency Starting

# \$Y 3145

620ti & Diesel models



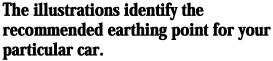
### **USING BOOSTER CABLES**

### **WARNING!**

- During normal use, batteries emit explosive hydrogen gas, sufficient to cause severe explosions capable of causing serious personal injury ensure sparks and naked lights are kept well away from the engine compartment.
- DO NOT disconnect the discharged battery.
- Make sure BOTH batteries are of the same voltage (12 volts), and that the booster cables are approved for use with 12 volt car batteries.
- To avoid injury, always adopt the following procedure when using booster cables.

### **IMPORTANT**

If the car battery has become discharged while the alarm system is armed, you should be aware that the alarm may start sounding as soon as booster cables are connected. If the alarm starts sounding, disarm the alarm by pressing a handset button or unlocking the doors with the key.



618i, Si, 620Si & 623 models

# Emergency Starting

Using booster cables (jump leads) from a donor battery, or a battery fitted to a donor vehicle, is the only approved method of starting a car with a flat battery. Push or tow starting is NOT recommended!

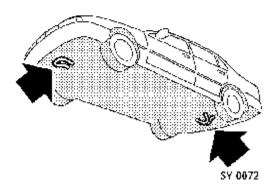
- 1) If a donor vehicle is to be used, the vehicles should be parked with their battery locations adjacent to one another. Ensure that the two vehicles do not touch.
- 2) Apply the handbrakes and ensure that the gear levers on both vehicles are in neutral ('P' Park for cars with automatic transmission).
- 3) Turn off the starter switch and ALL electrical equipment of BOTH vehicles.
- 4) Connect the RED booster cable between the positive (+) terminals of BOTH batteries.
- 5) Connect the BLACK booster cable from the negative (-) terminal of the donor battery to a good earth point (eg. an engine mounting or other unpainted surface), at least 0.5 m from the battery and away from fuel and brake lines (see previous illustrations).

# DO NOT connect a booster cable to the negative (-) terminal of the discharged battery!

6) Check that the cables are clear of the moving parts of both engines, then start the engine of the donor vehicle and allow it to idle for a few minutes.

- 7) Now start the engine of the car with the discharged battery (DO NOT crank the engine for more than 15 seconds at a time).
- 8) Once both engines are running normally, allow them to idle for two minutes before switching off the engine of the donor vehicle and disconnecting the booster cables. DO NOT switch on any electrical circuits on the previously disabled vehicle, until AFTER the booster cables have been removed.
- 9) Disconnecting the booster cables must be an EXACT reversal of the procedure used to connect them, ie: disconnect the BLACK cable from the earth point on the disabled vehicle FIRST.

# Emergency Towing



Both the front and rear towing eyes are intended for emergency use ONLY to assist in the recovery of your car should a breakdown or accident occur. DO NOT use the towing eyes for towing another vehicle, trailer or caravan.

### **Before being towed:**

- Turn the starter key to position 'II' to unlock the steering and enable the brake lights, wipers and direction indicators to operate.
- Place the gear lever in neutral and release the handbrake.

### **WARNING!**

- DO NOT attempt to tow the car unless the starter switch is turned to position 'I' in order to unlock the steering (if, due to an accident or electrical fault, this is considered unsafe, disconnect the battery before turning the switch).
- DO NOT remove the starter key or turn the switch to position 'O' while the car is in motion.
- Without the engine running, the brake servo and power steering pump cannot provide assistance. Greater effort will therefore be required to operate the brake pedal and to turn the steering wheel. Longer stopping distances will also be experienced.

### **WARNING!**

Always observe the following precautions!

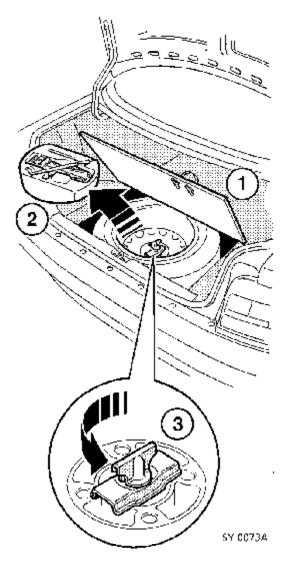
- Choose a safe place to stop away from the main thoroughfare, and ensure your passengers get out of the car and wait in a safe area away from other traffic.
- Switch on the hazard warning lights to alert other road users. Apply the handbrake and engage 1st gear (select 'P' for automatic transmission).
- Ensure the jack is positioned on firm, level ground. Do not position the jack on metal gratings or manhole covers, or use additional material between the base of the jack and the ground.

