

VOLVO
V50

VOLVO
for life



WEB EDITION

Introduction



Dear Volvo owner

We hope you will enjoy many years of driving pleasure in your Volvo. The car has been designed for the safety and comfort of you and your passengers. Volvo is one of the safest cars in the world. Your Volvo has also been designed to satisfy all current safety and environmental requirements.

In order to increase your enjoyment of the car, we recommend that you familiarise yourself with the equipment, instructions and maintenance information contained in this owner's manual.

Thank you for choosing Volvo!

Owner's Manual

A good way of getting to know your new car is to read the owner's manual, ideally before your first journey. This will give you the opportunity to familiarise yourself with new functions, to see how best to handle the car in different situations, and to make the best use of all the car's features. Please pay attention to the safety instructions contained in the manual:



WARNING!

"Warning!" texts indicate where there is a risk of personal injury in the event of the instructions not being followed.

Important!

"Important!" texts indicate a risk of damage to the car in the event of the instructions not being followed.

The equipment described in the owner's manual is not present in all models. In addition to standard equipment, this manual also describes options (factory fitted equipment) and certain accessories (extra equipment).

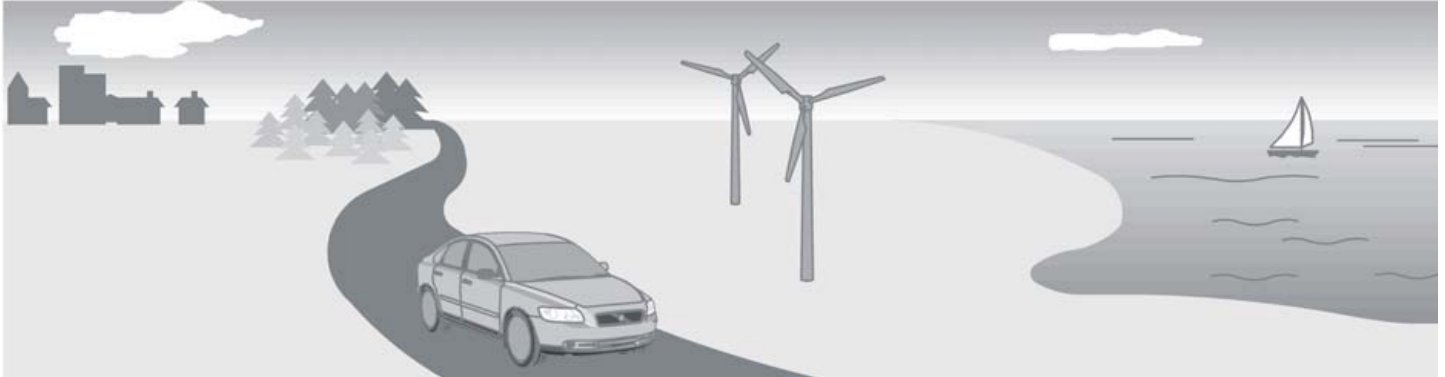
NOTE! Volvo cars are adapted for the varying requirements of different markets, as well as

for national or local legal requirements and regulations.

The specifications, design features and illustrations in this owner's manual are not binding. We reserve the right to make modifications without prior notice.

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Volvo Cars and the environment



Our environmental philosophy

Quality, Safety and Environmental care are the three core values which guide all the activities of Volvo Cars. Volvo cars comply with strict international environmental standards and are manufactured in some of the cleanest and most resource-efficient plants in the world. Volvo Cars has been awarded multi-site global certification under the ISO 14001 environmental standard, ensuring continuous improvement in the area. All Volvo models are supplied with an environmental product declaration - or EPD - which enables the customer to compare the environmental performance of different models and engines. Visit epd.volvocars.se for more information.

Clean inside and out

Your Volvo is designed to be *clean inside and out*, a concept which means that you benefit in two ways - from a clean cabin and a highly efficient exhaust treatment system, which ensures that your car saves fuel and releases a minimum of harmful substances. Inside, the air entering the passenger compartment is filtered to protect you and your passengers from dust, particles and pollen. A sophisticated air quality system known as IAQS¹ can be added as an option to ensure that the air supplied to the passenger compartment is cleaner than the air outside. Consisting of an electronic sensor and an activated carbon filter, the system monitors the

level of carbon monoxide in the incoming air and closes the air intakes to prevent the level in the cabin from becoming too high - for example in heavy city traffic, tailbacks and tunnels - while the carbon filter traps nitrogen oxides, ground-level ozone and hydrocarbons. In addition, to benefit allergy sufferers, the fabrics used in the interior comply with the provisions of the international Öko-Tex² standard. Outside, a special catalytic coating known as PremAir®³ is used to convert harmful ground-level ozone in the air passing through the radiator into pure oxygen.

1. Interior Air Quality System

2. An international ecological standard for textiles
3. Applies only to five-cylinder engines
PremAir® is a registered trademark of Engelhard Corporation

Volvo Cars and the environment

A Volvo meets strict international environmental demands and delivers low fuel consumption to reduce emissions of greenhouse carbon dioxide. In terms of fuel economy, Volvo cars are highly competitive in their respective segments.

Volvo workshops and the environment

Regular maintenance carried out by an authorised Volvo workshop creates the conditions for low fuel consumption and contributes to a cleaner environment. Volvo service technicians are equipped with the knowhow and tools to ensure that your car delivers the best possible environmental performance.

Reducing environmental impact

We believe that our customers share our concern for the environment. You can contribute to improving the environment by using only ecologically approved car care products, and by ensuring that your car is serviced and maintained according to the instructions in the owner's manual.

The following hints will help you to do your bit for the environment:

- Always ensure that your tyre pressures are correct. Poorly inflated tyres increase fuel consumption.

- Since roof racks and ski boxes increase air resistance, leading to significantly higher fuel consumption, they should be removed immediately after use.



- Remove unnecessary items from the car - the greater the load the higher the fuel consumption.
- Is your car equipped with an engine block heater? If so, use it for a few hours before starting from cold to reduce fuel consumption and exhaust emissions.
- Drive gently! Avoid accelerating and braking too hard.
- Drive in the highest possible gear - lower engine revs reduce fuel consumption.



- Ease back on the accelerator on downhill gradients.
- Use engine braking. Take your foot off the accelerator and change down.
- Avoid idling. Switch off the engine in traffic queues.

- Always dispose of environmentally hazardous waste, such as batteries and oils, in an environmentally safe manner. If uncertain, ask your authorised Volvo workshop for advice.



- Service your car regularly.

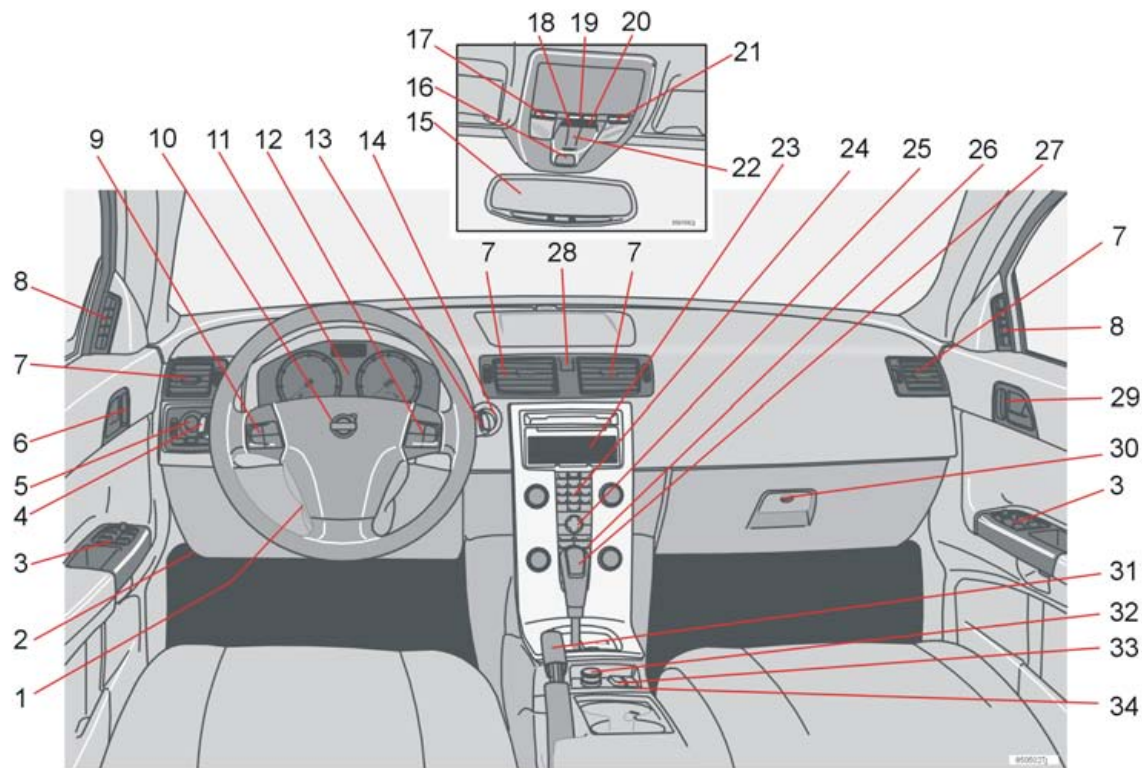
These hints will help you to reduce your fuel consumption without increasing your travel time or lessening the enjoyment of driving. Apart from being kind to your car, you'll be saving money - and the Earth's resources.

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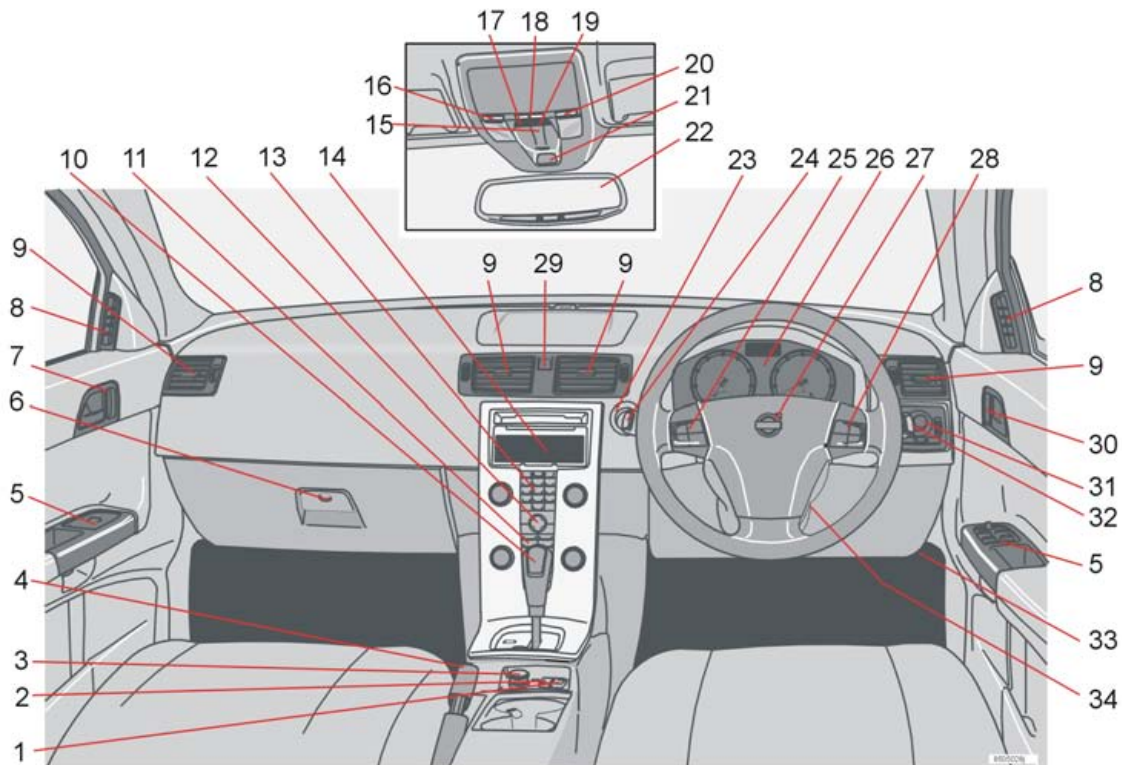
Overview, left-hand drive car



Left-hand drive

1. Steering wheel adjustment
2. Bonnet release
3. Control panel
4. Direction indicators, main beam, trip computer
5. Lighting, fuel filler flap opener
6. Door handle, central locking
7. Air vents in dashboard
8. Air vent for side window
9. Cruise control
10. Horn, airbag
11. Combined instrument panel
12. Keypad for infotainment system
13. Windscreen wipers and washers, headlamp washers
14. Ignition switch
15. Interior rearview mirror
16. Seatbelt reminder
17. Interior lighting for left-hand side
18. Deactivation of alarm detectors, deadlocks
19. Switch for interior lighting
20. Position of accessory switch
21. Interior lighting for right-hand side
22. Sunroof controls
23. Display for climate control and infotainment system
24. Infotainment system
25. Controls for climate control, infotainment system and personal preferences
26. Climate control
27. Gear lever
28. Hazard warning flashers
29. Door handle
30. Glovebox
31. Parking brake
32. Electrical socket/cigarette lighter
33. STC or DSTC stability system
34. Switch, optional equipment

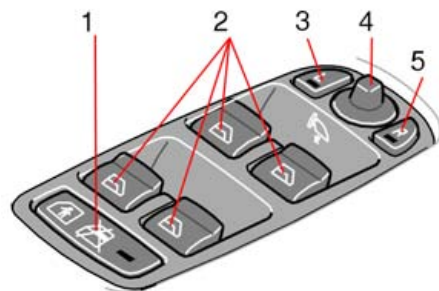
Overview, right-hand drive car



Right-hand drive

1. Switch for retrofitted accessory
2. STC or DSTC stability system
3. Electrical socket, cigarette lighter
4. Parking brake
5. Control panel
6. Glovebox
7. Door handle
8. Air vent for side window
9. Air vents in dashboard
10. Gear lever
11. Climate control
12. Controls for climate control, infotainment system and personal preferences
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14. Display for climate control and infotainment system
15. Sunroof controls
16. Interior lighting for left-hand side
17. Deactivation of alarm detectors, deadlocks
18. Switch for interior lighting
19. Switch for retrofitted accessory
20. Interior lighting for right-hand side
21. Seatbelt reminder
22. Interior rearview mirror
23. Ignition switch
24. Windscreen wipers and washers, headlamp washers
25. Cruise control
26. Combined instrument panel
27. Horn, airbag
28. Keypad for infotainment system
29. Hazard warning flashers
30. Door handle, central locking
31. Lighting, fuel filler flap opener
32. Direction indicators, main beam, trip computer
33. Bonnet release
34. Steering wheel adjustment

Driver's door control panel



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1. Blocking switch for rear power windows (standard)
Electric child locks (option)
2. Power windows
3. Door mirror, left-hand side
4. Door mirrors, setting
5. Door mirror, right-hand side

Safety

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Seatbelts



Tensioning the hip strap. The belt must be positioned low down.

Always use a seatbelt

Heavy braking can have serious consequences if the seatbelts are not used. Ensure that all passengers use their seatbelts. Otherwise, rear seat passengers may be thrown forward against the backs of the front seats in a collision.

Putting on a seatbelt:

- Pull the belt out slowly and secure it by pressing the buckle into the lock. A loud "click" indicates that the belt has locked.

Releasing the belt:

- Press the red lock button and let the belt retract. If the belt does not retract fully, feed the belt in by hand so that it does not hang loose.

The belt locks and cannot be withdrawn:

- if it is pulled out too quickly.
- during braking and acceleration.
- if the car leans heavily.

It is important that the belt lies against the body so it can provide maximum protection. Do not lean the backrest too far back. The seatbelt is designed to protect in a normal seating position.

Keep the following in mind:

- do not use clips or anything else that can prevent the belt from fitting properly.
- ensure the belt is not twisted or caught on anything.
- the hip strap must be positioned low down (not over the abdomen).
- tension the hip strap over the lap by pulling the diagonal shoulder belt as illustrated.

WARNING!

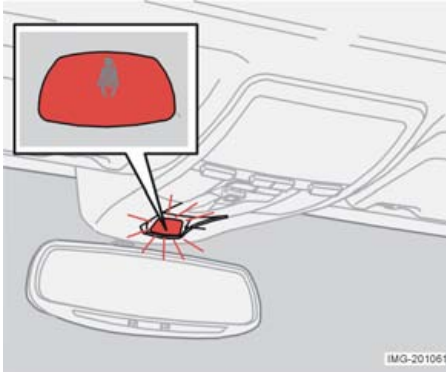
The seatbelts and airbags interact. If a seatbelt is not used or is used incorrectly, this may diminish the protection provided by the airbag in the event of a collision.

WARNING!

Each belt is intended for one person only.

WARNING!

If the belt has been subjected to a major load, such as in a collision, the entire belt must be replaced. This includes the reel, mountings, bolts and buckles. Some of the protective characteristics of the belt may have been lost, even if it appears to be undamaged. Replace the seatbelt if the belt is worn or damaged. The new seatbelt must be type-approved and intended for installation in the same position as the replaced belt. Never modify or repair the seatbelts yourself. Contact an authorised Volvo workshop.



Seatbelt reminder¹

A symbol lights up in the roof console (above the rearview mirror) as a reminder that the seatbelts are not buckled up. A symbol also lights up on the combined instrument panel. If the car is stationary, the reminder is extinguished after approximately six seconds.

Front seat

The symbols remain lit as long as the driver or front seat passenger do not have their seatbelts on. (If a child seat is placed on the front seat, the reminder does not come on.) In addition to the two symbols, an audible

reminder is heard that changes frequency with the speed of the car.

Rear seat

The seatbelt reminder has two sub-functions:

- Notifications of the number of seatbelts being used via a message on the information display. This function is automatically activated as soon as a rear door is opened and closed, even if no one is actually sitting in the rear seat. The message is automatically erased approx. 10 seconds after the car is driven away, or can be acknowledged manually by pressing the READ button.
- Warns that someone in the rear seat has removed their seatbelt while the car is moving. A message appears on the information display and an audible warning sounds. The warning ceases once the belt has been put back on, or can be acknowledged manually by pressing the READ button.

The message on the display that states how many seatbelts are in use can be viewed at any time. To read saved messages, press the READ button.



Seatbelts and pregnancy

It is extremely important that the seatbelt is used correctly during pregnancy. It should be in contact with the body. The upper part of the seatbelt should fit between the breasts and against the side of the abdomen. The hip section of the seatbelt must be flat and as far under the abdomen as possible. It must not slide up towards the abdomen.

An expectant mother who is driving should move the seat as far back as possible in order to obtain the greatest possible distance between the steering wheel and the abdomen. Set the steering wheel as far forward as a comfortable driving position permits.

¹ Function can depend on market

Seatbelts



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Label on seatbelts with seatbelt tensioner

Seatbelt tensioner

All the seatbelts (except the centre rear belt) are equipped with belt tensioners. A mechanism in the belt tensioner tightens the belt around the body in the event of a sufficiently violent collision. This provides more effective restraint for passengers.

Airbags (SRS)

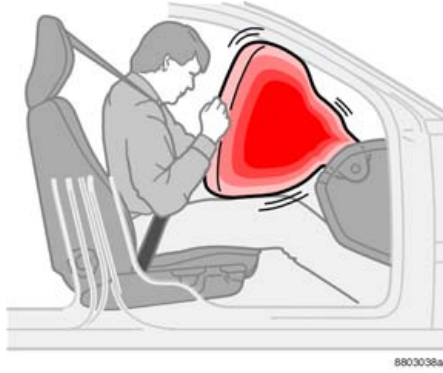


Airbag (SRS) on the driver's side

The car has an SRS airbag (Supplemental Restraint System) in the steering wheel to supplement the protection afforded by the seatbelt. This airbag is fitted into the centre of the steering wheel. The steering wheel is marked SRS AIRBAG.

WARNING!

The seatbelts and airbags interact. If a seatbelt is not used or is used incorrectly, this may diminish the protection provided by the airbag in the event of a collision.



Passenger airbag (SRS)

The passenger airbag¹ is fitted behind a panel above the glovebox. This panel is marked SRS AIRBAG

WARNING!

To minimise the risk of injury if the airbag deploys, passengers must sit as upright as possible with their feet on the floor and backs against the backrest. Seatbelts must be secured.

WARNING!

Never place a child in a child seat or on a booster cushion in the front seat if the airbag (SRS) is activated.¹

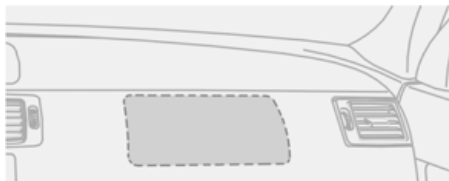
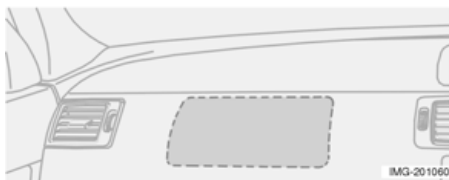
Never allow a child to stand or sit in front of the front passenger seat. No one shorter than 140 cm (4 ft 11) should sit in the front passenger seat if the airbag (SRS) is activated.

Failure to follow the advice given above can endanger the life of the child.

1. For information on activated/deactivated airbag (SRS), see page 20.

1. Not all cars have a passenger airbag (SRS). This can be unselected when the car is ordered.

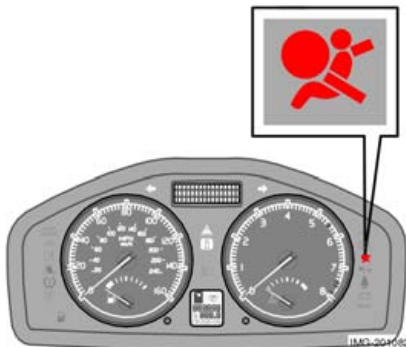
Airbags (SRS)



Location of the passenger airbag in left-hand drive and right-hand drive cars

WARNING!

Objects and accessories must not be positioned or glued on or near the SRS AIRBAG panel (above the glovebox) or in the area affected by a deployed airbag. Never interfere with SRS components in the steering wheel or the panel above the glovebox.



Warning symbol on the combined instrument panel

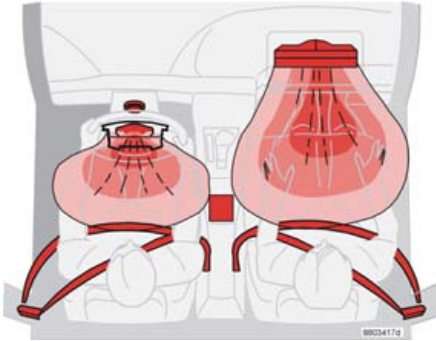
The AIRBAG system is monitored continuously by the car's electronic control system. The warning symbol on the combined instrument panel lights when the ignition key is turned to position **I**, **II** or **III**. The symbol goes out after about six seconds if the AIRBAG system is working correctly.

WARNING!

If the warning symbol for the AIRBAG system remains on or comes on while driving, it means that the AIRBAG system is not functioning fully. The symbol can indicate a fault in the seatbelt buckle, SIPS, SRS or IC system. Contact an authorised Volvo workshop immediately.



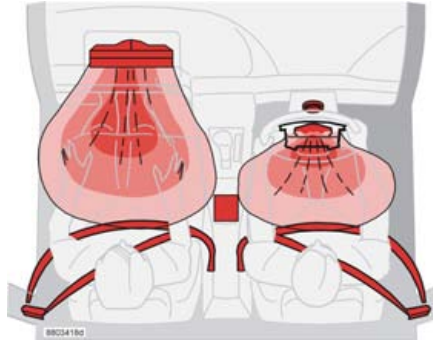
As well as the warning symbol, a message appears on the information display. If the warning symbol malfunctions, the warning triangle comes on and the message **SRS AIRBAG SERVICE URGENT** appears on the display. Contact an authorised Volvo workshop immediately.



SRS system, left-hand drive

SRS system

The SRS system consists of a gas generator surrounded by an inflatable airbag. A sufficiently violent collision trips sensors and ignites the gas generator, inflating the airbag with hot gas. To cushion the impact, the airbag deflates when compressed. When this occurs, smoke escapes into the car. This is completely normal. The entire process, including inflation and deflation of the airbag, occurs within tenths of a second.



SRS system, right-hand drive.

NOTE! The sensors react differently depending on the course of the collision and whether the seatbelts on the driver and passenger side are used. It is therefore possible that only one (or none) of the airbags may inflate in a collision. The SRS system senses the force of the collision on the car and adapts accordingly so that one or more airbags is deployed.

WARNING!

Work on the SRS system can cause malfunction and result in serious personal injury.
Repairs must only be performed by an authorised Volvo workshop.

Airbags (SRS)

NOTE! The airbags have a function whereby their capacities are adapted to the collision force to which the vehicle is subjected.

Activating/deactivating the airbag (SRS)



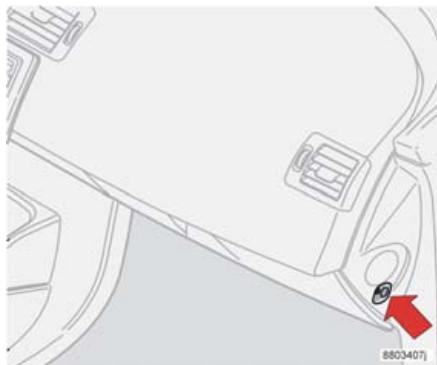
Indicator showing that the passenger airbag (SRS) is deactivated.

PACOS (option)

The airbag (SRS) for the front passenger seat can be deactivated. This is necessary if a child seat is to be placed there.

Indicator

A text message on the roof panel indicates that the passenger airbag (SRS) is deactivated.



PACOS (Passenger Airbag Cut-Off Switch)

Activating/deactivating

The switch is located on the passenger end of the dashboard and is accessible when the passenger door is open. Check that the switch is in the required position. Volvo recommends that the ignition key is used to change position. (Other items with a shape similar to a key can be used.)

⚠ WARNING!

Activated airbag (passenger seat):
Never place a child in a child seat or on a booster cushion in the front passenger seat. This also applies to persons shorter than 140 cm (4 ft 7).

Deactivated airbag (passenger seat):
Persons taller than 140 cm (4 ft 7) must never sit in the passenger seat. Failure to follow the advice given above can endanger life.

⚠ WARNING!

If the car is equipped with a front passenger airbag (SRS), but does not have PACOS, the airbag will always be activated.



Switch for SRS in ON position.

Switch position

ON = Airbag (SRS) activated. With the switch in this position, persons taller than 140 cm (4 ft 7) can sit in the front passenger seat, but never children in a child seat or on a booster cushion.



Switch for SRS in Off position.

OFF = Airbag (SRS) is deactivated. With the switch in this position, children in a child seat or on a booster cushion can sit in the front passenger seat, but never persons taller than 140 cm (4 ft 7).

WARNING!

Do not allow anyone to sit in the front passenger seat if the text message in the roof panel indicates that the airbag (SRS) is deactivated and the airbag warning symbol is displayed in the combined instrument panel. This indicates that there has been a severe malfunction. Contact an authorised Volvo workshop as soon as possible.

Side airbags (SIPS)



Side airbag locations.

Side airbags – SIPS bags

A large proportion of the collision force is transferred by the SIPS to the floor, roof, beams, pillars, and other structural parts of the body. The side airbags on the driver and front passenger seats protect the chest area and are an important part of the SIPS. The SIPS bag system consists of two main parts: The side airbags and the sensors. The side airbags are located in the front seat backrests.



WARNING!

Use only Volvo genuine car seat covers, or seat covers approved by Volvo. Other seat covers may impede the operation of the side air bags.

WARNING!

Side airbags are a supplement to the SIPS system. Always wear a seatbelt.

WARNING!

Work on the SIPS bag system can cause malfunction and result in serious personal injury. Always contact an authorised Volvo workshop.

Do not put objects in the area between the outside of the seat and the door panel, since this area is required by the side airbag.

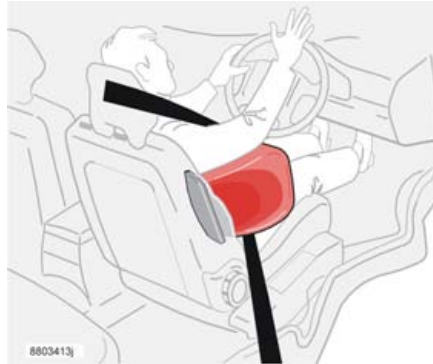
Child seats and side airbags

The side airbag does not diminish the protection provided by the car to children seated in a child seat or on a booster cushion.

A child seat or booster cushion can be placed on the front passenger seat provided that the car does not have an activated¹ passenger airbag.

Side airbags are a supplement to the SIPS system. Always wear a seatbelt.

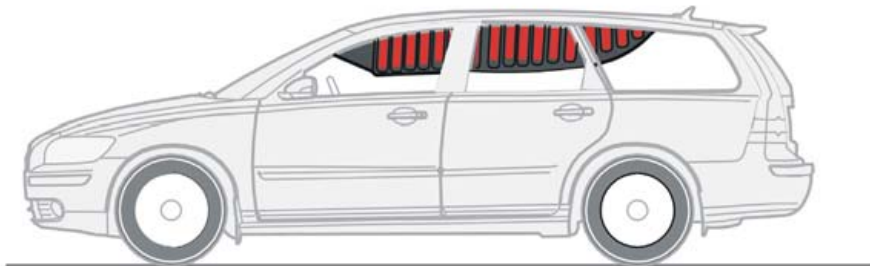
1. For information on activated/deactivated airbag (SRS), see page 20.

*Left-hand drive**Right-hand drive*

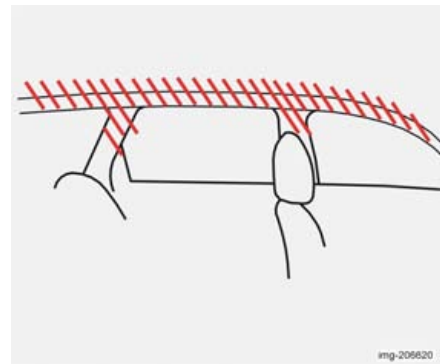
SIPS bag system

The SIPS bag system consists of a gas generator, side airbag and sensors. A sufficiently violent collision trips the sensors and ignites the gas generator, inflating the side airbag. The airbag inflates between the occupant and the door panel and thereby cushions the initial impact while deflating. The side airbag is only normally deployed on the side of the collision.

Inflatable Curtain (IC)



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Properties

The inflatable curtain is a supplement to the SIPS system. It is concealed in the headlining along both sides of the roof and protects both front and rear seat passengers. The inflatable curtain is activated by the SIPS collision sensors if the car is hit from the side. When deployed, the inflatable curtain inflates. The inflatable curtain helps to prevent the driver and passengers from striking their heads on the inside of the car during a collision.



WARNING!

The inflatable curtain is a supplement to the seatbelts.
Always use a seatbelt.



WARNING!

Never hang or fasten anything on the roof handles. The hook is only intended for light outer garments (not for hard objects such as umbrellas).

Do not screw or fit anything to the headlining, door pillars or side panels. This could compromise the intended protection. Only use Volvo genuine parts that are approved for placement in these areas.

WHIPS



Protection against whiplash injury – WHIPS

The whiplash protection system (WHIPS) consists of energy absorbing backrests and specially designed head restraints for the front seats. The system is actuated by a rear-end collision, where the angle and speed of the collision, and the nature of the colliding vehicle all have an influence.



WARNING!

The WHIPS system is a supplement to the seatbelts. Always wear your seatbelt.

Properties of the seat

When the WHIPS system is deployed, the front seat backrests fall backward to alter the position of the driver and front seat passenger. This diminishes the risk of whiplash injury.

WHIPS system and child seats/booster cushions

The WHIPS system does not diminish the protection provided by the car to children seated in a child seat or on a booster cushion.



WARNING!

Never modify or repair the seat or WHIPS system yourself. Contact an authorised Volvo workshop.

Correct seating position

For the best possible protection, the driver and front seat passenger should sit in the

WHIPS

centre of the seat with as little space as possible between the head and the head restraint.

You may place:

- a child seat or booster cushion on the front passenger seat, provided the passenger airbag is not activated¹.
- a rear-facing child seat in the rear seat that uses the back of the front seat as support.

WARNING!

If a seat has been subjected to extreme forces, such as due to a rear collision, the WHIPS system must be checked by an authorised Volvo workshop. Part of the WHIPS system's protective capacity may have been lost even if the seats appear to be undamaged. Contact an authorised Volvo workshop to have the system checked even after a minor rear-end collision.



Do not obstruct the WHIPS system

WARNING!

Do not squeeze rigid objects between the rear seat cushion and the front seat backrest. Make sure you do not to obstruct the function of the WHIPS system.

WARNING!

If a rear seat backrest is folded down, the corresponding front seat must be moved forward so that it does not touch the folded backrest.

1. For information on activated/deactivated airbag (SRS), see page 20.

When are the safety systems activated?

System	Triggered
Seatbelt tensioner	In a frontal collision and/or side-impact accident.
Airbags (SRS)	In a frontal collision. ¹
Side airbags (SIPS)	In a side-impact accident. ¹
Inflatable curtains	In a side-impact accident. ¹
Whiplash protection WHIPS	In a rear-end collision.

1. Airbags do not always deploy during a collision. The particular impact may not require the function, with the car's other safety systems providing occupants adequate protection.

If the airbags have been deployed, the following is recommended:

- Have the car transported to an authorised Volvo workshop. Do not drive with deployed airbags.
- Let an authorised Volvo workshop replace components in the car's safety system.
- Always contact a doctor.

NOTE! The SRS, SIPS, IC and belt tensioner systems are deployed only once during a collision.



WARNING!

The AIRBAG control unit is located in the centre console. If the centre console is drenched with water or other liquid, disconnect the battery cables. Do not attempt to start the car since the airbags may deploy. Have the car transported to an authorised Volvo workshop.



WARNING!

Never drive with deployed airbags. They can make steering difficult. Other safety systems may also be damaged. The smoke and dust created when the airbags are deployed can cause skin and eye irritation after intensive exposure. In case of irritation, wash with cold water. The rapid deployment sequence and airbag fabric may cause friction and skin burns.

Crash mode



Driving after a collision

If the car is involved in a collision, the text **CRASH MODE – SEE MANUAL** may appear on the information display. This means that the car has reduced functionality. **CRASH MODE** is a protective state that is enforced when the collision may have damaged the car's vital functions, such as the fuel lines, sensors for one of the safety systems, or the brake system.

WARNING!

Never attempt to repair your car or reset the electronics yourself if the car has been in **CRASH MODE**. This could result in personal injury or the car not functioning as normal. Always allow an authorised Volvo workshop to check and restore the car to normal status after **CRASH MODE** has been displayed.

Attempting to start the car

First, check that no fuel is leaking from the car. There should be no smell of fuel.

WARNING!

Never, under any circumstances, attempt to restart the car if it smells of fuel when the **CRASH MODE** message is indicated. Leave the car at once.

If everything seems normal and you have checked for indications of fuel leakage, you may attempt to start the car.

- Firstly, remove the ignition key and then reinsert it. The car's electronics will now try to reset themselves to normal mode. Then try to start the car. If **CRASH MODE**

is still shown in the display then the car must not be driven or towed. Even if the car appears to be driveable, hidden damage may make the car impossible to control once moving.

WARNING!

If the car is in **CRASH MODE** it must not be towed. It must be transported to an authorised Volvo workshop.

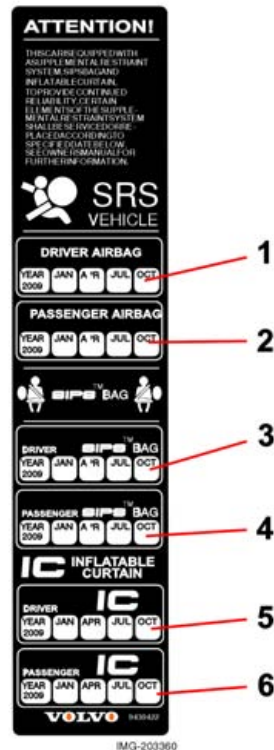
Moving the car

If **NORMAL MODE** is shown after **CRASH MODE** has been reset, the car can be moved carefully out of a dangerous position. Do not move the car further than necessary.

Inspecting the airbags and inflatable curtains

Inspection intervals

The decal on the door pillar(s) shows the dates (year, month) when you should contact an authorised Volvo workshop to inspect and, if necessary, replace the airbags, belt tensioners and inflatable curtains. If you have questions concerning the systems, contact an authorised Volvo workshop.



1. Driver airbag
2. Front passenger airbag
3. Side airbag on the driver's side
4. Side airbag on the passenger side
5. Inflatable curtain on the driver's side
6. Inflatable curtain on the passenger side

This decal is located in the rear left door opening.

Child safety



Children should sit comfortably and safely

The position of a child in the car and the choice of equipment is dictated by the child's height and weight, for more information, see page 32.

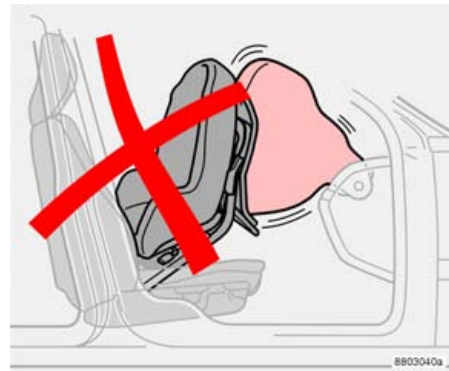
Children of all ages and sizes must always sit correctly secured in the car. Never allow a child to sit on the knee of a passenger.

Volvo's own child safety equipment is designed for your car. Use Volvo genuine equipment to best ensure that the mounting points and attachments are correctly positioned and are sufficiently strong.

NOTE! Regulations regarding the placement of children in cars vary from country to country. Check what laws apply.

You may place:

- a child seat or booster cushion on the front passenger seat, provided the passenger airbag is not activated¹.
- a rear-facing child seat in the rear seat that uses the back of the front seat as support.



Child seats and airbags are not compatible

Child seats and airbags

Always place a child in the rear seat if the passenger airbag is activated². A child in a child seat on the front passenger seat may suffer serious injury if the airbag deploys.

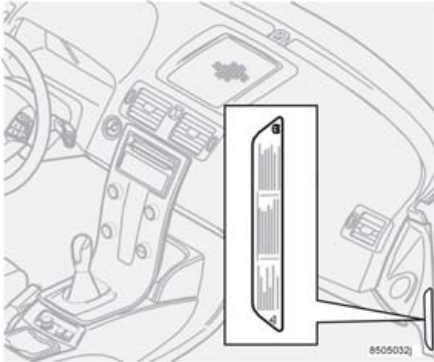


WARNING!

Persons shorter than 140 cm (4 ft 7") may only sit in the front passenger seat if the passenger airbag is deactivated.

1. For information on activated/deactivated airbag (SRS), see page 20.

2. For information on activated/deactivated airbag (SRS), see page 20.



Decals on the end of the dashboard



Decal located on the car's sun visor

⚠ WARNING!

Never place a child in a child seat or on a booster cushion in the front seat if the airbag (SRS) is activated¹. Failure to follow this advice can endanger the life of the child.

1. For information on activated/deactivated airbag (SRS), see page 20.

Child safety

Placement of children in the car

Weight/age	Front seat ¹	Outer rear seat	Centre rear seat
<10 kg (0–9 months)	Rear-facing child seat, secured with seatbelt and straps. Use a protective cushion between the child seat and the dashboard. L ² : Type approval no. E5 03135	Rear-facing child seat, secured with seatbelt, support legs and straps. L ² : Type approval no. E5 03135	Rear-facing child seat, secured with seatbelt, support legs and straps. L ² : Type approval no. E5 03135
9–18 kg (9–36 months)	Rear-facing child seat, secured with seatbelt and straps. Use a protective cushion between the child seat and the dashboard. L ² : Type approval no. E5 03135	Rear-facing child seat, secured with seatbelt, support legs and straps. L ² : Type approval no. E5 03135	Rear-facing child seat, secured with seatbelt, support legs and straps. L ² : Type approval no. E5 03135
15–36 kg (3–12 years)	Booster cushion with or without backrest. L ² : Type approval no. E5 03139	Alternatives: Booster cushion with or without backrest. L ² : Type approval no. E5 03139 Integrated booster cushion. L ² : Type approval no. E5 03168	Booster cushion with or without backrest. L ² : Type approval no. E5 03139

1. For information on activating/deactivating the airbag (SRS), see page 20.

2. L: Suitable for certain child seats as listed in the specified type approval. Child seats can be vehicle-specific, limited, semi-universal or universal.

