Opel Speedster

SPEEDSTER

Operation, Safety, Maintenance

Opel Speedster

Owner's Manual

In Brief

Key numbers, Code numbers

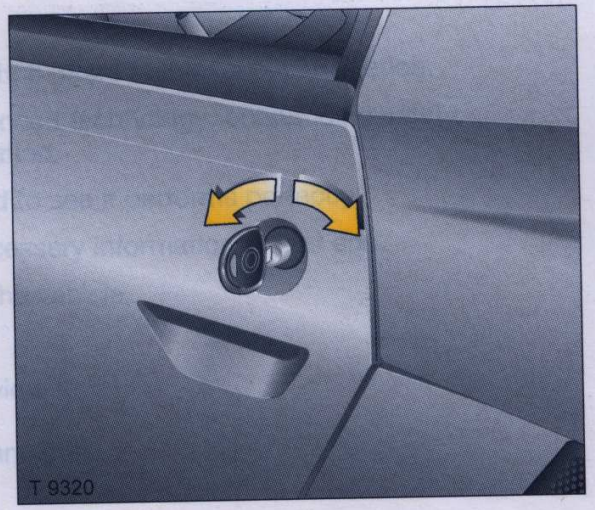
Remove key number from key.

The key number is given in the vehicle papers and in the Car Pass.

Immobilizer, radio ✻: the code numbers are given in the Car Pass and Radio Pass ✻ respectively.

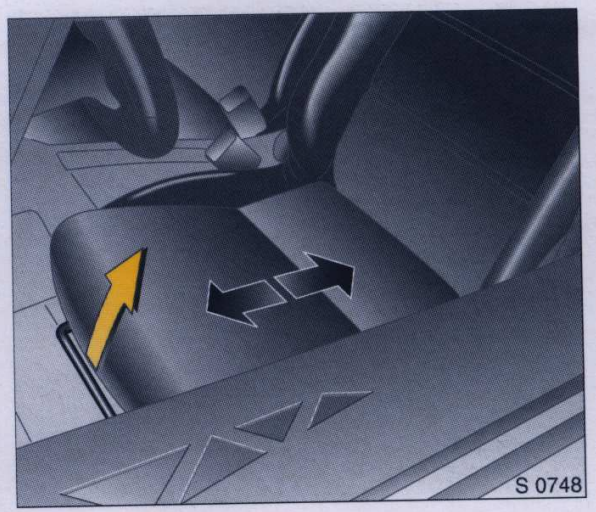
Do not keep the Car Pass and Radio Pass ✻ in the vehicle.

► Further information - pages 22, 23.



Unlocking the vehicle: Turn key in door lock, remove key Press lock button and open door

► Door locks - pages 22,
electronic immobilizer - page 23,
remote control - page 24,
anti-theft alarm system - page 24.



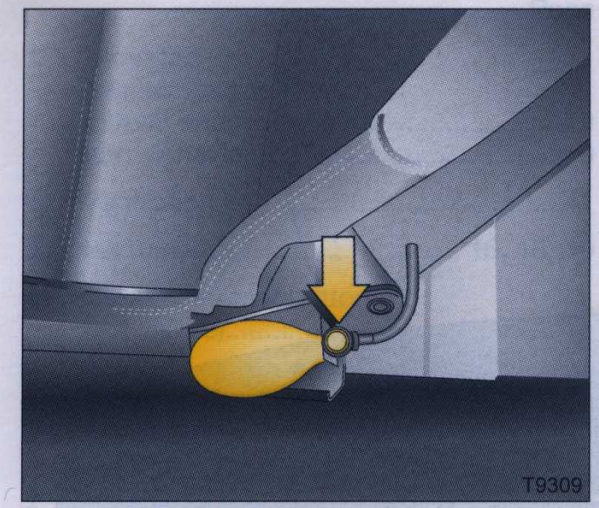
Adjusting the seat: Pull handle, move seat, release handle, lock seat in position

Never adjust the driver's seat whilst driving. It could move in an uncontrolled manner when the handle has been pulled.

The passenger's seat is not adjustable.

Passenger footrest ✻

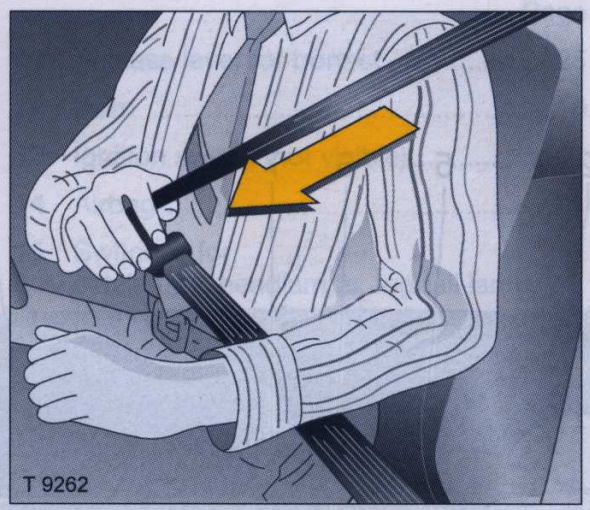
The passenger footrest can be adjusted for comfort. Lift the footrest and move to the desired position. Press the footrest firmly down to ensure that it is locked securely in position.



Lumbar support:
Pump on outboard side of seat

Operate pump to increase support.

To decrease support, release pressure with valve button (arrowed).