- If jacking on a slope, place chocks at the front and rear of the wheel diagonally opposite the one to be removed.
- Care must be taken to avoid accidental contact with any underbody parts, especially the hot exhaust system components, likely to cause personal injury during the raising or lowering of the car.

### In addition:

NEVER jack the car with passengers inside or with a caravan or trailer connected!

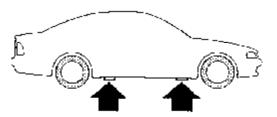
NEVER work beneath the car with the jack as the only means of support. The jack is designed for wheel changing only!

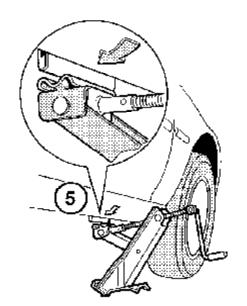


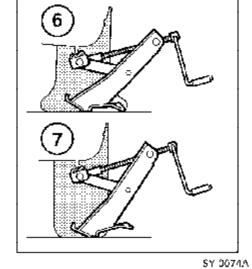
### Removing the spare wheel and tools

- 1) Raise the flap in the luggage compartment floor by lifting the cord handle.
- 2) Lift out the tool tray.
- 3) Unscrew the clamp to release the spare wheel.
- 4) Lift the wheel from the luggage compartment.

**NOTE:** A steel spare wheel is fitted to all models (including cars fitted with alloy wheels).







### Positioning the jack

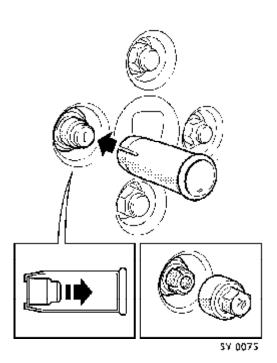
- 5) Position the jack under the CENTRE of the jacking point nearest the wheel to be removed, ensuring the cut-out of the jack head fits snugly around the depression in the centre of the jacking point.
- 6) **To change a deflated tyre:** Position the jack so that the base plate is resting on the ground (see illustration).
- 7) **To change an inflated tyre:** Position the jack so that the elbow of the base plate is bearing on the ground (see illustration).

### **Changing the wheel**

- Before raising the car, use the wheel nut spanner to slacken the wheel nuts half a turn anti-clockwise (refer to the following page for information about locking wheel nuts).
- Turn the jack handle clockwise to raise the car until the tyre is clear of the ground. Remove the wheel nuts, wheel trim (if fitted) and wheel (DO NOT damage the surface of alloy wheels by placing them face down on the road).
- Fit the steel spare wheel and then the wheel trim (if fitted).
  - **NOTE:** Ensure the two plastic lugs on the underside of the wheel trim are located either side of the valve.
- LIGHTLY tighten the wheel nuts (tapered side towards the wheel), ensuring they are firmly seated. DO NOT apply full tightening force whilst the tyre is clear of the ground.
- Lower the car and remove the jack and wheel chocks.
- Fully tighten the wheel nuts in diagonal sequence.
- Return the tools and the wheel you have removed to the luggage compartment.

### **WARNING!**

Check the tyre pressures before driving, and have the tightness of the wheel nuts checked by your dealer as soon as possible!



### LOCKING WHEEL NUTS

Cars with alloy wheels are fitted with one locking wheel nut on each wheel. These are visually very similar to standard wheel nuts, but can only be removed using the special tools provided, as follows:

- 1) Push the plastic extractor tube firmly onto the nut cover. By levering the tube from side to side, the stainless steel nut cover can be pulled from the nut.
- 2) Fit the metal key socket over the wheel nut, then fit the wheel nut spanner over the socket to unscrew the nut.

Keep the key socket and extractor with the tool kit or for added security, hide the tools in a position away from the spare wheel.

**NOTE:** The socket is conveniently retained inside the extractor tube when not in use. To release the socket from the tube, first detach the tie.

A code number is stamped on the face of the socket. Ensure the code number is recorded in a safe place – you will need to quote this number if replacement components are required.

# **Fuses**

Fuses are simple circuit breakers, which protect electrical equipment by preventing the electrical circuits from being overloaded. A 'blown' fuse is indicated when the electrical equipment it protects becomes inoperative. Check a suspect fuse by removing it from the fuse box and looking for a break in the wire inside the fuse (an example of a broken fuse is illustrated).