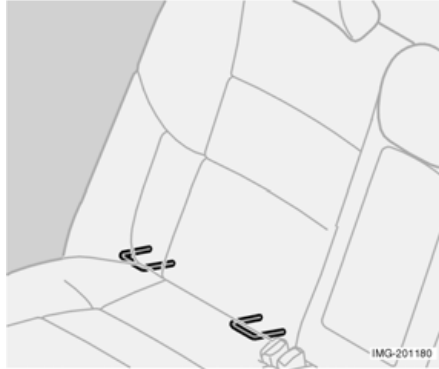
⚠ WARNING!

Never place a child in a child seat or on a booster cushion in the front seat if the airbag (SRS) is activated.

No one shorter than 140 cm (4 ft 7) should sit in the front passenger seat if the airbag (SRS) is activated.¹

Failure to follow the advice given above can endanger the life of the child.

1. For information on activating/deactivating the airbag (SRS), see page 20.

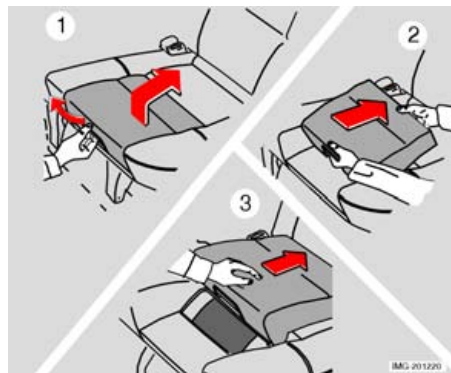
**ISOFIX fixture system for child seats (option)**

The outer rear seats have ISOFIX attachment points. Contact a Volvo dealer for further information on child safety equipment.

**Integrated booster cushion (option)**

Volvo's integrated booster cushion for the outer rear seats is specially designed to provide optimum safety for children. Combined with the regular seatbelts, the booster cushion is approved for children weighing between 15 and 36 kg.

Child safety



Raising the booster cushion

- Pull that handle to raise the booster cushion (1).
- Grasp the cushion with both hands and push it backwards (2).
- Push until it locks in place (3).

WARNING!

The booster cushion must be in the locked position before the child is placed there.

Check that:

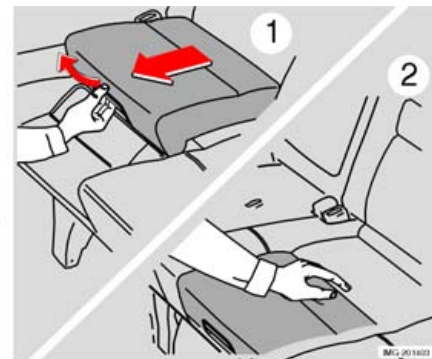
- the seatbelt is in contact with the child's body and is not slack or twisted, and that the belt is positioned correctly across the shoulder.
- the hip strap is low across the hips for optimum protection.
- the belt does not touch the child's throat or lie below the shoulder.

Carefully adjust the position of the head restraint to suit the child.



WARNING!

If an integrated booster cushion has been subjected to a major load, such as in conjunction with a collision, the entire booster cushion must be replaced. This includes the seatbelt, complete with bolts. Even if the booster cushion appears to be undamaged, it may not afford the same level of protection. The booster cushion must also be replaced if it is heavily worn.



Lowering

- Pull the handle (1).
- Lower the seat and press until it locks (2).

NOTE! Remember to stow away the booster cushion before lowering the rear seat backrest.

Replacing the booster cushion

It is important that the integrated booster cushion is properly secured. Therefore, leave replacement and any repair of the cushion to an authorised Volvo workshop. Do not modify or adapt the booster cushion in any way.

Fitting a child seat

Volvo has child safety products that are designed for and tested by Volvo.

When using other products that are available on the market, it is important to read the fitting instructions included with the product.

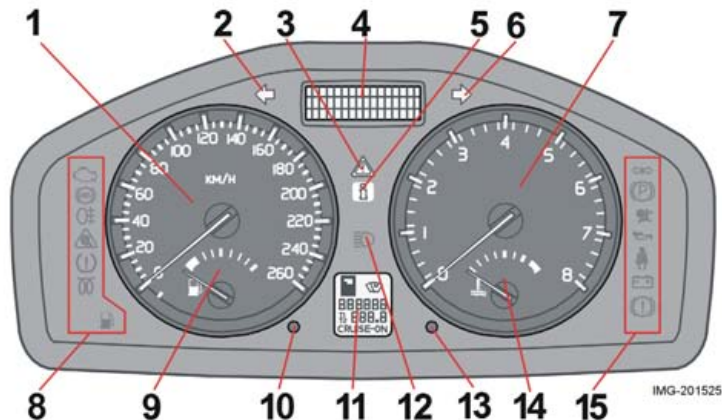
- Do not attach the straps for the child seat to the horizontal adjustment bar, springs, rails or beams under the seat. Sharp edges can damage the straps.
- Allow the back of the child seat to rest against the dashboard. This applies to cars without a passenger airbag, or where the airbag is deactivated.
- Never place the child seat in the front seat if the car is equipped with an activated¹ front passenger airbag. If problems arise when fitting child safety products, contact the manufacturer for clearer instructions.

1. For information on activated/deactivated airbag (SRS), see page 20.

Instruments and controls

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Combined instrument panel



1. Speedometer
2. Direction indicators, left
3. Warning symbol
4. Information display – The display presents information and warning messages, outside temperature and the time. When the ambient temperature is between +2 °C and –5 °C, a snowflake symbol appears on the display. This warns of icy roads. The outside temperature gauge may show a slightly high reading after the car has been stationary.
5. Information symbol
6. Direction indicator, right
7. Tachometer – Indicates engine speed in thousands of revolutions per minute (rpm).
8. Indicator and warning symbols
9. Fuel gauge
10. Button for trip meter – Used to measure short distances. Press the button to switch between trip meters T1 and T2. Press and hold (more than 2 seconds) to zero the active trip meter.
11. Display – Display for automatic gear position, rain sensor, odometer, trip meter and cruise control.
12. Main beam indicator
13. Knob for clock – Turn the knob to adjust the time.
14. Temperature gauge – Displays the temperature of the engine cooling system. A message will appear on the display if the temperature becomes too high and the gauge goes into the red zone. Bear in mind that extra lights placed in front of the air intake, for example, reduce the cooling capacity at high outside temperatures and high engine loads.
15. Indicator and warning symbols

Indicator and warning symbols

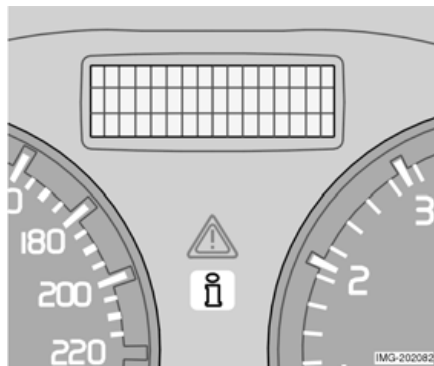
Indicator and warning symbols

All indicator and warning symbols light up when the ignition key is turned to position **II** before starting. This is to check that the symbols/lights are working. When the engine starts, all the symbols should go out except the handbrake symbol, which extinguishes when the handbrake is released.



If the engine does not start within five seconds, all symbols extinguish except the symbols for a fault in the car's emissions system and for low oil pressure. Certain symbols

may have no function, depending on the car's specifications.



Symbols in the centre of the instrument panel



The red warning symbol lights up when a fault has been indicated which could affect the safety and/or driveability of the car. At the same time an explanatory text is shown in the information display. Symbol and message text are visible until the fault has been rectified.

The warning symbol can also light up in conjunction with other symbols.

- Stop in a safe place. Do not drive the car further.

- Read the information on the information display.
- Rectify the fault as instructed or contact an authorised Volvo workshop.

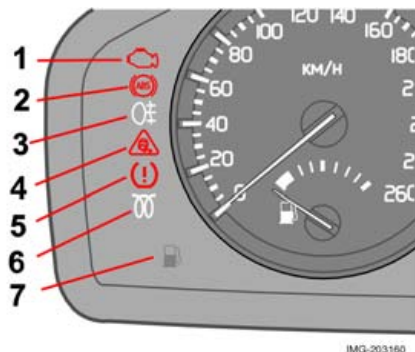


When one of the car's systems does not behave as intended, the yellow information symbol lights up and a text appears on the display. The message text is cleared using the READ button, see page 43, or disappears automatically after 2 minutes.

The yellow information symbol can also come on in conjunction with other symbols.

NOTE! When the message text "TIME FOR REGULAR SERVICE" is shown, the symbol lamp and message text are cleared using the READ button, or disappear automatically after 2 minutes.

Indicator and warning symbols



Indicator symbols – left-hand side

1. Fault in car's emissions system



Drive to an authorised Volvo workshop to have the system checked.

2. ABS fault



If this symbol lights, the system is not working. The car's regular brake system continues to work, but without the ABS function.

- Stop the car in a safe place and turn off the engine.
- Restart the engine.

- Drive to an authorised Volvo workshop to have the ABS checked if the symbol remains lit.

3. Rear fog lamp



This symbol is lit when the rear fog lamp is on.

4. STC or DSTC stability system



A flashing symbol indicates that the stability system is operating.

5. No function

6. Engine preheater (diesel)



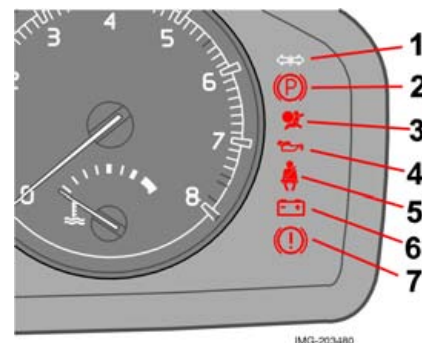
This symbol is lit during engine preheating. Preheating occurs when the temperature is below -2 °C. The car can be started

once the symbol extinguishes.

7. Low level in fuel tank



This symbol lights when there are approximately 8 litres of usable fuel left in a petrol-engined car, or 7 litres in a diesel-engined car.



Indicator symbols – right-hand side

1. Indicator symbol for trailer



This symbol flashes when the direction indicators are used and a trailer is coupled. If the symbol does not flash, one of the lamps on the trailer or the car is defective.

2. Parking brake applied



This symbol is lit even if the parking brake is only applied one notch. Check that the lever is properly applied.

3. Airbags – SRS



If this symbol remains on or comes on while driving, it means a fault has been detected in the seatbelt buckle, SRS, SIPS, or IC system. Drive directly to an authorised Volvo workshop to have the system checked.

4. Low oil pressure



If this symbol lights up while driving, the engine oil pressure is too low. Stop the engine immediately and check the engine oil level, top up if necessary. If the symbol lights up and the oil level is normal, contact an authorised Volvo workshop.

5. Seatbelt reminder



This symbol lights if someone in a front seat has not put on their seatbelt or if someone in a rear seat has taken off their seatbelt.

6. Alternator not charging



If this symbol lights while driving, a fault has occurred in the electrical system. Contact an authorised Volvo workshop.

7. Fault in brake system



If this symbol lights, the brake fluid level may be too low.

- Stop the car in a safe place and check the level in the brake fluid reservoir, see page 164. If the level in the reservoir is below MIN, the car should not be driven any further. Transport the car to an authorised Volvo workshop to have the brake system checked.



If the BRAKE and ABS symbols come on at the same time, there may be a fault in the brake force distribution system.



–Stop the car in a safe place and turn off the engine.

- Restart the engine.
- If both symbols extinguish, continue driving.
- If the symbols remain on, check the level in the brake fluid reservoir. See page 164.
- If the brake fluid level is normal but the symbols are still lit, the car can be driven, with great care, to an authorised Volvo workshop to have the brake system checked.
- If the level in the reservoir is below MIN, the car should not be driven any further. Have the car transported to an authorised Volvo workshop to have the brake system checked.



WARNING!

If the BRAKE and ABS symbols are lit at the same time, there is a risk that the rear end will skid during heavy braking.

Indicator and warning symbols

Reminder – doors not closed

If one of the doors, the bonnet¹ or the tailgate is not properly closed, the driver will be reminded of this.

Low speed



If the car is travelling at more than 7 km/h, the information symbol will light and one of the following texts will be shown on the display: DRIVER DOOR

OPEN, PASSENGER DOOR OPEN, LEFT REAR DOOR OPEN, BONNET OPEN, or RIGHT REAR DOOR OPEN. Stop the car as soon as it is safe to do so and close the door that is open.

High speed



If the car is travelling at more than 7 km/h, the warning symbol will light and one of the texts from the previous paragraph will appear on the display.

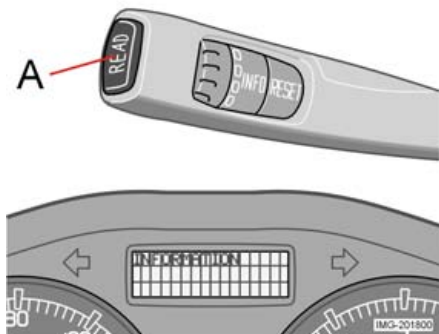
Tailgate reminder



If the tailgate is open, this information symbol will come on and TAILGATE OPEN will appear on the display.

1. Only cars with alarms.

Information display



Messages

When a warning or indicator symbol come, a message appears on the information display.

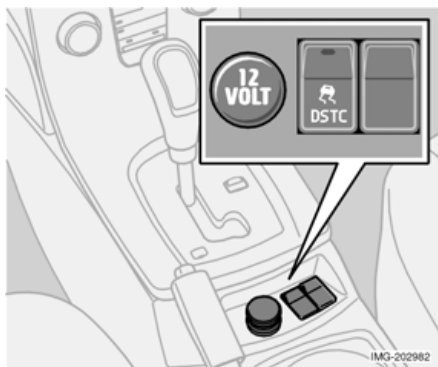
- Press the READ button (A).

Switch between messages with the READ button. Fault messages are stored in the memory until the fault is rectified.

NOTE! If a warning message appears while you are using the trip computer, the message must be read (press READ) before the previous activity can be resumed.

Message	Specification
STOP SAFELY	Stop and switch off the engine. Serious risk of damage.
STOP ENGINE	Stop and switch off the engine. Serious risk of damage.
SERVICE URGENT	Leave the car for servicing immediately.
SEE MANUAL	Read the owner's manual.
SERVICE REQUIRED	Have your car serviced as soon as possible.
TIME FOR REGULAR SERVICE	Time for service. The interval depends on distance, number of months since last service and engine running time.

Electrical socket and switches on centre console



Electrical socket, DSTC system, extra equipment

12 V electrical socket

The electrical socket can be used for 12 V accessories, such as mobile phone chargers and coolers. The maximum current is 10 A. For the socket to supply current, the ignition key must be in at least position **I**.

WARNING!

Always leave the plug in the socket when the socket is not in use.

Cigarette lighter (option)

Activate the lighter by pushing in the button. The button pops out when the lighter is hot.

Pull out the lighter and light a cigarette on the heated coils.

Stability system, STC or DSTC¹

The stability control system comes on automatically when the car is started.

To suppress the stability control system:

- Press and hold the button for at least half a second.

For further information, see page 117.



WARNING!

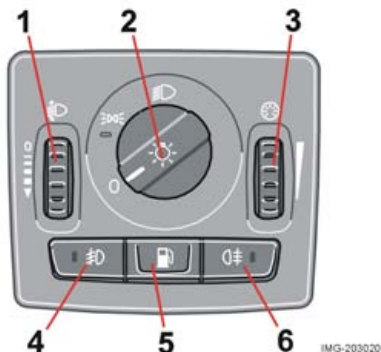
Suppressing the stability control system alters the driving characteristics of the car.

Extra equipment

Space for an extra switch for retrofitted equipment.

1. Option on certain markets

Lighting panel



1. Headlamp levelling

This control adjusts the height of the headlamp beam. This is used when the car is so heavily laden that it affects the height of the beams.

- Normal beam height - move the control upward (0).
- Lowered beam height - move the control downward.

Cars with Bi-Xenon headlamps (option) have automatic headlamp levelling.

2. Headlamps and position/parking lamps

All lighting off.

0

Cars with daytime running lights (certain countries)

Dipped beam comes on automatically when the ignition key is switched to the driving position (II) and cannot be switched off. Before trips to countries where automatic dip beam is unsuitable, the daytime running lights can be deactivated. Contact an authorised Volvo workshop. Front and rear position/parking lamps, number plate lighting and instrument lighting are lit at the same time as dipped beam.

Position/parking lamps



Front and rear position/parking lamps, number plate lighting and instrument lighting. See also page 47.

Main and dipped beam



Ignition key in position II:

Headlamps (plus front and rear position/parking lamps, number plate lighting and instrument lighting) are lit.

NOTE! The light switch must be turned to this position to switch on the main beam.

However, it is possible to flash the main beam in all positions, even when the ignition key is removed. See also page 47.

3. Instrument lighting

Manual adjustment:

- Brighter illumination - move the control upwards.
- Dimmer illumination - move the control downwards.

Automatic control:

To improve readability and save electricity, a twilight sensor automatically adjusts the brightness of the instrument lighting.

To improve the clarity of the centre console display, the background colour switches between dark and light to suit lighting conditions.

4. Front fog lamps (option)

Ignition key in position II:

Press the button. The front fog lamps light along with the position/parking lamps and main/dipped beam. The LED in the button is lit while the front fog lamps are on.

NOTE! In some countries, it is prohibited to use dipped beam or main beam at the same time as front fog lamps.

5. Fuel filler flap

Press the button to open the fuel filler flap.

Lighting panel

6. Rear fog lamp

Ignition key in position II:

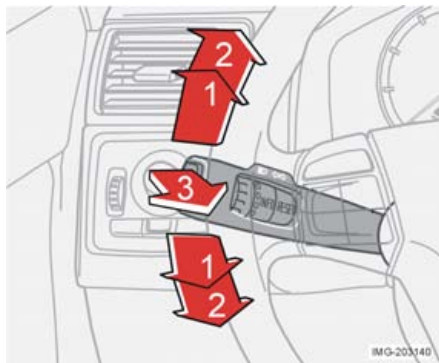
Press the button to switch on the rear fog lamp. The rear fog lamp lights along with the front fog lamps or main/dipped beam. The LED in the button and the symbol in the combined instrument panel light. If the front fog lamps and the main or dipped beam are switched off and on again, the rear fog lamp goes out. Press the button to switch it on again.

Dazzling

Remember to switch off the rear fog lamp when you see a car in the rearview mirror. Only the last car in a queue should have the rear fog lamp switched on.

NOTE! Regulations for the use of front and rear fog lamps vary from country to country.

Left-hand stalk switch



Direction indicators, light switch and main beam flash

Resistance point position (1)

When changing lanes or overtaking, move the lever until you feel a distinct resistance. The lever returns when released. This action results in three flashes.

Normal turns (2)

The direction indicators light when you move the lever in the direction the steering wheel moves during a turn. When the steering wheel returns to centre after a turn, the direction indicators switch off automatically.

Main beam flash (3)

Pull the lever towards you (until you feel a slight resistance). The main beam remains lit until you release the lever.

Switching between main and dipped beam (3)

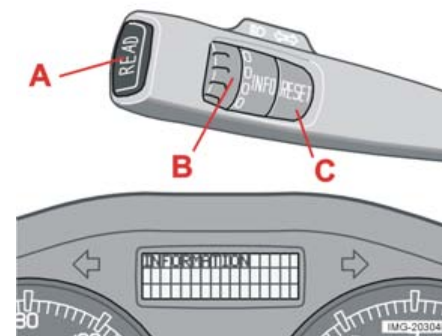
Pull the lever towards you past the "flash position" and release it to change between main and dipped beam.

Home safe lighting (3)

When leaving the car in the dark or in a dimly lit area:

- Remove the key from the ignition switch.
- Pull the stalk switch towards you.
- Exit the car.
- Lock the doors.

The dipped-beam lighting, position/parking lights, number plate lighting and door mirror lamps (option) will come on. These lamps will remain lit for 30, 60 or 90 seconds. You can adjust the delay from the car settings menu on the centre console display. See page 64.



Trip computer

Controls

To scroll through trip computer information, turn the thumbwheel (B) in steps, either upward or downward. Continue turning to return to the starting point.

NOTE! If a warning message interrupts while you are using the trip computer, this message must be acknowledged. Acknowledge by pressing the READ button (A) and revert to the trip computer function.

Functions

The trip computer displays the following information:

- AVERAGE SPEED

Left-hand stalk switch

- SPEED IN MILES PER HOUR¹
- CURRENT FUEL CONSUMPTION
- AVERAGE FUEL CONSUMPTION
- RANGE TO EMPTY FUEL TANK

Average speed

When the ignition is switched off, the average speed is stored and used as the basis of the new value when you continue driving. Reset using the RESET button (C).

Speed in miles per hour¹

Current speed is displayed in mph.

Current fuel consumption

Present fuel consumption is calculated every second. The information on the display is updated every couple of seconds. When the car is stationary, "----" appears on the display.

Average fuel consumption

The average fuel consumption since the last reset (RESET). The average fuel consumption is stored when the ignition is switched off and remains until the function is reset. Reset using the RESET button (C).

NOTE! There may be a slight error in the reading if a fuel-driven heater is used.

Range to empty fuel tank

This calculation is based on the average fuel consumption over the last 30 km (19 miles) and the remaining fuel volume. It displays the approximate distance that can be driven with the fuel remaining in the tank. When the range to empty is less than 20 km (12 miles) "----" appears on the display.

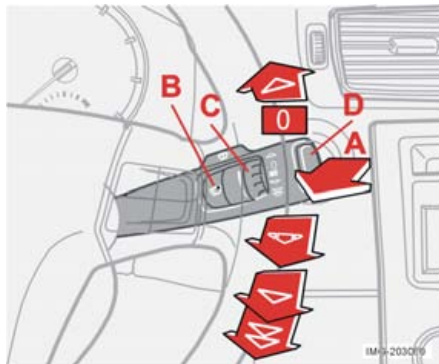
NOTE! There may be a slight error in the reading if a fuel-driven heater is used.

Resetting

- Select average speed or average fuel consumption.
- Press and hold the RESET button (C) for at least five seconds to reset the average speed and average fuel consumption at the same time.

1. Certain countries

Right-hand stalk switch



Windscreen wipers

- A. Windscreen and headlamp washers
- B. Rain sensor - On/Off
- C. Thumbwheel
- D. Rear window wiper and washer

Windscreen wipers off

0

The windscreen wipers are off when the stalk switch is in position 0.

Single sweep



Raise the stalk switch to make a single sweep.

Intermittent wiping



The delay between sweeps can be adjusted. Turn the thumbwheel (C) upward for a

shorter interval between sweeps. Turn it downward to increase the delay.

Continuous wiping



The wipers sweep at normal speed.



The wipers sweep at high speed.

Windscreen/headlamp washer

Pull the stalk switch towards the steering wheel to start the windscreen and headlamp washers. The wipers will make three more sweeps once the stalk is released.

High-pressure headlamp washing

(option on certain markets)

High-pressure headlamp washing consumes a large quantity of washer fluid. To save fluid, the headlamps are washed as follows.

Dipped beam selected with the switch on lighting panel:

The headlamps are washed the first time the windscreen is washed. Within the next ten minutes, they are washed every fifth wash of the windscreen. If more than ten minutes passes between washes, the headlamps are washed every time.

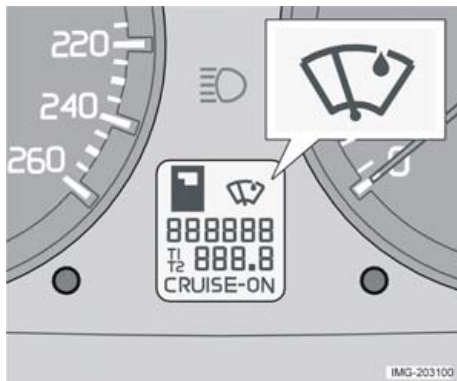
Parking/position lamps selected with the switch on the lighting panel:

- Bi-Xenon headlamps are only washed every fifth wash cycle irrespective of the time that elapses.
- Halogen headlamps are not washed.

The switch on the lighting panel is in position 0:

- Bi-Xenon headlamps are only washed every fifth wash cycle irrespective of the time that elapses.
- Halogen headlamps are not washed.

Right-hand stalk switch



Rain sensor (option)

The rain sensor detects the amount of water on the windscreen so that the windscreen wipers automatically increase or decrease speed. The sensitivity of the rain sensor is adjusted with the thumbwheel (C).

Turn the thumbwheel upward for higher sensitivity and downward for lower sensitivity. (An extra sweep is made when the thumbwheel is turned upward.)

On/Off

When activating the rain sensor, the ignition key must be in at least position **I** and the windscreen wiper stalk must be in position **0**.

To activate the rain sensor:

- press button (B). The rain sensor symbol is shown on the lower display.

To turn the rain sensor off, either:

- press button (B).
- press the stalk switch downward to another wiper program. If the stalk switch is raised, the rain sensor will remain active; the wipers make an extra sweep and then return to rain sensor mode when the stalk is released to position **0**.

The rain sensor is automatically deactivated when the key is removed from the ignition switch or five minutes after the ignition is switched off.

Thumbwheel

Use the thumbwheel to adjust the frequency of sweeps when intermittent wiping is selected, or the sensitivity to rain when the rain sensor is selected.

Rear window wiper and washer

Press the stalk switch forward to initiate rear window washing and wiping. The wiper blade makes several sweeps once washing has finished. The switch at the end of the stalk has three positions:

Intermittent wiping:

- Depress the top of the switch.

Normal speed:

- Depress the bottom of the switch.

Neutral:

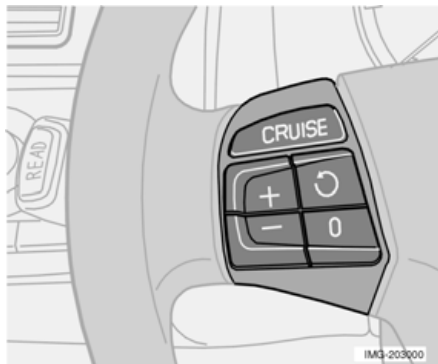
- Function deactivated.

Wiper – reversing

Engaging reverse gear while the windscreen wipers are on initiates intermittent rear window wiping. If the rear window wiper is already on at normal speed, no change is made.

The function for intermittent wiping for reverse can be deactivated. Contact an authorised Volvo workshop.

Cruise control (option)



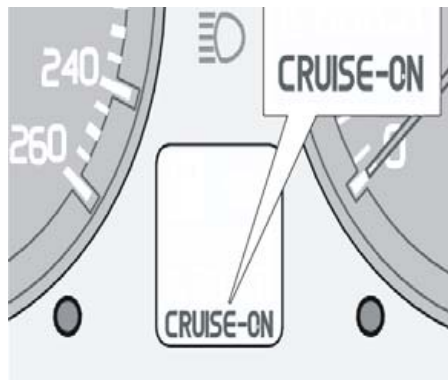
Activating

The controls for cruise control are to the left of the steering wheel.

Setting the desired speed:

- Press the **CRUISE** button. **CRUISE** is shown on the combined instrument panel.
- Touch **+** or **-** to lock the vehicle speed. **CRUISE ON** appears on the combined instrument panel.

Cruise control cannot be engaged at speeds below 30 km/h (20 mph) or above 200 km/h (125 mph).



Increasing or decreasing speed

- Increase or decrease the speed by pressing and holding **+** or **-**. The speed of the car when the button is released is set as the new speed.

Pressing (less than half a second) **+** or **-** changes the speed 1 km/h (0.6 mph) or 1.6 km/h (1 mph)¹.

NOTE! A temporary increase in speed (less than one minute) using the accelerator, such as while overtaking, does not affect the cruise control setting. When you release the accelerator, the car will return to the programmed speed.

1. Depending on engine type

Temporary disengagement

- Press **0** to disengage the cruise control temporarily. **CRUISE** will be shown on the combined instrument panel. The speed set earlier is stored in the memory.

The cruise control is also temporarily disengaged when:

- the brake pedal or clutch pedal is depressed
- speed falls below 25-30 km/h when travelling uphill¹
- the gear selector is moved to position **N**
- wheel spin or wheel lock-up occurs.
- a temporary increase in speed lasts longer than one minute.

Return to the set speed

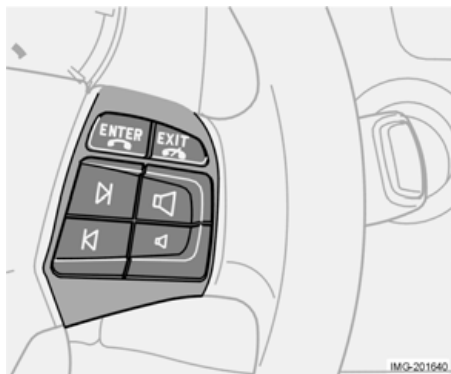


Press this button to resume the previously set speed. **CRUISE ON** appears on the combined instrument panel.

Disengaging

Press **CRUISE** to disengage the cruise control. **CRUISE ON** goes out on the combined instrument panel.

Steering wheel keypad (option)



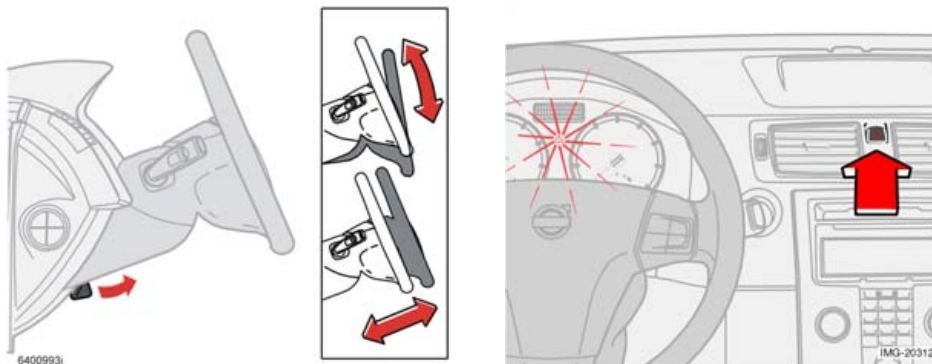
The four buttons at the bottom of the steering wheel keypad control the radio and the telephone. The function of a button depends on which system is active. The steering wheel keypad can be used to scroll between preset stations, change CD/MD tracks and adjust the volume.

Press and hold one of the arrow keys to fast forward/reverse or search for the next station.

The telephone must be in standby mode to adjust audio system settings.

The telephone must be activated to control the telephone functions using the arrow keys.

Steering wheel adjustment, hazard warning flashers



Steering wheel adjustment

The steering wheel can be adjusted for both height and reach.

- Pull the lever towards you to release the steering wheel.
- Adjust the steering wheel to the position that suits you best.
- Push back the lever to fix the steering wheel in place. If the lever is stiff, press the steering wheel lightly at the same time as you push the lever back.



WARNING!

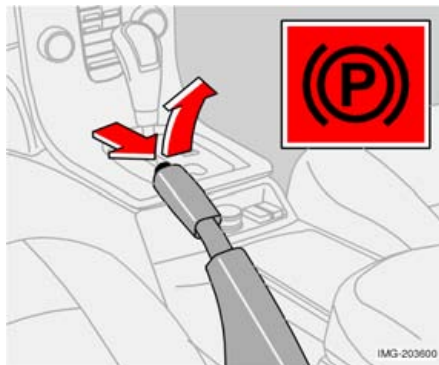
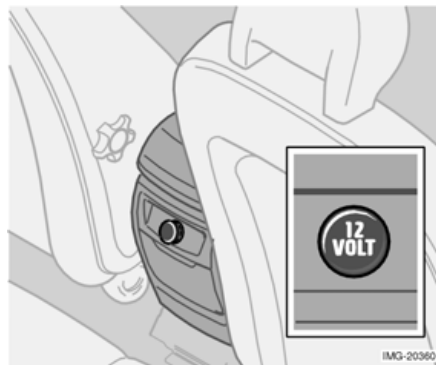
Adjust the steering wheel before driving off, never while driving. Before driving, check that the steering wheel is fixed in position.

Hazard warning flashers

Use the hazard warning flashers (all direction indicators flash) when the car is stopped where it could be a traffic hazard or obstruction. Press the button to activate the function.

NOTE! Regulations regarding the use of hazard warning flashers vary from country to country.

Parking brake, electrical socket



Parking brake (handbrake)

The lever is located between the front seats. The parking brake acts on the rear wheels. A warning symbol on the combined instrument panel lights when the brake is applied.

The warning symbol lights even if the parking brake is only applied one notch. Check that the lever is properly applied.

To release the parking brake:

- Pull the lever up slightly and press in the button. Lower the lever and release the button.

Electrical socket in the rear seat

The electrical socket can be used for 12 V accessories, such as mobile phone chargers

and coolers. The maximum current is 10 A. For the socket to supply current, the ignition key must be in at least position I.



WARNING!

Always leave the plug in the socket when the socket is not in use.

Cigarette lighter (option)

Activate the lighter by pushing in the button. The button pops out when the lighter is hot. Pull out the lighter and light a cigarette on the heated coils.

Power windows

Operation

The power windows are operated using the controls in the door armrests. The ignition key must be in position **I** or **II** for the power windows to operate. The windows continue to work when the car is stopped and ignition key removed, provided neither of the front doors is opened.

To open a window:

- Depress the front of the control.

To close a window:

- Raise the front of the control.

Remote control and central locking buttons

All side windows can be opened/closed automatically with the remote control or the central locking buttons:

- Press and hold the lock button for two seconds - the windows will open or close.

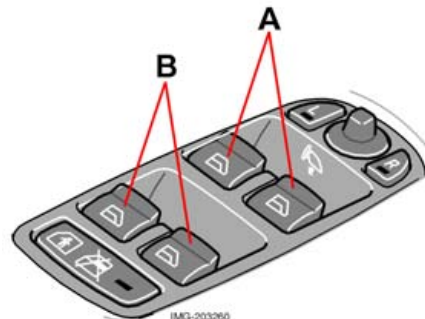
To interrupt opening/closing:

- Press the lock button again.



WARNING!

Make sure that children's or other passengers' hands are clear when closing the windows by remote control.



A. Front door window B. Rear door window

Driver's door

The driver can operate all of the power windows from the driver's seat.

The windows in the front doors can be opened and closed in two ways:

Manual operation

- Depress one of the controls (A) or (B) gently or raise it gently. The power window opens or closes as long as the switch is actuated.

Automatic operation

- Fully depress one of the controls (A) or (B) or raise it fully, then release. The side window will then open or close automatically. If the window is obstructed by an object, the movement will stop.



WARNING!

If there are children in the car:
Remember to switch off the supply to the power windows by removing the ignition key if the driver leaves the car.
Make sure that children's and other passengers' hands are clear when closing the windows.



WARNING!

If the rear door windows are operated from the driver's door:
Check that none of the rear seat passengers are in danger of getting their hands caught when closing the windows.

Power windows



Blocking rear power windows and electric child safety locks¹

Blocking power windows in the rear doors

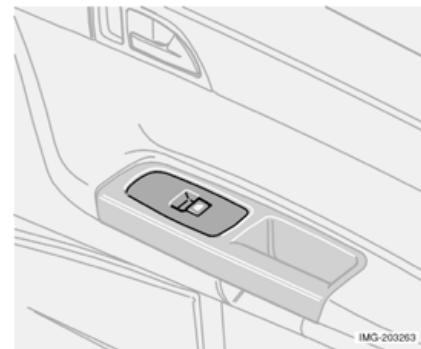
The switch LED is lit.

The rear door windows can only be operated from the driver's door.

NOTE! If the car has electric child safety locks¹ on the rear doors, the LED indicates that these are activated. The doors cannot then be opened from the inside. When the electric child safety locks are activated, a text message is shown on the display.

The switch LED is unlit

The rear door windows can be operated both with the control on each rear door and with the controls on the driver's door.

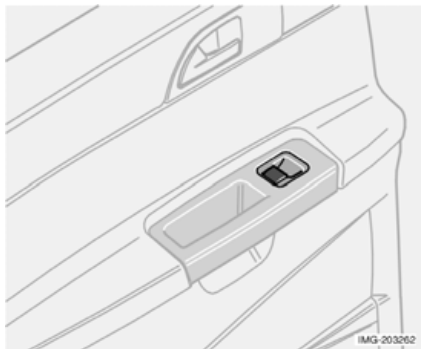


Front passenger seat

Front passenger seat

The control in the front passenger door operates that window only.

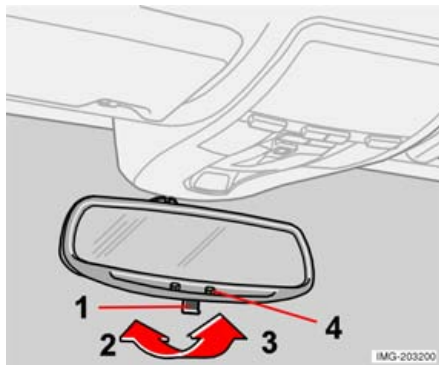
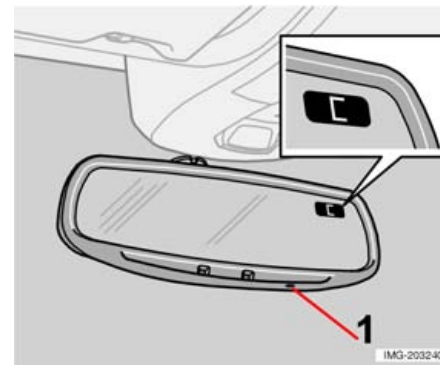
1. Option



Rear power windows

The rear door windows can be operated with the control on each door or with the switch on the driver's door. If the LED in the switch for blocking the rear power windows (located in the control panel in the driver's door) is lit, the rear door windows can only be operated from the driver's door. The windows in the rear doors are operated in the same way as the windows in the front doors.

Rearview and door mirrors



Interior rearview mirror

Dipping

1. Dip the mirror with the lever
2. Normal position
3. Dipped position. Use this to reduce annoying dazzle from the headlights of following vehicles.

Autodimming (option)

A sensor (4) on the bottom edge of the mirror detects light coming from behind and dims the mirror if the light is strong. An authorised Volvo workshop can adjust the sensitivity.

NOTE! The illustration is a montage. The mirror has either manual dipping or automatic dimming, never both at the same time.

Rearview mirror with compass (option on certain markets)

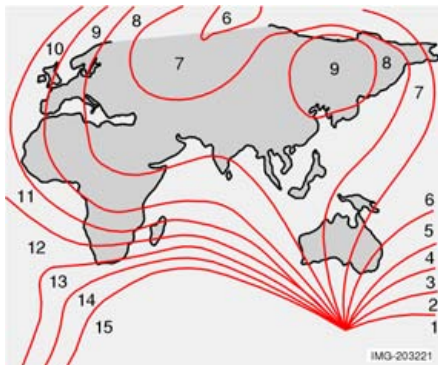
The upper right-hand corner of the rearview mirror has an integrated display that shows the compass direction in which the front of the car is pointing. Eight different directions are shown with English abbreviations:

N (north), NE (north east), E (east), SE (south east), S (south), SW (south west), W (west) and NW (north west).

Calibrating the compass

The compass may need calibrating in special cases (setting points of the compass). The letter C is shown in the mirror's display if the compass needs calibrating.

- Stop the car in a large open area.
- Start the car.
- Press and hold button (1) (use the point of a pen or similar) for at least six seconds. The character C will reappear.
- Drive slowly in a circle at a speed of no more than 10 km/h until a compass direction appears on the display.
- Calibration is complete.



Magnetic zones

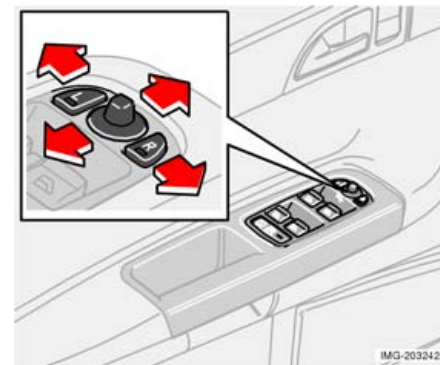
Adjusting the zone

The earth is divided into 15 magnetic zones. The compass is set for the geographical area to which the car was delivered.

Select a different compass area as follows:

- Turn on the ignition.
- Press and hold button (1) for at least three seconds (use the point of a pen or similar). The number for the current area is displayed.
- Press the button repeatedly until the number for the required geographic area (1-15) is shown.