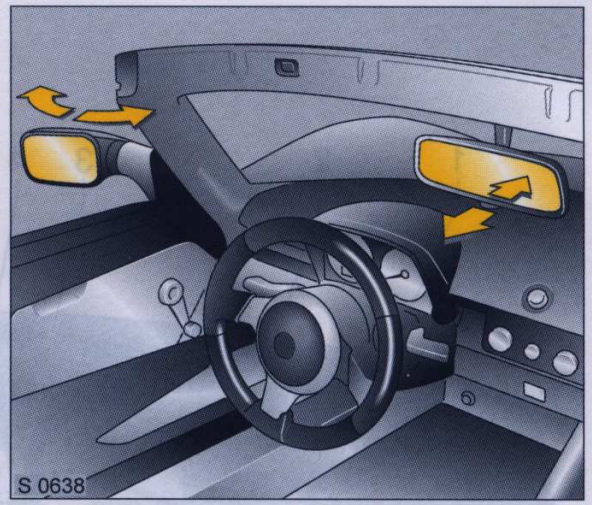


Seat belt:
Draw smoothly from inertia reel, guide over the shoulder and engage in buckle

The belt must not be twisted at any point. The lap belt must fit snugly across the body.

To release belt, press red button on belt buckle.

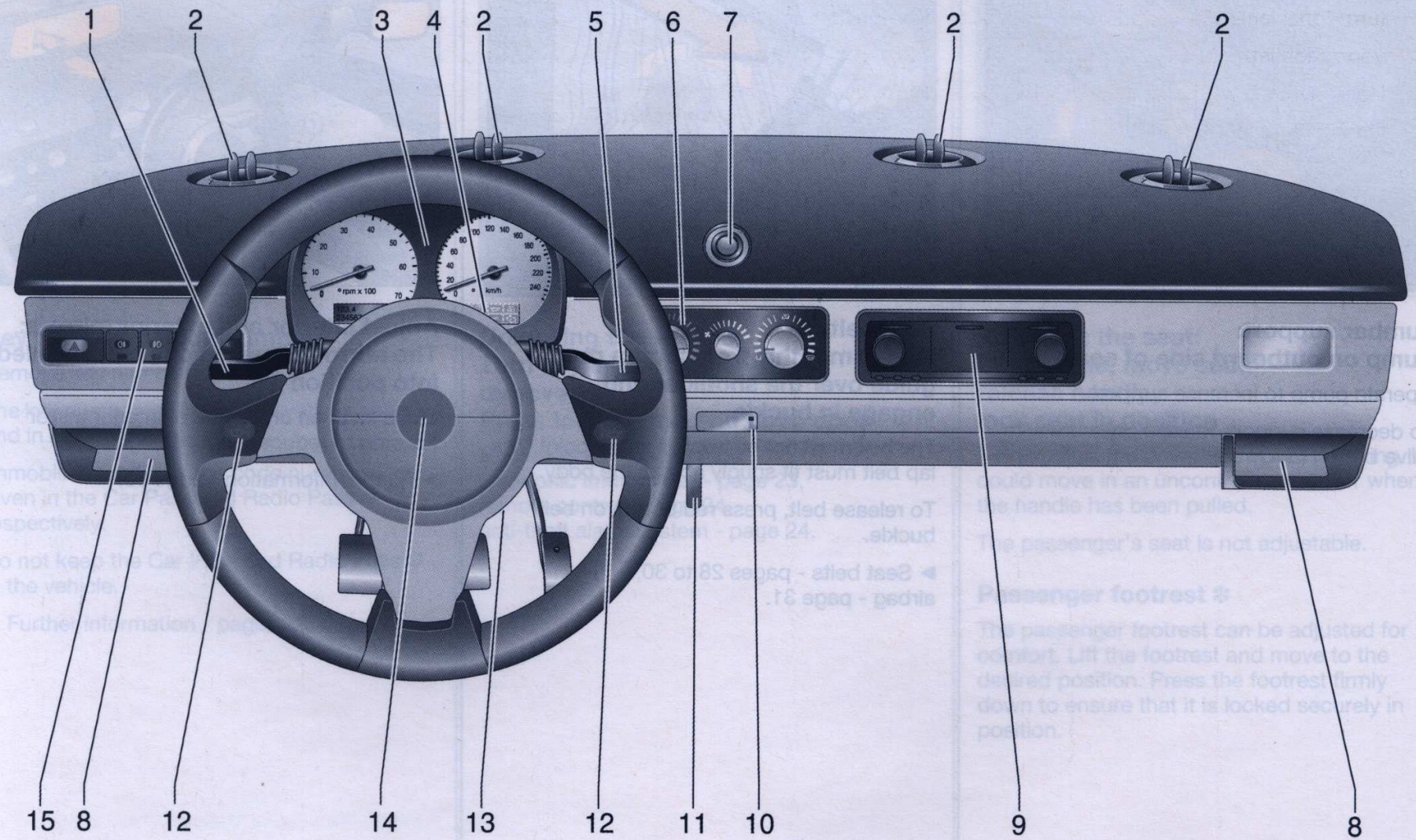
► Seat belts - pages 28 to 30, airbag - page 31.