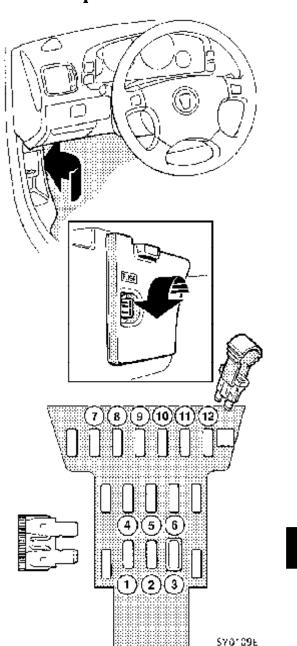
Fuse boxes are located in both the driver's compartment and the engine compartment. The location and value of each fuse is shown in the accompanying illustrations. Some spare fuses are also provided, but these are not numbered in the illustrations.

### Renewing a fuse

Always turn off the starter switch and the appropriate electrical circuit before removing a fuse. To remove a fuse, press the removal tweezers onto the head of the fuse as shown and pull. Always replace a fuse with another of the same value, but if the new fuse blows immediately the circuit MUST be checked by a Rover dealer.

**NOTE:** Fuse removal tweezers are located in the driver's compartment fuse box only.

### **Driver's compartment fuse box**



# **Fuses**

# DRIVER'S COMPARTMENT FUSE BOX

| Fuse No | Rating (amps) | These units not operating                 |
|---------|---------------|---|
|         |               |   |
| 1       | 7.5           | Anti-theft alarm                          |
| 2       | 15            | Engine management system                  |
| 3       | 10            | Airbag SRS                                |
| 4       | 10            | Airbag SRS<br>ABS <sup>2</sup>            |
| 5       | 7.5           | Headlight adjuster, mirrors and sunroof   |
| 6       | 30            | Windscreen wipers and washers             |
| 7       | 7.5           | Heater and heated rear window             |
| 8       | 10            | Direction indicators and reversing lights |
| 9       | 7.5           | Air conditioning <sup>1</sup>             |
| 10      | 7.5           | ABS                                       |
| 11      | 15            | Radio aerial, cigar lighter               |
| 12      | 7.5           | Starting signal <sup>1</sup>              |

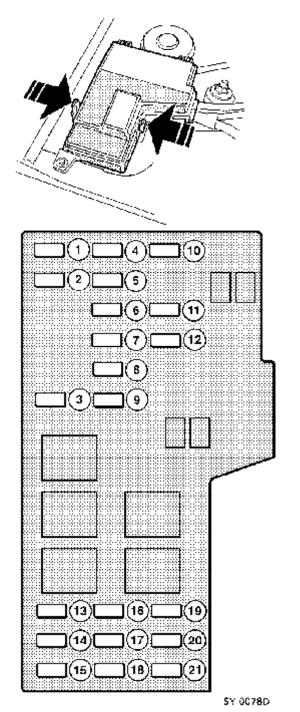
 $<sup>^{1}\,</sup>$  618, 620Si & 623 models

### **Fuse colours**

All fuses are colour coded to identify their amperage as follows:

| BROWN  | 7.5 amp |
|--------|---------|
| RED    | 10 amp  |
| BLUE   | 15 amp  |
| YELLOW | 20 amp  |
| GREEN  | 30 amp  |

# **Fuses**



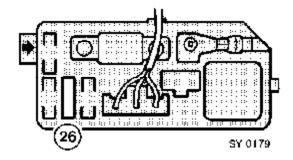
#### **Engine compartment fuse box**

The fuse box is located to the rear of the engine compartment on the right hand side. Push the tabs (arrowed in illustration) to remove the cover.

**NOTE:** You are advised against removing or replacing any fuse, relay or fusible link from the engine compartment fuse box, other than those identified in the illustration.

#### ABS FUSEBOX - 623 models

The fuse box is located at the right hand side of the engine compartment. Press clip on end (arrowed) to release cover.