- The display will revert to showing the compass direction a few seconds after you stop scrolling.



Door mirrors

The controls for adjusting the two door mirrors are at the front of the driver's door armrest.

- Press the **L** button for the left-hand door mirror or **R** for the right-hand door mirror. The LED in the button lights.
- Adjust the position with the joystick in the centre.
- Press the **L** or **R** button again. The LED should no longer be lit.

Retractable power door mirrors (option)

The mirrors can be retracted for parking and driving in narrow spaces.

Rearview and door mirrors

Important!

Do not use a scraper to remove ice from the mirrors as this can scratch the glass. Use the defroster function instead, see page 69.



WARNING!

The driver-side door mirror is wide angled to provide optimal vision. Objects may appear further away than they actually are.

- Press the **L** and **R** button at the same time.
- Release them after approximately one second. The mirrors automatically stop in the fully retracted position.

Folding out the mirrors

- Press the **L** and **R** button at the same time. The mirrors automatically stop in the fully extended position.

Resetting to neutral

Mirrors that have been moved out of position by an external force must be reset to the neutral position for electric retracting and extending to work.

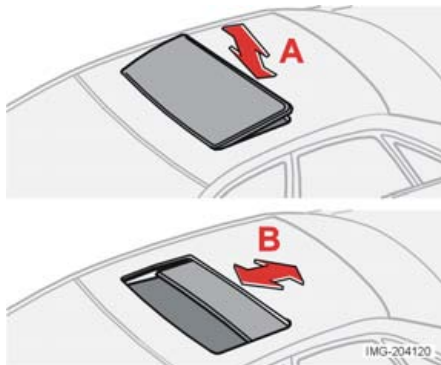
Proceed as follows:

- Press the **L** and **R** button to retract the mirrors.
- Extend the mirrors again with the **L** and **R** button. The mirrors are now reset to the neutral.

Home safe and approach lighting

The lamps on the door mirrors light when the home safe lighting or approach lighting is activated.

Power sunroof (option)



Open positions

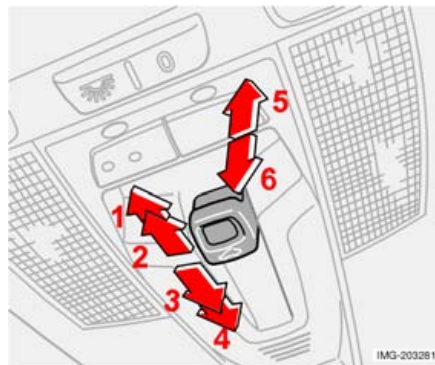
The sunroof controls are located in the roof panel. The sunroof can be opened to two positions:

- A. Ventilation position, raised at the rear edge
- B. Sliding position, backwards/forwards

The ignition key must be in position **I** or **II**.

WARNING!

If there are children in the car:
Switch off the supply to the power sunroof by removing the ignition key if the driver leaves the car.



1. Opening, automatic
2. Opening, manual
3. Closing, manual
4. Closing, automatic
5. Opening, ventilation position
6. Closing, ventilation position

Ventilation position

Open:

- Press the rear edge of the control (5) upward.

Close:

- Pull the rear edge of the control (6) downward.

From ventilation position to fully open sunroof:

- Pull the control rearward to the end position (1) and release.

Sliding position

Automatic operation

Pull the control past the point of resistance (2) to the rear end position (1) or past the point of resistance (3) to the forward end position (4) and release. The sunroof opens/closes completely.

Manual operation

Open:

- Pull the control rearward to the point of resistance (2). The sunroof moves toward the fully open position as long as the button is held in this position.

Close:

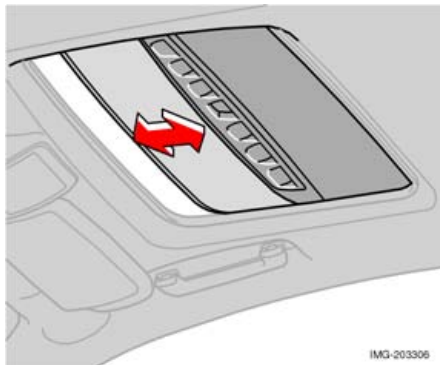
- Press the control forward to the point of resistance (3). The sunroof moves toward the closed position as long as the button is held in this position.



WARNING!

The sunroof's pinch-protection function only operates during automatic closing, not manual closing.

Power sunroof (option)



Closing using the remote control or central locking button

Closing using the remote control or central locking button:

- Press and hold the lock button for two seconds. The sunroof and windows close and the doors lock.

If you need to interrupt closing:

- Press the lock button again.



WARNING!

Make sure that the hands of children and passengers are clear when closing the sunroof by remote control.

Sunscreen

The sunroof features a manual, sliding interior sunscreen. The sunscreen slides back automatically when the sunroof is opened. Grip the handle and slide the screen forwards to close the screen.

Pinch protection

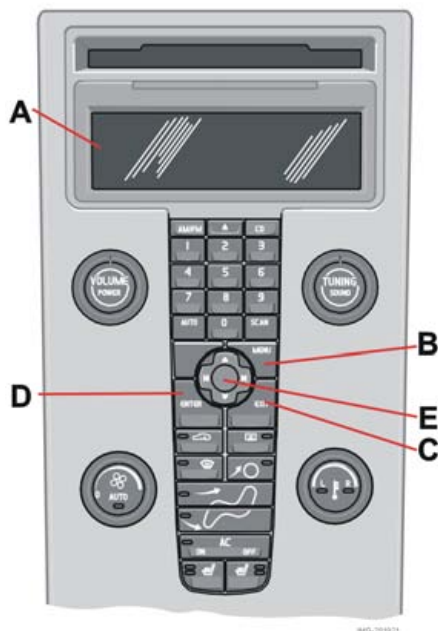
The sunroof's pinch protection function is activated if the hatch is blocked by an object. If blocked, the sunroof will stop and automatically open to the previous position.



WARNING!

The sunroof's pinch protection function only operates during automatic closing, not during manual closing. Make sure children's hands are clear when closing the sunroof.

Personal preferences



Control panel

Possible settings

Personal preferences can be set for some of the car's functions: the locks, climate control

and audio functions. For audio functions, see page 185.

Control panel

- A. Display
- B. MENU
- C. EXIT
- D. ENTER
- E. Navigation

Use

The settings are shown on the display (A).

Open the menu to enter settings:

- Press MENU (B).
- Scroll, for example, to " Car Settings " with the navigation button (E).
- Press ENTER (D).
- Select an alternative with the navigation button (E).
- Activate your selection with ENTER.

Close the menu:

- Press EXIT (C) for approximately one second.

Climate control

Automatic fan adjustment

The fan speed can be set to AUTO mode in cars equipped with ECC:

- Select between Low, Normal and High.

Recirculation timer

When the timer is active, the air recirculates for 3-12 minutes, depending on the outside air temperature.

- Select On/Off depending on whether you wish the recirculation timer to be active.

Reset all

Resets the climate function options to the factory settings.

Car settings

Unlock feedback light

The hazard warning flashers can provide feedback when the car is unlocked with the remote control. This function can be turned On or Off.

Lock feedback light

The hazard warning flashers can provide feedback when the car is locked with the remote control. This function can be turned On or Off.

Autolock

The doors and tailgate can be locked automatically when the car starts to move. The setting options are On or Off.

Unlock doors

There are two alternatives for unlocking:

- All doors – one press of the remote control unlocks all doors.

Personal preferences

- Drivers door first, then all others – one press of the remote control unlocks the driver's door. A second press then unlocks all the other doors.
- Number of keys. The number of keys registered for the car is shown.

Keyless door opening

- All doors - all doors are locked or unlocked at the same time.
- Doors on the same side - front and rear doors on the same side are unlocked together.
- Both front doors - both front doors are unlocked together.
- One front door - one of the front doors (either) can be unlocked separately.

Approach lighting

Select the time the car's lights should remain on when the approach lighting button is pressed. The following alternatives are available: 30/60/90 seconds.

Home safe lighting

Select the time the car's lights should remain on when the left-hand stalk switch is pulled back after the ignition key has been removed. The following alternatives are available: 30/60/90 seconds.

Information

- VIN (Vehicle Identification Number). The car's unique identity number.

Climate control

General information on climate control	66
Manual climate control, A/C	68
Electronic climate control, ECC (option)	70
Air distribution	73
Fuel-driven parking heater (option)	74

General information on climate control

Air conditioning

The climate control system cools or heats, and dehumidifies the air entering the passenger compartment. The car is equipped with either manual (A/C) or electronic climate control (ECC).

NOTE! The air conditioning can be switched off, but for optimum air quality in the passenger compartment and to prevent the windows from misting up, it should always be on (even at temperatures of 0-15 °C).

Misting windows

Reduce the problem of windows misting up on the inside by cleaning the windows. Use a regular window cleaner.

Ice and snow

Remove ice and snow from the climate control air intake (the grille between the bonnet and the windscreen).

Fault tracing

An authorised Volvo workshop has the instruments and tools required for any fault tracing or repair of your climate control system. Entrust checks and repairs only to trained personnel.

Refrigerant

The air conditioning system contains R134a refrigerant. This refrigerant contains no

chlorine, which means that it is harmless to the ozone layer. The system must only be charged with R134a refrigerant. Have an authorised Volvo workshop carry out this work.

Passenger compartment filter

All air which enters the passenger compartment is first cleaned by a filter. This filter must be replaced regularly. Follow the Volvo Service Programme for the recommended replacement intervals. If the car is used in a severely contaminated environment, it may be necessary to replace the filter more often.

NOTE! There are several different types of passenger compartment filter. Ensure that the correct filter is installed.

Display

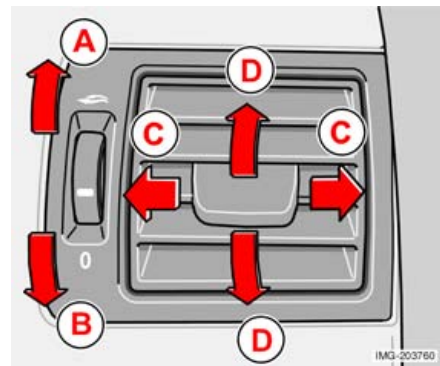
There is a display above the climate control panel that displays climate control settings.

Personal preferences

You can set preferences for two climate control functions:

- Fan speed in AUTO mode (applies only to cars with ECC).
- Recirculation timer for passenger compartment air.

For information about these settings, see page 63.



Air vents in the dashboard

- A. Open
- B. Closed
- C. Lateral airflow
- D. Vertical airflow

Aim the outer vents towards the side windows to remove misting.

Cold weather: Close the centre vents for optimum comfort and best demisting.

ECC (option)

Actual temperature

The temperature you select corresponds to the physical experience with reference to factors such as air speed, humidity and solar radiation in and around the car.

Sensor location:

- The sun sensor is on the top side of the dashboard.
- The temperature sensor for the passenger compartment is behind the climate control panel.

NOTE! Do not cover or block the sensors with clothing or other objects.

Side windows and sunroof

To ensure that the air conditioning works satisfactorily, close all side windows and the sunroof (if fitted).

Acceleration

The air conditioning system switches off temporarily at full throttle. You may feel a temporary rise in temperature.

Condensation

In warm weather, condensation from the air conditioning system may drip under the car. This is normal.

Manual climate control, A/C

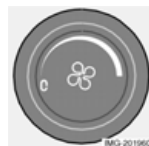


Control panel

1. Fan
2. Recirculation
3. Defroster
4. Air distribution
5. AC - ON/OFF
6. Heated front left seat
7. Heated front right seat
8. Rear window and door mirror defrosters
9. Temperature

Functions

Fan



Increase or decrease the fan speed by turning the knob. If the knob is turned anticlockwise and the fan indicator in the display goes out, the fan and the air conditioning are switched off. The display shows the fan symbol and OFF.

Recirculation



Recirculation can be used to shut out bad air, exhaust fumes, etc. from the passenger compartment. The air in the passenger compartment is recirculated. No outside air is taken into the car when this function is activated. Recirculation (together with the air conditioning system) cools the passenger compartment more quickly in hot weather. If the air in the car recirculates for too long, there is a risk of the windows misting.

Timer

The timer function minimises the risk of icing, misting and bad air if recirculation is selected. See the Personal Preferences section, page 63, for how to activate and deactivate the function. Recirculation is always disengaged when you select Defroster (3).

Defroster



Defroster quickly removes misting and ice from the windscreen and side windows.

- Air is directed to the windows at high fan speed.
- The LED in the defroster button lights when the function is active. The air conditioning system gives maximum dehumidification.
- The air does not recirculate.

Air distribution



The airflow can be distributed to the windows, dashboard vents or floor by pressing the air distribution buttons.

A symbol on the display above the climate control panel and a lit LED in the button indicate which function has been selected.

See the table on page 73.

AC - ON/OFF



ON: Air conditioning is engaged.

OFF: Air conditioning is disengaged. If Defroster (3) is activated the air conditioning is always engaged.

Heated front seats



(option on certain markets)

To activate front seat heating:

- Higher heat level
Press the button once - both LEDs light.
- Lower heat level
Press the button twice - one LED lights.
- Heat off
Press the button three times - LEDs not lit.

Rear window and door mirror defrosters



Heating is used to quickly remove misting and ice from the rear window and door mirrors.

The rear window and door mirrors are defrosted simultaneously if the switch is pressed once. The function is active if one LED is lit in the switch.

The door mirror heating is deactivated automatically after approximately 6 minutes. The rear window heating is deactivated after approximately 12 minutes.

Temperature



Select cooling or heating for both driver and passenger side.

Electronic climate control, ECC (option)



Control panel

1. Auto
2. Fan
3. Recirculation/Air quality system
4. Defroster
5. Air distribution
6. AC - ON/OFF
7. Heated front left seat
8. Heated front right seat
9. Rear window and door mirror defrosters
10. Temperature

Functions

AUTO



The AUTO function automatically regulates climate control and maintains the desired temperature. The AUTO function controls heating, air conditioning, fan speed, recirculation, and air distribution. If you select one or more manual functions, the other functions continue to be controlled automatically. All manual settings are switched off when AUTO is switched on. The display shows AUTO CLIMATE.

Fan



Increase or decrease fan speed by turning the knob. The fan speed is regulated automatically if AUTO is selected and the previously set fan speed is disengaged.

NOTE! If the knob is turned anticlockwise and the fan indication on the display goes out, the fan and the air conditioning are switched off. The display shows the fan symbol and OFF.

Recirculation



Recirculation can be used to shut out bad air, exhaust fumes, etc. from the passenger compartment. The air in the passenger compartment is recirculated.

No outside air is taken into the car when this function is activated. If the air in the car recirculates for too long, there is a risk of misting on the insides of the windows.

Timer

The timer function minimises the risk of icing, misting and bad air if recirculation is selected. See Personal Preferences, page 63, for how to activate and deactivate the function.

NOTE! When Defroster (4) is selected, recirculation is always deactivated.

Air quality system (option)



(same button as recirculation)

The air quality system consists of a multi-filter and a sensor. The filter separates gases and particles to

reduce the levels of odours and pollution in the passenger compartment. When the sensor detects polluted outside air, the air intakes are closed and the air in the passenger compartment is recirculated.

A green LED (A) lights in the button when the air quality sensor is active.

Activating the air quality sensor:

- Press the AUTO button (1) to activate the air quality sensor (normal setting).

Or:

Switch between three functions by pressing repeatedly the recirculation button.

- Air quality sensor engaged - LED (A) lights.
- No recirculation engaged, provided it is not required for cooling in hot weather - LED not lit.
- Recirculation engaged - LED (M) lights.

Keep in mind the following:

- As a rule, the air quality sensor should always be engaged.
- Recirculation is limited in cold weather to avoid misting.
- If the insides of the windows start misting up, disengage the air quality sensor.
- The defroster function for the front, side and rear windows can also be used to demist the windows.

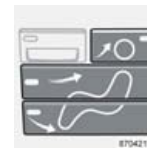
Defroster



Defroster quickly removes misting and ice from the windscreen and side windows. Air flows to the windows at high fan speed.

The LED in the defroster button lights when the function is active. The air conditioning system gives maximum dehumidification. The air is not recirculated.

Air distribution



The airflow can be distributed to the windows, dashboard vents or floor by pressing the air distribution buttons.

A symbol on the display above the climate control panel and a lit LED in the button indicate which function has been selected.

See the table on page 73.

AC- ON/OFF



The air conditioning system is controlled automatically by the system when the ON LED is lit. This way, incoming air is sufficiently cooled and dehumidified. When the

OFF LED lights, the air conditioning system is always disengaged. Other functions are still

Electronic climate control, ECC (option)

controlled automatically. When Defroster (4) is selected, the air conditioning system is set for maximum dehumidification.

Heated front seats



(option on certain markets)

To activate front seat heating:

- Higher heat level:
Press the button once - both LEDs light.
- Lower heat level:
Press the button twice - one LED lights.
- Heat off:
Press the button three times - LEDs not lit.

Heated rear window and door mirrors



Heating is used to quickly remove misting and ice from the rear window and door mirrors.

The rear window and door mirrors are defrosted simul-

taneously if the switch is pressed once. The function is active if one LED is lit in the switch. The door mirror heating is deactivated automatically after approximately 6 minutes. The rear window heating is deactivated after approximately 12 minutes.

Temperature selector



The temperatures on the driver and passenger sides can be set independently.

Press the button once to activate one side. Press again to activate the other

side. Press the button a third time to activate both sides.

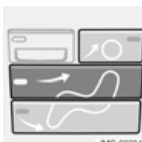
The active side is indicated by an LED in the button and on the display above the climate control panel.

When the car is started, the previous settings are resumed.

NOTE! Heating or cooling cannot be hastened by selecting a higher or lower temperature than the actual desired temperature.

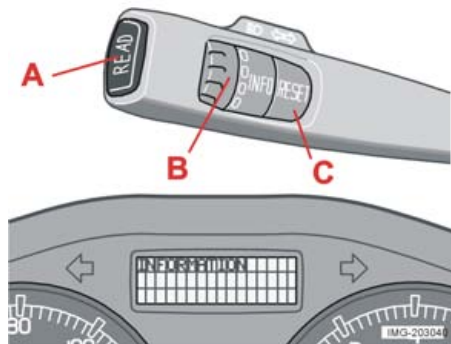
Air distribution

Air distribution

	Air distribution	Use:
 IMG-202004	Air to windows. Some air flows to the dashboard air vents. The air is not recirculated. Air conditioning is always engaged.	To remove ice and misting quickly.
 IMG-2020042	Air to windscreen and side windows. Some air flows to the dashboard air vents.	To prevent misting and icing in a cold and humid climate. (Not for low fan speed.)
 IMG-202004	Airflow to windows and from dashboard air vents.	To ensure good comfort in warm, dry weather.
 IMG-2020041	Airflow to the head and chest from the dashboard air vents.	To ensure efficient cooling in warm weather.

	Air distribution	Use:
 IMG-2020089	Air to the floor and windows. Some air flows to the dashboard air vents.	To ensure comfortable conditions and good demisting in cold or humid weather.
 IMG-2020087	Air to floor and from dashboard air vents.	In sunny weather with cool outside temperatures.
 IMG-2020042	Air to the floor. Some air flows to the dashboard air vents and windows.	To warm the feet.
 87042117	Airflow to windows, from dashboard air vents and to the floor.	To provide cooler air for the feet or warmer air to the upper body in cold weather or hot, dry weather.

Fuel-driven parking heater (option)



General information about heaters

The parking heater can be started immediately or set with two different start times using **TIMER 1** and **TIMER 2**. Here, start time refers to the time the car is heated and ready. The car's electronic system calculates when heating should be started based on the outside temperature. The heater is not run if the outdoor temperature exceeds 25 °C. At temperatures of -10 °C and below, the

maximum running time of the parking heater is 60 minutes.



WARNING!

The car must be outdoors when the petrol or diesel heater is used.



WARNING!

Switch off the fuel-driven heater before refuelling. Spilled fuel could be ignited by the exhaust gases.

Check on the information display that the heater is off. (When the additional heater is running, **PARK HEAT ON** is shown on the information display.)



Warning decal on fuel filler flap



WARNING!

The car must be outdoors when the petrol or diesel heater is used.

Activating the heater

- Enter the time when the car is to be used. Press RESET (C) to enter the hours and minutes.
- Press and hold the RESET button until the timer is activated.

Parking on a hill

If the car is parked on a steep hill, the front of the car should point downhill to ensure that there is a supply of fuel to the parking heater.

Direct start

- Use the thumbwheel (B) to scroll to DIRECT START.
- Press RESET (C) to access the options ON and OFF.
- Select ON. The heater will now run for 60 minutes. Heating of the passenger compartment will begin as soon as the engine coolant has reached a temperature of 30 °C.

Immediate stop of heater

- Use the thumbwheel (B) to scroll to DIRECT START.
- Press RESET (C) to access the options *ON* and *OFF*.
- Select *OFF*.

NOTE! The car can be started and driven while the parking heater is still running.

Battery and fuel

If the battery has insufficient charge or the fuel level is too low, the parking heater will be switched off automatically. A message appears on the information display. Acknowledge the message by pressing the READ button (A).

Important!

Repeated use of the parking heater combined with short journeys may discharge the battery and impair starting. If the heater is used regularly, the car must be driven for the same as the heater is run to ensure that the alternator has time to charge the battery.

Setting TIMER 1 and 2

For safety reasons, you can only programme times for the following 24 hours, not several days in advance.

- Scroll with the thumbwheel to TIMER.
- Touch RESET to move to the flashing hours setting.
- Scroll with the thumbwheel to the desired hour.
- Touch RESET to move to the flashing minutes setting.

- Scroll with the thumbwheel to the desired minute.
- Touch RESET to confirm the setting.
- Press RESET to activate the timer. After setting TIMER 1, a second start time can be programmed with TIMER 2. Access this with the thumbwheel. Set the alternative start time in the same way as TIMER 1.

Fuel-driven heater (option)

Messages on the display

When TIMER 1, TIMER 2 and DIRECT START are activated, the information symbol on the combined instrument panel lights and an explanatory text appears on the information display. The display also indicates which timer is active when the driver removes the key from the ignition to leave the car.

Clock/timer

If the car clock is reset after the heater timers are programmed, the selected times will be cancelled.

Additional heater (diesel)

(certain countries)

Extra heat from the additional heater may be required in cold weather to reach the correct temperature in the passenger compartment.

The additional heater starts automatically when extra heat is required if the engine is running. It is switched off automatically when the correct temperature is reached or when the engine is switched off.

Interior

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Front seats



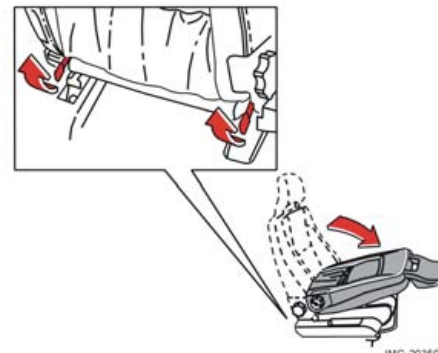
IMG-203502

5. Backrest rake: turn the wheel.
6. Control panel for power seat (option). Controls (2) and (3) are not present on all seat models.



WARNING!

Adjust the position of the driver's seat before setting off, never while driving. Check that the seat is locked in position.



IMG-203501

Seating position

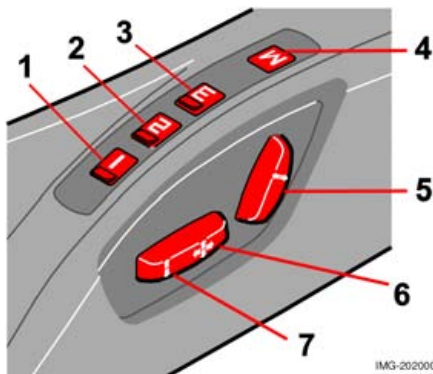
The driver's and passenger seats can be adjusted to the optimum sitting and driving positions

1. Forward/backward: lift the handle to adjust the distance to the steering wheel and pedals. Check that the seat is locked after changing position.
2. Raise/lower the front of the seat cushion: pump up/down (option on passenger side).
3. Raise/lower the seat: pump up/down (option on passenger side).
4. Lumbar support (option, passenger side), turn the wheel.

Lowering the front seat backrest

The passenger seat backrest can be folded forward to make room for long loads.

- Move the seat as far back as possible.
- Adjust the backrest to an upright position 90 degrees.
- Lift the catches on the rear of the backrest while folding it forwards.



Power seat (option)

Preparations

The seat is normally adjusted with the ignition key in position **I** or **II**. It can also be adjusted within 10 minutes of the door being unlocked with the key or remote control. If the door is closed and the ignition key is not yet in the ignition, or is in the **0** position, adjustments can be made within 40 seconds of the door being closed.

Memory function in remote control

The remote control used to unlock the car stores information about the changes made to the seat settings. When the car is next unlocked with the same remote control and

the door is opened within two minutes, the driver's seat returns to the stored position.

Seat with memory function (option)

1. Seat adjustment, memory 1
2. Seat adjustment, memory 2
3. Seat adjustment, memory 3
4. Storing preset positions

Three positions can be stored. After adjusting the seat, press and hold button **M** (4) and then press button (1). Further seat settings can be stored in the memory using memory buttons (2) and (3).

Setting preset positions

Press and hold one of the memory buttons (1), (2) or (3) until the seat stops. If you release the button, the seat stops immediately for safety reasons.

Seat adjustment

The following can be set with switches (5), (6) and (7):

5. Backrest rake
6. Seat forward/backward and up/down
7. Front edge of seat cushion up/down

Only one of the electric motors can be operated at a time. The power front seats have overload protection which is tripped if a seat is blocked by an object. If this happens, turn off the ignition (position **0**) and wait

about 20 seconds before adjusting the seat again.

Emergency stop

If the seat accidentally begins to move, press one of the buttons to stop the seat.

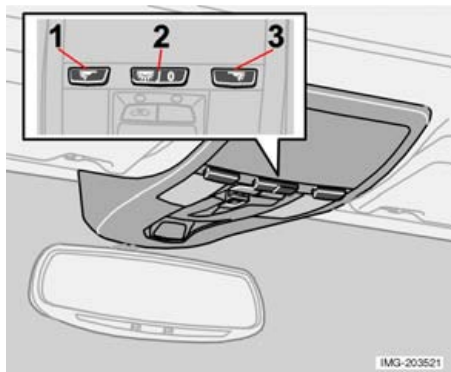
WARNING!

Ensure that there is nothing in front of, behind, or under the seat during adjustment.

Ensure that none of the backseat passengers will be trapped.

To avoid injury, ensure that children do not play with the switches.

Interior lighting



Front seat lighting

1. Lighting for left-hand side
2. Switch
3. Lighting for right-hand side

The lighting in the front part of the passenger compartment is controlled with the buttons in the roof console.

Switch (2) has three positions for all passenger compartment lighting:

- **Off** - right side depressed, passenger compartment lighting is switched off.
- **Neutral position** - passenger compartment lighting comes on when a door is opened and goes out when the door is closed. The dimmer function is active.

- **On** - left side depressed, passenger compartment lighting is on.

Automatic lighting

The interior lighting switches on and off automatically when switch (2) is in the neutral position. See illustration.

The lighting comes on and remains on for 30 seconds if:

- the car is unlocked from outside with the key or remote control.
- the engine is stopped and the ignition key is turned to position **0**.

The compartment lighting comes on and remains on for five minutes if:

- one of the doors is open.
- the lighting is not switched off.

The interior lighting is switched off when:

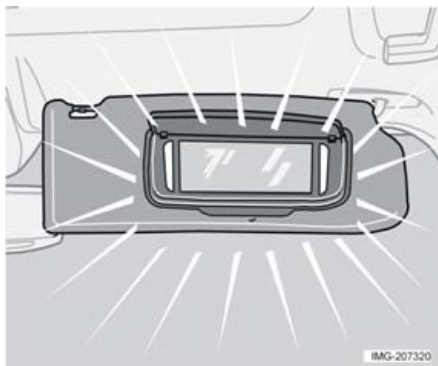
- the engine is started.
- the car is locked from outside with the key or remote control.

The interior lighting is automatically switched off five minutes after the engine is switched off. The interior lighting can be switched on or off within 30 minutes of the key being turned to position **0** by briefly pressing button 2. The programmed times can be changed in accordance with the instructions in the Personal Preferences section, see page 59.



Rear seat lighting

Turn the lights on or off by pressing the appropriate button. The lighting is turned off automatically ten minutes after the engine is switched off.

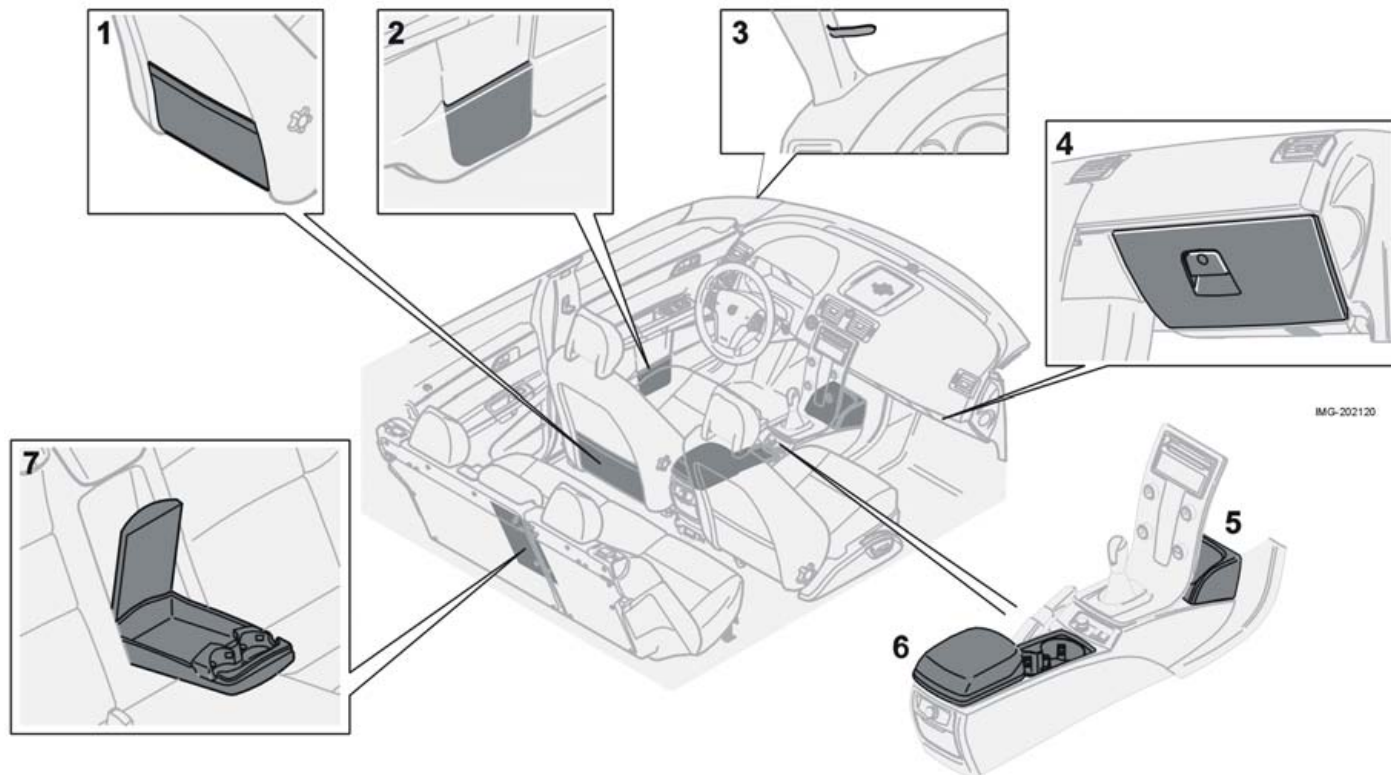


Vanity mirror¹

The light comes on automatically when the cover is lifted.

1. Option on certain markets.

Storage spaces in the passenger compartment



Storage spaces

1. Storage pocket (also on the front edge of the front seat cushions).
2. Compartment in door panel.
3. Ticket clip.
4. Glovebox.
5. Waste bin (accessory).
6. Storage compartment and cup holder.
7. Storage compartment and cup holder.

Important!

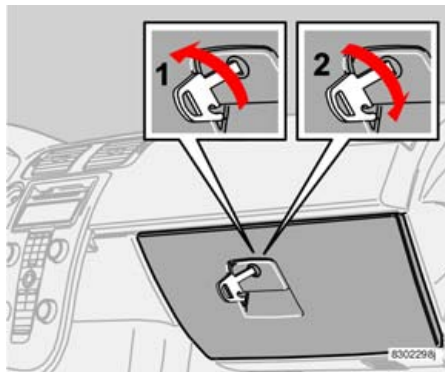
The waste bin (5) must not be mounted if a phone handset is mounted on the right-hand side of the centre console.



WARNING!

Ensure that no hard, sharp or heavy objects lie or protrude in such a way that they could cause injury during heavy braking.

Always secure large and heavy objects with a seatbelt or cargo retaining straps.



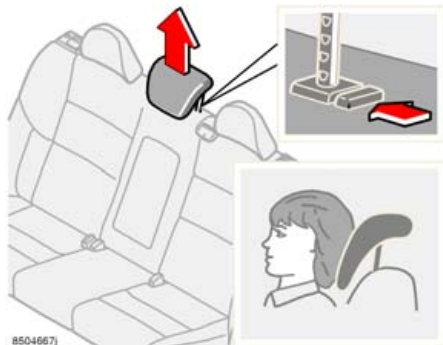
Glovebox

The owner's manual and maps can be kept here. There are also holders for coins, pens and fuel cards. The glovebox can be locked with the removable key blade in the remote control. For further information about the key, see page 92.

Floor mats (option)

Volvo supplies floor mats specially manufactured for your car. These should be properly anchored with the clips on the floor so they do not slide and get jammed beside or under the driver's pedals.

Rear seat



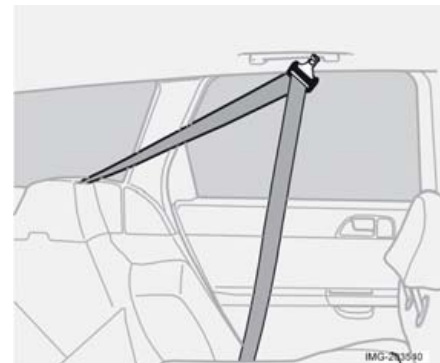
Important!

The head restraints can be damaged if they are not removed for loading. The centre head restraint must also be removed for heavy loads.

Centre rear head restraint

All head restraints can be adjusted vertically to suit the height of the passenger. The upper edge of the head restraint should be aligned with the middle of the back of the head. Raise the head restraint if necessary. To lower the head restraint, press the button by the right-hand pillar at the same time as pushing down the head restraint.

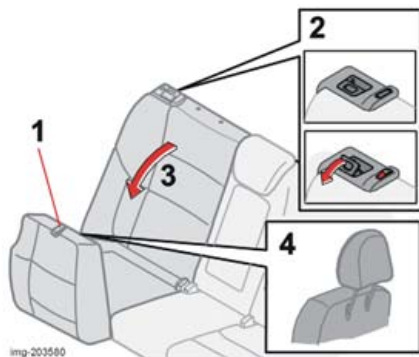
To remove the head restraint, press the button by the right-hand pillar while lifting the head restraint.



Tipping the rear seat backrest

The rear seat backrests can be tipped forwards together, or individually, to make it easier to transport long objects. To avoid damaging the seatbelts when folding the backrests up or down, these should be hooked onto the grab handles.

- Hang the seatbelts on the hooks before lowering or raising the backrests.
- Pull the straps (1) to fold the seat cushions forward.

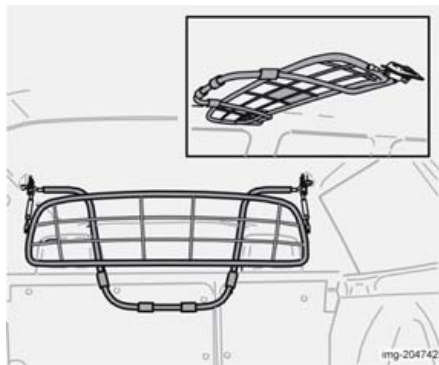
**WARNING!**

Remember to take down the seatbelts once you have raised the backrest.

- Pull the lock (2) catch up and forward to release the backrest. A red indicator on the lock catch shows that the backrest is no longer locked in place.
- Fold the backrest (3) forward halfway and remove the head restraint. The centre seat's head restraint must be lowered fully or removed.
- Place the head restraints in the plastic sleeves on the undersides (4) of the raised seat cushions.

NOTE! When the backrest has been raised, the red indicator should no longer be showing. If it is, the backrest is not locked in place.

Cargo area



Safety grille (option)

The safety grille is designed to help prevent loads or pets from being thrown forward in the passenger compartment in the event of sudden braking. For safety reasons, the grille must always be correctly fastened and secured.

Folding up

If the safety grille is in the way it can be folded up to the roof:

- Take hold of the bottom of the safety grille.
- Pull straight backward and upward. Then release. The gas struts prevent the grille from dropping down.

To fold down the grille, do the reverse.

Removing

Remove the safety grille as follows:

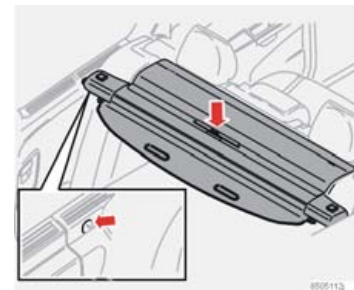
- Fold the rear seat backrest forward slightly (to relieve the load from the gas struts).
- Remove the caps from the nuts on either side that secure the safety grille.
- Unscrew the nuts until the threads are flush with the edge of the nuts.
- Turn the grille backward in the car slightly to release it from the trim. Do not angle the grille too much as it can become wedged, making it difficult to pull out.
- Repeat for the other mounting and then carefully lift the grille out of the car.

Fitting

To fit the safety grille:

- Follow the instructions in the reverse order.
- Tighten the two nuts to 24 Nm.

If unsure about installing or removing the safety grille, consult an authorised Volvo workshop.



Cargo cover (option)

Pull the cargo cover over the cargo area and hook it into the recesses in the rear pillars.

Fitting the cargo cover:

Fit the cargo cover as follows:

- The end pieces must be locked in their inner position.
- Position the cover in the recesses in the side panels. Press the buttons to secure the cover in place.
- Check that the end pieces are locked.

Removing the cargo cover

Remove the cargo cover as follows:

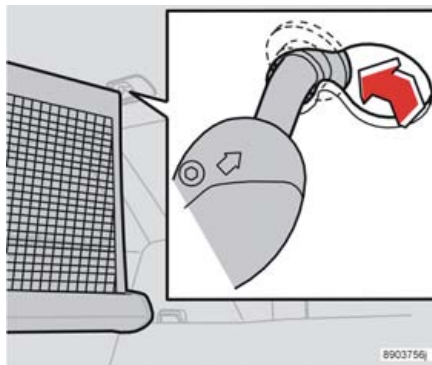
- Press the buttons on the cargo cover and pull the end pieces out of the side panels. Release the buttons, lift the cover and remove it from the car.

Opening the storage cover

- Open the cover by pressing on the cargo cover at the "PUSH" text (see illustration).
- Following which, lift up the cover.

Closing the storage cover

- Close the cover by lowering it (in slightly open position).
- Lock by pressing on the cargo cover (see illustration) at the "PUSH" text.



Safety net

The retractable safety net¹ storage cassette is mounted on the back of the rear seat backrest.

Using the safety net with raised backrests

- Pull out the safety net horizontally backward. Extend the right hand attachment and hold it extended. Insert the attachment into the rear keyed recess in the roof panel. Press the attachment forward in the keyway. The attachment must be pressed so far that the flange

rides over the restriction between the front and rear holes.

- Perform the same procedure on the other side. The attachments on the net spring shut. Pull the net over towards the left bracket to fit it in place.
- Check that the attachments on the safety net are securely fastened in the keyed recesses in the roof panel.

Using the safety net with lowered backrests

The safety net can also be used when the backrests are lowered. In this case, use the front attachment points in the roof panel.

Removing the safety net

- Pull one of the net's attachments rearward to the large hole and pull it out.
- Detach the other attachment in the same way.