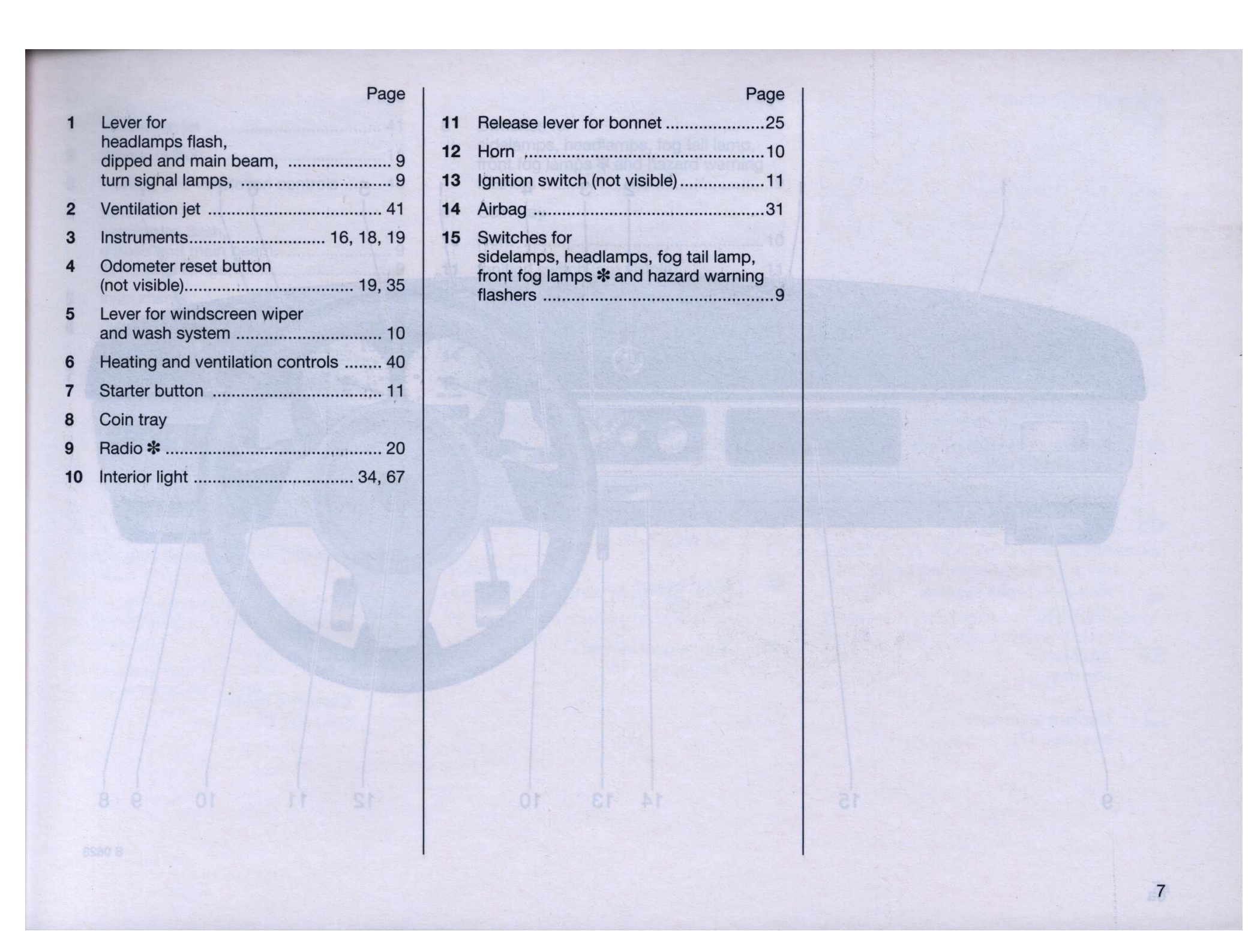


Adjust interior and exterior mirrors:
The mirror housings can be swivelled into position

Move lever on underside of interior mirror housing to reduce dazzle at night.

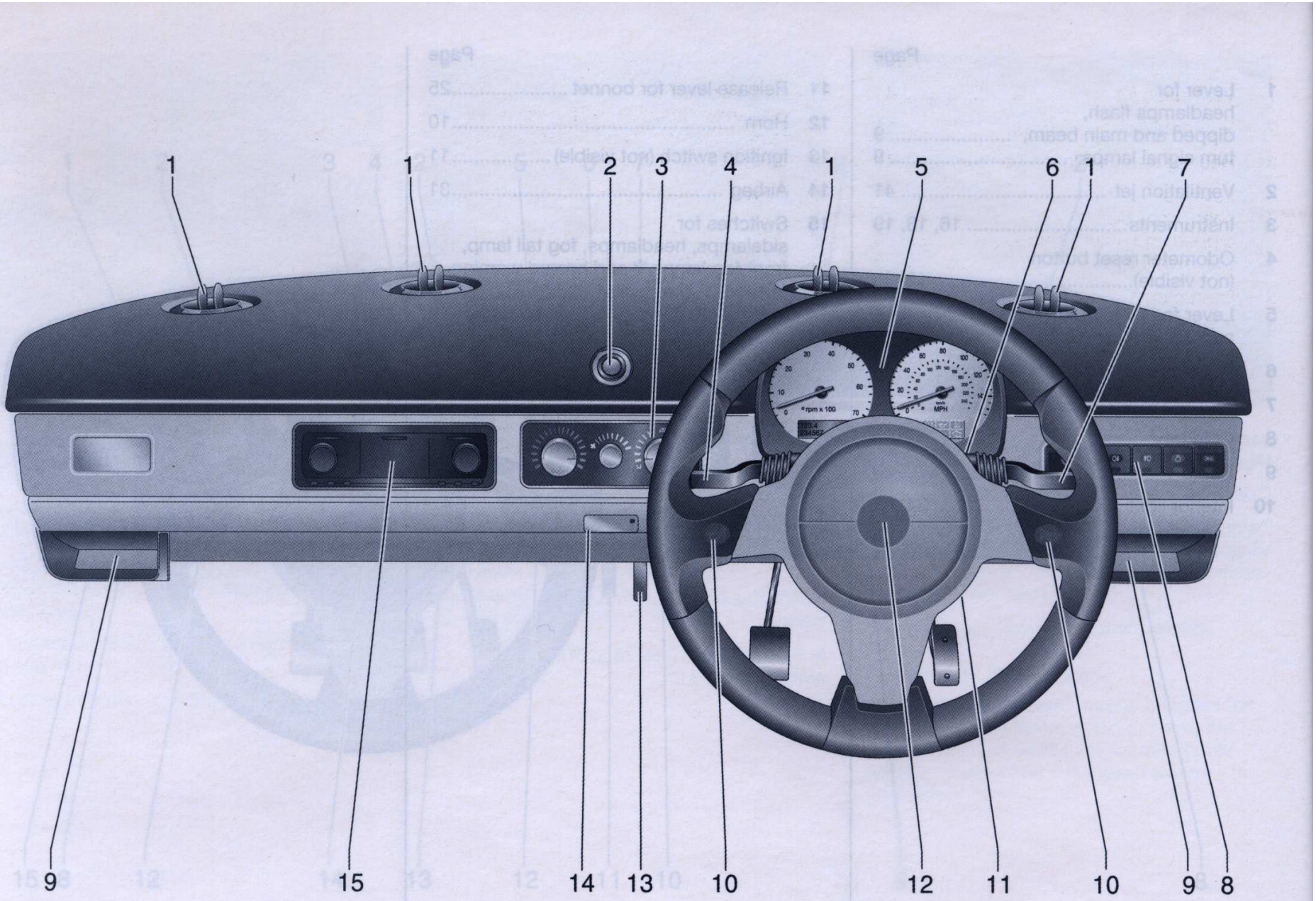
► Further information - page 33.