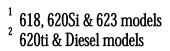


26 - 20 amp - ABS control unit

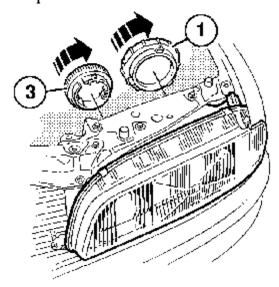
# **Fuses**

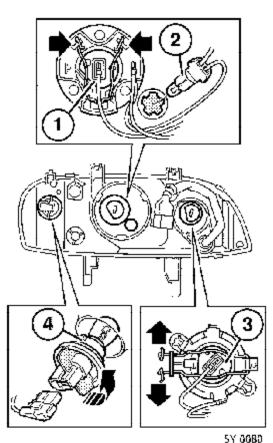
# ENGINE COMPARTMENT FUSE BOX

| ENGINE COMI ANIMENI I COL BOX |               |   |
|-------------------------------|---------------|---|
| Fuse No                       | Rating (amps) | These units not operating               |
|                               |               |   |
| 1                             | 10            | Tail lights                             |
| 2                             | 20            | Central door locking, anti-theft alarm  |
| 3                             | 20            | Cooling fan                             |
| 3<br>4<br>5<br>6              | 30            | Sunroof                                 |
| 5                             | 10            | Lights                                  |
| 6                             | 30            | Cooling fan <sup>2</sup>                |
| 7                             | 15            | Interior light                          |
| 8                             | 15            | Cooling fan                             |
|                               | 10            | Diagnostics <sup>2</sup>                |
| 9                             | 10            | Engine management system                |
| 10                            | 20            | Front seat height adjustment            |
| 11                            | 20            | Front seat                              |
|                               | 15            | Front fog lights <sup>2</sup>           |
| 12                            | 7.5           | Radio/cassette player                   |
| 13                            | 20            | Window - rear left                      |
| 14                            | 20            | Window - rear right                     |
| 15                            | 20            | Window - front left                     |
| 16                            | 20            | Window - front right                    |
| 17                            | 20            | Headlight - right                       |
| 18                            | 20            | Stop lights, horn                       |
| 19                            | 20            | Headlight - left                        |
| 20                            | 10            | -                                       |
| 21                            | 10            | Hazard warning lights, anti-theft alarm |
| 22                            | 15            | Front fog lights                        |
|                               | 30            | Cooling fan 2                           |



Before replacing a bulb, always turn off the lighting switch to prevent any possibility of a short circuit. Replace bulbs with the same type and specification.





#### 1. Headlight

- Remove the circular plastic cover.
- Compress the wire securing clips (arrowed in illustration) and pivot them away from the bulb.
- Release the bulb holder and then remove the bulb.

#### 2. Sidelight

 With the circular plastic cover removed, release the bulb holder and pull out the bulb.

#### 3. Main beam

- For the right hand headlight, first lift the coolant reservoir from its mounting and place to one side.
- Remove the circular plastic cover.
- Release the wire securing clips (arrowed in illustration) and pivot them away from the bulb.
- Release the bulb holder and remove the bulb.

**NOTE:** To refit the circular cover, ensure the cut-out in the lip at the back is at the top of the headlight.

#### 4. Direction indicator light

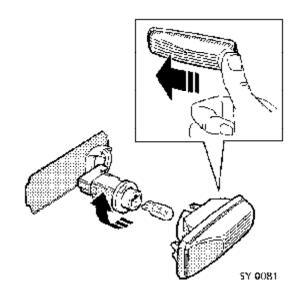
- Twist anti-clockwise to release the bulb holder.
- Push and twist to remove the bulb from its holder.



#### **WARNING!**

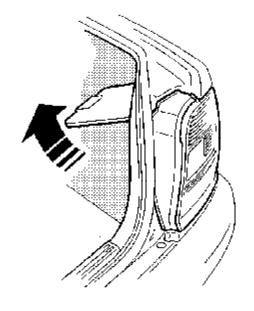
- Do not touch the headlight or main beam bulb glass with your fingers, or allow oil or grease to contact the glass - this may cause the bulb to overheat and shatter. If necessary, clean the bulb with methylated spirits.
- When replacing a headlight or main beam bulb, DO NOT disturb the headlight alignment by removing the headlight unit from the car.

| Bulb                    | Watts | Part No. |
|-------------------------|-------|----------|
| Headlight               | 55    | GLB 448  |
| Sidelight               | 5     | GLB 501  |
| Direction indicators    | 21    | GLB 9609 |
| Side repeater light     | 5     | GLB 501  |
| Tail/brake lights       | 21/5  | GLB 380  |
| Reversing light         | 21    | GLB 382  |
| Fog guard light         | 21    | GLB 382  |
| Number plate light      | 5     | GLB 501  |
| Glovebox light          | 5     | GLB 239  |
| Interior lights         | 5     | GLB 989  |
| Boot light              | 10    | GLB 9605 |
| High mounted stop light | 5     | GLB 501  |



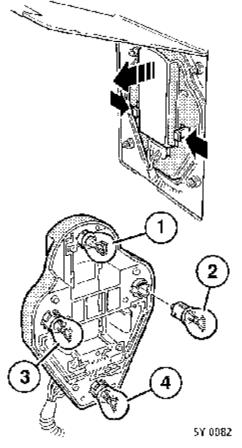
#### Side repeater light

- Push the rear of the light firmly towards the front of the car to withdraw the light unit from the wing.
- Twist the bulb holder to release, then pull the bulb straight out of its socket.