1. Option on certain markets

Cargo area

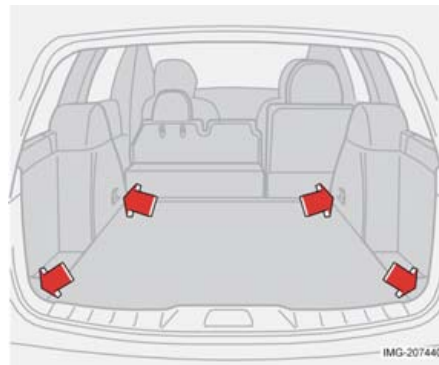
Removing the safety net cassette

- Lower the entire backrest.
- Press the cassette outward to release it from the mounting brackets.



WARNING!

Loads in the cargo area must be firmly secured even if the safety net is correctly fitted.



Using the safety net together with the cargo cover

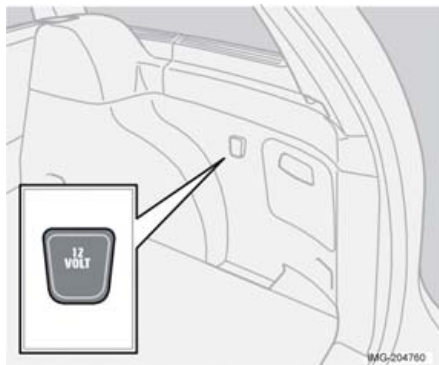
- Tip the backrests slightly forward to access the safety net cassette. Start with the 40% section.
- Extend the safety net rearward.
- Fold the backrests back up.
- Hook the net into the attachment points in the roof panel as described for raised backrests.

NOTE! When the backrest has been raised, the red indicator should no longer be showing. If it is, the backrest is not locked in place.

Load retaining eyelets

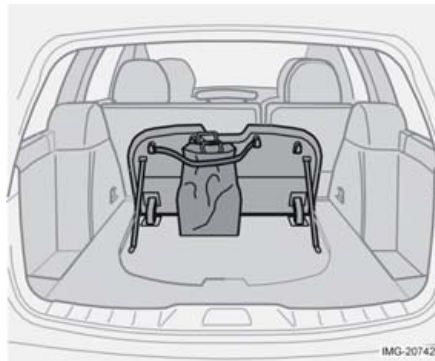
The load retaining eyelets¹ are used to fasten straps or nets to anchor items in the cargo area.

1. Option on certain markets.



Electrical socket in the cargo area

Fold down the cover to access the electrical socket. This socket works regardless of whether the ignition is on. If the ignition is switched off and an appliance requiring a current greater than 0.1 A is plugged into the electrical socket, a warning message appears on the information display. Avoid using the electrical socket with the ignition switched off due to the risk of running the battery flat.



Bag holder (option)

The bag holder holds shopping bags in place and prevents them tipping over and spilling their contents.

- Open the hatch in the cargo area.
- Secure the shopping bags with the strap.

Locks and alarm

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Child safety locks	99
Alarm (option)	100

Remote control with key blade

Remote control

The car is supplied with two remote controls. These also work as ignition keys. The remote controls contain a removable metal key blade for the manual locking and unlocking of the driver's door and the glovebox. A separate label with the code for key blade is included. Keep this label in a safe place. Take it to an authorised Volvo workshop when ordering new keys. A maximum of six remote controls/key blades can be programmed and used for one car.

Loss of a remote control

If you lose a remote control, take the car and the other remote control to an authorised Volvo workshop. The code of the missing remote control must be erased as a theft prevention measure.

Immobiliser

The remote controls are fitted with coded chips. The code must be accepted by the reader (receiver) in the ignition switch. The car can only be started if the correct remote control with the correct code is used.



Remote control functions

1. Locking - Locks the doors and the tailgate. Press and hold to close the windows and sunroof.
2. Unlocking - Unlocks the doors and tailgate. Press and hold to open the windows.
3. Approach lighting - When you approach the car:
Press the yellow button on the remote control to switch on the interior lighting, position/parking lights, number plate lighting and door mirror lamps (option). The lighting is switched off automatically after 30, 60 or 90 seconds. For how to set the desired delay time, see page 64.

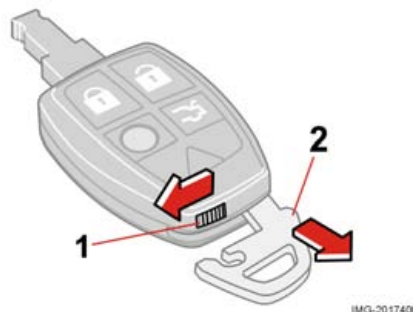
4. Tailgate - Press the button once to unlock the tailgate only.
5. Panic function - Used to attract attention in an emergency. Press and hold the red button for at least three seconds or press it twice within three seconds to activate the direction indicators and the horn. The function can be turned off with the same button once it has been active for at least five seconds. The function switches off automatically after 30 seconds.

Important!

The narrow section of the remote control is particularly sensitive - this contains the chip. The car cannot be started if the chip is damaged.

Key blade

This feature is intended for when leaving the car, such as for servicing or valet parking at a hotel. Hand over the remote control and keep the removable key blade.



Removing the key blade

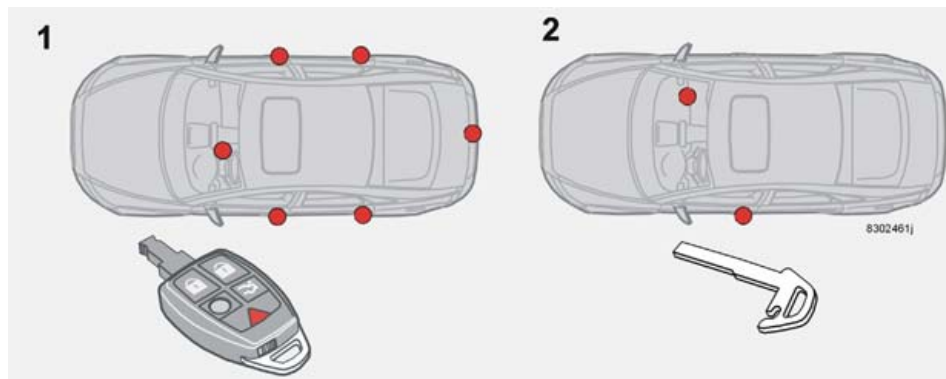
To take the key blade out of the remote control:

- Slide the spring-loaded catch (1) to the side while pulling the key blade (2) out.

Inserting the key blade

Be careful when inserting the key blade into the remote control.

- Hold the remote control with the narrow end pointing down and lower the key blade into its slot.
- Lightly press the key blade to lock it in position. You should hear a "click".



Active locks

1. Active locks, remote control
2. Active locks, key blade

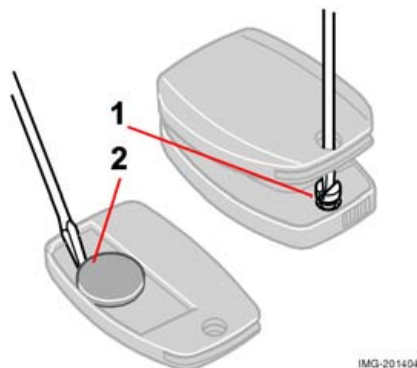
Key blade

Use the key blade to lock and unlock the glovebox. You can also lock and unlock the drivers door with the key blade.

Weak remote control battery

When the battery runs down and full functionality cannot be guaranteed, the information symbol and REMOTE BATTERY LOW VOLTAGE appear on the display.

Remote control with key blade



- Prise out (2) and change the battery.
Avoid touching the battery and its terminals with your fingers.

- Refit the cover and screw it shut.

- Press the key blade back into place.

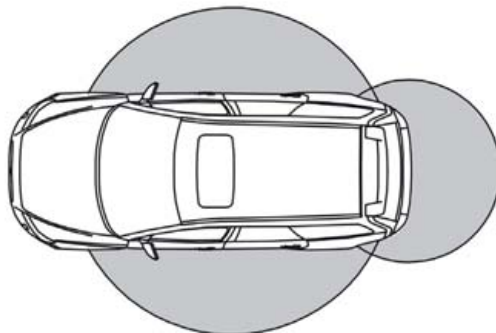
Dispose of the old battery in an environmentally-friendly way.

Changing the remote control battery

If the locks repeatedly fail to respond to signals from the remote control at a normal distance, the battery should be changed (type CR 2032, 3 volt).

- Pull out the key blade.
- Place the remote control with the keypad downward and remove the screw (1) using a small screwdriver.
- Remove the cover.
- Carefully note the position of the battery's + and – poles on the inside of the cover.

Keyless drive (option)



8302435j

Keyless lock and ignition system

The keyless drive system allows the car to be unlocked, driven and locked without the need for a key. You simply have to have the remote control with you in a pocket or bag.

The system makes it easier and more convenient to open the car, for example with shopping bags in one hand and a child in the other. It saves you having to take out or look for the remote control.

The two remote controls incorporate the keyless drive feature. You can order additional remote controls. The keyless drive system can handle up to six remote controls.

Remote control max. 1.5 m from the car

To be able to open a door or the tailgate, the remote control must be within a maximum of approximately 1.5 m of the car's door handles or tailgate. The grey shaded area in the image shows the area covered by the system's antennae.

If someone leaves the car and takes with them a keyless drive remote control, a warning message appears on the information display while a reminder signal is heard. The warning message disappears when the remote control is brought back to the car or the ignition dial is turned to position I. The warning is only issued if the key dial is in position 1 or 2 after someone has opened and closed a door.

The warning message and reminder signal disappear when the remote control is brought back to the car after one of the following actions:

- a door has been opened and closed
- the ignition dial has been turned to position I
- the READ button has been pressed.

Do not leave a remote control in the car

If a keyless drive remote control is left in the car, it becomes passive when you lock the car. No unauthorised person can open the door. But if someone breaks into the car and finds the remote control, it can be activated and used again.

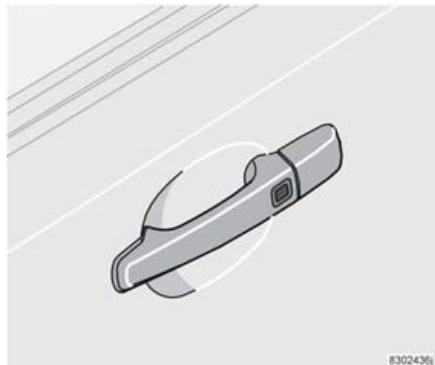
Keyless drive (option)

Interference to remote control function

Electromagnetic screening and fields can interfere with the keyless drive system. To avoid this:

Do not place the remote control near mobile phones, metallic objects or, for example, in a metal briefcase.

If interference is experienced nonetheless, use the remote control and key blade in the normal way. See page 92.



All doors and the tailgate must be closed before the lock button is pushed in. Otherwise they will not lock.

When the car is locked, the lock buttons on the inside of the doors retract in the normal way.

Personal settings for keyless drive

The keyless drive system can be tailored to your personal requirements. Read more about personal settings on page 64.

Unlocking

Unlock the car by:

- opening one of the doors with the handle or opening the tailgate by pressing the button.

Power seat (option) – remote control with memory function

If several people with keyless drive remote controls get into the car, the driver's seat will be adjusted for the person who opens the door first.

Locking

Lock the doors and tailgate by:

- pushing in the lock button on one of the door handles.

Locking and unlocking

Locking/unlocking the car from outside

You can lock and unlock all the car's doors and the tailgate simultaneously using the remote control. The driver's door can be unlocked with the key blade.

WARNING!

Be aware that you can be locked in the car if it is locked from the outside.

Automatic relocking

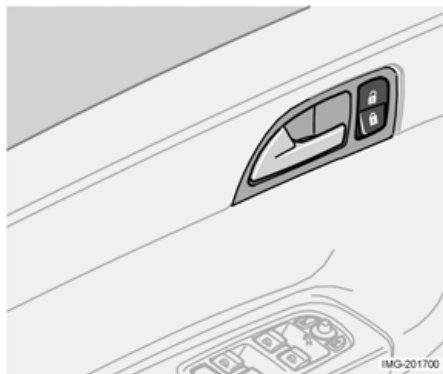
If none of the doors or the tailgate are opened within two minutes of unlocking, all are locked again automatically. This function prevents the car from being left unlocked unintentionally. For cars with alarms, see page 101.

Unlocking the tailgate

To unlock only the tailgate:

- Press the tailgate button on the remote control.

If all doors are locked when the tailgate is closed, then the tailgate remains unlocked until the car is locked with the remote control or from inside.



be locked manually with their respective lock buttons. Pull the door handle twice to unlock and open the door from the inside.

Locking/unlocking the car from inside

All the doors and the tailgate can be locked or unlocked simultaneously using the switch by the door handle.

Unlocking

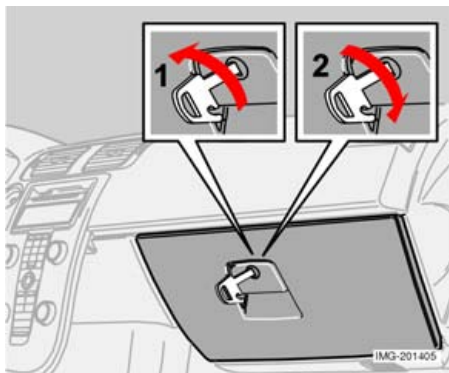
- Press the upper section of the lock button. Press and hold to also open the side windows.

Locking

- Press the lower part of the lock button. Press and hold to also close the windows and sunroof.

It is not possible to unlock a door by pulling up the lock button. All the doors can however

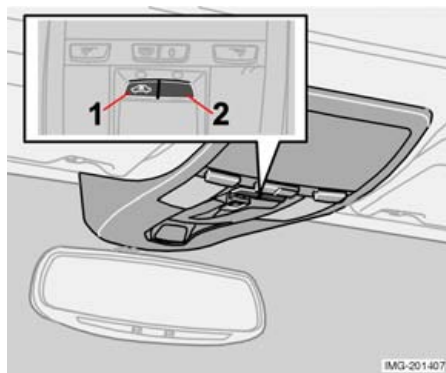
Locking and unlocking



Locking the glovebox

The glovebox can only be locked and unlocked with the removable key blade in the remote control.

- Unlock the glovebox (1) by turning the key a quarter of a turn (90 degrees) anticlockwise. The keyhole is vertical in the unlocked position.
- Lock (2) the glovebox by turning the key a quarter of a turn (90 degrees) clockwise. The keyhole is horizontal in the locked position.



1. Deactivation of the detectors
2. No function

Deadlocks

When deadlocked, the doors cannot be opened from the inside if they are locked. The deadlocks are activated with the remote control. The deadlocks are set after a 25 second delay after the doors are locked.

The car can only be unlocked from a deadlock state with the remote control. The doors can also be opened from the outside with the key.

Temporary deactivation of the deadlocks and any detectors

If someone is going to stay in the car but you still want to lock the doors from the outside, the deadlocks can be disabled.

- Insert the key into the ignition switch, turn it to position **II** and then back to position **I** or **0**.
- Press button 1.

If the car is equipped with an alarm, movement and tilt detectors are also deactivated. See page 101.

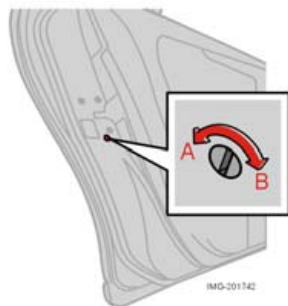
The LED in the button lights up until the car is locked with the key or the remote control. A message remains on the display as long as the key is in the ignition switch. The detectors are reactivated the next time the ignition is switched on.



WARNING!

Do not allow anyone to remain in the car without first deactivating the deadlocks.

Child safety locks



Manual child lock in rear left door

Manual child locks in the rear doors

To lock manually: The child safety locks are found on the trailing edge of the rear doors and are only accessible when the doors are open. Use the key blade to turn the lock and thus activate or deactivate the child safety lock.

- A. The doors cannot be opened from inside.
 - B. The doors can be opened from inside.
- Electric child locks: Press the switch on the driver's door. A message appears on the information display.



Switch for electric child safety locks and disengaging rear power window buttons.

WARNING!

Always keep the lock buttons pulled up when driving. In the event of an accident, this allows the emergency services to get into the car quickly. Passengers in the rear seat cannot open the doors from inside if the child safety locks are activated.

Electric child safety locks and disabling the rear window buttons (option)

When the electric child safety locks are activated, the rear window buttons are disabled.

To activate the child safety locks:

- Turn the ignition key to position **I** or **II**.
- Press the switch. When the LED in the switch is lit, the rear window buttons are disabled.

A message appears on the information display when the child safety locks are activated.

NOTE! Cars with electric child safety locks do not also have manual child locks.

Child safety locks activated

A lit LED together with a text message on the display indicates that the locks are activated. The doors cannot be opened from inside. The power windows can only be operated with the controls on the driver's door.

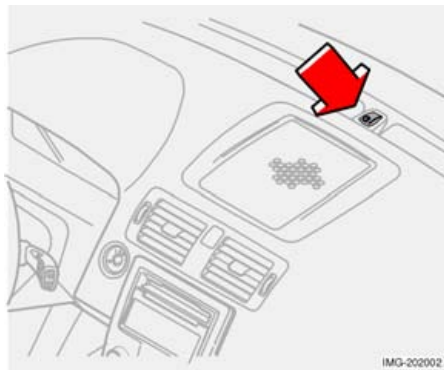
Alarm (option)

The alarm system

When the alarm is armed, it continually monitors all alarm inputs.

The alarm is triggered if:

- a door, the bonnet or the tailgate is opened.
- the tailgate is opened.
- a non-approved key is used in the ignition or if an attempt is made to force the lock.
- a movement is detected in the passenger compartment (if fitted with a movement detector).
- the car is raised or towed away (if fitted with a tilt detector).
- a battery cable is disconnected.
- anyone tries to disconnect the siren.



Alarm LED on the dashboard

An LED on the dashboard indicates the alarm system's status:

- LED not lit - the alarm is not armed.
- The LED flashes once a second - the alarm is armed.
- The LED flashes rapidly after disarming the alarm and until the ignition is switched on - the alarm has been triggered.

If there is a fault in the alarm system, a message appears on the information display. Contact an authorised Volvo workshop.

NOTE! Do not attempt to repair or modify alarm system components. All such attempts may affect the terms of insurance.

Arming the alarm

- Press the LOCK button on the remote control. A long flash from the car's direction indicators confirms that the alarm is armed and that all the doors are locked.

Disarming the alarm

- Press the UNLOCK button on the remote control. Two short flashes from the car's direction indicators confirms that the alarm is disarmed and all doors are unlocked.

Automatic alarm activation

This function prevents you accidentally leaving the car without the alarm on.

If none of the side doors or the tailgate are opened within two minutes of disarming the alarm (and the car has been unlocked with the remote control), the alarm is automatically rearmed. The car is also locked.

Switching off a triggered alarm

- Press the UNLOCK button on the remote control.

Confirmation is given by two short flashes from the direction indicators.

Alarm signals

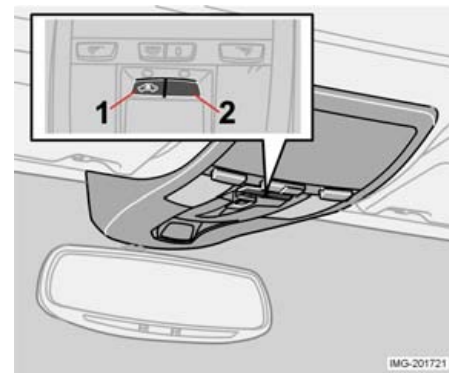
When the alarm is triggered, the following happens:

- A siren sounds for 30 seconds. The siren has its own battery which is used if the car battery has insufficient charge or is disconnected.
- The direction indicators flash for five minutes or until the alarm is deactivated.

Remote control not working

If for some reason the remote control is not working, the alarm can still be switched off and the car started as follows:

- Open the driver's door with the key blade. The alarm is triggered and the siren sounds.
- Insert the remote control into the ignition switch. The alarm is deactivated. The alarm LED flashes rapidly until the ignition key is turned to position **II**.



1. Deactivation of the detectors
2. No function

Temporary deactivation of the deadlocks and detectors

To prevent the alarm being tripped erroneously, such as during a ferry journey, the movement and tilt detectors can be temporarily disengaged.

- Turn the ignition key to position **II** and then back to position **0**. Remove the key.
- Press button (1). The LED in the button is lit until the car is locked.

A message remains on the display as long as the key remains in the ignition switch (and for 1 minute after the key is removed).

Alarm (option)

The detectors are reactivated the next time the ignition is switched on.

If the car has deadlocks, these are also re-engaged.

Testing the alarm system

Testing the movement detector in the passenger compartment

- Open all the windows.
- Arm the alarm. Activation of the alarm is confirmed by the alarm LED flashing slowly.
- Wait 30 seconds.
- Test the movement detector in the passenger compartment, such as by lifting out a bag from a seat. A siren should sound and all direction indicators flash.
- Deactivate the alarm by unlocking the car with the remote control.

Testing the doors

- Arm the alarm.
- Wait 30 seconds.
- Unlock the driver's door with the key blade.
- Open one of the doors. A siren should sound and all direction indicators flash.
- Deactivate the alarm by unlocking the car with the remote control.

Testing the bonnet

- Sit in the car and deactivate the movement detector.
- Arm the alarm. Remain in the car and lock the doors with the button on the remote control.
- Wait 30 seconds.
- Open the bonnet with the handle under the dashboard. A siren should sound and all direction indicators flash.
- Deactivate the alarm by unlocking the car with the remote control.

Starting and driving

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General

Economical driving

Driving economically means driving smoothly while thinking ahead and adjusting your driving style and speed to the prevailing conditions.

- Get the engine warmed up as soon as possible.
- Do not let the engine idle, but drive at light loads as soon as it is possible.
- A cold engine consumes more fuel than a warm one.
- Avoid sudden unnecessary acceleration and heavy braking.
- Do not drive with unnecessary loads in the car.
- Do not use winter tyres when the roads are dry.
- Remove load carriers when they are not being used.
- Avoid driving with open windows.

Slippery driving conditions

Practise driving on slippery surfaces under controlled conditions to learn how the car reacts.

Engine and cooling system

Under special conditions, for example when driving in hilly terrain, extreme heat or with

heavy loads, there is a risk that the engine and cooling system will overheat.

Avoid overheating the cooling system

- Maintain a low speed when driving with a trailer up long, steep ascents.
- Do not turn the engine off immediately you stop after a hard drive.
- Remove any auxiliary lamps from in front of the grille if driving in extreme high temperatures.

Avoid overheating the engine

- Do not drive at more than 4500 rpm when towing a trailer or caravan in hilly terrain, as the oil temperature can become too high.

Open tailgate

Avoid driving with the tailgate open. If it is necessary to drive with the tailgate open for a short distance:

- Close all windows.
- Set the air distribution to the windscreen and floor and run the fan at high speed.



WARNING!

Do not drive with the tailgate open. Toxic exhaust fumes can be drawn into the car through the cargo area.

Do not overload the battery

The electrical functions in the car load the battery to varying degrees. Avoid having the ignition key in position **II** when the engine is turned off. Use position **I** instead, as less power is used. The 12 volt outlet in the cargo area supplies power even when the ignition key is removed.

Examples of functions that use a lot of power:

- ventilation fan
- windscreen wipers
- audio equipment (high volume)
- parking lights

Also, be aware of different accessories that load the electrical system. Do not use functions which use a lot of power when the engine is switched off.

If the battery voltage is low, a message appears on the display. The energy-saving function shuts down certain functions or reduces the load on the battery by, for example, slowing the ventilation fan and switching off the audio equipment. Charge the battery by starting the engine.

Refuelling



Switch off the fuel-driven heater before refuelling.

Opening the fuel filler flap

Open the fuel filler flap with the button on the lighting panel, see page 45. The engine must be switched off before the flap can be opened. The fuel flap is located on the rear right wing.

Closing

Push in the flap until you hear a click.

Fuel filler flap

Turn the fuel cap until an obvious resistance is felt. Turn past the resistance until it comes to a stop. Take out the cap. Hang up the cap on the inside of the fuel filler flap.

Put the petrol cap back after refuelling. Turn until one or more clear clicks are heard.

Filling up with fuel

Fill the tank with fuel until the filler pump cuts out. Too much fuel can overflow in warm weather.

Fuel of a lower quality than that specified on page 218 should not be used as engine power and fuel consumption can be negatively affected.

WARNING!

Fuel which spills on to the ground can be ignited by the exhaust fumes.

Switch off the fuel-driven heater before starting to refuel.

Never carry an activated mobile phone when refuelling the ring signal could cause spark build-up and ignite petrol fumes, leading to fire and injury.

Petrol

Important!

Do not add cleaning additives to the petrol, unless recommended by Volvo.

Diesel

At low temperatures (-5°C to -40°C), a paraffin precipitate may form in the diesel fuel, which can lead to ignition problems.

Important!

Use special winter grade fuel during cold months.

Starting the car

Depending on the engine temperature when the engine is started, the idling speed after a cold start may be higher than normal for certain engine types. Volvo strives to minimise exhaust emissions by having the engine exhaust system reach the correct operating temperature as quickly as possible.

NOTE! Never rev the engine hard immediately after a cold start.

WARNING!

Never remove the ignition key from the steering lock while driving or when the car is being towed. The ignition key must be in position **(II)** when the car is towed. The steering lock could otherwise be activated, making it impossible to steer the car.

Before starting the engine

- Apply the parking brake (handbrake).

Automatic gearbox:

- The ignition key must be in position **II**, depress the brake pedal and move the gear selector to position **P** or **N**.

Manual gearbox:

- Put the gear lever in neutral and hold the clutch pedal fully depressed. This is

particularly important in very cold conditions.

Starting the engine

Petrol engine:

- Turn the ignition key to position **III**. If the engine does not start within 5-10 seconds, release the key and try again.

Diesel engine:

- Turn the ignition key to position **II**. A lamp on the combined instrument panel will come on indicating that the engine preheater is activated. Turn the key to position **III** when the lamp extinguishes.

Diesel particle filter (certain models)

Certain diesel cars are equipped with a particle filter which results in additionally effective exhaust purification. When the engine is at its normal operating temperature (the engine is warm) a "regeneration" of the filter takes place automatically, which means that the particles collected in the filter are burned away and the filter is emptied.

Regeneration takes between five and ten minutes. During this time fuel consumption may increase slightly.

Winter driving

If the car is frequently driven short distances in cold weather then the engine does not

reach normal operating temperature. This means that regeneration of the diesel particle filter does not take place and the filter is not emptied.

When the filter has become approx. 80% full of particles then the warning text **ENGINE SERVICE REQUIRED** is shown in the dashboard display.

Regeneration should be carried out regularly if the car is frequently driven short distances in cold weather in order to avoid impaired function of the filter.

- Start regeneration of the filter by driving the car until the engine reaches normal operating temperature, preferably on a main road or motorway. The car should then be driven for approximately 20 minutes more.
- To clear the warning text when regeneration is complete, switch off the ignition, remove the key, wait for at least three minutes and switch the ignition on again.
- Use the parking heater (option) in cold weather so that the engine reaches normal operating temperature more quickly.

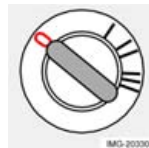
Important!

If the filter fills up with particles then it can be difficult to start the engine and the filter will be incapable of functioning and must then be replaced.

Ignition keys and electronic immobiliser

The ignition key must not hang with other keys or metal objects on the same key ring. The electronic immobiliser could be activated accidentally.

Ignition switch and steering lock



0 – Locked position

The steering lock is activated when the key is removed from the lock.



I – Radio position

Certain electrical components can be switched on. The engine's electrical system is not activated.



II – Driving position

The key position when driving. The car's electrical system is energised.



III – Start position

The starter motor is engaged. Release the key, which springs back automatically to the driving position, once the engine has started.

A ticking sound may be heard if the key is between positions. Turn the key to position II and back to eliminate the sound.

When the steering lock is activated

If the front wheels are positioned so that there is tension in the steering lock, a warning message may be shown in the information display and the car prohibited from starting.

- Remove the key and turn the steering wheel to release the tension.
- Hold the steering wheel in this position. Reinsert the key and make a new attempt to start the car.

WARNING!

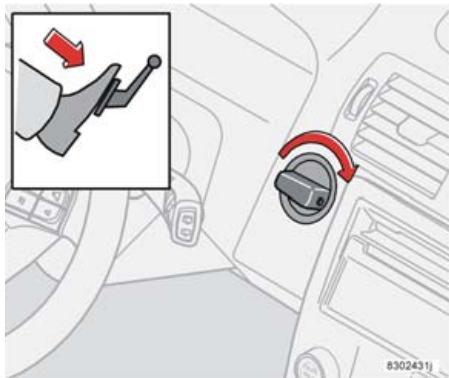
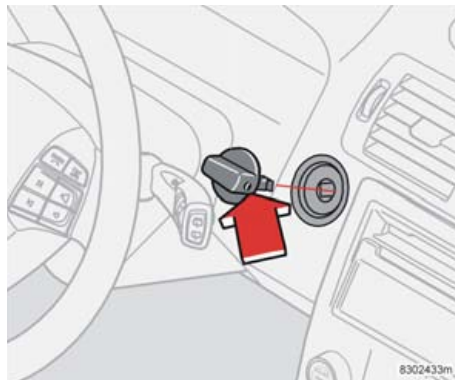
Never remove the ignition key from the ignition switch while driving or when the car is being towed. The steering lock could otherwise be activated, making it impossible to steer the car.

WARNING!

Always remove the ignition key from the ignition when leaving the car, especially if there are children in the car.

Make sure the steering lock is activated when the car is left to reduce the risk of theft.

Starting the car



Starting the car

Instead of an ignition key, the car has an ignition dial. The dial is used in the same way as the key. The only difference is that to start the car, either the clutch pedal (manual gearbox car) or brake pedal (automatic gearbox car) must be depressed. This is a safety measure.

For the car to start, the car's passive remote control/key must be in the passenger or cargo area.

To start the car:

- Depress the clutch or brake pedal.
- Press in and turn the dial to position **III**.

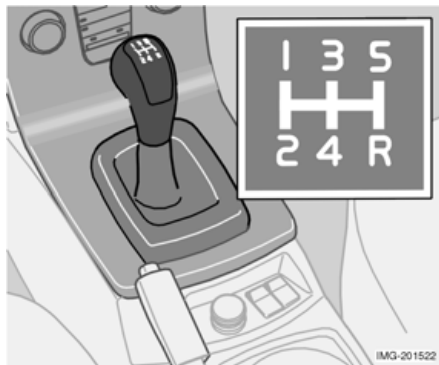
Ignition dial or ignition key

The car can be started with the dial or with the key.

To remove the ignition dial:

Push in the catch and pull out the dial.

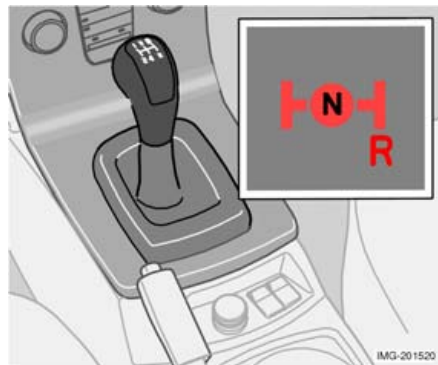
Manual gearbox



Gear positions, five-speed

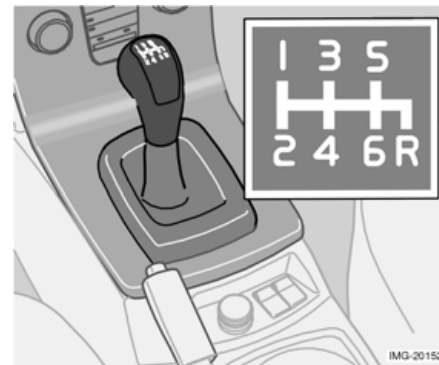
Depress the clutch pedal fully with each gear change. Remove your foot from the clutch pedal between gear changes! Follow the appropriate shifting pattern.

For the best possible fuel economy, use the highest gear possible as often as possible.



Reverse gear inhibitor, five-speed

Only engage reverse gear when the car is stationary. To engage reverse gear, the gear lever must first be put in position **N**. Reverse gear cannot therefore be engaged directly from fifth gear, because of the reverse gear inhibitor.



Gear positions, six-speed (petrol)

Depress the clutch pedal fully with each gear change. Remove your foot from the clutch pedal between gear changes! Follow the appropriate shifting pattern.

For the best possible fuel economy, use the highest gear possible as often as possible.

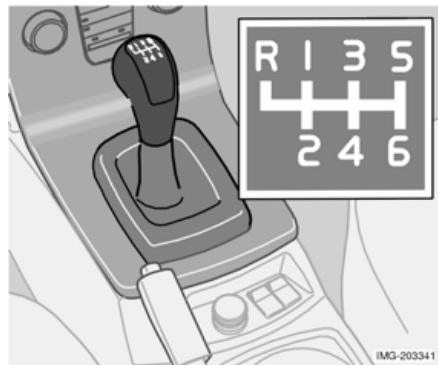
It can be difficult to find the positions for fifth and sixth gear when the car is stationary as the reverse gear inhibitor (which blocks sideways movement towards reverse) is then not activated.

Manual gearbox



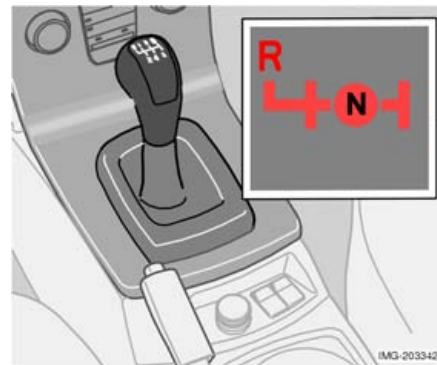
Reverse gear inhibitor, six-speed (petrol)

Only engage reverse gear when the car is stationary.



Gear positions, six-speed (diesel)

Depress the clutch pedal completely for each gear change. Remove your foot from the clutch pedal between gear changes. Follow the indicated gear pattern. For optimum fuel economy use the highest possible gear as often as possible.



Reverse gear inhibitor, six-speed (diesel)

Only engage reverse gear when the car is stationary. To engage reverse gear, press the gear lever to the left past the spring-loaded inhibitor.

Important!

The spring-loaded inhibitor can be forced when engaging 1st or 2nd gear if you apply too much pressure to the left when changing gear. This can lead to reverse being engaged when driving forwards.

Automatic gearbox

Cold start

When starting in low temperatures, the gear changes can sometimes feel hard. This is due to the gearbox oil's viscosity at low temperatures. To minimise engine emissions, the gearbox shifts up later than normal when the engine is started at low temperatures.

NOTE! Depending on the engine temperature when the engine is started, the idle speed after a cold start may be higher than normal for certain engine types.

Kick-down

When the accelerator pedal is pressed all the way to the floor, beyond the position normally regarded as full acceleration, a lower gear is immediately engaged. This is known as kick-down.

If the accelerator is released from the kick-down position, the gearbox automatically changes up.

Kick-down is used when maximum acceleration is needed, such as for overtaking.

To prevent overrevving, the gearbox control program has a protective downshift inhibitor which prevents the kick-down function.

The kick-down function cannot be used in manual gear position (Geartronic).

Safety systems

Cars with an automatic gearbox have special safety systems:

Keylock

To remove the ignition key, the gear selector must be in the **P** position. The key is locked in all other positions.

Parking position (P)

Stationary car with engine running:

- Hold your foot on the brake pedal when moving the gear selector to another position.

Electric gear inhibitor – Shiftlock

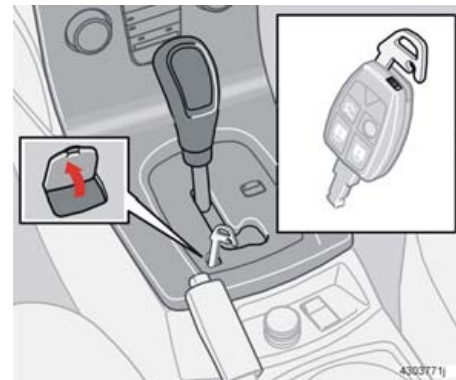
Parking position (P position)

To be able to move the gear selector from the **P** position to other gear positions, the ignition key must be in position **II** and the brake pedal must be depressed.

Shiftlock - Neutral (N position)

If the gear selector is in the **N** position and the car has been stationary for at least three seconds (irrespective of whether the engine is running) then the gear selector is locked in the **N** position.

To be able to move the gear selector from the **N** position to another gear position, the brake pedal must be depressed and the ignition key must be in position **II**.

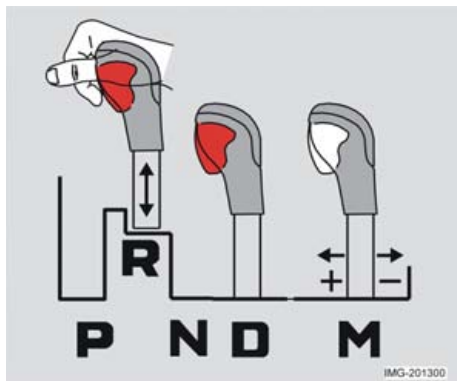


Disengaging shiftlock

In certain cases, it may be necessary to move the car when it is not driveable, for example if the battery is flat. Proceed as follows to move the car:

- There is a small cover behind **P-R-N-D** on the gear selector panel. Open the rear edge.
- Insert the key blade from the remote control. Press down and hold the key blade. The gear selector can now be moved out of the **P** position.

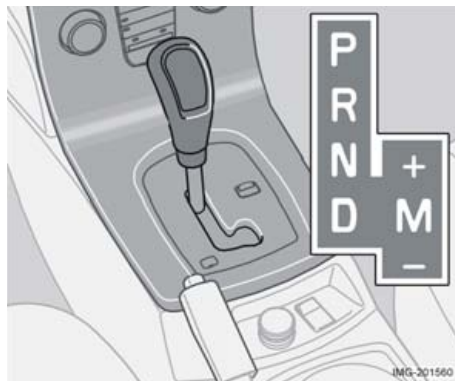
Automatic gearbox



Mechanical gear selector inhibitor

The gear selector can be moved freely between **N** and **D**. Other positions are locked with a latch that is released with the inhibitor button on the gear selector.

Press the inhibitor button to move the lever forward or back between the different gear positions.



Automatic gear positions

P – Parking position

Select position **P** when you wish to start the engine or park the car.

NOTE! The brake pedal must be depressed to engage the **P** position.

Important!

The car must be stationary when the **P** is selected.

The gearbox is mechanically blocked when **P** position is engaged. Always apply the parking brake when parking the car.

R – Reverse

The car must be stationary when **R** is selected.

N – Neutral

N is the neutral position. No gear is engaged and the engine can be started. Apply the parking brake when the car is stationary with the gear selector is in position **N**.

D – Drive

D is the normal driving position. Shifting up and down between the different gearbox ratios takes place automatically based on the level of acceleration and speed. The car should be stationary when the gear lever is moved from position **R** to position **D**.

Manual positions

To move from the automatic driving position **D** to a manual position, move the gear selector to position **M**. To go from position **M** to the automatic driving position **D**, move the selector to position **D**.

While driving

The manual gearshift mode can be selected at any time while driving. The engaged gear is locked until you choose another gear.

If the gear selector is moved to – (minus) the car changes down a gear and engine brakes at the same time as the accelerator pedal is

released.. If the gear selector is moved to + (plus) the car changes up a gear.

The selected gear is indicated in the combined instrument panel (see page 38).

NOTE! Geartronic contains two safety functions:

- Geartronic does not permit downshifting/kick-down which would result in an engine speed high enough to damage the engine. Nothing happens if the driver tries to shift down in this way. The original gear remains engaged.
- Geartronic automatically shifts down if the driver allows the speed to decrease lower than a level suitable for the selected gear, in order to avoid jerking and stalling.

W – Winter



The **W** button by the gear selector engages and disengages the winter programme **W**. The symbol **W** is shown in the combined instrument panel when the winter

programme is activated.

The winter programme starts the gearbox in a higher gear to facilitate starting off on slippery surfaces. The lower gears are only activated with kick-down when the winter programme is engaged.

The **W** programme can only be selected in position **D**.

To prevent overrevving, the gearbox control program has a protective downshift inhibitor.

All-wheel drive

All-wheel drive – AWD

All-wheel drive is always engaged.

All-wheel drive means that all four road wheels are driven at the same time. Power is automatically distributed between front and rear wheels. An electronically controlled clutch system distributes the power to the pair of wheels that grips best. This provides the best traction and prevents wheel spin.

Under normal driving conditions, the majority of power is transmitted to the front wheels.

All-wheel drive improves driving safety in rain, snow and icy conditions.