1
2
3
4
2
5
6
7
2
2
15
8
12
14
13
12
11
10
9
8
S 0622



		Page
1	Lever for headlamps flash, dipped and main beam, ... turn signal lamps, ...	 9 9
2	Ventilation jet	41
3	Instruments.....	16, 18, 19
4	Odometer reset button (not visible).....	 19, 35
5	Lever for windscreen wiper and wash system	 10
6	Heating and ventilation controls	40
7	Starter button	11
8	Coin tray	
9	Radio ✻	20
10	Interior light	34, 67

		Page
11	Release lever for bonnet	25
12	Horn	10
13	Ignition switch (not visible).....	11
14	Airbag	31
15	Switches for sidelamps, headlamps, fog tail lamp, front fog lamps ✻ and hazard warning flashers	 9


1
1
2
3
4
1
5
6
1
7
9
15
14
13
10
12
11
10
9
8
S 0623

		Page
1	Ventilation jet	41
2	Starter button	11
3	Heating and ventilation controls	40
4	Lever for headlamps flash, dipped and main beam, turn signal lamps,	9 9
5	Instruments	16, 18, 19
6	Odometer reset button (not visible)	19, 35
7	Lever for windscreen wiper and wash system	10

		Page
8	Switches for sidelamps, headlamps, fog tail lamp, front fog lamps ✻ and hazard warning flashers	9
9	Coin tray	
10	Horn	10
11	Ignition switch (not visible)	11
12	Airbag	31
13	Release lever for bonnet	25
14	Interior light	34, 67
15	Radio ✻	20

Control indicators

Fuel level:
see pages 18, 51, 90.

Turn signal lamps:
see pages 9, 16.

Parking brake system:
see pages 16, 73.

Brake system:
see pages 16, 73.

Oil pressure:
see page 17.

AIR BAG **Drivers airbag system, belt tensioners:**
see page 28.

Engine electronics:
see page 17.

ABS **Anti-lock brake system:**
see page 55.

Alternator:
see page 17.

Coolant level low:
see page 17.

Headlamp main beam:
see pages 9, 34.

Coolant temperature:
see pages 17, 72.

Lighting

Side lamps:
see page 9, 34.

Headlamps/side lamps:
see pages 9, 34.

Fog tail lamp:
see page 9, 34.

Front fog lamps: ✻
see pages 9, 34.

Hazard warning flashers:
see page 8, 34.

Main beam:
see pages 17, 34.

Turn signal lamps:
see pages 9, 16.

Heating and ventilation

Blower switch:
see page 41.

Air distribution:
see page 40,

to foot area

to head area and to foot area

to demister

Windscreen wiper

Lever positions:
see page 10,

0 Off

-- Timed interval wipe

— Slow

═ Fast

Windscreen wash

Miscellaneous

Horn:
see page 10.

Cigarette lighter:
see page 27.

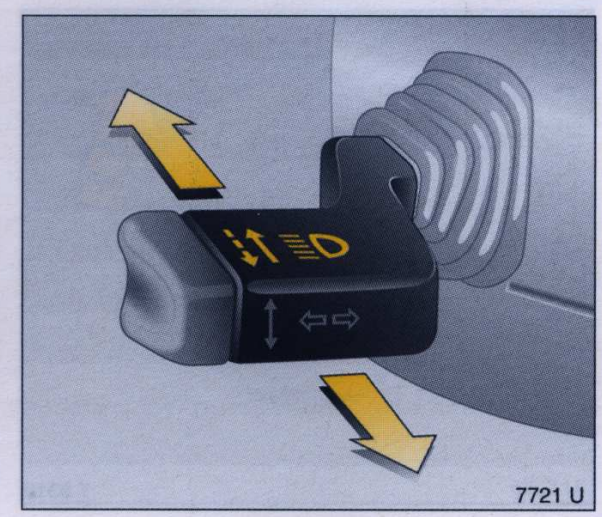
Light switches:

= Side lamps
= Headlamps and side lamps
= Fog tail lamp
= Front fog lamps ✻
= Hazard warning lamps

Press button to switch on and press again to switch off.

The headlamps must be switched on before the fog tail lamp or front fog lamps ✻ can be switched on.

▶ Headlamp warning device - page 14, Further information - page 34.