# Rear lights Tail/brake (1), Direction indicator (2), Reverse (3), Fog guard (4)

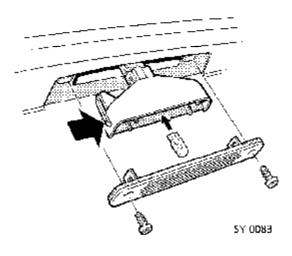
• From inside the luggage compartment, lift up the rear light cover.



RH lamp only: Release harness from clip.

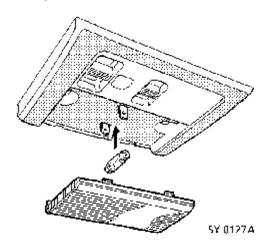
• Squeeze both levers (arrowed) to release the light unit, then withdraw the light unit from the rear wing.

• Push and turn the bulbs anti-clockwise to remove.



#### Number plate light

- Remove the two screws to release the light unit.
- Compress the clip (arrowed in illustration) to release the lens and then pull the bulb straight from its socket.



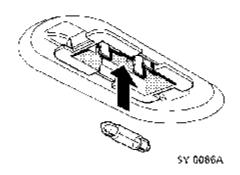
### Front courtesy light

- Pull down on the front edge to release the REAR edge of the lens from the light housing in the roof.
- Pull the bulb to remove.
- When replacing, fully insert the rear edge of the lens first.



### **Rear courtesy light**

• Use a small screwdriver to prise the lens from the light housing. Pull the bulb to remove.



#### Luggage compartment light

• Pull the bulb to remove.

# Parts & Accessories

#### **SERVICE PARTS & ACCESSORIES**

Only ROVER DEALERS are able to provide the full range of recommended parts and accessories that meet our rigorous standards of safety, durability and performance.

Always consult your Rover dealer regarding the suitability, installation and use of any parts or accessories before fitting.

#### **Electrical equipment**

In particular, it is extremely hazardous to fit parts or accessories whose installation requires the dismantling of, or addition to, either the electrical or fuel systems.

#### **WARNING!**

- It is extremely hazardous to fit parts or accessories where installation requires the dismantling of, or addition to, either the electrical or fuel systems.
- If an airbag SRS is fitted, ALWAYS consult a Rover dealer before fitting any accessory.
- Fitting parts or accessories that have not been approved by Rover may be dangerous and could invalidate the vehicle warranty.

#### Travelling abroad

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

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

# Vehicle Identification

#### **IDENTIFICATION NUMBERS**

When communicating with your dealer always quote the Vehicle Identification Number. If your communication concerns the engine, gearbox or body, it may be necessary to quote these numbers as well.

#### 1. Vehicle identification number (VIN).

Stamped on the VIN plate where shown and also stamped into the bulkhead, on the right hand side of the engine compartment. In addition as a deterrent to car thieves and to help the police, the VIN is chemically etched into the bottom of the windscreen and rear screen on the left hand side.

**NOTE:** The body colour and trim codes are also stamped on the VIN plate and must be quoted if paint or trim items are required.

#### 2. Engine number.

*620ti models:* Stamped on crankcase front flange to right of dipstick.

618, 620Si & 623 models: Stamped into the front of the right hand side of the cylinder block.

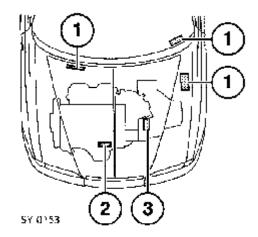
*Diesel models:* Stamped into the front face of the cylinder block adjacent to the engine oil dipstick tube.

#### 3. Manual gearbox number.

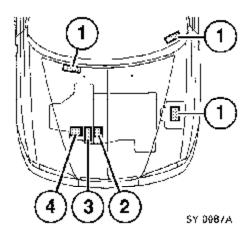
On a label attached to the front face of the clutch housing.