Brake system

Brake servo

If the car is rolling or is being towed with the engine turned off, the brake pedal must be pressed about five times harder than when the engine is running. If the brake pedal is pressed when the engine is started, you will feel the pedal drop. This is normal and due to the brake servo becoming active. This may be more noticeable if the car has emergency brake assistance (EBA).

NOTE! If braking with the engine switched off, press the brake pedal sharply once, not repeatedly.

WARNING!

The brake servo only works when the engine is running.

Brake circuits



This symbol lights if a brake circuit is not working.

If a fault should occur in one of the circuits, it is still possible to brake the car. The brake pedal will travel further and may feel softer than normal. Harder pressure on the pedal is needed to produce the normal braking effect.

Dampness can affect braking characteristics

Brake components become wet when the car is driven in heavy rain, through pools of water or when the car is washed. This may alter brake pad friction characteristics so that there is a delay before braking effect is noticed.

Press the brake pedal lightly from time to time if driving for long stretches in rain or slushy snow, as well as after setting off in very damp or cold weather. This warms up the braking surfaces and dries off any water. It is also recommended to do this before parking the car for a long period in such weather conditions.

If the brakes are used heavily

When driving in the Alps or other roads with similar characteristics, the car's brakes are heavily loaded even if the brake pedal is not being depressed especially hard.

Because speed is often low, the brakes are not cooled as effectively as when driving on flat roads at higher speed.

So as not to overload the brakes, shift down when driving downhill instead of using the foot brake. Use the same gear driving downhill as you would use driving uphill. This

using engine braking more efficiently and requires the foot brake for only brief periods.

Bear in mind that driving with a trailer puts an additional load on the car's brakes.

Anti-lock braking system (ABS)



The anti-lock braking system (ABS) prevents the wheels from locking up under braking.

This means the ability to steer is maintained and it is easier to swerve to avoid a hazard, for example.

After the engine has been started, the ABS will perform a brief self-test at a speed of about 20 km/h. This can be felt and heard as pulses in the brake pedal.

To get the most out of the ABS:

- Press brake pedal with full force. Pulses will be felt.
- Steer the car in the direction of travel. Do not release the pressure on the pedal.

Practice braking with the ABS system in a traffic-free area and in different weather conditions.

The ABS symbol lights up:

- for about two seconds when the car is started if the ABS is disengaged due to a fault.

Brake system

Emergency brake assistance – EBA

(Emergency brake assistance) In case of sudden braking, full-strength braking is provided instantaneously. The EBA function senses when heavy braking is underway by registering how quickly the brake pedal is depressed. Continue braking without easing off on the brake pedal. The function is suspended when the pressure on the brake pedal eases. This function is always active and cannot be disengaged.



WARNING!

If the BRAKE and ABS warning symbols are lit at the same time, a fault may have occurred in the brake system. If the level in the brake fluid reservoir is normal, drive carefully to the nearest authorised Volvo workshop to have the brake system checked.

If the brake fluid is under the MIN level in the brake fluid reservoir, do not drive further before topping up the brake fluid. The reason for the loss of brake fluid must be investigated.

Stability system

When the system is in action, it may seem like the car does not respond normally to acceleration. This is because the system detects the amount of friction on the road surface and allows the different stability system functions to operate.

The car is either equipped with the stability and traction control system (STC) - or the dynamic stability and traction control system (DSTC).

Function/ system	STC	DSTC ¹
TC	X	X
SC	X	X
AYC		X

1. Option on certain markets.

Traction Control (TC)

The Traction Control function transfers power from the spinning drive wheel to the drive wheel which has grip by braking the spinning drive wheel. To increase forward traction in this situation, it may be necessary to depress the accelerator more than usual. A pulsing sound is heard when Traction Control is working. This is completely normal. The TC function is most active at low speeds. It cannot be deactivated.

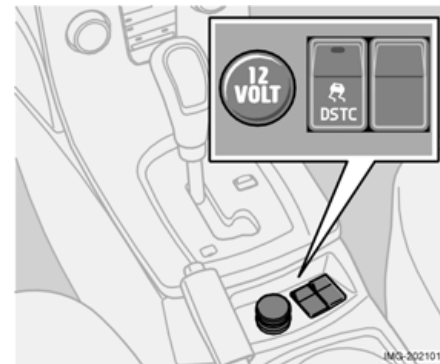
Spin Control (SC)

The Stability Control function prevents the drive wheels from slipping during acceleration. This improves road safety on slippery surfaces. Under certain conditions, such as when driving with snow chains or in deep snow or sand, it may be beneficial to deactivate the SC function to increase traction. This is done with the STC/DSTC button.

Active Yaw Control (AYC)

The Active Yaw Control function automatically brakes one or more wheels to stabilise the car in the event of a skid. If the brake pedal were to be depressed in this situation, it would feel more rigid than usual and a pulsing sound would be heard.

The AYC function is always active and cannot be deactivated.



STC/DSTC button

The STC/DSTC button in the centre console is used to suppress or reactivate the system. When the LED in the button is lit, the system is active. The LED in the button goes out when the stability system has been suppressed. Other functions are not affected.

NOTE! To suppress the STC or DSTC function, the button must be pressed and held for at least half a second. The LED in the button goes out and STC/DSTC SPIN CONTROL OFF appears on the information display. The system is automatically activated every time the engine is started.

Stability system

Symbols on the combined instrument panel



The symbol lights and goes out again after about 2 seconds

The symbol is lit for a system check when the car is started.



Flashing warning symbol

The SC function is operating to prevent the car's drive wheels from spinning. The TC function is operating to improve the car's

traction. The AYC function is operating to prevent skidding.



The information symbol comes on and stays lit

TRACTION CONTROL TEMPORARILY OFF is shown in the information display together

with the symbol. The TC function has been temporarily reduced due to too high brake temperature.

Automatic reactivation of the function takes place when the brake temperature has returned to normal.



The information symbol comes on and stays lit

ANTI-SKID SERVICE REQUIRED appears on the information display together with the symbol. The STC

or DSTC system has been switched off because of a fault.

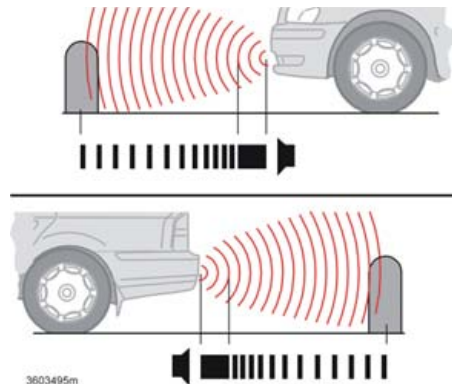
- Stop the car in a safe place and turn off the engine.
- Restart the engine.
- If the warning symbol remains lit, drive to a workshop to have the system checked.



WARNING!

Suppressing the STC or DSTC system may alter the driving characteristics of the car. Always take care when cornering and driving in slippery conditions.

Parking assistance (option)



Parking assistance front and rear

General

Parking assistance is used as an aid to parking. A signal indicates the distance to a detected object.

The frequency of the signal increases as you come closer to an object¹ in front of or behind the car.

The tone becomes constant at a distance of about 30 cm. If there are objects within this distance both behind and in front¹ of the car, the signal alternates between front and rear speakers.

1. Provided that the parking assistance is mounted both front and rear.

If the volume of another sound source from the audio system is high, this is automatically lowered.

The system is always active when the car is started and the text message "Park Assist active Exit to deactivate" appears on the audio display.

WARNING!

Parking assistance does not relinquish the driver's own responsibility during parking. The sensors have blind spots where objects cannot be detected. Be aware of children and animals near the car.

Front parking assistance

The distance covered to the front of the car is about 0.8 m.

Front parking assistance cannot be combined with extra lights because the sensors are affected by the extra lights.

Rear parking assistance

The distance covered to the rear of the car is about 1.5 m.

NOTE! The system must be deactivated when driving with a trailer, bike carrier on the towbar or the like as they would trigger the sensors.

Rear parking assistance is deactivated automatically when towing a trailer if a Volvo genuine trailer cable is used.

Deactivating and reactivating the parking assistance

The parking assistance can be deactivated by pressing EXIT on the control panel, see page 63. "Park Assist deactivated Enter to activate" will appear on the audio display. The parking assistance can be reactivated by pressing ENTER on the control panel. "Park Assistance active Exit to deactivate" will then appear on the audio display.

Front parking assistance

The front parking assistance is active at speeds of below 15 km/h, even during reversing.

The signal comes from the front loudspeakers.

Rear parking assistance

Rear parking assistance is activated when reverse gear is engaged. If the system is switched off, the text "Park Assist deactivated Enter to activate" will appear on the display as soon as reverse gear is engaged.

The signal comes from the rear loudspeakers.

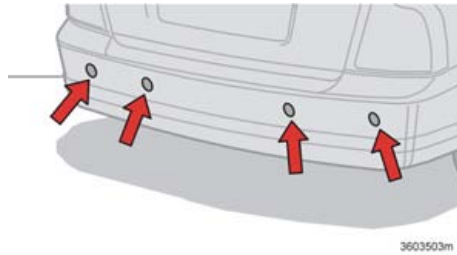
Fault indicator



The information symbol comes on and stays lit
PARK ASSIST SERVICE

REQUIRED is shown on the information display in the centre of the combined instrument panel together with the symbol.

Parking assistance (option)



Parking assistance sensors

Cleaning the sensors

The sensors must be cleaned regularly to ensure that they work properly. Clean them with water and car shampoo.

The sensors can react if covered by ice and snow.

Towing and recovery

Never tow the car to bump start it

Jump start the car with a donor battery if the battery is flat and the engine does not start. Do not bump start the car.

Important!

Bump starting the car can damage the catalytic converter.



WARNING!

The steering lock stays in the position it was in when the power was cut off. The steering lock must be unlocked before towing.

The ignition key must be in position **II**. Never remove the ignition key from the ignition switch while driving or when the car is being towed.

Towing

Find out the highest legal speed for towing before towing the car.

- Turn the ignition switch to position **II** and unlock the steering lock so that the car can be steered, see page 106.
- The ignition key must remain in position **II** while the car is being towed.

Automatic gearbox:

- Move the gear selector to position **N**.

Manual gearbox:

- Move gear lever into neutral.
- Ensure the towrope is always taut to avoid violent jerks. Keep your foot on the brake pedal.

Do not tow cars with an automatic gearbox faster than 80 km/h nor further than 80 km.



WARNING!

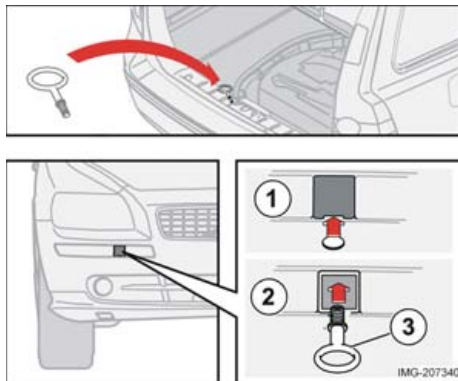
The brake servo and power steering do not work when the engine is switched off.

The break pedal must be pressed about five times harder than normal, and the steering will be considerable heavier than normal.

Recovery

Cars with an automatic gearbox should not, if partly lifted, be towed at more than 80 km/h. They should not be towed further than 80 km.

Towing and recovery



Important!

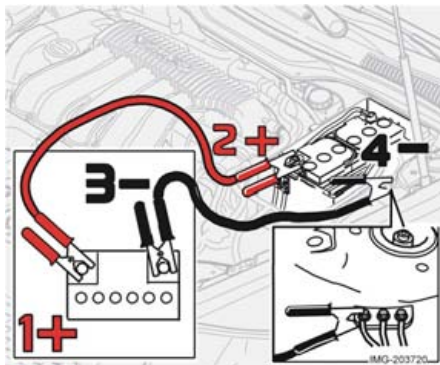
The towing eye is only designed for towing on roads, not for pulling the car unstuck or out of a ditch. Call a recovery service for assistance.

Towing eye

Use the towing eye if the car needs to be towed on the road. The towing eye is attached in the recess on the right-hand side of the front or rear bumper. To fit the towing eye:

- Take out the towing eye. This is stored under the floor hatch in the cargo area.
- Release the bottom edge of the cover on the bumper with a screwdriver or coin.
- Screw in the towing eye properly, right up to the flange. Use the wheel wrench to tighten the towing eye.
- After use, unscrew the towing eye and return it in the cargo area. Refit the cover on the bumper.

Start assistance



Starting with a donor battery

If the battery in the car has become flat, you can "borrow" electric current from either a separate battery or the battery in another car. Always make sure the crocodile clips on the jump leads are attached securely to eliminate sparks during the start attempt.

When jump starting the car, the following steps are recommended to avoid risk of explosion:

- Turn the ignition key to position **0**.
- Ensure that the other battery is 12 volt.
- If the donor battery is in another car, switch off the engine in the other car and

ensure that the cars do not touch one another.

- Connect the red jump lead between the positive terminal on the donor battery (1+) and the one in your car (2+).
- Connect one end of the black jump lead to the donor battery's negative terminal (3-).
- Connect the other end of the black jump lead to the earthing point (4-) by the left-hand strut tower.
- Start the engine of the "donor car". Let the engine run a few minutes at a speed slightly higher than idle 1500 rpm.
- Start the engine of the car with the flat battery.
- Remove the jump leads, first the black and then the red. Ensure that neither end of the black jump lead comes into contact with the battery's positive terminal or the crocodile clip on the red jump lead.

Do not touch the crocodile clips during the start procedure. This could cause sparking.



WARNING!

The battery can generate oxyhydrogen gas, which is highly explosive. One spark, which can be generated if you connect the jump leads incorrectly, is sufficient to make the battery explode.

The battery contains sulphuric acid, which can cause serious burns. If the acid comes into contact with eyes, skin or clothing, flush with large quantities of water. If acid splashes into the eyes, seek medical attention immediately.

Driving with a trailer

General

The load capacity is affected by extra accessories mounted on the car, such as a towbar, the load on the towball (75 kg with trailer hitched), load carriers and roof box, as well as the passengers' combined weight. The load capacity of the car is reduced by the number of passengers and their weight.

If the towing bracket is mounted at the Volvo factory, the car is delivered with the necessary equipment for driving with a trailer.

- The car's towing bracket must be of an approved type.
- If the towbar is retrofitted, check with your Volvo dealer that the car is fully equipped for driving with a trailer.
- Distribute the load on the trailer so that the weight on the towing bracket follows the specified maximum towball load.
- Increase the tyre pressure to the recommended pressure for a full load. See page 139 for the location of the tyre pressure label.
- Clean the towbar regularly and grease the towball¹.

1. Does not apply to the towball if using a stabiliser hitch.

- Do not tow a heavy trailer when the car is brand new. Wait until it has been driven at least 1000 km.
- The brakes are loaded much more than usual on long and steep downhill slopes. Downshift to a lower gear and adjust your speed.
- The engine is loaded more heavily than usual when driving with a trailer.
- The engine and gearbox can overheat if the car is driven with a heavy load in hot weather. If the temperature gauge for the engine's cooling system goes into the red zone, stop and let the engine idle for a few minutes. The gearbox responds through a built-in protection system. See the message on the information display. If the car overheats, the air conditioning may be switched off temporarily.
- In the interests of safety, speed should be restricted to 80 km/h, even if the laws of certain countries allow for higher speeds.
- The gear selector should be in the parking position **P** when a car with an automatic gearbox and attached trailer are parked. Always use the parking brake.
- Place chocks under the wheels to prevent the car from rolling when parked on a hill with trailer attached. The gear selector should be in the parking position **P** when

a car with an automatic gearbox and attached trailer are parked. Always use the parking brake.

Trailer weights

See page 211 for permitted trailer weights.

NOTE! The stated maximum permitted trailer weights are those permitted by Volvo. National vehicle regulations can further limit trailer weights and speeds. Towbars can be certified for higher towing weights than the car can actually tow.



WARNING!

Follow the stated recommendations for trailer weights. Otherwise, the rig may be difficult to control during evasive manoeuvres and braking.

Automatic gearbox, driving with a trailer

Parking on a hill:

- Apply the parking brake (handbrake).
- Move gear selector to the parking position **P**.

Starting on a hill:

- Move the gear selector to driving position **D**.
- Release the parking brake (handbrake).

Steep inclines:

- Select an appropriate manual gear position when climbing steep inclines or at low speeds. This prevents the gearbox from changing up and keeps the gearbox oil cooler.
- Do not use a higher manual gear than the engine can "handle". It is not always economical to drive in high gears.
- Avoid driving with a trailer on inclines of more than 15%.

Diesel engine with manual gearbox, driving with a trailer

If the car is driven with a heavy load in hot weather then the engine cooling fan should be replaced with a cooling fan with greater capacity than the fan fitted as standard. This is to avoid temporary shut down of the car's

air conditioning and temporary reduction in engine torque. Consult your Volvo dealer for information regarding your car's specifications.

Towing equipment

Towbars

The towball must be cleaned and greased regularly. If a towball hitch with vibration damper is used, it is not necessary to grease the towball.

If the car is equipped with a detachable towbar, the towball mounting instructions must be followed carefully, see page 128.

NOTE! Always take off the towball section after use. Keep it in the cargo area.

WARNING!

Be sure to attach the trailer's safety cable to the correct place.

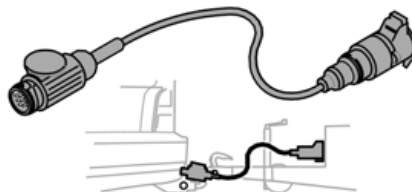
WARNING!

If the car is fitted with a Volvo detachable towbar:

Follow the assembly instructions for the towball section carefully.

The towball section must be locked with the key before setting off.

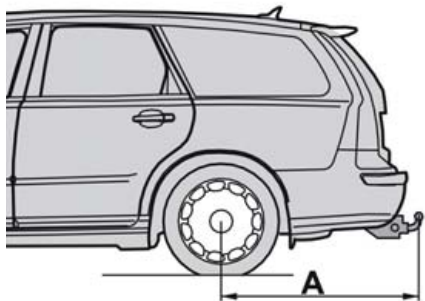
Check that the indicator window shows green.



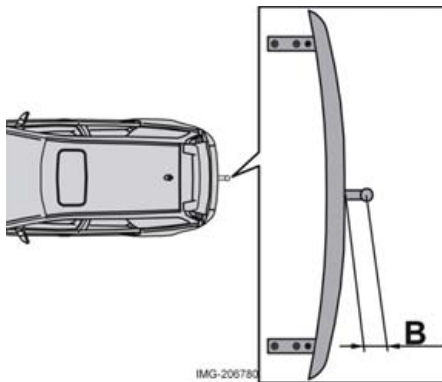
IMG-201504

Trailer cable

An adapter is required if the car's towbar has 13 pin electrics and the trailer has 7 pin electrics. Use an adapter cable approved by Volvo. Make sure the cable does not drag on the ground.



IMG-206782



IMG-206782

Specifications

Distance A

Fixed towbar: 1100 mm

Detachable towbar: 1100 mm

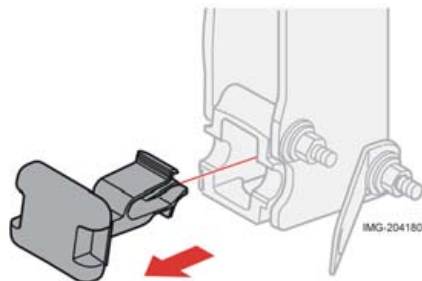
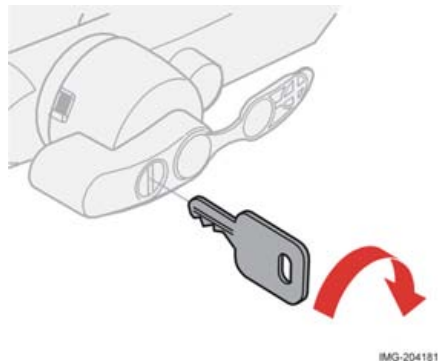
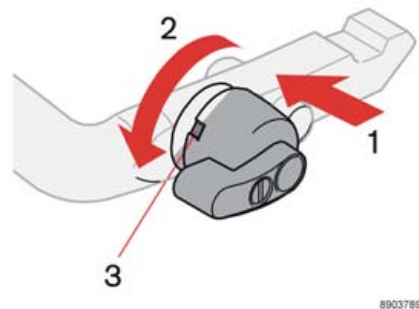
Maximum ball load: 75 kg

Distance B

Fixed towbar: 72 mm

Detachable towbar: 72 mm

Detachable towbar

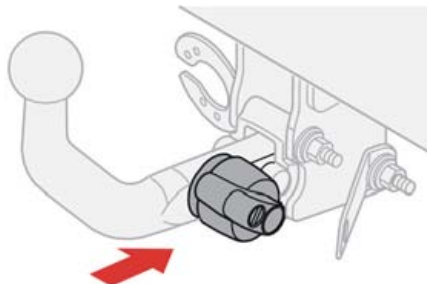


Fitting the towball

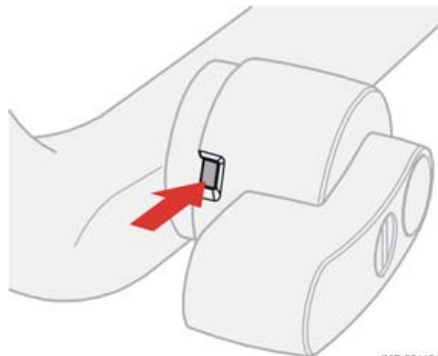
- Remove the guard plug.

- Ensure that the mechanism is in the unlocked position by turning the key clockwise.

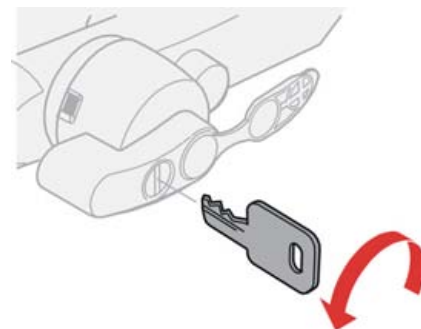
- Check that the indicator window (3) shows red.
If the window does not show red, press in (1) and turn the locking wheel anticlockwise (2) until you hear a click.



IMG-204183



IMG-204184



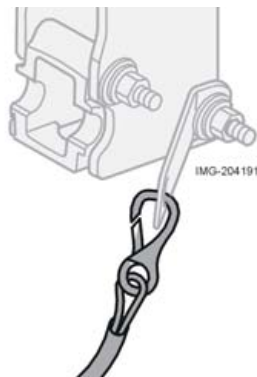
IMG-204185

- Insert the towball section until you hear a click.
- Check that the indicator window shows green.
- Turn the key anticlockwise to the locked position. Remove the key from the lock.

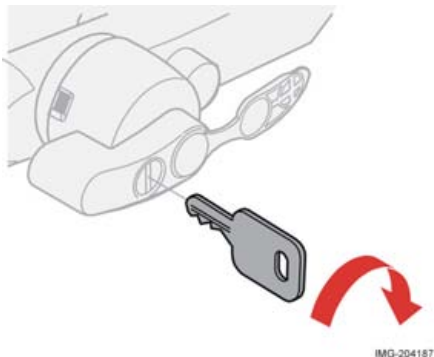
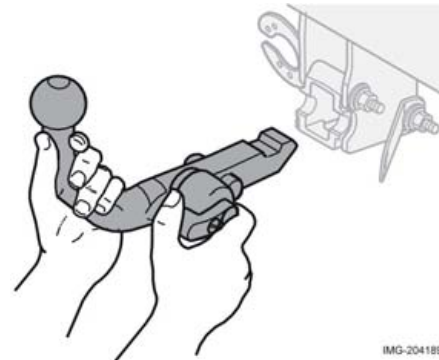
Detachable towbar



NOTE! Check that the towball section is secure by pulling it up, down and back. If the towball section is not fitted correctly then it must be removed and refitted in accordance with the previous steps.



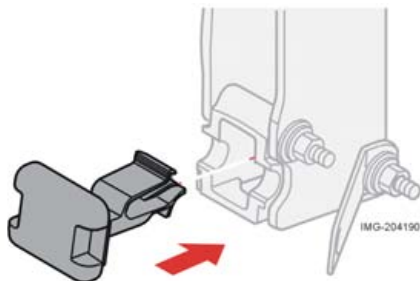
NOTE! The trailer's safety cable must be attached to the attachment on the towbar.



Removing the towball

- Insert the key and turn it clockwise to the unlocked position.
- Push in the locking wheel and turn it anticlockwise until you hear a click.
- Turn the locking wheel down fully, until it comes to a stop. Hold it in this position while pulling the towball rearward and upward.

Detachable towbar



- Insert the guard plug.

Loading

General

The load capacity is affected by extra accessories mounted on the car, such as a towbar, the load on the towball (75 kg with trailer hitched), load carriers and roof box, as well as the passengers' combined weight. The car's load carrying capacity is reduced by the number of passengers and their weight.

WARNING!

The car's driving characteristics change depending on how heavily it is loaded and how the load is distributed.

Loading the cargo area

Stop the engine and apply the parking brake when loading or unloading long objects. The gear lever or gear selector can be knocked out of position by long loads, which could set the car in motion. To increase the size of the cargo area, the head rests can be removed and the seats folded down, see page 84.

Place the load firmly against the backrest in front.

- The head rests can be removed so that they are not damaged.
- Put wide loads in the centre.

- Heavy objects should be placed as low as possible. Avoid placing heavy loads on a lowered backrest.
- Cover sharp edges with something soft to avoid damaging the upholstery.
- Secure all loads to the load retaining eyelets with straps or web lashings.

WARNING!

A loose object weighing 20 kg can, in a front-on collision at a speed of 50 km/h, carry the impact of an item weighing 1000 kg.

WARNING!

Never load cargo above the backrest. The protection provided by the inflatable curtain in the headlining may be compromised or eliminated by high loads. Always secure the load. During heavy braking the load may otherwise shift, causing personal injury.

Load carriers

To avoid damaging the car and for maximum possible safety while driving, it is recommended to use load carriers specially designed for your car by Volvo.

Carefully follow the mounting instructions supplied with the carriers.

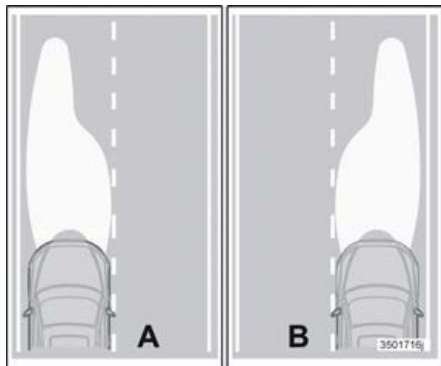
- Check periodically that the load carriers and load are properly secured. Lash the load securely with retaining straps.
- Distribute the load evenly over the load carriers. Put the heaviest objects at the bottom.
- The size of the area exposed to the wind, and therefore fuel consumption, increase with the load's size.
- Drive gently. Avoid quick accelerations, heavy braking and taking curves hard.

WARNING!

Load no more than 75 kg on the roof, inclusive of the load carriers and any roof box.

The car's centre of gravity and driving characteristics are altered by roof loads.

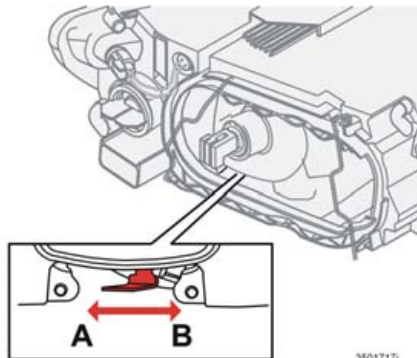
Adjusting headlamp pattern



*A. Headlamp pattern for left-hand traffic
B. Right-hand traffic*

Correct light pattern for left or right-hand traffic

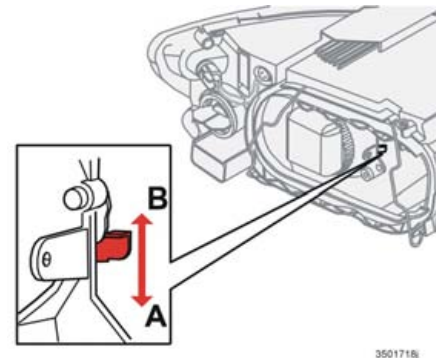
The headlamps' projection can be adjusted to avoid dazzling other motorists. The correct pattern will also better illuminate the verge.



Halogen lights

Halogen headlamps

The headlamp control should be in position (A) for left-hand traffic and position (B) for right-hand traffic.



Bi-Xenon lights

Bi-Xenon headlamps

The headlamp control should be in position (A) for left-hand traffic and position (B) for right-hand traffic.

WARNING!

On cars with Bi-Xenon headlamps, all work on the lights should be carried out at an authorised Volvo workshop. Bi-Xenon headlamps must be handled with extreme care due to the high-voltage unit.

Wheels and tyres

General	136
Tyre pressure	139
Changing wheels	140
Warning triangle and spare wheel	141
Removing wheels	142
Emergency puncture repair	144

General

Driving characteristics and tyres

The tyres greatly affect the car's driving characteristics. The type of tyre, dimensions, tyre pressure and speed rating are important for how the car performs.

When changing tyres, ensure that tyres of the same type and dimensions, and preferably also the same make, are fitted to all four wheels. Follow the recommended tyre pressures specified on the tyre pressure label, see page 139.

Designation of dimensions

The dimensions are stated on all car tyres. Example: 205/55R16 91 W.

205	Section width (mm)
55	Ratio between section height and width (%)
R	Radial ply
16	Rim diameter in inches (")
91	Tyre load index (in this case 615 kg)
W	Speed rating (in this case 270 km/h)

Speed ratings

The car is approved as a whole, which means that dimensions and speed ratings must not differ from those specified on the vehicle's registration document. The only exception to these conditions is winter tyres (both those with metal studs and those without). If such a tyre is chosen, the car must not be driven

faster than the speed rating of the tyre (for example, class Q can be driven at a maximum of 160 km/h).

Remember that traffic regulations determine how fast a car can be driven, not the speed class of the tyres.

Note! Maximum permitted speeds indicated.

Q	160 km/h (used only on winter tyres)
T	190 km/h
H	210 km/h
V	240 km/h
W	270 km/h
Y	300 km/h

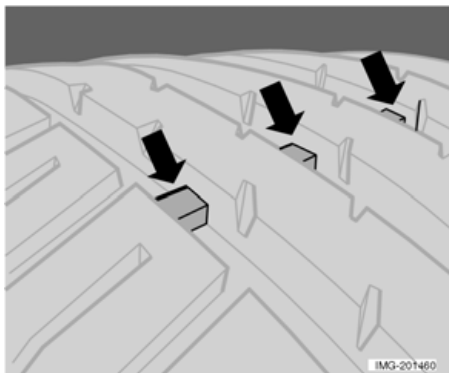
New tyres



Tyres are perishable. After a few years they begin to harden at the same time as the friction capacity/characteristics gradually deteriorate. Therefore aim to get as fresh tyres as possible when you replace them. This is especially important with regard to winter tyres. The week and year of manufacture are stated with four digits, for example 1502. The tyre in the illustration was manufactured in week 15 of 2002.

Tyre age

Even if tyres have a theoretical lifespan of up to ten years, it is not recommended to drive on tyres which are more than six years old.



Tyres with tread wear indicators

Tread wear indicators are narrow treadless bands across the width of the tread. On the side of the tyre are the letters TWI (tread wear indicator). When only 1.6 mm of tread remains, this band is clearly visible. Change the tyres as soon as possible. Remember that tyres with little tread depth provide very poor grip in rain and snow.

Winter tyres

Volvo recommends winter tyres with particular dimensions. These are stated on the tyre pressure label, see page 139 for its location. The tyre dimensions are dependent

on the engine variant. When driving on winter tyres, these must be fitted to all four wheels.

NOTE! Ask a Volvo dealer which rim and tyre types are most suitable.

Studded tyres

Studded winter tyres should be run in gently for 500-1000 km so the studs settle properly into the tyre. This gives the tyre, and especially the studs, a longer lifespan.

NOTE! The legal provisions for the use of studded tyres vary from country to country.

Tread depth

Road conditions with ice, slush and low temperatures place considerably higher demands on tyres than summer conditions. It is therefore not recommended to drive on winter tyres that have a tread depth of less than four millimetres.

Snow chains

Snow chains may only be used on the front wheels. This also applies to all-wheel-drive cars.

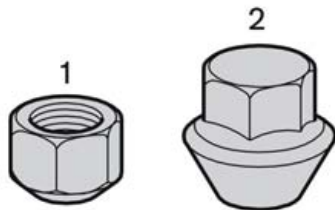
Never drive faster than 50 km/h with snow chains. Avoid driving on bare ground as this wears out both the snow chains and tyres. Never use quick-fit snow chains as the space

between the brake disks and the wheels is too small.

Important!

Use Volvo genuine snow chains or equivalent chains designed for the car model, and tyre and rim dimensions. Consult an authorised Volvo workshop.

General



Standard (1) and bulge acorn (2) wheel nuts

Rims and wheel nuts

Only use rims that are tested and approved by Volvo and which are Volvo genuine accessories. There are two types of wheel nut, depending on whether the rims are made of steel or aluminium. Tighten the wheel nuts to 85 Nm. Check the torque with a torque wrench.

Important!

The wheel nuts should be tightened to 85 Nm. Overtightening can damage the nuts and the bolts.

Steel rims – standard wheel nuts (1)

Steel rims are normally mounted with the standard wheel nuts, but the bulge acorn variety may also be used.



WARNING!

Never use standard nuts for aluminium rims. The wheels can come loose.

Aluminium rims – bulge acorn wheel nuts (2)

Only use the bulge acorn variety of nuts with aluminium rims. These differ markedly from other nut types as they have a rotating conical washer.

NOTE! These nuts may also be used with steel rims.

Locking wheel nuts

Locking wheel nuts can be used on both aluminium and steel rims. If steel rims with locking nuts are used in combination with wheel covers, the locking wheel nut should be mounted on the bolt nearest the air valve. Otherwise the wheel cover cannot be fitted to the rim.

Temporary spare

The spare wheel¹ is only intended to be used for the short time it takes to get the ordinary wheel replaced or repaired. Replace the spare wheel as soon as possible with a normal wheel. The car's handling may be altered by the use of the spare wheel.

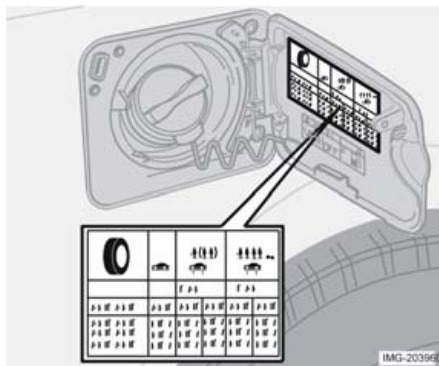
Never drive faster than 80 km/h with a spare wheel on the car.

Important!

The car must never be driven fitted with more than one temporary spare wheel.

1. Certain variants and markets

Tyre pressure



Recommended tyre pressure

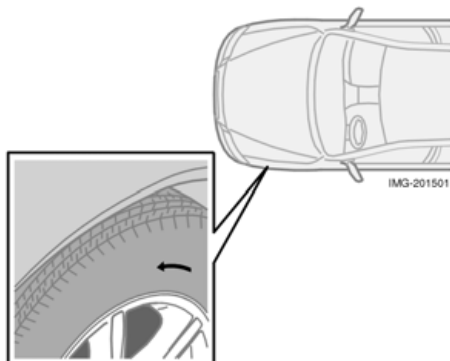
The tyre pressure decal on the inside of the fuel filler flap shows what pressure the tyres should have with different load and speed conditions.

Checking the tyre pressure

Check the tyre pressure regularly. The correct tyre pressure is shown in the tyre pressure table. The stated tyre pressures refer to cold tyres. (Cold tyres mean the tyres are the same temperature as the ambient temperature.)

Driving with the wrong tyre pressure adversely affects the car's driving characteristics and can increase tyre wear. After just a few kilometres of driving, the tyres warm up and the pressure increases. Therefore air should not be released if the pressure is checked when the tyres are warm. However the pressure should be increased if it is too low.

Changing wheels



The arrow shows the tyre's direction of rotation.

Summer and winter wheels

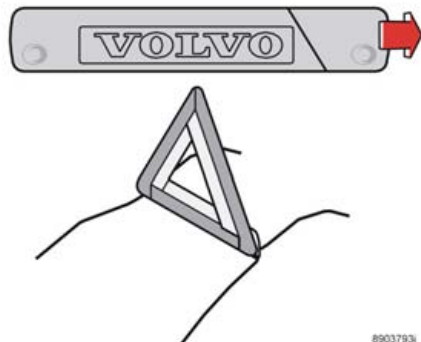
When summer and winter wheels are changed they should be marked with which side of the car they were mounted on, for example **L** for left and **R** for right. Tyres with a tread pattern which are designed to only turn in one direction have the direction of rotation marked with an arrow. The tyre should always rotate in the same direction throughout its lifespan. Tyres should only be switched between front and rear positions, never between left and right-hand sides, or vice versa. If the tyre is mounted incorrectly, the car's braking characteristics and capacity to force rain, snow and slush out of the way are

adversely affected. Tyres with the greatest tread depth should always be fitted to the rear of the car (to decrease the risk of skidding.)

Wheels should be stored lying down or hanging up, and not standing up.

Contact an authorised Volvo workshop if you are uncertain about tread depth.

Warning triangle and spare wheel



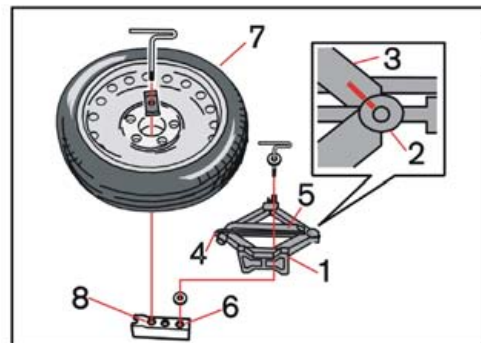
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Warning triangle

Follow the regulations for the use of a warning triangle¹. Place the warning triangle in a suitable place with regard to the traffic.

- Undo the case containing the warning triangle, it is attached with Velcro. Take the warning triangle out of the case.
- Lower the warning triangle's support legs.

Ensure the warning triangle and its case are properly secured in the cargo area after use.



7700581j

Spare wheel and jack

The car's original jack

The original jack² should only be used for changing wheels. The jack's thread should always be well greased.

The spare wheel, jack and wheel spanner are found under the floor in the cargo area.

Taking out the spare wheel:

- Fold the rear edge of the floor mat forward.
- Release the spare wheel and lift it out.
- Take out the jack and the wheel spanner.

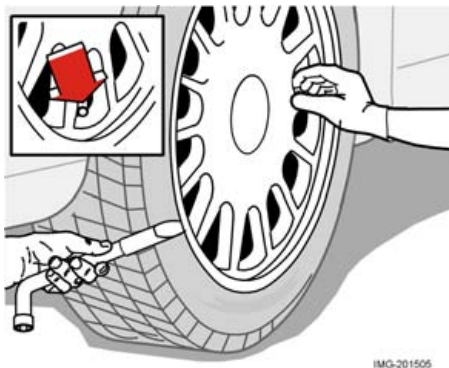
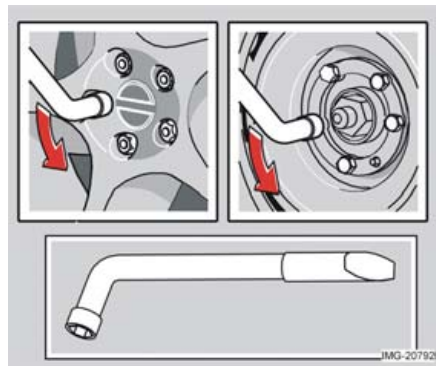
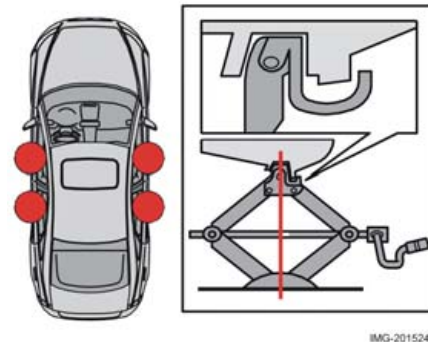
Putting the spare wheel and jack into the cargo area:

- Wind the jack to halfway (1). The marking on the plate (2) should line up with the marking on the arm (3) so that the jack can fit lying down in the holder.
- Fold in the handle (4) and place the wheel spanner (5) on the jack.
- Put the jack back (1) in the hole on the right (6). Fasten the spare wheel (7) in the hole on the left (8).