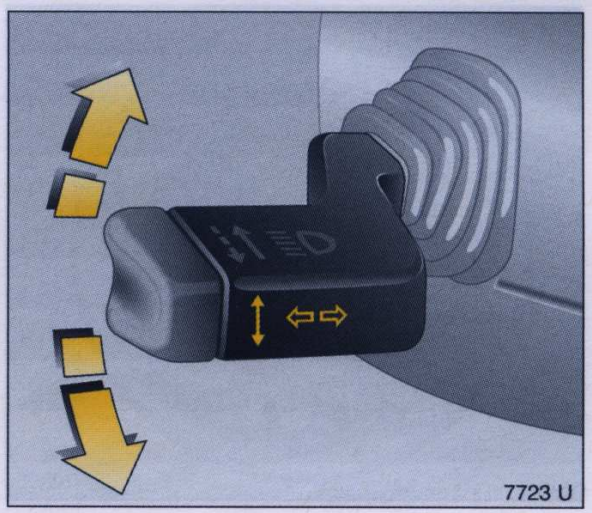


Dipped and main beam:
Push lever forwards = Main beam
Pull lever towards steering wheel = Dipped beam

Pulling the lever towards the steering wheel to the first stop operates the headlamp flash.

Headlamp flash:
Pull lever towards steering wheel

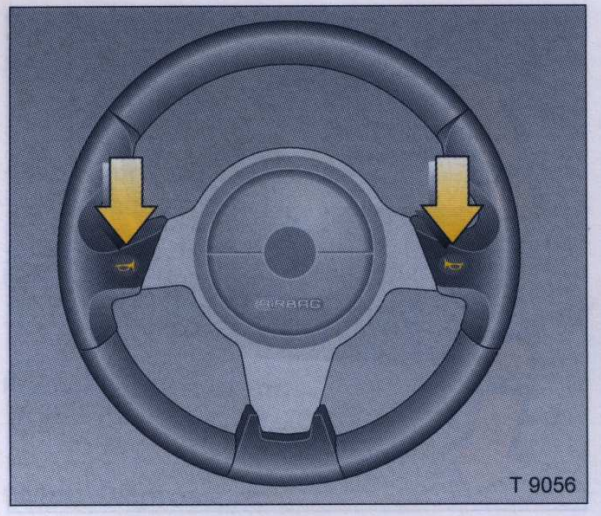
Headlamp flash can also be operated when turn signal lamps are on.



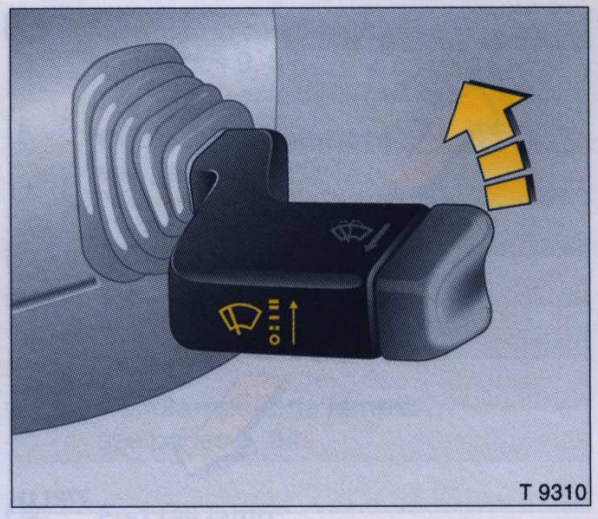
Turn signal lamps:
Lever in rest position
Upwards = Right turn
Downwards = Left turn

When the steering wheel is turned back, the lever automatically returns to its original position. This will not happen when making a minor steering manoeuvre such as lane changing.

When lane changing, move lever part way to first stop. When released, lever will spring back.

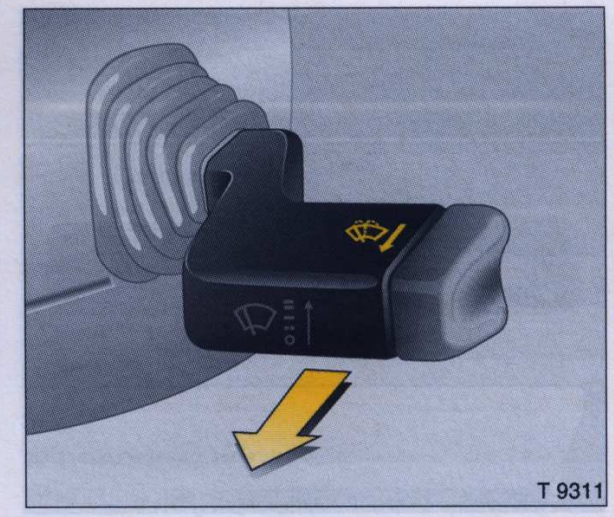


Horn:
Press



Windscreen wiper:
Move lever upwards

0 = Off
– – = Timed interval wipe
— = Slow
═ = Fast



Windscreen wash system:
Pull lever towards steering wheel

Wash fluid is sprayed onto the windscreen at the same time the wiper is operated for several cycles.

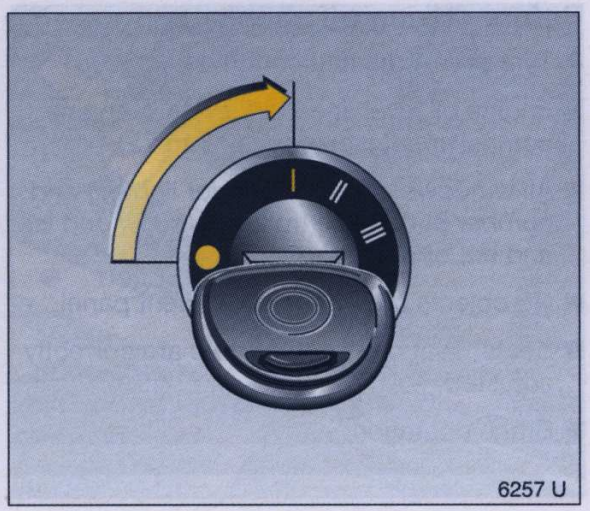
► Further information - page 75.