#### 4. Automatic gearbox number.

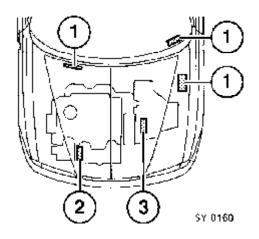
Stamped on a label attached to the top face of the gearbox casing adjacent to the dipstick.



620ti model



618, 620Si & 623 models



Diesel models

### Engine - 1.8 (618, i, Si)

| Capacity     | 1850 cm <sup>3</sup> |
|--------------|----------------------|
| Firing order | 1 - 3 - 4 - 2        |
| , 0          |                      |

### **Engine - 2.0 (620Si, GSi)**

| Capacity     | 1997 cm <sup>3</sup> |
|--------------|----------------------|
| Firing order | 1 - 3 - 4 - 2        |
| Idle speed   | 770 $\pm$ 50 rev/min |

# **Engine - 2.0 Turbo (620ti)**

| Capacity     | 1994 cm <sup>3</sup> |
|--------------|----------------------|
| Firing order | 1 - 3 - 4 - 2        |
| Idle speed   | 800 $\pm$ 50 rev/min |

### **Engine - 2.3 (623GSi, Si)**

| Capacity     | 2259 cm <sup>3</sup> |
|--------------|----------------------|
| Firing order | 1 - 3 - 4 - 2        |
| Idle speed   |                      |

### Engine - 2.0 Diesel (620Di, SDi)

| Capacity               | 1994 cm <sup>3</sup> |
|------------------------|----------------------|
| Firing order           |                      |
| Idle speed             |                      |
| Maximum governed speed | 4200 rev/min         |

### **Ignition system**

| Type                              | Programmed ignition |
|-----------------------------------|---------------------|
| Spark plugs:                      |                     |
| 620ti                             | GSP 6662            |
| 618i, Si, 620Si, GSi & 623 models | GSP 7664            |
| Spark plug gap:                   |                     |
| 620ti                             | 0.85 mm             |
| 618i, Si                          | 1.1 mm              |
| 620Si, GSi                        | 1.0 mm              |
| 623                               | 1.0 mm              |

### **Electrical**

| Battery type | Sealed for life          |
|--------------|--------------------------|
|              | 12 V, negative (-) earth |

# Wheels and tyres

| Wheel size and type: 620ti | 6 X 16 - allov                   |
|----------------------------|----------------------------------|
| All other models           |                                  |
| Tyre size:                 | •                                |
| 620ti                      | 205/55 ZR16 89W                  |
| 623 models                 | 195/65 R15 91V                   |
| All other models           | 195/65 R15 91V or 195/65 R15 91H |
| Road wheel nut torque      | 110 Nm                           |

#### **Tyre pressures**

|                                 |       | bar |
|---------------------------------|-------|-----|
| Tyre size/model:                |       |     |
| 195/65 R15 91V & 195/65 R15 91H | Front | 2.1 |
|                                 | Rear  | 2.0 |
| 205/55 ZR16 89W                 | Front | 2.2 |
|                                 | Rear  | 2.1 |

### **Dimensions**

| Overall length Overall width (including mirrors) Overall height* | 1.95 m |
|--|--------|
| Ground clearance*  | 2.72 m |
| Wheel alignment:* FrontRear (toe-in)                             |        |
| * At unladen weight  |        |

### Capacities

| -   |           |
|---|-----------|
| Fuel tankEngine oil refill and filter change: | 65 litre  |
| 620ti and all diesel models                   |           |
| 618, 620 petrol (except ti)                   |           |
| Manual gearbox refill                         |           |
| 620ti and all diesel models                   |           |
| 618, 620 petrol (except ti), 623              | 2.0 litre |
| Refill oil pan                                | 2.4 litre |
| Total capacity                                |           |
| Power steering reservoir                      |           |
| Cooling system total capacity                 | 7.0 litre |
| Washer reservoir                              | 5.7 litre |

# Weights

| <b>o</b>  |
|---|
| Approx unladen vehicle weight (full fuel tank, excluding options): Petrol cars  |
| Max gross vehicle weight: Petrol cars (manual gearbox)  |
| Max rear axle load (must NOT be exceeded!) 950 kg Max towing weight - allowing the vehicle to restart efficiently on a 12% (1 in 8) gradient with two occupants (braked trailer):* 618, 620 petrol models |
| Single axle trailer   |
| models and 620ti  |

Note: Any additional weight, such as luggage or additional passengers, should be deducted from the maximum towing weight quoted above.