1. Certain markets

2. Certain variants and markets

Removing wheels



Set up the warning triangle if a wheel must be replaced at a busy location. Make sure that the car and jack are on a firm horizontal surface.

- Take out the spare wheel, jack and wheel spanner, which are found under the carpet in the cargo area.
- Apply the parking brake and engage first gear, or position **P** if the car has an automatic gearbox.
- Place chocks in front of and behind the wheels which will remain on the ground. Use heavy wooden blocks or large stones.
- Cars with steel rims have removable wheel covers. Pry off the wheel cover with the end of the wheel spanner, or pull it off by hand.
- Loosen the wheel nuts $\frac{1}{2}$ -1 turn anticlockwise with the wheel spanner.

- On each side of the car are two jacking points. Wind down the jack's base so that it sits level on the ground. Check that the jack is seated correctly in the jacking point, as illustrated, and that the base is located directly under it.
- Jack up the car high enough that the wheel is clear of the ground. Remove the wheel nuts and lift off the wheel.

Fitting the wheel

- Clean the contact surfaces on the wheel and hub.
- Put on the wheel. Tighten the wheel nuts.
- Lower the car so that the wheel cannot rotate.
- Tighten the wheel nuts crosswise. It is important that the wheel nuts are tightened properly. Tighten to 85 Nm. Check the torque with a torque spanner.
- Put on the wheel cover (steel rim).



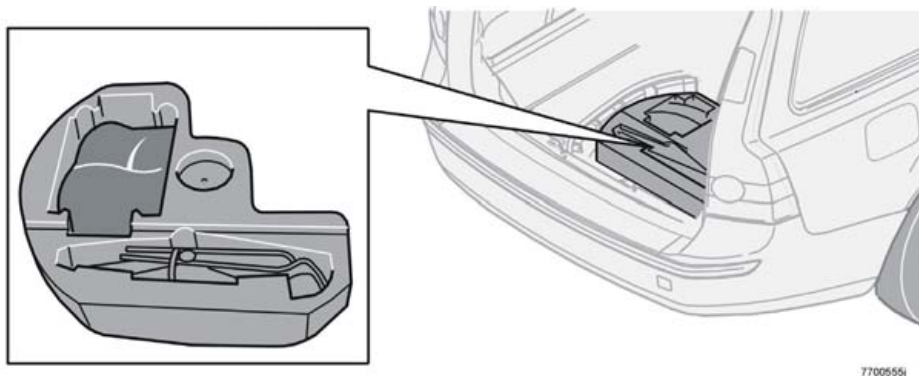
WARNING!

Never crawl under the car when it is raised on the jack.

Passengers must leave the car when it is raised on the jack.

Ensure that passengers wait with the car - or preferably a crash barrier - between them and the road.

Emergency puncture repair



General

Cars which do not have a spare wheel are instead equipped with an emergency puncture repair kit. This kit can be used to both seal the puncture and to check and adjust the tyre pressure. The kit consists of an electric air compressor and an integrated canister with sealing liquid.

Emergency puncture repair kit

The emergency puncture repair kit¹ is only intended to work as a temporary repair so that the car can be driven a further 200 km (max.) or to the nearest tyre centre. The

sealing fluid has the ability to effectively seal tyres which have punctures in the tread.

The canister with the sealing fluid should be replaced before the best-before date has expired or after the emergency repair kit has been used. Puncture repair kit replacement, see page 149 for canister replacement.

NOTE! The emergency puncture repair kit is only intended for sealing tyres with a puncture in the tread.

1. Certain variants and markets

The emergency puncture repair kit has limited abilities to seal tyres which have punctures in the wall of the tyre. Do not seal tyres with the emergency puncture repair kit if they have larger slits, cracks, irregularities or similar damage.

The emergency puncture repair kit with compressor and tools are found under the floor in the cargo area.

12 V sockets for the compressor are located by the centre console in the front, by the rear seat and in the cargo area. Choose the electrical socket that is nearest the punctured tyre.

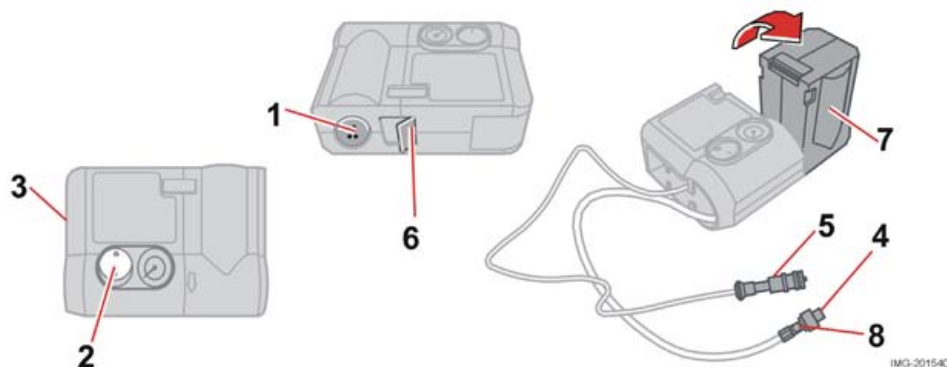
 WARNING!

The sealing fluid may cause irritation if it comes into direct contact with skin. In the case of contact with skin, wash away the fluid with soap and water.

Taking out the emergency puncture repair kit

- Fold away the rear edge of the floor mat forward.
- Lift up the emergency puncture repair kit.

Emergency puncture repair



Inflating tyres

Set up the warning triangle if a tyre must be inflated in an area close to traffic.

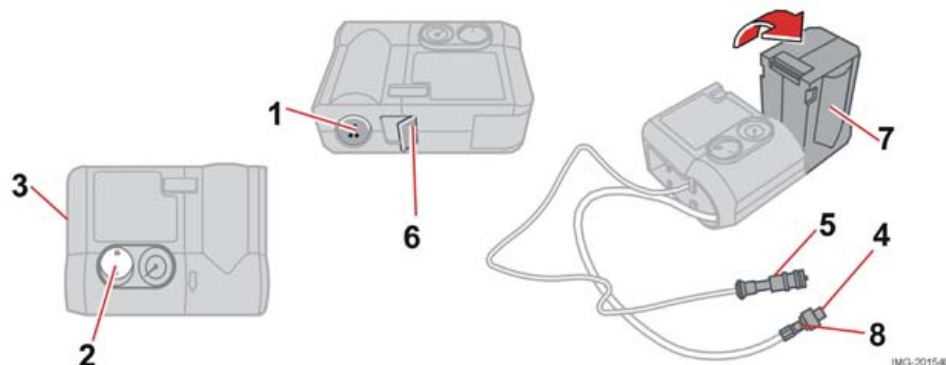
- Ensure that the orange switch (2) is in position **0** and take out the lead (5) and air hose (4) from the side compartment (3).
- Screw the air hose's valve connection to the bottom of the thread on the tyre's air valve.
- Connect the lead (5) to one of the car's 12 V sockets.
- Start the engine. The car must be in a well-ventilated place.
- Start the compressor by flicking the switch (2) to position **I**.
- Pump up the tyre to the pressure specified on the tyre pressure label.
- Turn off the compressor, the switch (2) should be in position **0**. Detach the air hose and unplug the lead. Replace the valve's dust cap.
- Put the lead (5) and air hose (4) into the side compartment (3).
- Put the puncture repair kit back under the floor in the cargo area.
- The compressor should not run for more than ten minutes at a time. Let it cool afterwards as there is a risk of overheating.

- Objects with a volume of up to 50 litres can be pumped up with the compressor.



WARNING!

Inhaling car exhaust fumes can result in danger to life. Never leave the engine running in sealed areas or areas that lack sufficient ventilation.



Sealing punctured tyres

Set up the warning triangle if emergency tyre repairs must be carried out in an area where there is other traffic.

- Remove the decal (1) regarding the highest permitted speed from the emergency puncture repair kit and stick it on the steering wheel where it can be clearly seen by the driver.
- Ensure that the orange switch (2) is in position **0** and take out the lead (5) and air hose (4) from the side compartment (3).
- Screw the air hose's valve connection to the bottom of the thread on the tyre's air valve.
- Connect the lead (5) to one of the car's 12 V sockets.

- Release the safety catch (6) and turn the orange-coloured part (7) 90 degrees to the vertical position, until a click is heard.
- Start the engine. The car must be in a well-ventilated place.



WARNING!

Inhaling car exhaust fumes can result in danger to life. Never leave the engine running in sealed areas or areas that lack sufficient ventilation.

- Start the compressor by flicking the switch (2) to position **I**. The pressure may increase temporarily up to a maximum of 4 bar while the sealing liquid is being

pumped in. After about one minute, the pressure will drop and the pressure gauge show a more correct tyre pressure.

- Pump the tyre to a pressure of between 1.8 bar and 3.5 bar. If the pressure does not reach 1.8 bar after ten minutes of pumping, the compressor should be turned off so it does not overheat.
- Undo the air hose (4) from the air valve and put the dust cap back on. Unplug the lead (5) from the electrical socket. Fold the orange-coloured part (7) back into its original position and secure the catch (6). Keep the emergency repair kit in a safe place in the car.

Emergency puncture repair

WARNING!

Never stand next to the tyre when the compressor is running. Be particularly observant of the tyre walls. If cracks, irregularities or other damage appears, turn off the compressor immediately. Under these circumstances your journey should not continue. Contact an authorised tyre centre.

- Immediately drive about 3 km, at a maximum speed of 80 km/h, to allow the sealing fluid to seal the tyre well.

WARNING!

You should not drive faster than 80 km/h after the emergency tyre repair kit has been used. The temporarily sealed tyre must be changed as soon as possible (maximum driving distance: 200 km).

- Check the tyre pressure again:

NOTE! Do not raise the orange-coloured part (7) when only the compressor is to be used for inflation.

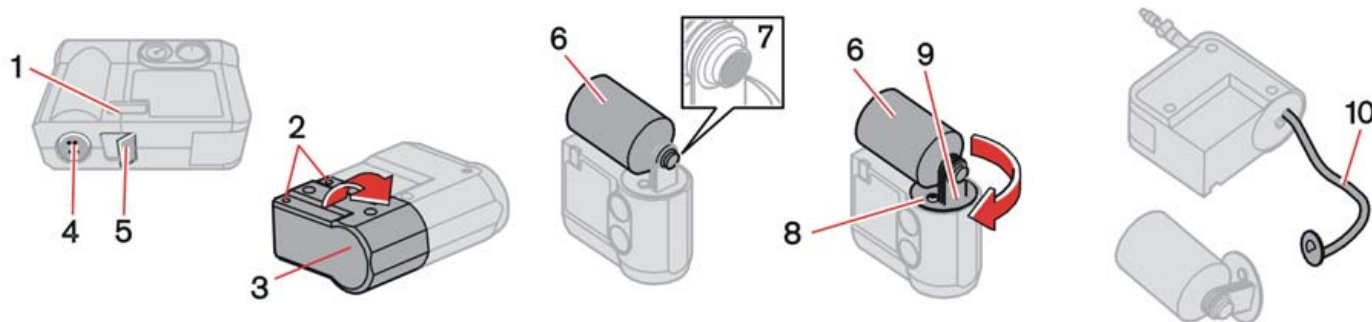
- Connect the air hose (4) to the air valve on the tyre. Connect the lead (5) to the 12 V power point. Read the pressure on

the compressor. If the tyre pressure is below 1.3 bar, the tyre has not been sufficiently well sealed. The journey should not be continued under these circumstances. Contact a tyre centre.

- If the tyre pressure is higher than 1.3 bar, the tyre should be pumped up to the pressure stated on the tyre pressure label, see page 139 for its location. Release pressure with the reduction valve (8) if the tyre pressure is too high.
- Turn off the compressor, the switch (2) should be in position **0**. Detach the air hose and unplug the lead. Replace the valve's dust cap.
- Put the lead (5) and air hose (4) into the side compartment (3).
- Put the puncture repair kit back under the floor in the cargo area.

The compressor should not run for more than ten minutes at a time. Let it cool afterwards as there is a risk of overheating.

NOTE! The canister with sealant and hose should be replaced after use.



Changing the sealing fluid canister

The canister of sealing fluid should be changed before the best-before date has expired, see date label (1), or after the tyre has been sealed. After use, the canister (6) with holder (8) and air hose (10) should be changed.

The canister can be replaced by an authorised Volvo workshop or according to the instructions.

Important!

Read the safety instructions on the bottom of the canister.



WARNING!

Ensure the compressor is not connected to the 12 V socket when the canister is changed.

Changing the canister before the best-before date has expired

- Undo the two screws (2) on the orange-coloured case (3).
- Remove the speed label (4) and date label (1), and open the safety catch (5). Loosen the case (3) and take it off.
- Unscrew and remove the canister (6).

- Check that the seal (7) on the new canister is not damaged. Screw the canister into place.
- Refit the case (3). Check that the case is correctly fitted. Screw it on with the screws (2).
- Affix the speed label (4) and new date label (1) to the tyre repair kit.

Treat the removed canister as hazardous waste.

Changing the canister and hose after use

- Undo the two screws (2) on the orange-coloured case (3).

Emergency puncture repair

- Remove the speed label (4) and date label (1), and open the safety catch (5). Loosen the case (3) and take it off.
- Push down the button (8) while turning the canister (6) and the holder (9) clockwise. Remove them.
- Pull out the air hose (10).
- Wipe off remaining sealing fluid with a rag or scrape it away if it is has already dried.
- Fit a new air hose (10). Check that it is fitted correctly.

Check that the seal (7) on the new canister is not damaged. Screw the holder (9) onto the canister (6) and turn it anticlockwise until a click is heard.

- Refit the case (3). Check that the case is correctly fitted. Screw it on with the screws (2).
- Affix the speed label (4) and new date label (1) to the tyre repair kit.

The empty canister and air hose can be treated as normal waste.

Car care

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Cleaning

Washing the car

Wash the car as soon as it becomes dirty. Use car shampoo. Dirt and road salt can lead to corrosion.

- Do not park the car in direct sunshine. Washing a car with hot paintwork can cause permanent paintwork damage. Wash the car in a carwash with waste water separator.
- Thoroughly rinse dirt off the underbody of the car.
- Rinse the entire car to remove loose dirt. When using a pressure washer: Make sure that the nozzle of the pressure washer is not closer than 30 cm to the bodywork. Do not spray directly at the locks.
- Wash using a sponge, car shampoo and plenty of lukewarm water.
- If the dirt is difficult to dislodge, wash the car using a cold degreasing agent.
- Dry the car using a clean, soft chamois or a water scraper.
- Clean the wiper blades with a lukewarm soap solution or car shampoo.

Removing bird droppings

Wash bird droppings off the paintwork as soon as possible. Bird droppings contain chemicals that affect and discolour paintwork

very quickly. This discoloration can only be removed by a specialist.



WARNING!

Always have the engine cleaned by a workshop. There is a risk of fire if the engine is hot.

Automatic carwashes

Although an automatic carwash is a quick and easy way to clean the car, it is no substitute for a proper hand wash. The brushes of an automatic carwash cannot reach all parts. We recommend that new cars are washed by hand for the first few months.



WARNING!

Always test the brakes after washing the car to ensure that moisture and corrosion do not attack the brake pads and reduce braking performance.

Press the brake pedal lightly from time to time if driving for long periods in rain or slush. This heats and dries the brake pads. You should also do this when you begin driving in extremely damp or cold weather.

Cleaning the upholstery

Treating spots on fabric

A special cleaning agent, available from your Volvo dealer, is recommended for cleaning the fabric upholstery. Other chemicals can impair the fire retardant qualities of the upholstery.

Important!

Sharp objects and Velcro may damage the fabric upholstery.

Treating spots on vinyl and plastic parts

A special cleaning agent, available from your Volvo dealer, is recommended for cleaning interior vinyl and plastic parts. Do not scrape or rub spots. Do not use strong stain removers.

Treating spots on leather

A special cleaning agent, available from your Volvo dealer, is recommended when cleaning leather upholstery. Treat the leather upholstery once or twice a year using Volvo's leather care kit. Never use strong solvents. Such products may damage fabric, vinyl and leather upholstery.

Cleaning seatbelts

Use water and a synthetic detergent. A special textile cleaning agent is available from you Volvo dealer. Make sure the seatbelt is dry before allowing it to retract.

Polishing and waxing

Polish and wax the car if the paintwork is dull or to give the paintwork extra protection.

The car does not need to be polished until it is at least one year old. However, the car can be waxed during this time. Do not polish or wax the car in direct sunlight.

Wash and dry the car thoroughly before you begin polishing or waxing. Clean off asphalt and tar stains using Volvo tar remover or white spirit. More stubborn marks can be removed using fine rubbing paste designed for car paintwork.

Polish first with a polish and then wax with liquid or solid wax. Follow the instructions on the packaging carefully. Many preparations contain both polish and wax.

Touching up paintwork

VOLVOCARCORP.MADEIN		
	kg	1
	kg	2
1-	kg	3
2-	kg	4

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- Stir the primer well and apply using a fine brush or matchstick. Apply paint using a brush once the primer is dry.
- For scratches, proceed as above, but mask around the damaged area to protect the undamaged paintwork.
- After a few days, polish the touched-up areas. Use a soft rag and a small amount of lapping paste.

Paintwork

Paint is an important part of the car's rustproofing and should therefore be checked regularly. To avoid the onset of rust, damaged paintwork must be rectified immediately. The most common types of paintwork damage are stone chips, scratches, and marks on the edges of wings and doors.

Colour code

It is important that the correct colour is used. The car's colour code is shown on the product decal on the B-pillar. See page 210.

Stone chips and scratches

Before touching up paintwork, the car must be clean and dry and at a temperature above 15 °C.

Materials

- Primer in a can
- Paint in a can or touch-up pen
- Brush
- Masking tape

Minor stone chips and scratches

If the stone chip has not penetrated to the bare metal and there is an undamaged colour coat, you can paint straight after cleaning the damaged area.

If the stone chip has penetrated to the bare metal

- Stick a piece of masking tape over the damaged surface. Then remove the tape to remove any loose paint.

Rustproofing

Inspection and maintenance

Your car received a thorough and complete rustproofing at the factory. Parts of the body are made of galvanised sheet metal. The underbody is protected by a wear-resistant anti-corrosion compound. And, a thin, penetrating rustproofing fluid was sprayed into the members, cavities and closed sections.

Maintain the car's rustproofing.

- Keep the car clean. Hose down the underbody. If using a pressure washer, keep the nozzle at least 30 cm from the painted surfaces.
- Regularly check and touch-up the rustproofing treatment as necessary.

The car's rustproofing does not normally require treatment for approximately 12 years. After that time, it should be treated at three-year intervals. If the car needs further treatment, please contact an authorised Volvo workshop.

Maintenance and service

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Volvo service

Volvo service programme

Before the car left the factory, it was thoroughly test driven. It was checked again in accordance with Volvo Car Corporation regulations before it was handed over to you.

To keep your Volvo as safe and reliable as possible, follow the Volvo service programme specified in the Service and Warranty Booklet. Have an authorised Volvo workshop carry out service and maintenance work.

Volvo workshops have the personnel, special tools and service literature to guarantee the highest quality of service.

Important!

For the Volvo warranty to apply, check and follow the instructions in the Service and Warranty Booklet.

Special service measures

Certain service measures, which affect the car's electrical system, can only be performed using electronic equipment specially developed for your car. Always contact an authorised Volvo workshop before beginning or performing service work that affects the electrical system.

Installing accessories

The incorrect connection and installation of accessories can negatively affect the car's electrical system. Certain accessories only function when the appropriate software has been programmed into the car's electrical system. Always contact an authorised Volvo workshop before installing accessories which are connected to or affect the electrical system.

Recording vehicle data

One or more of the computers in your Volvo are capable of recording detailed information. This information is intended for use in research to enhance safety and for diagnosing faults in some of the in-car systems. The data may include details regarding seatbelt use by the driver and passengers, the functions of various vehicle systems and modules, and status information about the engine, throttle, steering, brakes and other systems. This data can also include details of the way the car is driven. This type of information can include, without being limited to, specific details such as vehicle speed, the use of the brake and accelerator pedals and steering wheel position. This latter type of data can be stored for a limited period while the car is being driven and subsequently during a collision or a near-collision.

Volvo Car Corporation will not disclose the stored information without consent. However, Volvo Car Corporation may be forced to disclose the information due to national legislation. Volvo Car Corporation and its workshops may also read and use the information.

Adverse driving conditions

Change the engine oil and replace the air and oil filters more often than recommended in the Service and Warranty Booklet when driving in adverse conditions.

Adverse driving conditions include extended periods of driving:

- in a dusty or sandy environment.
- towing a caravan or trailer.
- in mountainous regions.
- at high speeds.
- at low speeds or idling.
- short journeys (less than 10 km) at low temperatures (below 5 °C).

Self-maintenance

Before starting work on the car

Battery

Check that the battery cables are correctly connected and tightened.

Never disconnect the battery when the engine is running (e.g. if replacing the battery).

Never use a quick charger to charge the battery. The battery cables must be disconnected when charging the battery.

The battery contains acid that is both corrosive and toxic. Handle the battery in an environmentally-suitable way. Let your Volvo dealer assist you.

WARNING!

High voltage output from the ignition system. The voltage in the ignition system is dangerous. The ignition must therefore always be switched off for work in the engine compartment.

Do not touch the spark plugs or ignition coils when the ignition is on or the engine is hot.

Check regularly

Check the following at regular intervals, for example, when refuelling:

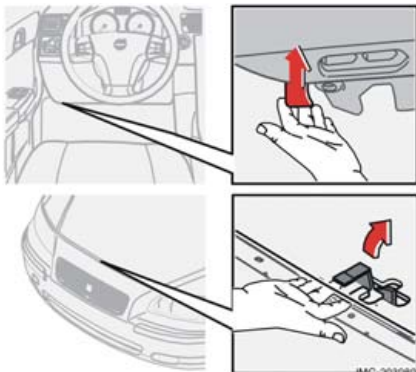
- Coolant – The level must be between the MIN and MAX marks on the expansion tank.
- Engine oil – The level must be between the MIN and MAX marks.
- Power steering fluid – The level must be between the MIN and MAX marks.
- Washer fluid – The reservoir should be well filled. Use washer antifreeze at temperatures around freezing.
- Brake and clutch fluid – The level must be between the MIN and MAX marks.

WARNING!

Bear in mind that the radiator fan may start automatically some time after the engine has been switched off.

Always have the engine cleaned by a workshop. There is a risk of fire if the engine is hot.

Bonnet and engine compartment



Opening the bonnet

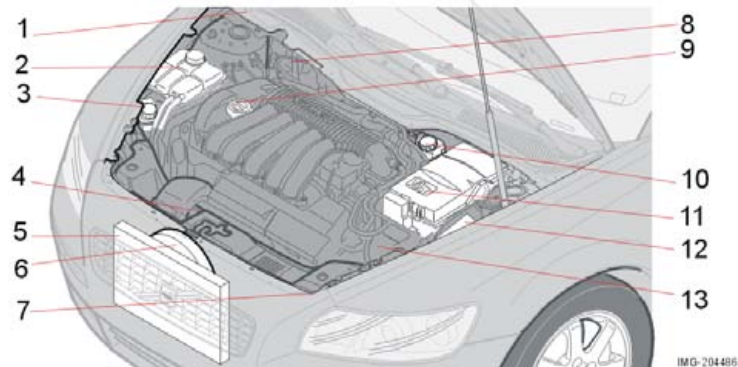
To open the bonnet:

- Pull the handle on the far left under the dashboard. You will hear when the catch releases.
- Insert your hand under the centre of the front edge of the bonnet and press the safety catch to the right.
- Open the bonnet.



WARNING!

Check that the bonnet locks properly when closed.



Engine compartment

1. Washer fluid reservoir (4 cyl.)
2. Coolant expansion tank
3. Power steering fluid reservoir
4. Engine oil dipstick¹
5. Radiator
6. Radiator fan
7. Washer fluid reservoir (5 cyl.)
8. Brake and clutch fluid reservoir (right-hand drive)
9. Filler orifice for engine oil¹
10. Brake and clutch fluid reservoir (left-hand drive)
11. Battery

12. Relay and fuse box

13. Air filter¹

1. Dependent on engine variant.

Diesel

Fuel system

Diesel engines are sensitive to contaminants. Only use diesel from a well-known oil company. Never fill up with diesel if the quality is dubious. The large oil companies also produce a special winter-grade diesel for temperatures around freezing. This fuel is less viscous at low temperatures and reduces the risk of wax forming in the fuel system.

The risk of condensation in the fuel tank is reduced if the tank is kept well filled. When refuelling, check that the area around the fuel filler pipe is clean. Avoid spilling fuel onto the paintwork. Wash off any spillage with detergent and water.

Empty tank

No special procedures are required if the tank runs dry.

RME (Rape methyl ester)

A maximum of 5% RME may be mixed with the diesel.

Important!

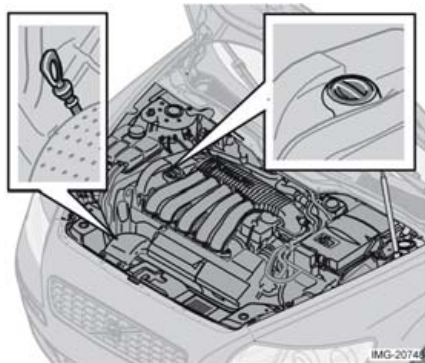
There is a risk of engine damage if the RME concentration is greater than 5%.

Draining condensation from the fuel filter

The fuel filter separates condensation from the fuel. Condensation can disrupt engine operation.

The fuel filter must be drained at the intervals specified in the Service and Warranty Booklet or if you suspect that the car has been filled with contaminated fuel.

Oils and fluids

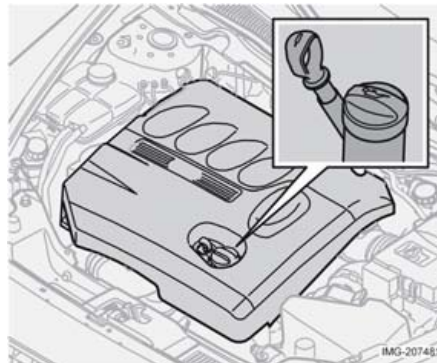


Dipstick, petrol engines

Checking and changing the engine oil and oil filter

The Service and Warranty Booklet specifies suitable intervals for changing the oil and oil filter. Shorter intervals are recommended if driving in adverse conditions. See page 158.

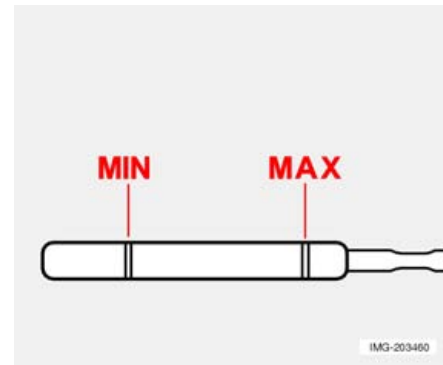
Check the level of engine oil and change the oil regularly.



Dipstick, diesel engine

The oil level in a new car must be checked during the period preceding the first regular oil change. The Service and Warranty Booklet specifies the odometer readings for oil changes. Volvo recommends checking the oil level every 2500 km. The most accurate measurements are made on a cold engine before starting. The measurement will be inaccurate if taken immediately after the engine is switched off. The dipstick will indicate that the level is too low because the oil has not had time to flow down into the oil sump.

NOTE! See the recommended oil grade, viscosity and capacities on page 214.



The oil level must be within the area marked on the dipstick

Important!

Always use oil of the recommended grade and correct viscosity.

Never use oil additives. These can damage the engine. If the system is topped up with a different oil, contact the nearest authorised Volvo workshop for servicing.

Checking the oil in a cold engine:

- Wipe the dipstick clean before checking the level.
- Check the oil level using the dipstick. The oil level must be between the MIN and MAX marks.
- If the level is close to the MIN mark, start by topping up with 0.5 litres of oil. Top up until the oil level is nearer the MAX than the MIN mark on the dipstick. See page 214 for capacities.

Checking the oil in a warm engine:

- Park the car on a level surface, switch off the engine and wait 10-15 minutes to allow the oil time to run back to the sump.
- Wipe the dipstick clean before checking the level.
- Check the oil level using the dipstick. The oil level must be between the MIN and MAX marks.
- If the level is close to the MIN mark, start by topping up with 0.5 litres of oil. Top up until the oil level is nearer the MAX than

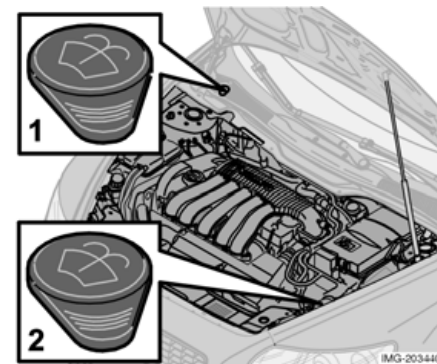
the MIN mark on the dipstick. See page 214 for capacities.

Important!

Never fill above the MAX mark. Oil consumption may increase if too much oil is poured into the engine.

**WARNING!**

Do not spill oil onto the hot exhaust manifold due to the risk of fire.



Location of washer fluid reservoir¹

Washer fluid, topping up

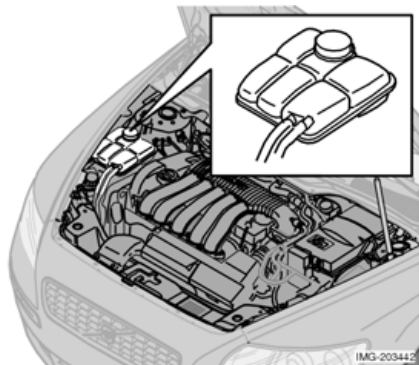
The windscreen and headlamp washers share a common reservoir.

1. Filler cap on 4 cylinder engines and diesel.
 2. Filler cap on 5 cylinder engines.
- Add washer antifreeze during the winter so that the fluid does not freeze in the pump, reservoir and hoses. See the capacities on page 215.

NOTE! Mix the washer antifreeze and water before filling the reservoir.

1. Dependent on engine variant.

Oils and fluids

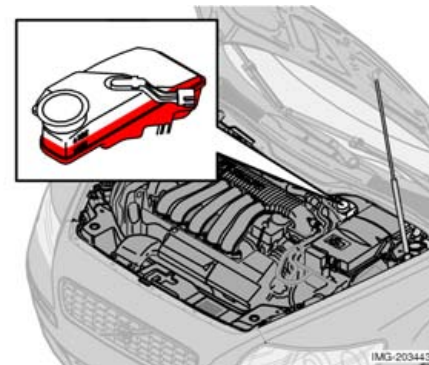


See the capacities on page 215.

Check the coolant regularly

The level should lie between the MIN and MAX marks on the expansion tank. If the system is not filled sufficiently, high local temperatures could occur, causing a risk of damage (cracks) to the cylinder head. Top up the coolant when the level falls to the MIN mark.

NOTE! The engine must only be run with a well-filled cooling system. High temperatures can occur, causing a risk of damage (cracks) to the cylinder head.



Checking and topping up the coolant

When topping up the coolant, follow the instructions on the packaging. It is important that the mixture of coolant concentrate and water is correct for the prevailing weather conditions. Never top up with water only. The risk of freezing increases with both too little and too much coolant concentrate.

Important!

Always use coolant with anti-corrosion agent as recommended by Volvo. New cars are filled with coolant that can withstand temperatures down to approximately -35 °C.



WARNING!

The coolant may be very hot. If the coolant requires topping up when the engine is at operating temperature, unscrew the expansion tank cap slowly to gently release the overpressure.

Checking and topping up the brake and clutch fluid

The brake and clutch fluid have a common reservoir¹. The fluid level must be between the MIN and MAX marks. Check the level regularly. Change the brake fluid every other year or at every other regular service.

See the capacities and recommended fluid grade on page 215.

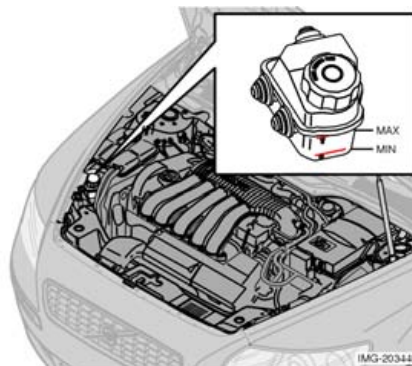
The fluid should be changed annually on cars driven in conditions requiring hard, frequent

1. Location dependent on whether car is left or right-hand drive.

braking, such as driving in mountains or tropical climates with high humidity.

⚠ WARNING!

If the brake fluid is under the MIN level in the brake fluid reservoir, do not drive further before topping up the brake fluid. The reason for the loss of brake fluid must be investigated.



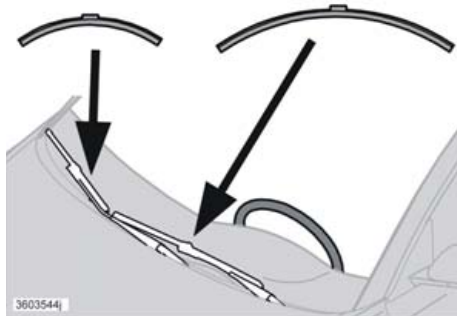
Checking and topping up the power steering fluid

Check the level at every service. The fluid does not require changing. The fluid level must be between the MIN and MAX marks.

See the capacities and recommended oil grade on page 215.

If a fault should arise in the power steering system or if the car is without power and must be towed, it can still be steered. However the steering will be much heavier than normal and it will require more effort to turn the wheel.

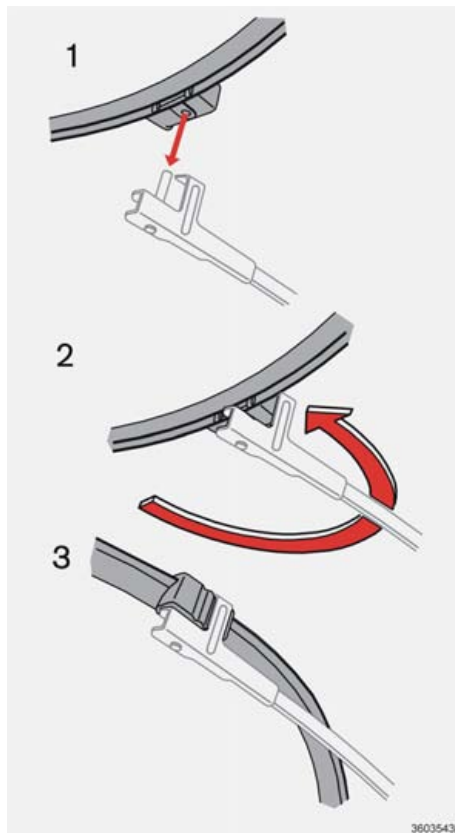
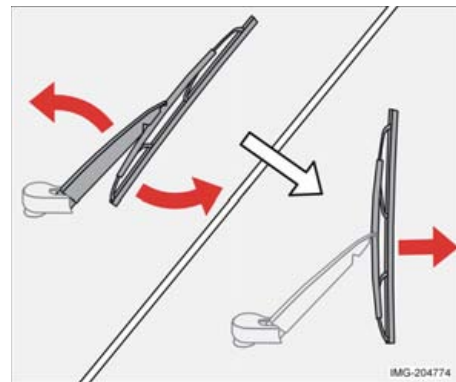
Wiper blades



Changing the wiper blades

- Lift up the wiper arm and position the wiper blade at 90 degrees to the wiper arm.
- Pull the wiper blade off the shaft, straight out to the side.
- Fit the new wiper blade (1), at 90 degrees to the wiper arm.
- Position the wiper blade (2) under the curved metal plate (3) and lower the wiper arm.

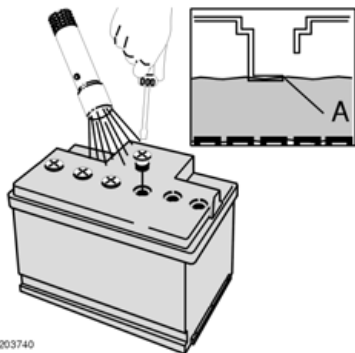
NOTE! The wiper blades are different lengths. The blade on the driver's side is longer than the blade on the passenger side.



Changing the rear window wiper blade

- Fold out the wiper arm.
- Detach the wiper blade by pulling it towards the rear window.
- Press home the new wiper blade. Check that it is securely fitted.
- Lower the wiper arm.

Battery



NOTE! Never fill above the maximum mark (A).

Important!

Always use distilled or deionised water (battery water).

- Tighten the caps properly.

NOTE! The life of the battery is shortened if it becomes discharged repeatedly.

Symbols on the battery

These symbols displayed on the battery.



0300348a

Use protective goggles



0300352a

Further information in the owner's manual.



0300351a

Store the battery out of the reach of children.



0300347a

The battery contains corrosive acid.



0300349a

Avoid sparks and naked flames.



0300350a

Risk of explosion.

Battery care

The service life and function of the battery is influenced by factors such as the number of starts, discharging, driving style, driving conditions and climatic conditions.

For the battery to function satisfactorily, consider the following:

- Regularly check that the battery electrolyte level is correct (A).
- Check all cells. Use a screwdriver to remove the caps. Each cell has its own maximum level mark.
- If necessary, top up with distilled water to the battery's maximum mark.

Battery

Changing the battery

Removing the battery:

- Switch off the ignition and remove the key.
- Unscrew the cover over the battery.
- Wait at least 5 minutes before touching any electrical terminals. This allows time for the information in the car's electrical system to be stored in the control modules.
- Remove the lid and unscrew the front wall of the battery box using a screwdriver.
- Disconnect the negative battery lead.
- Release the clamp securing the battery.
- Disconnect the positive battery lead.
- Remove the battery.

Fitting the battery:

- Fit the battery into position.
- Connect the positive lead.
- Fit the clamp securing the battery.
- Connect the negative lead.
- Refit the front wall of the battery box and the lid.
- Refit the cover over the battery.



WARNING!

Batteries can generate oxyhydrogen gas, which is highly explosive. A spark, which can be generated if you connect the jump leads incorrectly, is sufficient to make the battery explode. The battery also contains sulphuric acid, which can cause serious burns. If the acid comes into contact with eyes, skin or clothing, flush with large quantities of water. If acid splashes into the eyes, seek medical advice immediately.

Bulbs

General

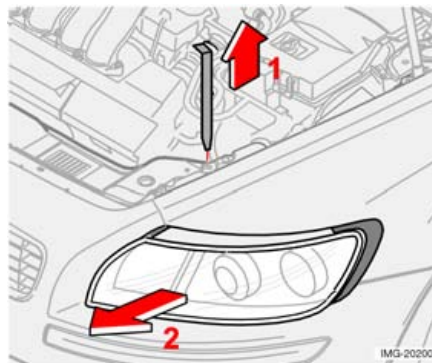
All bulb specifications are given on page 221.

The following list contains bulbs and point-source lamps that are specialised or unsuitable for changing except at a workshop:

- General interior lighting in the roof.
- Reading lamps.
- Glovebox lighting.
- Direction indicators in the door mirrors.
- Approach lighting in the door mirrors.
- High-level brake light.

Important!

Never touch the bulbs glass with your fingers. Grease and oils from your fingers are vaporised by the heat, coating and damaging the reflector.



Changing front bulbs

All front bulbs (except for fog lamps) are changed by first removing the lamp housing from the engine compartment.



WARNING!

On cars with Bi-Xenon headlamps, all work on the lights should be carried out at an authorised Volvo workshop. Bi-Xenon headlamps must be handled with extreme care due to the high-voltage unit.

Removing the lamp housing:

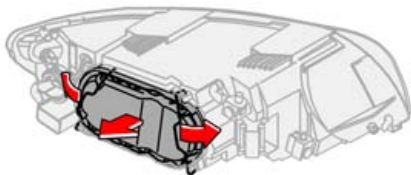
- Remove the ignition key and turn the light switch to position **0**.
- Withdraw the lamp housing's locking pin (1).
- Pull the lamp housing to the side and then forward (2).
- Unplug the connector.
- Lift out the lamp housing and place it on a soft surface to avoid scratching the lens.

Fitting the lamp housing:

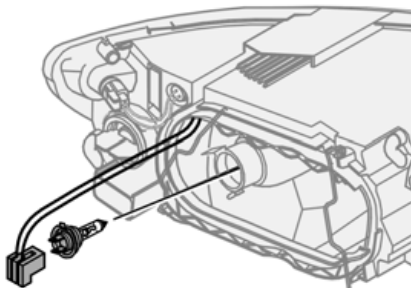
- Plug in the connector.
- Refit the lamp housing and fit the locking pin. Check that the pin is correctly inserted.
- Check the lighting.