Ignition switch:

I = Ignition off
II = Steering unlocked, ignition on
III = Key returns to position II

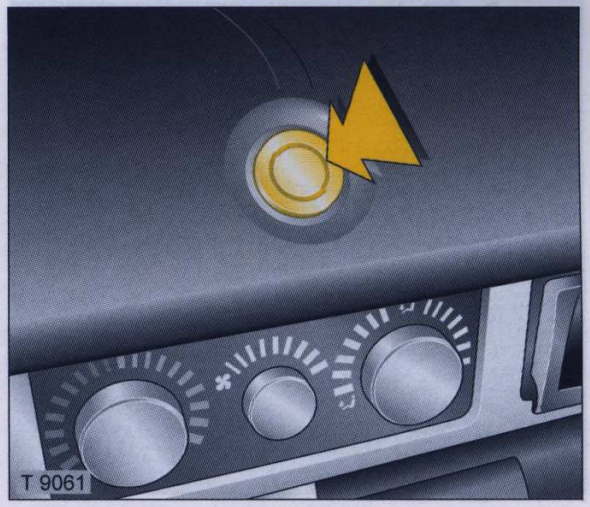
Press the starter button to start the engine.

► Electronic immobilizer - page 23.



Releasing the steering column lock: To release the lock, move steering wheel slightly and turn key to position I

► Remove key and lock steering wheel - page 14.

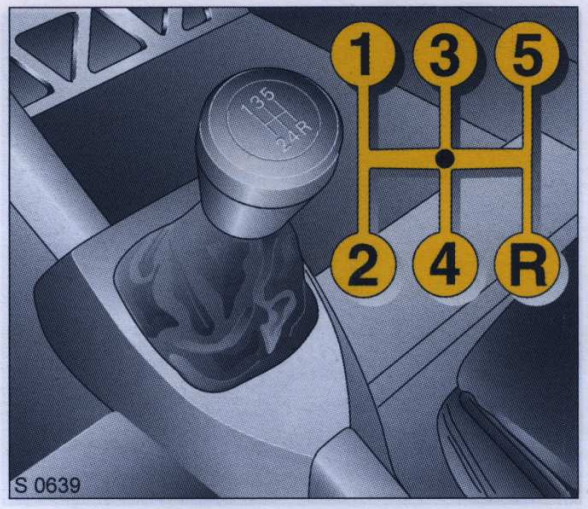


Starter button:

Depress button with the ignition on to start the engine - (transmission in neutral).

Starter button is deactivated once the engine is running.

► Starting - page 13.



Manual transmission:

● = Neutral
1 to 5 = 1st to 5th gear
R = Reverse gear

When shifting up from 4th to 5th gear, pressure must be exerted towards the right at the beginning of the shift operation.

When shifting from 5th to 4th gear, do not exert any force towards the left.

Reverse gear: with vehicle stationary, move shift lever to the right three seconds after declutching and engage gear.

If the gear does not engage: with lever in neutral, release clutch pedal and depress again, then repeat gear selection.

Before driving off check:

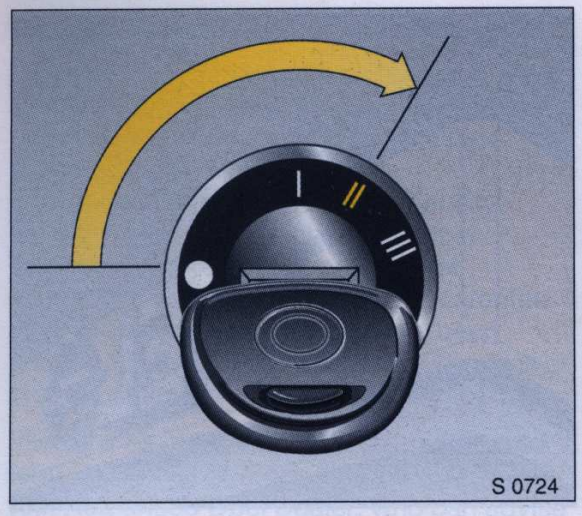
- Tyre pressures and condition.
- Engine oil level and fluid levels in engine compartment (see pages 71 to 72).
- All windows, mirrors, exterior lighting and number plates free from dirt, snow and ice and are operational.
- No objects are on the instrument panel.
- Seats, seat belts and mirrors are correctly adjusted.
- Brake operation.

Exhaust gases are poisonous

Exhaust gases contain carbon monoxide, which is extremely poisonous but has no odour or colour.

Therefore, never inhale exhaust gases, and never run the engine in a garage with the garage doors closed.

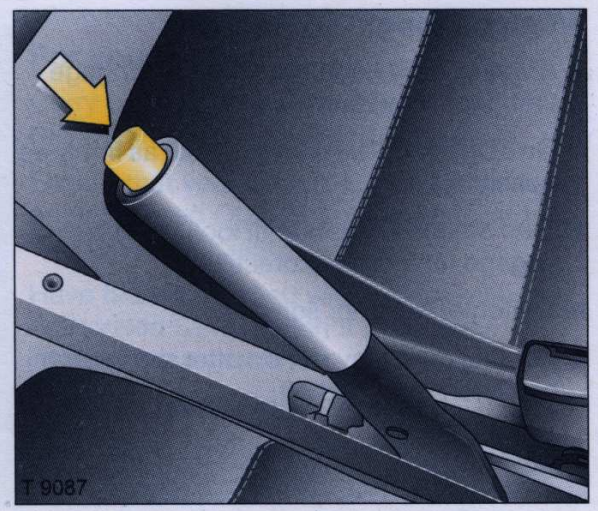
► Exhaust gas - page 52.



Starting:
Transmission in neutral
Depress clutch
Do not accelerate
Turn key to II
Press starter button

When the engine starts, use the accelerator pedal to maintain an increased engine speed until normal combustion conditions are obtained, then release the accelerator pedal.

► Electronic immobilizer - page 23,
further information - pages 44, 46, 48.