The lamp housing must be plugged in and secured in place before the lighting is turned on or the ignition key inserted into the ignition switch.

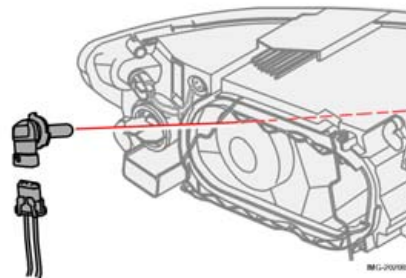
Replacing bulbs



IMG-202080



IMG-202081



IMG-202085

Dipped beam

Removing the cover and bulb:

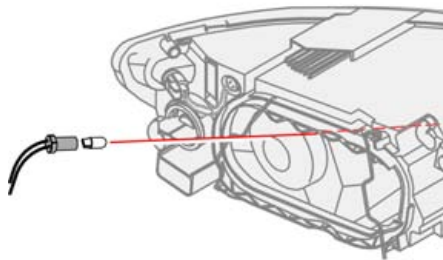
- Remove the entire lamp housing.
- Bend aside the catches and remove the cover.
- Unplug the connector from the bulb.
- Release the spring clip that secures the bulb. First, press it to the left to release it, then out and down.
- Pull out the bulb.
- Refit the lamp housing.

Fitting a new bulb:

- Fit the new bulb. It can only be fitted in one position.
- Press the spring clip up and then slightly to the right so that it clicks into place.
- Press the connector back on.
- Refit the plastic cover.
- Refit the lamp housing.

Main beam

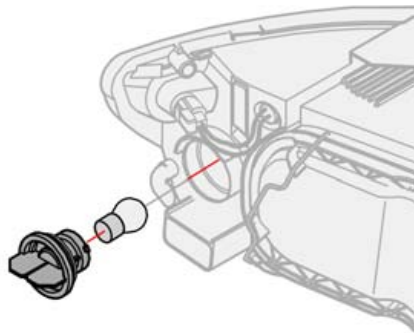
- Remove the entire lamp housing.
- Left-hand headlamp:
Turn the bulb holder anticlockwise.
- Right-hand headlamp:
Turn the bulb holder clockwise.
- Withdraw the bulb holder and change the bulb.
- Refit the bulb holder. It can only be fitted in one way.
- Refit the lamp housing.



IMG-202086

Position/parking lamps

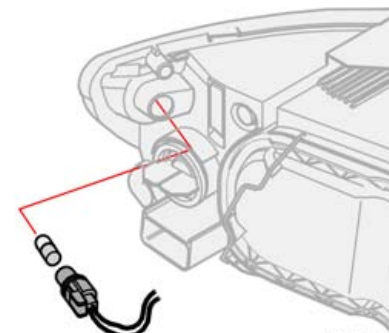
- Pull out the bulb holder with a pair of pliers. Do not pull out the bulb holder by pulling the electrical cable.
- Replace the bulb.
- Press the bulb holder back into place. It can only be fitted in one way.



IMG-202088

Direction indicators

- Twist the bulb holder anticlockwise and remove it.
- To remove the bulb from the bulb holder, press the bulb in and turn it anticlockwise.
- Fit a new bulb and refit the bulb holder into the lamp housing.

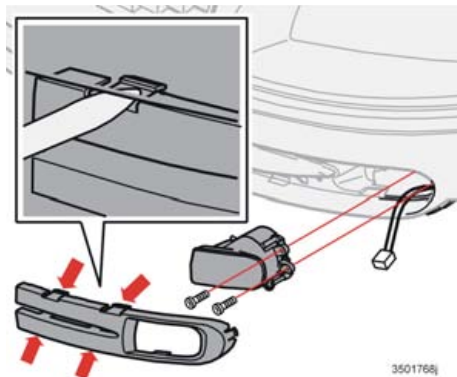
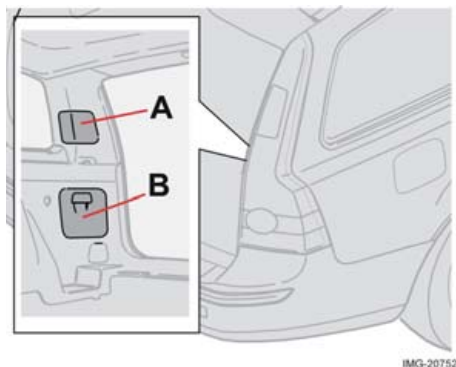


IMG-202090

Side marker lamps

- Twist the bulb holder anticlockwise and withdraw it. Change the bulb.
- Refit the bulb holder. It can only be fitted in one way.

Replacing bulbs



- Press the bulb holder back into place and refit the cover.

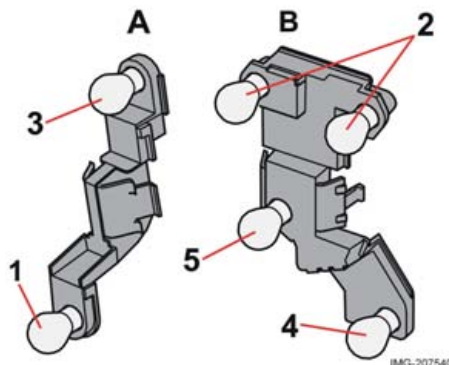
Fog lamps

- Switch off all lights and turn the ignition key to position **0**.
- Remove the panel from around the lamp housing.
- Remove the two Torx screws securing the lamp housing and take out the lamp housing.
- Unplug the connector from the bulb.
- Turn the bulb anticlockwise and pull it out.
- Fit the new bulb and turn it clockwise.
- Plug in the connector to the bulb.
- Secure the lamp housing with the screws and press the panel back into place.

Removing the bulb holder

All bulbs in the rear lamp cluster can be changed from inside the cargo area.

- Switch off all lights and turn the ignition key to position **0**.
- Remove the covers from the left/right panel to access the bulbs.
- These bulbs are located in separate bulb holders.
- Unplug the connector from the bulb holder.
- Squeeze together the catches and remove the bulb holder.
- Replace the bulb.
- Plug in the connector.

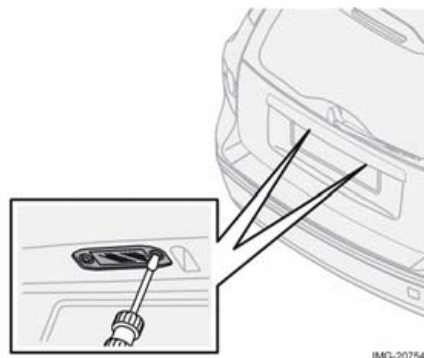


Bulb holder

Location of the bulbs in the rear light cluster

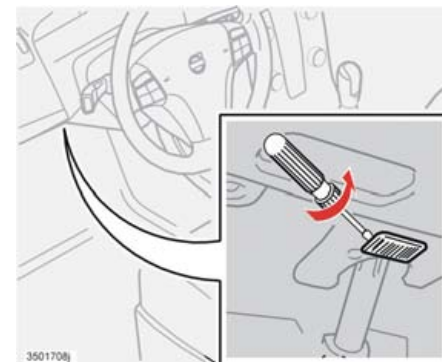
1. Brake light
2. Position/parking lamps
3. Direction indicator
4. Rear fog lamp (one side)
5. Reversing lamp

NOTE! If the error message "BULB FAILURE"/"CHECK STOP LAMP" remains after a faulty lamp has been replaced then an authorised Volvo workshop needs to be consulted to rectify the fault.



Number plate lighting

- Switch off all lights and turn the ignition key to position **0**.
- Remove the screw with a screwdriver.
- Carefully detach the entire lamp housing and withdraw it. Turn the connector anticlockwise and pull out the bulb.
- Replace the bulb.
- Insert the connector and turn clockwise.
- Refit the entire lamp housing and screw it into place.



Courtesy lighting

There is courtesy lighting under the dashboard on the driver and passenger sides.

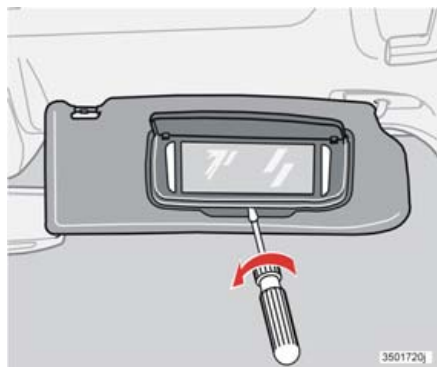
- Insert a screwdriver and gently turn so that the lens detaches.
- Remove the blown bulb.
- Fit a new bulb.
- Refit the lens.

Replacing bulbs



Cargo area

- Insert a screwdriver and gently turn so that the lamp housing comes loose.
- Remove the blown bulb.
- Fit a new bulb.



Vanity mirror lighting

Removing the mirror glass:

- Insert a screwdriver underneath the lower edge, in the centre. Carefully prise up the lug on the edge.
- Insert the screwdriver underneath the edge on the left and right-hand sides (by the black rubber sections). Carefully prise free the lower edge of the glass.
- Carefully detach and lift aside the entire mirror glass and cover.
- Remove the blown bulb and replace it with a new one.

Fitting the mirror glass:

- First, press the three lugs at top edge of mirror glass back into position.
- Then press the three lower lugs back into position.

Fuses

All electrical functions and components are fused to protect the car's electrical system from damage by short circuiting and overloading.

The fuses are in two different locations in the car:

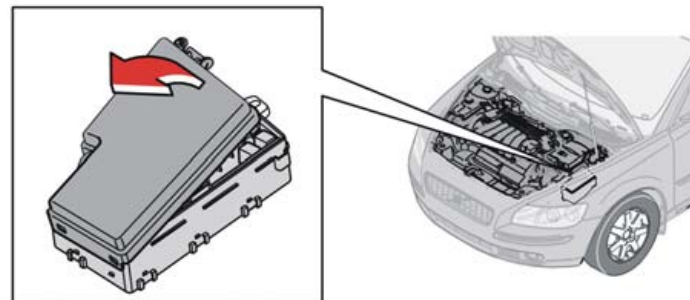
- Relay/Fuse box in the engine compartment.
- Relay/fuse box in the passenger compartment.

Changing

If an electrical component or function does not work, it may be because the component's fuse was temporarily overloaded and blew.

- Look in the fuse diagram to locate the fuse.
- Pull out the fuse and check from the side to see whether the curved wire has blown.
- If this is the case, replace it with a new fuse of the same colour and amperage.

Each fuse box has space for several spare fuses. If the same fuse blows repeatedly it means that there is a fault in the component. Contact an authorised Volvo workshop to have the system checked.



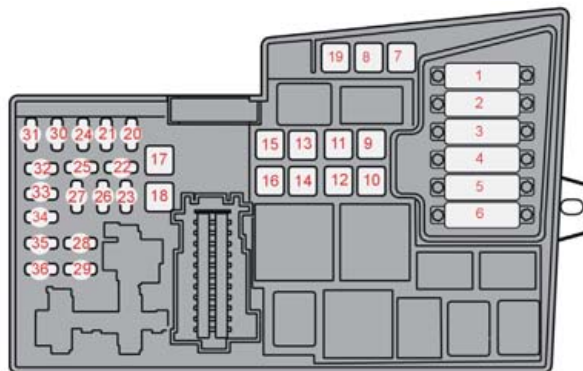
Relay/fuse box in the engine compartment

The fuse box has 36 fuse positions. Be sure to replace a blown fuse with a new fuse of the same colour and amperage.

- 19–36 are of the "Mini Fuse" type.
- Fuses 7–18 are of the "JCASE" type and should be replaced by an authorised Volvo workshop.
- Fuses 1–6 are of the "Midi Fuse" type and may only be replaced by an authorised Volvo workshop.

On the inside of the cover are tweezers to assist removing and fitting fuses.

Fuses

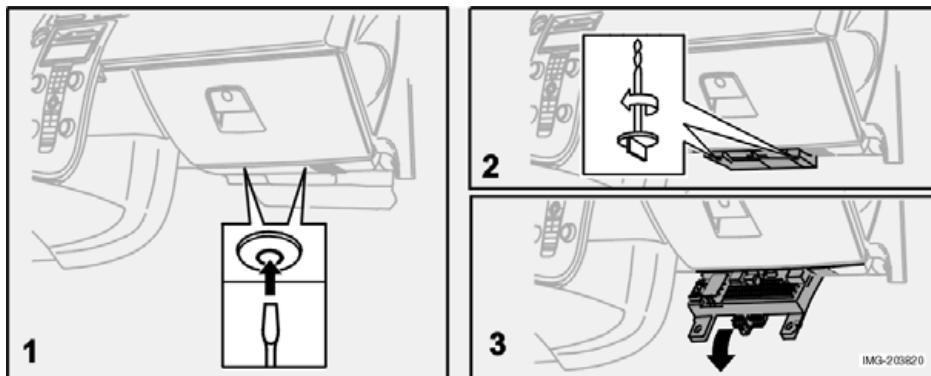


IMG-203801

1. Radiator fan.....	50 A	16. Supply to infotainment system	30 A
2. Power steering.....	80 A	17. Windscreen wipers	30 A
3. Supply to passenger compartment fuse box.....	60 A	18. Supply to passenger compartment fuse box	40 A
4. Supply to passenger compartment fuse box.....	60 A	19. Reserve	-
5. Heating and ventilation unit, Additional heater relay coil (PTC) (only 4 cyl. petrol)	80 A	20. Horn	15 A
6. Glow plugs (diesel)	60 A	21. Fuel-driven additional heater, passenger compartment heater	20 A
7. ABS pump.....	30 A	22. SUBWOOFER	15 A
8. ABS valves	20 A	23. Engine control module (ECM)/ Transmission control module (TCM)	10 A
9. Engine control module (ECM)	30 A	24. Diesel filter heater.....	20 A
10. Ventilation fan.....	40 A	25. Reserve	-
11. Headlamp washers.....	20 A	26. Ignition switch.....	15 A
12. Supply to heated rear window	30 A	27. A/C compressor.....	10 A
13. Starter motor relay.....	30 A	28. Climate control module (CCM) Multimedia module (MMM)	10 A
14. Trailer wiring	40 A		
15. Reserve	-		

29. Fog lamp, front.....	15 A
30. Engine control module (ECM)	3 A
31. Alternator voltage regulator	10 A
32. Injectors (5 cyl), oxygen sensor (4 cyl) intercooler (diesel), air preheater valve (diesel)	10 A
33. Oxygen sensor heater element (5 cyl.), vacuum pump (5 cyl).....	20 A
34. Ignition coils, injectors (1.6 petrol) fuel pump (diesel) pressure switch, climate control (5 cyl)	10 A
35. Engine sensor valves, A/C relay oil trap PTC element, injectors (1.8 petrol)	15 A
36. Engine control module (ECM), accelerator pedal position sensor	10 A

Fuses

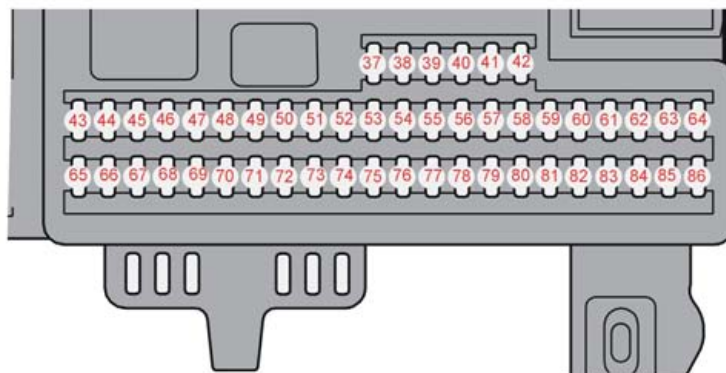


Relay/fuse box in the passenger compartment

The fuse box has 50 fuse positions. The fuses are located under the glovebox. The box also provides space for several spare fuses.

Changing fuses:

- Remove the trim concealing the fuse box by pressing in the pin in the centre of the clips (1) about 1 cm and then withdrawing the clips.
- Turn the two wing screws (that secure the fuse box) (2) anticlockwise and remove them.
- Lower the fuse box (3) half way. Pull it towards the seat until it stops. Lower it completely. The fuse box can be unhooked.
- Close the fuse box in the reverse order.
- Remove the pins from the centre of the clips. Fit the trim and the clips. Reinsert the pins to expand the clips and secure the trim.



IMG-203800

37. Reserve	-	51. Auxiliary heater relay coil (PTC), front lights parking assistance.....	10 A
38. Reserve	-	52. ABS system	5 A
39. Reserve	-	53. Power steering	10 A
40. Reserve	-	54. Transmission control module (TCM), differential gear (DEM).....	10 A
41. Reserve	-	55. Remote control module, Keyless control module.....	20 A
42. Reserve	-	56. Battery charging control module.....	10 A
43. Telephone, audio	15 A	57. Computer system, brake light switch.....	15 A
44. SRS system	10 A	58. Main beam (right), extra lights relay coil	7.5 A
45. Electrical socket, rear seat.....	15 A	59. Main beam, left	7.5 A
46. Passenger compartment, glovebox and courtesy lighting.....	5 A	60. Seat heating (driver's side)	15 A
47. Sunroof relay coil, door mirrors.....	5 A	61. Seat heating (passenger side)	15 A
48. Washer	15 A	62. Sunroof	20 A
49. SRS system	10 A	63. Supply to rear right door.....	20 A
50. Reserve	-	64. Audio	5 A

Fuses

65. Infotainment system	5 A
66. Infotainment control module (ICM), infotainment relay coil	10 A
67. Reserve	-
68. Cruise control	5 A
69. Climate control, rain sensor.....	5 A
70. Reserve	-
71. Reserve	-
72. Reserve	-
73. Sunroof, overhead console (OHC) rear seatbelt reminder.....	5 A
74. Fuel pump relay	15 A
75. Reserve	-
76. Reserve	-
77. Electrical socket in cargo area, accessory electronic module (AEM)	15 A
78. Reserve	-
79. Reversing lamp.....	5 A
80. Reserve	-
81. Supply to rear left door.....	20 A
82. Supply to front right door.....	25 A
83. Supply to front left door	25 A
84. Power passenger seat	25 A
85. Power driver's seat	25 A
86. Interior lighting relay, power seats	5 A

Infotainment system

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Telephone (option)	198
Telephone functions	200
Menu settings and options – Telephone	206

Audio and telephone

Audio and telephone system (option)

The infotainment system integrates the audio and telephone functions. The infotainment system can be used easily and conveniently using the common control panel and the steering wheel keypad. The control panel display indicates the present function.

The system can be equipped with Dolby Surround Pro Logic II (certain markets). This feature gives more natural sound reproduction.

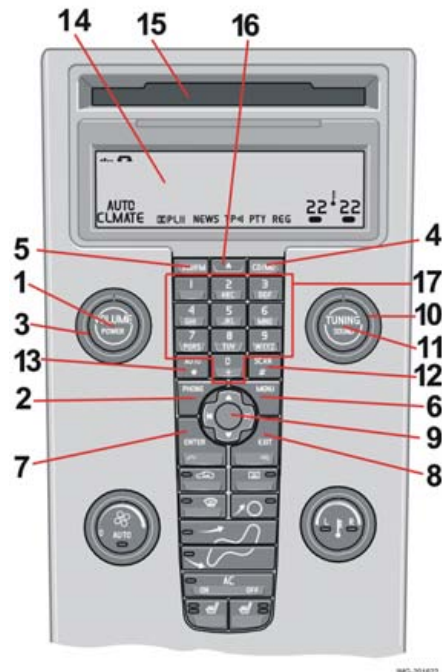
There are three levels of audio system:

- Performance:
AM/FM radio, CD player, 4x20 W, four full range loudspeakers (or four full range speakers and two tweeters on certain markets).
- High Performance:
AM/FM radio, CD player, 4x40 W, eight loudspeakers (woofer and tweeter in each door).
- Premium Sound:
AM/FM radio, CD player, 4x70 W + 25 W, Dolby Pro Logic II, 12 loudspeaker (woofer, mid-range and tweeter in the front doors, woofer and tweeter in the rear doors, woofer and tweeter in the centre dashboard speaker).

The exact specifications for these levels may vary between markets. Certain levels are not offered on all markets. The options list (sub-woofer, CD/MD player, CD changer, telephone, navigation, etc.) differs between markets. Not all options are available for all levels.

This owner's manual describes one way of operating the audio and telephone system. If your car has a keypad in the steering wheel, this can also be used.

Control panel



Control panel on centre console

Control panel on centre console

1. POWER – Audio On/Off
2. PHONE – Telephone On/Off/Standby
3. VOLUME – Volume control
4. CD/MD – Switches between CD and MD (option)
5. AM/FM – Switches between FM1, FM2 and AM
6. MENU – Opens the main menu
7. ENTER – Selects menu options, activates a selection or wakes the telephone from standby.
8. EXIT – Goes back in the menu, cancels a selection, puts the telephone into standby, and erases the preceding character when entering text and numbers.
9. Navigation button – scrolls up/down in the menus, scans/changes tracks/stations, scroll forward/backward when entering text and digits, and switches between discs in the CD changer
10. TUNING – Scan/change tracks or station
11. SOUND – Audio settings (e.g. bass, treble and fader)
12. SCAN – Automatic station search
13. AUTO – Finds and stores the strongest stations

14. Display – Displays options, menus and information
15. Slot for inserting/ejecting
16. Eject – CD/MD
17. Station preset buttons/CD changer disc (1-6), number/character buttons for the telephone, and menu presets

Display

The display shows the function currently in use, for example menu options, messages, telephone numbers or settings. In daylight the information is displayed against a light background. In darkness it is displayed against a dark background. Clean the display with a soft, dry cloth. Never use cleaning agent.

This display is also used for the climate control system.

Menus

Press MENU to access the main menu. The settings for the active audio system source (radio for example) are selected from the main menu. Audio settings cannot be made if the audio system is not switched on.

Using the menu:

- Use the navigation button to scroll up and down in the menu.

Control panel

- Press EXIT to cancel, decline an option, or go back one step in the menu structure.
- Press ENTER to confirm, select or scroll from one submenu to the next submenu.

If the battery voltage is low, a message appears on the display. The energy saving feature switches off certain functions or reduces the load on the battery, such as by lowering the volume of the sound system.

Audio functions



Audio On/Off

The ignition switch must at least be in position **I**. Press the **POWER** button to switch the audio system on or off. If the audio system is active when the ignition is switched off, it will reactivate automatically when the car is restarted.

Selecting the sound source

Select the sound source with the **CD/MD** and **AM/FM** buttons.

- Press the **AM/FM** button repeatedly to scroll between **FM1**, **FM2** and **AM**.

The selected sound source is shown on the display.

Volume control

Turn the volume knob clockwise or anticlockwise to raise or lower the volume. The volume can also be controlled using the steering wheel keypad.

The car has a speed-dependent volume feature known as active sound control **ASC**. This adjusts the volume automatically depending on the speed of the car.

Pause mode

When the volume is turned to zero, the **CD/MD** player switches to pause mode. Reactivate the player by turning up the volume.

Volume control for TP, PTY, news and alarms

If a **CD** is playing when the radio receives a traffic announcement, the **CD** player enters pause mode. The announcement is played at the volume selected for that type of message. The system then returns to the volume selected for the **CD** player. If the volume is adjusted while the announcement is broadcast, this new volume is saved and used for the next bulletin.

Audio settings

- Press **SOUND**.
- Press the **SOUND** button repeatedly until you reach the function you wish to set.

Choose between **BASS**, **TREBLE**, **FADER**, **BALANCE**, **SUBWOOFER** (option), **CENTRE**, and **SURROUND**.

- Use the **TUNING** knob to set the level. The display shows a max-min scale. The middle indicates the normal position.

Audio settings	Shown on the display
Bass	BASS
Treble	TREBLE
Balance between the front and rear speakers	FADER
Balance between the left and right-hand speakers	BALANCE
Level for subwoofer	SUBWOOFER (option)
Level for centre loudspeaker (certain models)	CENTRE
Level for surround sound (certain models)	SURROUND

The level for the centre speaker can only be set if **Dolby Pro Logic II (DPL II)** or **3 channel (3CH)** has been selected from the menu. The subwoofer level can only be set if the subwoofer is activated.

Audio functions

Dolby Surround Pro Logic II (certain models)

Dolby Surround Pro Logic II, with its centre loudspeaker in the dashboard, provides more realistic sound reproduction.

The normal left and right stereo channels are divided into left-centre-right. In addition, ambient surround sound is produced through the rear loudspeaker channels.

Dolby Surround Pro Logic II works in CD and MD modes. 3 channel is recommended for AM and FM radio broadcasts. Dolby Surround Pro Logic II is only available for the highest audio level, Premium Sound.

Setting the surround sound:

- Press MENU.
- Select the menu for the sound source and press ENTER.
- Select AUDIO SETTINGS and press ENTER.
- Select SURROUND AM/FM or SURROUND CD/MD and press ENTER.
- Select Dolby Pro Logic II, 3 channel or Off and press ENTER.

The symbol for Dolby Pro Logic II is shown on the display if this has been selected.

3 channel is shown on the display if this has been selected.

Off means the system is in normal stereo mode.



Dolby Surround Pro Logic II and the Dolby icon are trademarks of Dolby Laboratories Licensing Corporation. The Dolby Pro Logic II Surround

System is manufactured under license from Dolby Laboratories Licensing Corporation.

Subwoofer (option)

Gives the system a fuller sound and deeper bass:

- Press MENU.
- Select the menu for the sound source and press ENTER.
- Select *SUBWOOFER* and press ENTER. A check in the box (on the display) indicates that the subwoofer is activated.

Equalizer, front/rear (certain models)

Fine adjustment of the sound from the front speakers:

- Press MENU.
- Select the menu for the sound source and press ENTER.
- Select *AUDIO SETTINGS* and press ENTER.
- Select *Equalizer front (rear)* and press ENTER.

- Use the navigation button or TUNING knob to set the level.
- Use the navigation button to select the next frequency. Five frequencies can be adjusted.
- Press ENTER to save any changes and exit.
- Press EXIT to exit without saving any changes.

Radio functions



Tuning

- Select radio mode *AM*, *FM1* or *FM2* using the AM/FM button.
- Press the left or right arrow on the navigation button to search for the next strong station.
- Press one of the arrows again to initiate a new search.

Manual tuning

There are two ways to tune into a station manually.

- Turn the TUNING knob to set the desired frequency.
- Press and hold the left or right arrow on the navigation button. The frequency rolls

slowly in the selected direction and increases speed after a few seconds. Release the button when the desired frequency appears on the display.

If the frequency needs adjusting, touch one of the arrows.

Storing stations

To store stations on the preset buttons 0-9:

- Set the desired station.
- Press and hold the button you wish to store the station on. The sound will be muted for a couple of seconds and Station stored appear on the display.

You can store up to 10 stations each for AM, FM1 and FM2, i.e. a total of 30 stations.

Autostoring stations

Automatically tune and store up to ten AM or FM stations in a separate memory. If more than ten stations are found, the ten strongest are selected. This function is particularly useful if you are in an area in which you are unfamiliar with the radio stations and their frequencies.

- Select radio mode with the AM/FM button.
- Start the search by pressing and holding AUTO (more than 2 seconds).

- Autostoring appears on the display and a number of strong stations (max. 10) from the selected frequency band are stored in the autostore memory. If there are no stations that are sufficiently strong, No station found appears on the display.

The stations are stored on buttons 0-9. When the radio is in autostore mode, *Auto* is shown on the display. The text disappears when you return to the ordinary radio mode. Return to the ordinary radio mode by pressing the AM/FM button or EXIT, or by touching (less than 0.7 seconds) AUTO.

Returning to autostore mode:

- To access the most recently stored stations, touch AUTO and then select a station with buttons 0-9.

Scanning

Scanning for a station:

- Select *radio mode* with the AM/FM button
- Press SCAN. Scan appears on the display.
- Press SCAN or EXIT to quit.

This function automatically searches for the next strong AM or FM station signals. When the radio finds a station, scanning pauses for approximately 8 seconds, after which it continues.

Radio functions

Radio Data System – RDS

RDS is a system that links together specific network transmitters. It is used, for example, to tune the correct frequency of a station irrespective of the transmitter or the active audio source (e.g. CD). The system can also be used for receiving traffic information and for finding broadcasts of a specific type. Radio text is also a component of RDS. A radio station can transmit information about the radio programme currently being broadcast.

NOTE! Some radio stations do not use RDS or only use a limited range of its features.

PI seek (automatic search for transmitter)

PI seek appears on the display when reception is poor for the selected station. The radio automatically searches for the strongest transmission for that station.

PI seek Exit to cancel is shown on the display until the station is found.

News

Messages with a programme code (such as news from RDS stations) will interrupt other sound sources at the volume set for this specific feature. As soon as the news broadcast is finished, the audio system

returns to the previous sound source and volume setting.

Activating News:

- Select radio mode with the AM/FM button.
- Press MENU.
- Select the menu for the sound source and press ENTER.
- Select *News* and press ENTER.

NEWS appears on the display. Press EXIT if you do not wish to listen to a news broadcast. The *News* function remains active and the radio waits for the next news programme.

Deactivating

- Select radio mode with the AM/FM button.
- Press MENU.
- Select the menu for the sound source and press ENTER.
- Select *News* and press ENTER.

Interruptions for news from the current station

- Select the radio with the AM/FM button.
- Activate the station broadcasting the news items.
- Press MENU.
- Select *Advanced audio settings* and press ENTER.
- Select *News station* and press ENTER.
- Select *News from current station* and press ENTER.

Deactivating

- Press MENU. Select the menu for the sound source and press ENTER.
- Select *Advanced radio settings* and press ENTER.
- Select *News* and press ENTER.
- Select *News station* and press ENTER.
- Select *News from all stations* and press ENTER.

Traffic information – TP station

Traffic information from RDS stations interrupts other sound sources. The message is heard at the volume set for this specific feature. As soon as the message ends, the audio system returns to the previous sound source and volume setting.

Activating traffic information

- Press MENU.

- Select the menu for the sound source.
- Select *TP* and press ENTER.

TP is shown on the display when the function is activated. If the set station does not broadcast traffic information (*TP*)) appears on the display. Press EXIT if you do not wish to listen to the current traffic announcement. The TP function remains active and the radio waits for the next traffic announcement.

Activating traffic information from a specific station

- Select *radio mode* with the AM/FM button.
- Activate the station from which traffic information is to be received.
- Press MENU. Select the menu for the sound source and press ENTER.
- Select *Advanced radio settings* and press ENTER.
- Select *TP* and press ENTER.
- Select *TP Station* and press ENTER.
- Select *TP from current station*.

Deactivating TP station

- Press MENU. Select the menu for the sound source and press ENTER.
- Select *Advanced radio settings* and press ENTER.
- Select *TP* and press ENTER.
- Select *TP Station* and press ENTER.

- Select *TP from all stations* and press ENTER.

TP search

This function allows you to listen to traffic information when travelling between different areas and countries without selecting a station.

- Press MENU.
- Select a sound source.
- Select *Advanced radio settings* and press ENTER.
- Select *TP* and press ENTER.
- Select *TP search* and press ENTER.

Deactivating

Select *TP search* again and press ENTER.

Radio text

Some RDS stations broadcast information, such as about programme content and artists.

Displaying text information on the display:

- Press MENU. Select the menu for the sound source and press ENTER (the current sound source is always highlighted when you access the menu if the audio system is on).
- Select *Radio text* on the menu and press ENTER.

Deactivating

Select *Radio text* again and press ENTER.

Radio functions

Alarm

Alarms are transmitted automatically. The function cannot be deactivated. **ALARM!** is shown on the radio display when an alarm message is broadcast. The function is used to warn motorists of serious accidents or disasters.

Programme type – PTY

Use the PTY function to select between the various programme types.

- Press MENU. Select the menu for the sound source and press ENTER.
- Select *PTY* and press ENTER.
- Select *Show PTY* and press ENTER. The set station's programme PTY will be shown on the display.

NOTE! Not all radio stations have a PTY designation.

Programme type – shown on display

- Current affairs
- Information
- Sport
- Education
- Drama
- Cultures
- Science
- Varied speech
- Pop music

- Rock music
- Easy listening
- Light classic
- Serious classic
- Other music
- Weather & Metro
- Finance
- Children's progs
- Social affairs
- Religion
- Phone In
- Travel & Touring
- Leisure & Hobby
- Jazz music
- Country music
- National music
- Oldies music
- Folk music
- Documentary

Searching for a specific programme type

Search through the entire frequency band:

- Select *FM 1* or *FM 2* and press MENU.
- Select the menu for the sound source and press ENTER.
- Select *PTY* and press ENTER.
- Scroll to *Select PTY* and press ENTER.

- Press ENTER for one or more of the listed programme types. The PTY symbol on the display lights up when the first selection is made and the radio is set to standby for PTY.
- Press EXIT to go back.
- Select *Search PTY* and press ENTER. If the radio finds a station with the selected programme type, this is played.

If the radio does not find a station with the selected programme type, it returns to the previous frequency.

PTY mode is then in standby until the selected programme type is broadcast. When this happens, the radio automatically switches to the station broadcasting the selected programme type.

Deactivating

- Select Clear all PTY. The PTY symbol disappears from the display and the radio returns to normal mode.

PTY standby

To set the radio to PTY standby, perform steps 1-6.

Automatic frequency updating

The AF function is normally activated and ensures that the radio tunes to the strongest available transmitter.

Automatic frequency updating

- Press MENU. Select the menu for the sound source and press ENTER.
- Select *Advanced radio settings* and press ENTER.
- Select *AF* and press ENTER.

Reactivating

- Select *AF* and press ENTER.

Regional radio programmes

The regional function is normally deactivated. When the function is activated you can continue to listen to a regional broadcasts even if the signal is weak.

Activating regional radio programmes:

- Press MENU. Select the menu for the sound source and press ENTER.
- Select *Advanced radio settings* and press ENTER.
- Select *Regional* and press ENTER.
- *REG* is shown on the display.

Deactivating

- Select *REG* again and press ENTER.

EON - Local/Distant/Off (Enhanced Other Networks)

With EON activated, traffic announcements and news broadcasts interrupt radio programmes.

The function has three levels:

- *Local* - Only interrupts if the signal is strong.
- *Distant* - Interrupts even if the signal is weak.
- *Off* - Deactivated.

Activating EON

- Press MENU.
- Select the menu for the sound source and press ENTER.
- Select *Advanced radio settings* and press ENTER.
- Select EON and press ENTER.
- Select *Local*, *Distant* or *Off* and press ENTER.

Resetting RDS functions

Resets all radio settings to the original factory settings.

- Press MENU. Select the menu for the sound source and press ENTER.
- Select *Advanced radio settings* and press ENTER.

- Select *Reset all* and press ENTER.
- Press ENTER again to confirm.

CD/MD (option)



IMG-201663

Starting the CD/MD player (option)

Activate the CD/MD player by pressing the CD/MD button. Insert a disc into the player.

CDs

If the quality of the CD does not comply with the requirements of standard EN60908 or if it has been recorded using poor equipment, sound quality may be poor or playback interrupted.

Changing tracks

Press the left or right arrow on the navigation button to skip to the previous or next track. The track number is shown on the display. You can also use the TUNING knob (or steering wheel keypad).

Important!

Use only standard 12 cm CDs, no mini CDs. Do not use CDs with adhesive disc labels. The heat from the CD player may cause the label to detach from the disc. This could damage the CD player.

Fast forward/reverse

Press and hold the left or right arrow on the navigation button to search within a track or the whole disc. Searching continues for as long as the button is depressed.

Random

This function chooses a CD track in no particular order.

- Press MENU. Select the menu for the sound source and press ENTER.
- Select *Random* and press ENTER.

RND is shown on the display as long as the function is activated.

Deactivating

- Select *Random* again and press ENTER, or press EXIT.

Scan

Scan plays the first ten seconds of each track.

- Press SCAN.
- Press EXIT to play the current track.

Disc text

Some CDs have title information. The information is displayed as text on the display (only applies to the combined CD/MD player).

Activating Disc text

- Press MENU. Select the menu for the sound source and press ENTER.
- Select *Disc text* and press ENTER.

If information is stored on the disc, this is shown on the display.

Deactivating

- Select *Disc text* and press ENTER.

Ejecting a CD/MD

Press the eject button to eject the disc. For traffic safety reasons, a CD remains ejected for only 12 seconds. The player will then feed the disc back into the player and switch to pause mode (N/A MD). Press CD/MD to reactivate the player.

CD changer (option)



Starting the CD changer

The CD changer can hold up to six discs.

Starting the CD changer:

- Press the CD button.
- Select an empty slot using the buttons 1-6 (or up/down navigation button). The display shows which slots are empty.
- Insert a CD into the CD changer.

Make sure *Insert disc* is displayed before you insert the disc

CDs

If the quality of the CD does not comply with the requirements of standard EN60908 or if it has been recorded using poor equipment, sound quality may be poor or playback interrupted.

Important!

Use only standard 12 cm CDs, no mini CDs. Do not use CDs with adhesive disc labels. The heat from the CD player may cause the label to detach from the disc. This could damage the CD player.

Selecting discs

Select the disc you wish to play using the buttons 1-6 or by pressing the up or down arrow on the navigation button. The number of the disc and track are shown on the display.

Changing tracks

Press the left or right arrow on the navigation button to skip to the previous or next track. The track number is shown on the display. You can also use the TUNING knob (or steering wheel keypad).

Fast forward/reverse

Press and hold the left or right arrow on the navigation button to search within a track or the whole disc. Searching continues for as long as the button is depressed.

Random

Plays tracks from a CD or CDs in random order.

- Press MENU. Select the menu for the sound source and press ENTER.
- Select *Random* and press ENTER.
- Select *Single disc* or *All discs* to play tracks from a single disc or all discs in the CD changer in random order.
- *RND* or *RND ALL* is shown on the display while the function is active.
- Press the right arrow on the navigation button to select the next random track.

Deactivating

- Press EXIT.

NOTE! You can only select the next random track on the current disc.

Scan

Scan plays the first ten seconds of each track.

- Press SCAN.

NOTE! Press EXIT to play the current track.

Disc text

Some CDs have title information. The information is displayed as text on the display.

Activating disc text

- Press MENU. Select the menu for the sound source and press ENTER.
- Select *Disc text* and press ENTER.

If information is stored on the disc, this is shown on the display.

Deactivating

- Select *Disc text* and press ENTER.

Ejecting single disc

Press the eject button. The CD remains ejected for only 12 seconds. The changer will then feed the disc back in and switch to pause mode. Press CD/MD to reactivate the player.

Ejecting all discs

Press and hold the eject button (for longer than 2 seconds) to initiate the eject function. The entire magazine is emptied, disc by disc. Eject all is shown on the display.