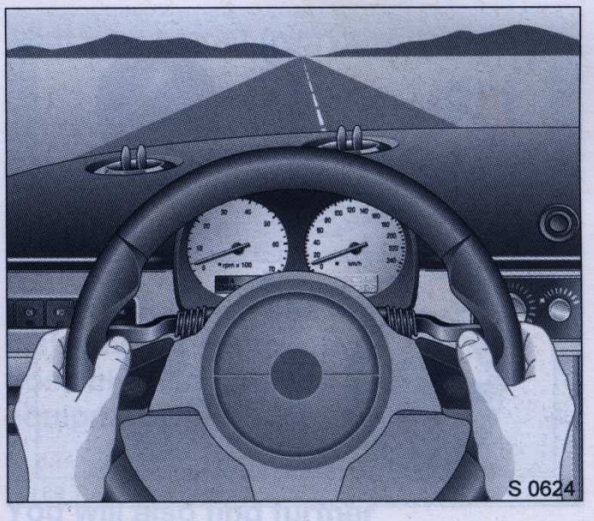


Releasing the hand brake

Slightly raise lever. Depress lock button. Lower lever fully.

The mechanical hand brake acts on the rear wheels. It engages automatically when applied.

► Brakes - page 54.

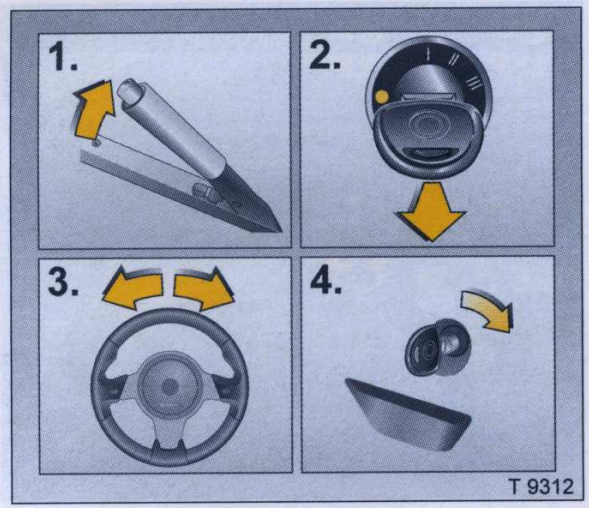


And now, have a good journey –
Drive carefully,
economically and
with the environment in mind

Whilst driving, do not do anything that could distract you.

Take heed of the traffic reports given out on the radio ✻.

► Driving hints - page 44,
saving fuel - page 46,
environmental protection - page 48.



Parking the vehicle:
Apply hand brake firmly
Switch off engine
Remove key
Engage steering wheel lock
Close windows
Lock doors

Further information - pages 23, 45, anti-theft alarm - page 24.

When parking:

- Always apply hand brake firmly. Engage first gear or reverse gear.

  On slopes apply the hand brake as firmly as possible.
- Turn steering wheel until lock is felt to engage (anti-theft protection).
- Switch off exterior lights.
- Cooling fans may run on after the engine has been switched off.

Service, Maintenance

Your Authorised Opel Dealer can provide you with reliable service. All work is correctly performed according to factory instructions.

Genuine Opel Parts and Accessories

We recommend that you use "Genuine Opel Parts and Accessories" and conversion parts released expressly for your vehicle type. These parts have undergone special tests to establish their reliability, safety and specific suitability for Opel vehicles. Despite continuous market monitoring, we cannot assess or guarantee other products - even if they have been granted approval by the relevant authorities or in some other form.

"Genuine Opel Parts and Accessories" and released conversion parts are available from your Authorised Opel Dealer, who can advise you on any point, including permissible technical modifications, and carry out installation.

For your safety

Carry out regularly the checks recommended in this Owner's Manual.

Ensure that your vehicle is maintained by an Authorised Opel Dealer as specified in the Service Booklet.

Have faults remedied without delay by an Authorised Opel Dealer! If necessary, interrupt your journey.

► Maintenance - pages 70 to 75.

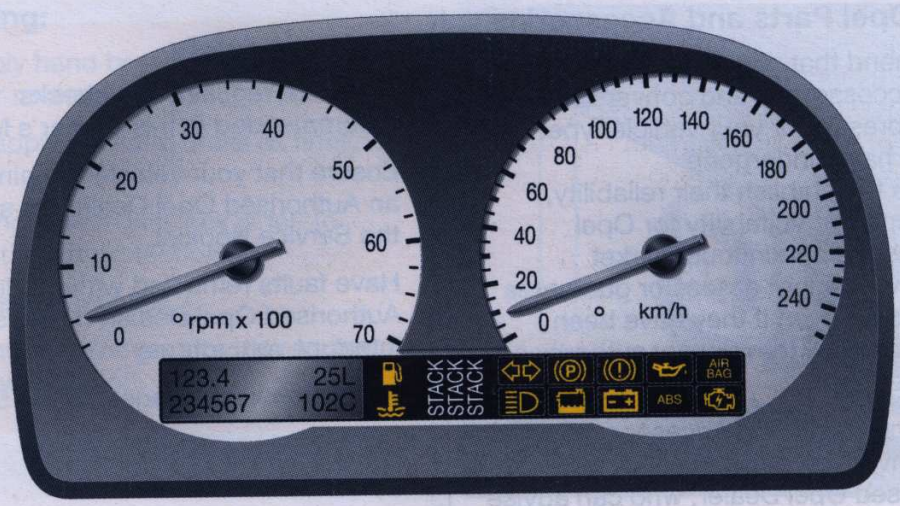
That was a brief overview.

Please read on! ►

Your vehicle has still more instruments and controls, possibly also optional equipment: ✻ ►

You will also find further important information on operation, safety and maintenance and a complete index. ►

Instruments



S 0740

Control indicators

Fuel
Lights up when 'Refill' appears in the display panel. Fill up - never let the tank become empty.