Menu settings and options – Audio

FM1/FM2 menu

1. **News Off¹**
2. **TP On/Off¹**
3. **PTY**
 - 3.1. Select PTY
 - 3.1.1. CLEAR ALL PTY
 - 3.1.2. List of PTY
 - 3.2. Search PTY
 - 3.3. Show PTY On/Off
4. **Radio text On/Off¹**
5. **Advanced radio settings**
 - 5.1. TP
 - 5.1.1. TP station
 - 5.1.2. TP search On/Off¹
 - 5.2. News station
 - 5.3. AF On¹/Off
 - 5.4. Regional On/Off¹
 - 5.5. EON
 - 5.5.1. Off
 - 5.5.2. Local
 - 5.5.3. Distant¹
 - 5.6. Reset all
6. **Audio settings**
 - 6.1. Surround AM/FM (certain models)
 - 6.1.1. Dolby Pro Logic II
 - 6.1.2. 3 channel
 - 6.1.3. Off¹

- 6.2. Surround CD/MD (certain models)
 - 6.2.1. Dolby Pro Logic II
 - 6.2.2. 3 channel
 - 6.2.3. Off
- 6.3. Subwoofer On¹/Off (option)
- 6.4. Equalizer front (certain models)
- 6.5. Equalizer rear (certain models)
- 6.6. Automatic volume control
 - 6.6.1. Low
 - 6.6.2. Medium
 - 6.6.3. High
- 6.7. Reset all

AM menu

1. **Audio settings**
 - 1.1. Surround AM/FM (certain models)
 - 1.1.1. Dolby Pro Logic II
 - 1.1.2. 3 channel Off¹
 - 1.2. Surround CD/MD (certain models)
 - 1.2.1. Dolby Pro Logic II
 - 1.2.2. 3 channel
 - 1.2.3. Off
 - 1.3. Subwoofer On¹/Off (option)
 - 1.4. Equalizer front (certain models)
 - 1.5. Equalizer rear (certain models)
 - 1.6. Automatic volume control
 - 1.6.1. Low
 - 1.6.2. Medium
 - 1.6.3. High
 - 1.7. Reset all

CD menu

1. **Random**
2. **News (Off¹)**
3. **TP (Off¹)**
4. **Audio settings**
 - 4.1. Surround AM/FM (certain models)
 - 4.1.1. Dolby Pro Logic II
 - 4.1.2. 3 channel
 - 4.1.3. Off¹
 - 4.2. Surround CD/MD (certain models)
 - 4.2.1. Dolby Pro Logic II
 - 4.2.2. 3 channel
 - 4.2.3. Off
 - 4.3. Subwoofer (On¹) (option)
 - 4.4. Equalizer front (certain models)
 - 4.5. Equalizer rear (certain models)
 - 4.6. Automatic volume control
 - 4.6.1. Low
 - 4.6.2. Medium
 - 4.6.3. High
 - 4.7. Reset all

CD changer menu

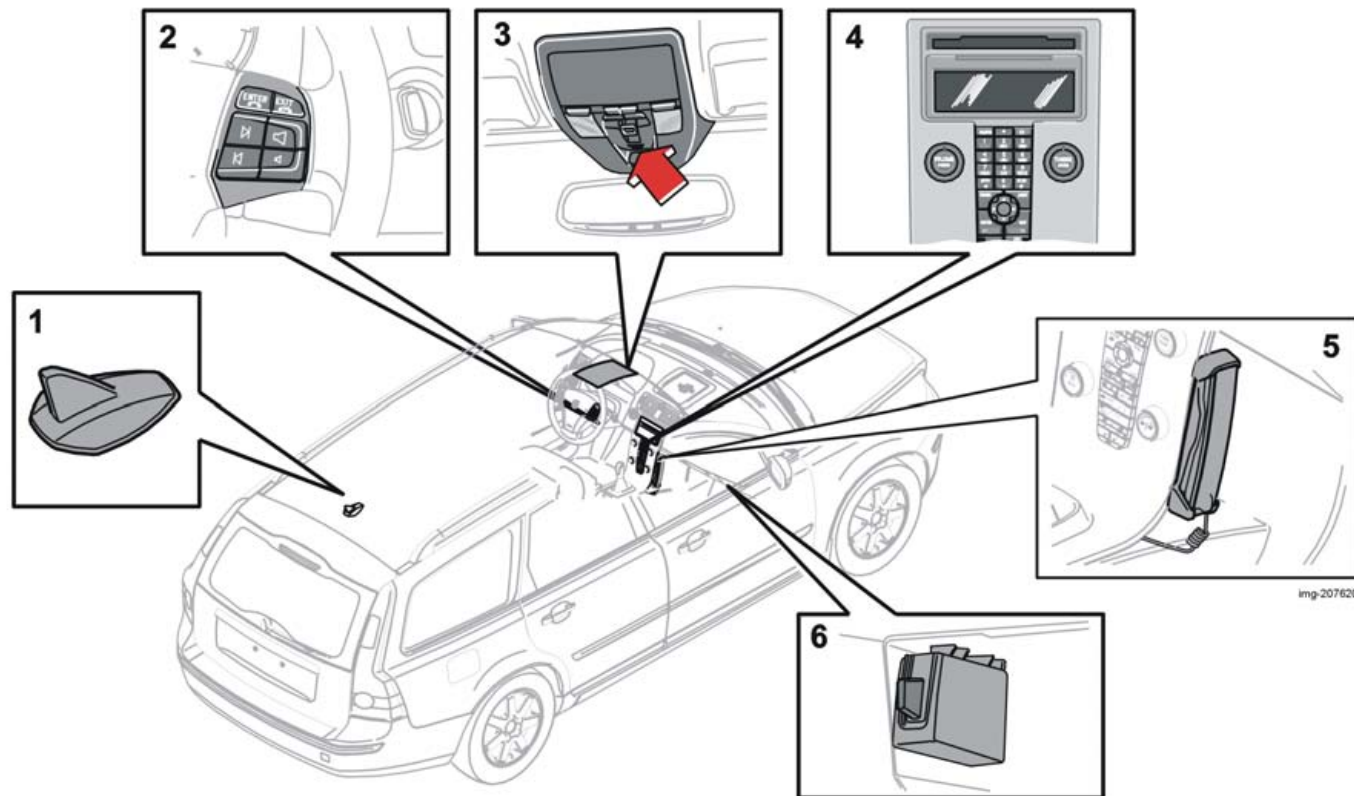
1. **Random**
 - 1.1. Off¹
 - 1.2. Single disc
 - 1.3. All discs
2. **News (Off¹)**
3. **TP (Off¹)**
4. **Disc text (Off¹)**
5. **Audio settings**
 - 5.1. Surround AM/FM (certain models)
 - 5.1.1. Dolby Pro Logic II
 - 5.1.2. 3 channel
 - 5.1.3. Off¹
 - 5.2. Surround CD/MD (certain models)
 - 5.2.1. Dolby Pro Logic II¹
 - 5.2.2. 3 channel
 - 5.2.3. Off
 - 5.3. Subwoofer (On¹) (option)
 - 5.4. Equalizer front (certain models)
 - 5.5. Equalizer rear (certain models)
 - 5.6. Automatic volume control
 - 5.6.1. Low
 - 5.6.2. Medium
 - 5.6.3. High
 - 5.7. Reset all

CD/MD menu

1. **Random**
2. **News (Off¹)**
3. **TP (Off¹)**
4. **Disc text (Off¹)**
5. **Audio settings**
 - 5.1. Surround AM/FM (certain models)
 - 5.1.1. Dolby Pro Logic II
 - 5.1.2. 3 channel
 - 5.1.3. Off¹
 - 5.2. Surround CD/MD (accessory)
 - 5.2.1. Dolby Pro Logic II¹
 - 5.2.2. 3 channel
 - 5.2.3. Off
 - 5.3. Subwoofer (On¹) (option)
 - 5.4. Equalizer front (option)
 - 5.5. Equalizer rear (option)
 - 5.6. Automatic volume control
 - 5.6.1. Low
 - 5.6.2. Medium
 - 5.6.3. High
 - 5.7. Reset all

1. Default/Factory setting

Telephone (option)



Telephone system components

1. Antenna

The antenna is mounted on the roof.

2. Steering wheel keypad

The majority of the telephone functions can be controlled using the keypad. When the telephone is active, the keypad can only be used for telephone functions. Telephone information is always displayed on the control panel when the telephone is activated.

3. Microphone

The hands free microphone is integrated in the roof console beside the rearview mirror.

4. Control panel

All functions (except call volume) can be controlled using the keypad in the control panel. The display shows menu functions, messages, telephone numbers, etc.

5. Privacy handset (option)

6. SIM card

The SIM card is located in a holder in the glovebox.

General

- Always put traffic safety first.
- If the driver needs to use the privacy handset, park the car in a safe place first.
- Switch off the telephone system when refuelling the car.

- Switch off the system near blasting work.
- Let only authorised personnel service the telephone system.

Emergency calls

Emergency calls to alarm centres can be made without a SIM card as long as there is coverage by a GSM operator.

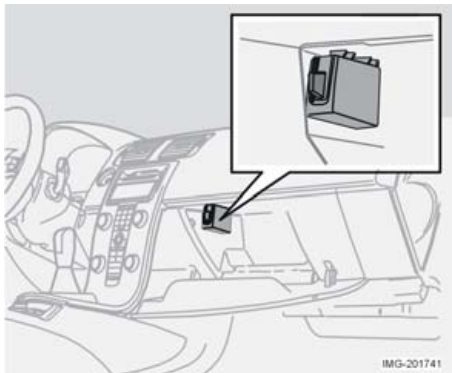
Making an emergency call:

- Activate the telephone.
- Ring the emergency number that applies to your region (within EU: 112).
- Press ENTER.

Loudspeaker

The telephone uses the loudspeaker in the driver's door or the audio system's centre speaker (if there is one).

Telephone functions



SIM card

The telephone can only be used with a valid SIM card (Subscriber Identity Module). The card is provided by your network operator. Contact your network operator if you experience difficulties with the SIM card. Insert the SIM card to start using the telephone.

- Switch off the telephone.
- Open the glovebox and the cover for the SIM card holder.
- Pull out the SIM card holder.
- Place the card metal side up. Ensure that the bevelled corner of the SIM card matches the bevel of the holder.
- Carefully press the holder back in.

Double SIM cards

Many network operators offer double SIM cards - one for your car and one for another telephone. A double SIM card allows you to have the same number for two different telephones. Ask your network operator about the offers available and the use of double SIM cards.

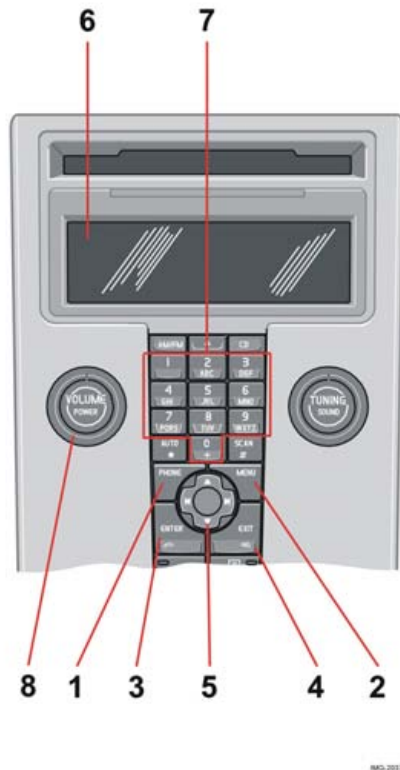
Specifications

Output	2 W
SIM card	Small
Memory entries	255 ¹
SMS (Short Message Service)	Yes
Data/Fax	No
Dualband	Yes (900/1800)

1. The capacity of the SIM card's memory varies depending on the subscription.

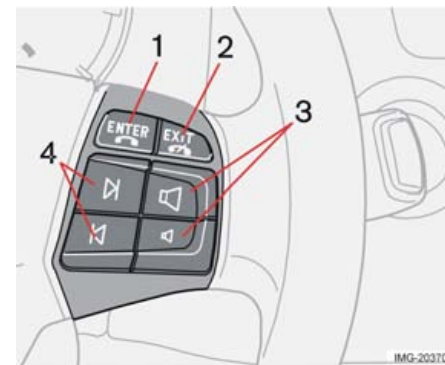
IMEI number

To block the telephone, you must provide your network operator with the telephone's IMEI number. This is a 15 digit serial number that is programmed in the phone. To display this number, dial *#06#. Make a note of this number and keep it in a safe place.



Control panel on centre console

1. PHONE – On/Off/Standby.
2. MENU – Opens the main menu.
3. ENTER – Accept a call, select in the menu or activate the telephone from standby. Press ENTER once to display the last dialled number.
4. EXIT – Terminate/reject a call, scroll back in the menu, cancel a selection or erase entered digits/characters.
5. Navigation button – Scroll up or down in the menus, scroll forwards or back when entering text and digits.
6. Display
7. Number/character keys and menu option shortcuts.
8. VOLUME – Controls the background volume from the radio, for example, during a call.



Steering wheel keypad

1. ENTER – Accept a call, scroll the menu or activate the telephone from standby. Press ENTER once to display the last dialled number.
2. EXIT – Terminate/reject a call, scroll back in the menu, cancel a selection or erase entered digits/characters.
3. Volume – Increase/decrease call volume during a call.
4. Navigation button – Scroll up/down in menus, scroll forward/back when entering text and digits.

Telephone functions

Switch

When the telephone system is active or in standby mode, a handset is shown on the display. If the car's ignition is switched off while the telephone system is on, the system will be on the next time the ignition is switched on. No calls can be received while the telephone system is switched off.

Activating the telephone system

- Press PHONE.
- Enter the PIN code and press ENTER.

Switching off

- Press and hold the PHONE button to switch off the telephone system.

Standby

- Press PHONE or EXIT to out the telephone system into standby.

Reactivating

- The system can be reactivated by touching the PHONE button.

Making and receiving calls

To call:

- Dial the number and press ENTER on the steering wheel keypad or on the control panel, or lift the handset.

Receiving a call:

- Press ENTER or lift the handset. You can also use Automatic Answer. See menu option 4.3.

The car's audio system can be muted automatically while a telephone conversation is in progress. See menu option 5.5.3.

Volume reduction during telephone call

If the telephone rings when the radio is switched on, the volume is lowered when the call is answered. When the call is concluded, the volume returns to the previously set level. It is possible to adjust the radio volume when the telephone is in use and this new volume kept after the call is ended. The audio system can also be muted during a telephone call. See menu 5.5.3. This function only applies to the Volvo integrated telephone system.

Ending a call

Press EXIT or hang up the handset. The audio system resumes its previous activity. Reject an incoming call by pressing EXIT.

Standby

Calls can be received while the audio system is active and information from an audio system source is shown on the display. The telephone must be in active mode to use the other functions of the telephone system.

Menu shortcuts

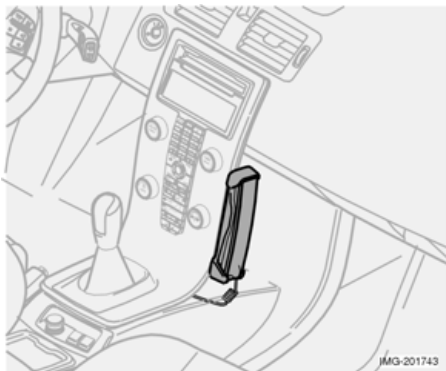
In the menu system, you can use numbers instead of the arrows and ENTER to select a menu at the main menu level. Each menu selection is numbered. The numbers are shown on the display together with the menu option.

Traffic safety

For safety reasons, parts of the menu system cannot be accessed at speeds in excess of 8 km/h. Only activities started in the menu system can be completed. The speed limiter can be deactivated using menu function 5.6.1 Menu lock.

IDIS

(Intelligent Driver Information System) The IDIS system allows incoming telephone calls and text (SMS) messages to be delayed so that the driver can concentrate on driving. Incoming calls and text messages can be delayed by 5 seconds before they are connected. Missed calls are shown on the display. IDIS can be deactivated using menu function 5.6.2.



Privacy handset (option)

Making a call using the handset:

- Dial the number using the keypad on the centre console and lift the handset to make the call. Press the handset down before lifting it.

The call is ended when the handset is hung back in its cradle.

Adjust the handset volume using the dial on the side of the handset.

To switch to handsfree without ending the call:

- Press the right arrow on the steering wheel keypad (or the menu button on the control panel) and select Handsfree.

Press ENTER and return the handset to its cradle. If the handset is already removed from its cradle at the start of a call, the other party will be audible via the handsfree system. Press the MENU button, scroll to *Handset* and press ENTER in order to transfer to the handset.

Last dialled number

The telephone automatically stores the last telephone numbers/names called.

Calling the last dialled number:

- Press ENTER on the steering wheel keypad or control panel (when in active mode).
- Use the navigation buttons to scroll forward or back through the last numbers dialled. These are shown on the display.
- Press ENTER.

Speed dial

A number stored in the phone book can be linked to a speed dial button (1-9).

- Select *Phone book* on the menu and press ENTER.
- Scroll to *Speed dial*, menu 3.4, and press ENTER.
- Select which number is to be the speed dial number. Press ENTER to confirm.

- Search for the desired name or phone number in the phone book. Press ENTER to select.
- To make a call, press and hold the desired speed dial button for two seconds or press the button briefly and then press ENTER.

NOTE! When the telephone is switched on, it takes a while before speed dialling is available. Menu option 3.4.1 must be activated to use the speed dial function.

Call waiting

A two-tone signal during a telephone call indicates that there is another incoming call. The display shows: *Answer?*

Receiving a call:

- Press ENTER. Your current call will be put on hold.
- Select *Hold/Resume* to finish the call and return to a call on hold.

To reject the incoming call: Press EXIT.

To end the current call: Press EXIT. The function can be de-selected in the menu.

Functions during a call

Several functions are available during a call.

Telephone functions

Scroll with the navigation button and press ENTER to make a selection.

Secret mode/ Secret mode off	Secret mode
Hold/Resume	Choose whether the call is to be put on hold or resumed.
Handsfree/ headset	Use the handsfree function or headset
Phone book	Show phone book

Several functions are available during a call while another call is on hold.

Scroll with the navigation button and press ENTER to make a selection.

Secret mode/ Secret mode off	Secret mode
Handsfree/ headset	Use the handsfree function or headset
Three-way calling	Conference call (further options)
Switch	Switch between two calls
Phone book	Show phone book

Call volume

Control the call volume during the call by pressing the buttons with the large and small loudspeakers on the steering wheel keypad.

When the telephone is activated, the steering wheel keypad only controls the telephone functions.

The telephone must be in standby mode to control the audio system using the steering wheel keypad.

Phone book

Telephone numbers and names can be stored in either the telephone memory or the SIM card memory.

If the number of the person calling is stored in the phone book, the name of the caller will be shown on the display.

The telephone memory can store up to 255 names.

Storing a telephone numbers and name:

- Press MENU.
- Select *Phone book* and press ENTER.
- Scroll to *Enter item* and press ENTER.
- Enter a name and press ENTER.
- Enter a number and press ENTER.
- Select the memory in which the entry is to be saved and press ENTER.

Copying entries between the SIM card and Phone book

Copying from the SIM card to the phone book:

- Press MENU.
- Select *Phone book*.
- Select *Copy all*.
- Select From SIM card to phone book and press ENTER.

You can also copy entries from the phone book to the SIM card.

Erasing names

Erasing from the phone book:

- Press MENU.
- Select *Phone book*.
- Select *Search*.
- Enter the first letter of the name (or the entire name) and press ENTER.
- Scroll to the name you wish to delete and press ENTER.
- Select *Erase* to delete the entry.

Entering a name/message

Press the button with the relevant character. Press once for the first character, twice for the second character and so on. Press 1 for space.

1	space 1- ? ! , . : " ' ()
2	a b c 2 ä å à æ ç
3	d e f 3 è é
4	g h i 4 ì
5	j k l 5
6	m n o 6 ñ ò ò Ø
7	p q r s 7 ß
8	t u v 8 ü ù
9	w x y z 9
*	if you enter two letters in a row from the same button, press * between them or wait a few seconds.
0	+ 0 @ * # & \$ £ / %
#	switch between upper and lower case
EXIT	Erase the last entered character. If you press and hold this, the entire number or text is deleted.

Calling from the memory

- Press MENU
- Scroll downward using the navigation button (or the left arrow button on the steering wheel to search the phone book).
- Press ENTER. Scroll to the desired name using the navigation button or press the first letter of the name (or enter the entire name). Press ENTER.
- Press ENTER to dial the selected number.

Quitting text input:

- Erase all entered characters with by pressing and holding EXIT
- Return to the menu by again pressing and holding EXIT.

Menu settings and options – Telephone

Telephone menu

1. Call log

- 1.1. Missed calls
- 1.2. Received calls
- 1.3. Outgoing calls
- 1.4. Erase list
 - 1.4.1. All calls
 - 1.4.2. Missed calls
 - 1.4.3. Received calls
 - 1.4.4. Outgoing calls
- 1.5. Call duration
 - 1.5.1. Last call
 - 1.5.2. Number of calls
 - 1.5.3. Total time
 - 1.5.4. Reset time

2. Messages

- 2.1. Read
- 2.2. Write
- 2.3. Message settings
 - 2.3.1. SMSC number
 - 2.3.2. Validity period
 - 2.3.3. Message type

3. Phone book

- 3.1. Enter item
- 3.2. Search
- 3.3. Copy all
 - 3.3.1. SIM to telephone
 - 3.3.2. Telephone to SIM

- 3.4. Speed dial
 - 3.4.1. Active
 - 3.4.2. Select number
- 3.5. Empty SIM
- 3.6. Empty telephone
- 3.7. Memory status

4. Call options.

- 4.1. Transmit number
- 4.2. Call waiting
- 4.3. Automatic answer
- 4.4. Automatic redial
- 4.5. Call divert
 - 4.5.1. All calls
 - 4.5.2. When busy
 - 4.5.3. When not answered
 - 4.5.4. If unreachable
 - 4.5.5. Fax calls
 - 4.5.6. Data calls
 - 4.5.7. Cancel all diverts

5. Tel. settings

- 5.1. Network selection
 - 5.1.1. Automatic
 - 5.1.2. Manual
- 5.2. Language
 - 5.2.1. English UK
 - 5.2.2. English US
 - 5.2.3. Español
 - 5.2.4. Français CAN

- 5.2.5. Français FR
- 5.2.6. Italiano
- 5.2.7. Nederlands
- 5.2.8. Português BR
- 5.2.9. Português P
- 5.2.10. Suomi
- 5.2.11. Svenska

- 5.2.12. Dansk
- 5.2.13. Deutsch

5.3. SIM security

- 5.3.1. On
- 5.3.2. Off
- 5.3.3. Automatic

5.4. Change codes

- 5.4.1. PIN code
- 5.4.2. Telephone code

5.5. Volume

- 5.5.1. Ringer volume
- 5.5.2. Ringer tone
- 5.5.3. Mute radio
- 5.5.4. Message beep

5.6. Traffic safety

- 5.6.1. Menu lock
- 5.6.2. IDIS

5.7. Factory settings.

Menu options, description

1. Call log

1.1. Missed calls

List of missed calls. You can choose to call, erase or store the number in the phone book.

1.2. Received calls

List of received calls. You can choose to call, erase or store the number in the phone book.

1.3. Outgoing calls

List of dialled numbers. You can choose to call, erase or store the number in the phone book.

1.4. Erase list

Erase the lists found in the menus 1.1, 1.2 and 1.3 as below.

- 1.4.1. All
- 1.4.2. Missed
- 1.4.3. Received
- 1.4.4. Outgoing

1.5. Call duration

Call duration of all calls or of the latest call.

- 1.5.1. Last call
- 1.5.2. Number of calls
- 1.5.3. Total time
- 1.5.4. Reset time

The telephone code is required to reset the call timer (see Menu 5.4).

2. Messages

2.1. Read

Received text messages. Select whether to erase, forward, change or save the entire message or parts of it.

2.2. Write

Write a message using the keypad. Choose whether to save or send it.

2.3. Message settings

Enter the number (SMSC number) of the message centre to which you want your messages transferred as well as how long they are to be saved at the message centre.

- 2.3.1. SMSC number
 - 2.3.2. Validity period
 - 2.3.3. Message type
- Contact your network operator for information about these settings and for an SMSC number. Normally, these settings should not be altered.

3. Phone book

3.1. Enter item

Store names and numbers in the phone book. See the section on phone book functions for more information.

3.2. Search

Search for a name in the phone book.

3.3. Copy all

Copy telephone numbers and names from the SIM card to the telephone memory.

- 3.3.1. From SIM to telephone memory
- 3.3.2. From telephone to SIM memory

3.4. Speed dial

A number stored in the phone book can be stored as a speed dial number.

3.5. Empty SIM

Select to erase the entire memory of the SIM card.

3.6. Empty memory

Erase the entire telephone memory.

3.7. Memory status

Shows how many entries are occupied by names and numbers in the SIM card and telephone memory. The table shows how many spaces are occupied of the total, e.g. 100(250).

4. Call options

4.1. Transmit number

Select whether or not your own number should be displayed to the person you call. Contact your network operator regarding ex-directory numbers.

Menu settings and options – Telephone

4.2. Call waiting

Select whether or not you want to be alerted during a phone call that there is another incoming call.

4.3. Automatic answer

Automatically answers incoming calls.

4.4. Call back

Calls a previously engaged number.

4.5. Call divert service

Choose when and what type of calls are to be diverted to a specified telephone number.

- 4.5.1. All calls (this setting only applies during the call in progress).
- 4.5.2. When busy
- 4.5.3. When not answered
- 4.5.4. If unreachable
- 4.5.5. Fax calls
- 4.5.6. Data calls
- 4.5.7. Cancel all diverts

5. Telephone settings

5.1. Network selection

Choose a network automatically or manually. The selected operator is shown in the display in the telephone's basic mode.

- 5.1.1. AUTO
- 5.1.2. Manual

5.2. Language

Select the telephone language.

- 5.2.1. English UK
- 5.2.2. English US
- 5.2.3. Español
- 5.2.4. Français CAN
- 5.2.5. Français FR
- 5.2.6. Italiano
- 5.2.7. Nederlands
- 5.2.8. Português BR
- 5.2.9. Português P
- 5.2.10. Suomi
- 5.2.11. Svenska
- 5.2.12. Dansk
- 5.2.13. Deutsch

5.3. SIM security

Select if the PIN code should be on, off or if the telephone should automatically give the PIN code.

- 5.3.1. On
- 5.3.2. Off
- 5.3.3. Automatic

5.4. Change codes

Change the PIN code or telephone code 5.4.1 PIN code 5.4.2. Telephone code (use 1234 until you change to your own code). The telephone code is used to reset the call timer. Make a note of your code and save it in a safe place.

5.5. Volume

- 5.5.1. Volume. Adjust the ring tone volume.
- 5.5.2. Ring tone. There are seven different ring tones.
- 5.5.3. Mute radio: On/Off
- 5.5.4. Message beep

5.6. Traffic safety

Disengage the speed function, i.e. make all menu options accessible while driving.

- 5.6.1. Menu lock
- 5.6.2. IDIS

The IDIS function can be deactivated. Incoming calls will not be delayed, irrespective of whether the car is being driven or not.

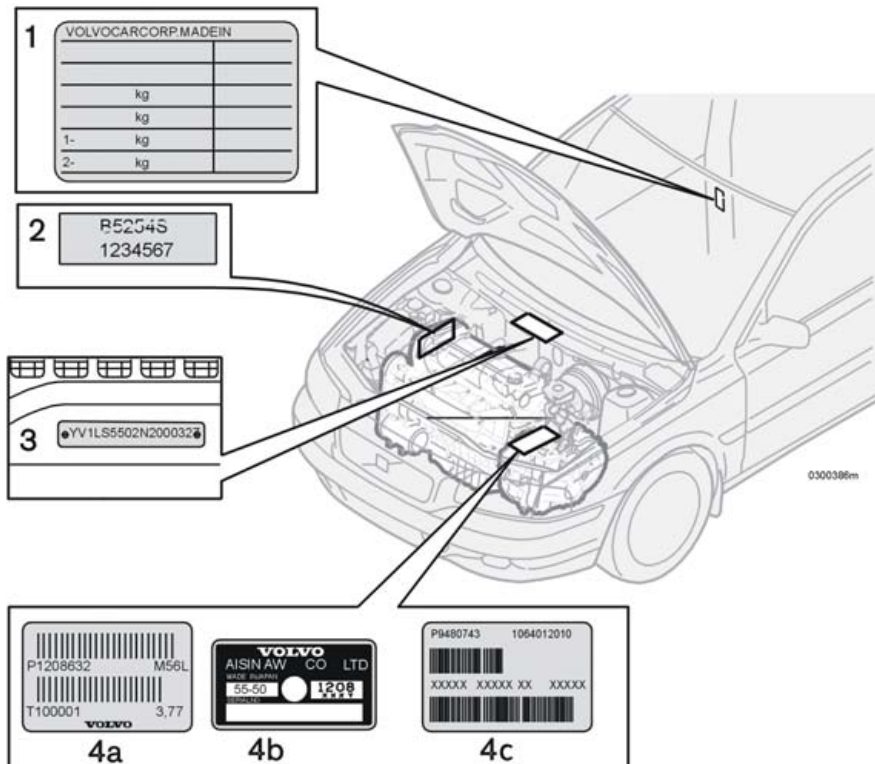
5.7. Factory settings

Reset the system's factory settings.

Technical data

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Type designations



Whenever contacting your Volvo dealer and when ordering spare parts and accessories for your car, it makes things easier if you know your car's type designation, vehicle identification number and engine number.

1. Type designation, VIN, maximum permitted loads, code number for colour and trim, and type approval number (on right-hand B-pillar).
2. Engine type designation, component and serial number (on the right-hand side of the engine).
3. VIN (Type and model year designations and chassis number) stamped in the engine compartment underneath the windscreen.
4. Gearbox type designation and serial number,
 - (a) manual gearbox (on front side)
 - (b), (c) automatic gearbox (on the top).

Dimensions and weights

Dimensions

Length: 451 cm

Width: 177 cm

Wheelbase: 264 cm

Front track: 154-155 cm

Rear track: 153-154 cm

Weights

The kerb weight includes the driver, the fuel tank 90 % full and all fluids. The weight of passengers and accessories, such as a towbar, towball load (when a trailer is hitched, see table), load carriers, and roof box etc. influence the payload and must not be included in the kerb weight. Permitted weight (in addition to driver) = Gross vehicle weight–Kerb weight.

VOLVOCARCORP.MADEIN		
	kg	1
	kg	2
1-	kg	3
2-	kg	4

0300372a

For the location of the label, see page 210.

1. Max. total weight
2. Max. train weight (car+trailer)
3. Max. front axle load
4. Max. rear axle load

Maximum load: See registration document.

Maximum roof load: 75 kg

Maximum trailer weight	Maximum towball load:
1.6 1200 kg	75 kg
1.6D manual 1300 kg	
1.8 1300 kg	
others 1500 kg	

Trailer without brakes

Maximum trailer weight	Maximum towball load:
700 kg	50 kg



WARNING!

The car's driving characteristics change depending on how heavily it is loaded and how the load is distributed.

Engine specifications

	1.6	1.8	2.4	2.4i
Engine designation	B4164S3	B4184S11	B5244S5	B5244S4
Output (kW/rps)	74/100	92/100	103/83	125/100
(hp/rpm)	100/6000	125/6000	140/5000	170/6000
Torque (Nm/rps)	150/67	165/67	220/67	230/73
(kpm/rpm)	15.3/4000	16.8/4000	22.4/4000	23.4/4400
No. of cylinders	4	4	5	5
Bore (mm)	79	83	83	83
Stroke (mm)	81,4	83.1	90	90
Swept volume (dm ³ or litres)	1.60	1.80	2.44	2.44
Compression ratio	11.0:1	10.8:1	10.3:1	10.3:1
Spark plugs:				
Electrode gap (mm)	1.2	1.3	3x0.6 +/-0.1	3x0.6 +/-0.1
Tightening torque (Nm)	15 ±2	12	30	30

Engine type designation, component and serial number can be read on the engine, see page 210.

	T5	1.6D	2.0D	2.0D
Engine designation	B5254T3	D4164T	D4204T	D4204T2¹
Output (kW/rps)	162/83	81/67	100/67	98/67
(hp/rpm)	220/5000	110/4000	136/4000	133/4000
Torque (Nm/rps)	320/25-80	240/	320/33	320/33
(kpm/rpm)	32.6/1500-4800	24.5/	32.6/2000	32.6/2000
No. of cylinders	5	4	4	4
Bore (mm)	83	75	85	85
Stroke (mm)	93.2	88.3	88	88
Swept volume (dm ³ or litres)	2.52	1.56	2.00	2.00
Compression ratio	9.0:1	18.3:1	18.5:1	18.5:1
Spark plugs:				
Electrode gap (mm)	0.7 +0.1	-	-	-
Tightening torque (Nm)	30	-	-	-

1. France

Engine type designation, component and serial number can be read on the engine, see page 210.

Capacities

Engine oil

Engine variant	Volume between MIN – MAX	Volume ¹ litres	Recommended oil grade: ²	Viscosity ³
1.6 B4164S3	0-0.75	4.0	WSS-M2C913-B	SAE 5W-30
1.8 B4184S11	0-0.75	4.3		
2.4 B5244S5	0-1.6	5.8	ACEA A1/B1	
2.4i B5244S4				
T5 B5254T3				
1.6D D4164T	0-1.0	3.7	WSS-M2C913-B	
2.0D D4204T	0-2.0	5.5		
2.0D D4204T2				

1. Including filter change.
2. Alternative ACEA A5/B5
3. The oil grade requirement must be fulfilled even if a different viscosity is chosen according to the diagram.

Extreme driving conditions

Check the oil more often in extreme driving conditions such as alpine driving with a great deal of engine braking or motorway driving at high speed. These conditions may cause abnormally high oil temperatures and oil consumption.

Petrol engines: For extreme conditions, choose a fully synthetic engine oil to provide extra protection.

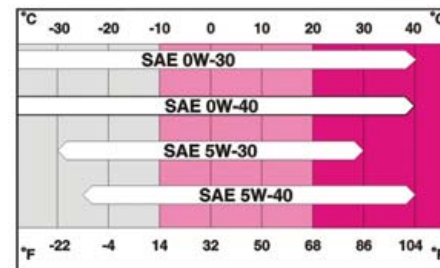
Volvo recommends Castrol® oil products.

Important!

Always use oil of the recommended grade and correct viscosity.

Do not use oil additives. These can damage the engine.

If the system is topped up with a different oil, contact the nearest authorised Volvo workshop for servicing.



Other fluids and lubricants

Important!

The recommended transmission fluid must be used to prevent damage to the gearbox. Do not mix with any other transmission fluid. If the transmission is topped up with a different fluid, contact an authorised Volvo workshop for servicing.

Fluid	Engine variant/number of components	Volume	Recommended oil grade:
Gearbox oil	1.6 Manual 5 speed	2.1 litres	Transmission fluid: WSD-M2C200-C
	1.8 Manual 5 speed	1.9 litres	
	1.6D Manual 5 speed	1.9 litres	
	2.0D Manual 6 speed	1.7 litres	
	2.4 Manual 5 speed	2.1 litres	Transmission fluid: MTF 97309-10
	2.4i Manual 5 speed	2.1 litres	
	T5 Manual 6 speed	2.0 litres	
	T5 Automatic gearbox	7.75 litres	Transmission fluid: JWS 3309
Coolant	5 cyl. Petrol, manual gearbox	8.0 litres	Coolant with corrosion inhibitor mixed with water, see packaging. The thermostat starts opening at: 90 °C in petrol engines and at 82 °C in diesel engines. petrol engine (1.6) 82 °C diesel engine (1.6D) 83 °C
	5 cyl. Petrol, automatic gearbox	8.5 litres	
	4 cyl. Petrol (1.8)	7.5 litres	
	4 cyl. Diesel (2.0D)	9.5 litres	
	4 cyl. Petrol (1.6)	6.2 litres	
	4 cyl. Diesel (1.6D)	7.2 litres	
Air conditioning ¹		180-200 grams	Compressor oil PAG
		500-600 grams	Refrigerant R134a (HFC134a)
Brake fluid		0.6 litres	DOT 4+
Power steering	System:	1.2 litres	Power steering fluid: WSS M2C204-A or equivalent product with same specifications.
	of which reservoir	0.2 litres	

Capacities

Fluid	Engine variant/number of components	Volume	Recommended oil grade:
Washer fluid	4 cyl. Petrol/Diesel	4.0 litres	Use a washer antifreeze recommended by Volvo mixed with water at temperatures below freezing.
	5 cyl. Petrol	6.5 litres	
Fuel tank	See page 217		

1. Weights can vary depending on the engine variant. Contact an authorised Volvo workshop for the exact information.

Fuel

Consumption, emissions and volume

Engine		Gearbox	Consumption litre/100 km	Emissions of CO ₂ (g/km)	Tank volume (litres)
1.6	B4164S3	Manual 5 speed (IB5)	7.2	171	55
1.8	B4184S11	Manual 5 speed (MTX75)	7.3	174	55
2.4	B5244S5	Manual 5 speed (M56)	8.5	203	62
		Automatic gearbox (AW55-50/51)	9.2	220	
2.4i	B5244S4	Manual 5 speed (M56)	8.6	204	62
		Automatic gearbox (AW55-50/51)	9.2	220	
T5	B5254T3	Manual 6-speed (M66)	8.8	209	62
		Automatic gearbox (AW55-50/51)	9.6	229	
AWD		Manual 6-speed (M66)	9.6	229	58
		Automatic gearbox (AW55-50/51)	10.2	243	
1.6D	D4164T (EURO3) (EURO4)	Manual 5 speed (MTX75)	5.0	132	55
2.0D	D4204T (EURO3)	Manual 6 speed (MMT6)	5.7	153	55
	(EURO4)		5.8	154	
	(EURO3)	Manual 5 speed (M56L2)	5.5	145	
	(EURO4)		5.5	145	
2.0D	D4204T2 ¹ (EURO3) (EURO4) (7CV)	Manual 6 speed (MMT6)	5.6	148	55

1. France

Fuel

Fuel consumption and emissions of carbon dioxide

Official fuel consumption figures are based on a standard driving cycle in accordance with EU Directive 80/1268 comb. Fuel consumption figures may change if the car is equipped with extra equipment that affects the car's weight. The manner in which the car is driven and other non-technical factors can affect fuel consumption. Consumption is higher and power output lower for fuel with an octane rating of 91 RON.

Petrol

Most engines can be run with octane ratings of 91, 95 and 98 RON.

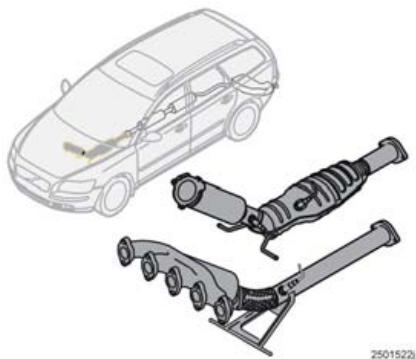
- 91 RON must **not** be used in 4 cylinder engines.
- 95 RON can be used for normal driving.
- 98 RON is recommended for optimum performance and minimum fuel consumption.

When driving in temperatures above +38 °C, it is recommended to use fuel with the highest possible octane rating for optimum performance and fuel economy.

Petrol: Standard EN 228

Diesel: Standard EN 590

Catalytic converter



Catalytic converter

The purpose of the catalytic converter is to purify exhaust gases. It is located in the flow of exhaust gasses close to the engine so that it quickly reaches operating temperature. The catalytic converter consists of a monolith (ceramic or metal) with channels. The channel walls are lined with a thin layer of platinum, rhodium and palladium. These metals act as catalysts, i.e. they participate in and accelerate a chemical reaction without being used up themselves.

Lambda-sond™ oxygen sensor

The Lambda-sond is part of a control system intended to reduce emissions and improve fuel economy.

An oxygen sensor monitors the oxygen content of the exhaust gases leaving the engine. This value is fed into an electronic system that continuously controls the injectors. The ratio of air to fuel is continuously adjusted. These adjustments create optimal conditions for efficient combustion, and together with the three-way catalytic converter reduce harmful emissions (hydrocarbons, carbon monoxide and nitrous oxides).

Electrical system

General

12 volt system with a voltage-regulated alternator. Single pole system in which the chassis and engine block are used as conductors.

Battery

Voltage	12 V	12 V	12 V
Cold start capacity (CCA)	520 A	600 A*	700 A**
Reserve capacity (RC)	100 min	120 min	150 min

* Cars equipped with High Performance audio system.

** Diesel cars with Premium Sound audio system, fuel-driven heater, RTI.

If the battery is changed, replace it with a battery of the same cold start capacity and reserve capacity as the original (see the decal on the battery).

Alternator

Max. current = 120/150 A¹

Starter motor

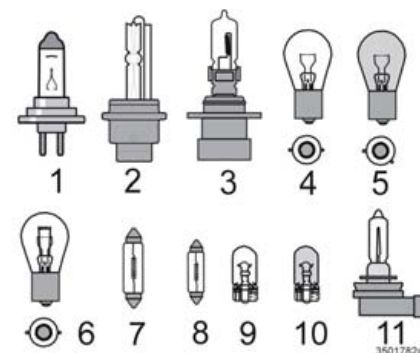
Output = 1.4/1.9 kW¹

1. Dependent on engine variant

Electrical system

Bulbs

Lighting	Output W	Socket
1. Dipped beam	55	H7
2. Bi-Xenon	35	D2S
3. Main beam	55	HB3
4. Brake lights, reversing lamps, rear fog lamp	21	BA15s
5. Direction indicators, front/rear (yellow)	21	BAU 15s
6. Rear position/parking lamps, rear side marker lamps	5	BAY15d
7. Courtesy lighting, cargo area lighting, number plate lighting	5	SV8.5
8. Vanity mirror	1.2	SV5.5
9. Front position/parking lamps, front side marker lamps	5	W 2.1 x 9.5d
10. Direction indicators in door mirrors (yellow)	5	W 2.1 x 9.5d
11. Fog lamps	55	H11
Glovebox lighting	3	BA9



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