Turn signal
Flashes when turn signal lamps are on.
Flashes rapidly: a turn signal bulb has failed.

Parking brake
Lights up when ignition is switched on if hand brake is applied.

If it lights up when the hand brake is not applied: interrupt your journey. Consult an Authorised Opel Dealer.

Brake system
Lights up when ignition is switched on if fluid level for brake hydraulics is too low. Consult an Authorised Opel Dealer.

Further information - see page 54.

Oil pressure
Lights up when ignition is switched on. Goes out after engine is started. Can light up intermittently when idling with hot engine; must go out when engine speed is increased.

If illuminated during driving: engine lubrication may be interrupted, resulting in damage to the engine and/or locking of the driving wheels:

- Depress clutch.
- Move gear shift lever to neutral.
- Switch off ignition. Considerably greater force will be required for braking.

Do not remove key until vehicle has come to a standstill, otherwise the steering column lock could engage unexpectedly.

Consult an Authorised Opel Dealer.

AIR BAG
Airbag system, belt tensioners
see page 31.

Engine electronics
Lights up when the ignition is switched on. Goes out shortly after the engine starts to run.

If it lights up when the engine is running, there is a fault in the engine control system. The permissible emission limits may be exceeded. Consult an Authorised Opel Dealer.

If it flashes when the engine is running a fault has occurred which may damage the catalytic converter. You may continue driving, provided you lift your foot off the accelerator pedal until the indicator stops flashing and is steadily lit. Should the indicator continue to flash, consult an Authorised Opel Dealer immediately.

ABS
Anti-lock brake system
see page 55.

Alternator
Lights up when ignition is switched on. Goes out after engine is started.

If illuminated during driving: stop vehicle and switch off engine. The battery is not being charged and the engine cooling may be interrupted. Interrupt your journey and consult an Authorised Opel Dealer.

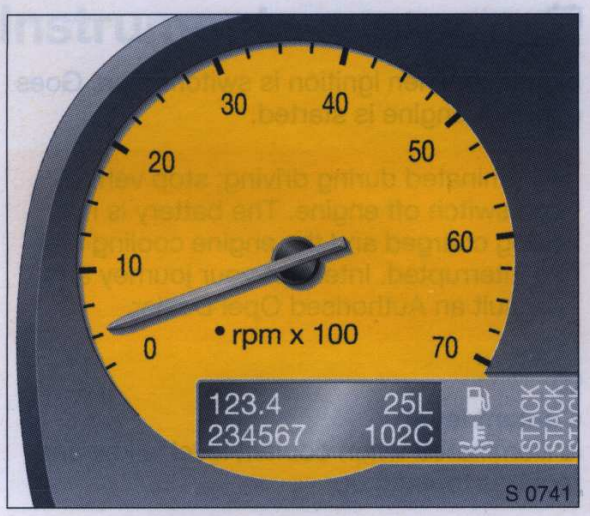
Coolant level
Is illuminated when coolant level is low and requires topping up.

Checking and topping up fluids - page 71.

Main beam
Lights up when main beam is on and headlamp flash is operated.

Coolant temperature
Lights up when coolant temperature is too high. Switch off engine and allow to cool.

Consult an Authorised Opel Dealer.



Tachometer

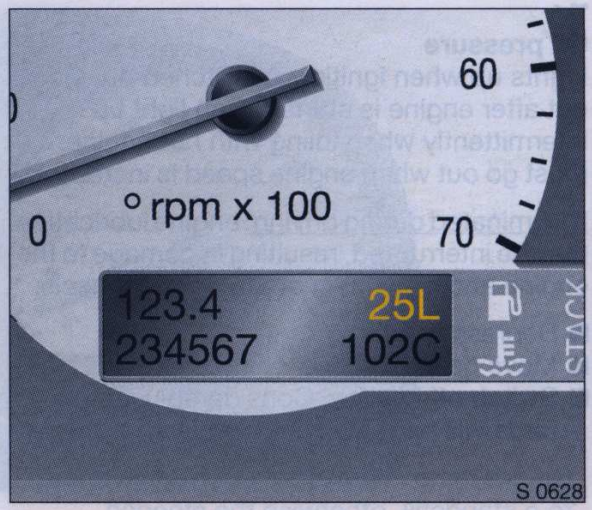
Making use of the tachometer helps to save fuel; it indicates the engine speed in revolutions per minute.

Warning zone on right: maximum permissible engine speed exceeded, danger to engine.

If possible, drive in each gear in the low engine speed range (between approx. 2000 and 3000 rpm) and maintain an even vehicle speed.

Speedometer

Indicates the vehicle speed.



Display panel

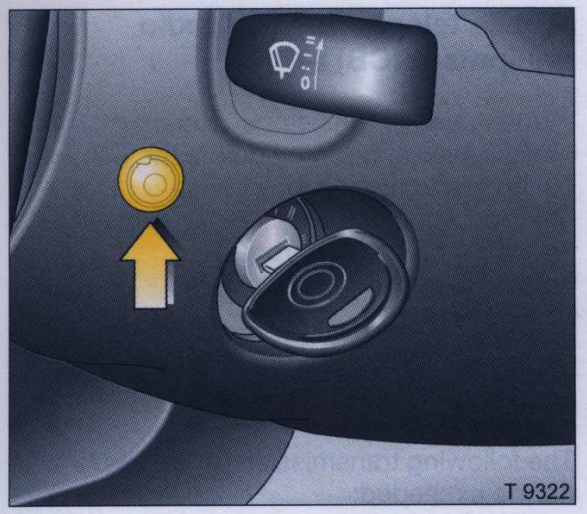
Displays fuel level, odometer, trip odometer and coolant temperature.

Fuel level

The top right hand corner of the LCD displays the approx. fuel level in litres.

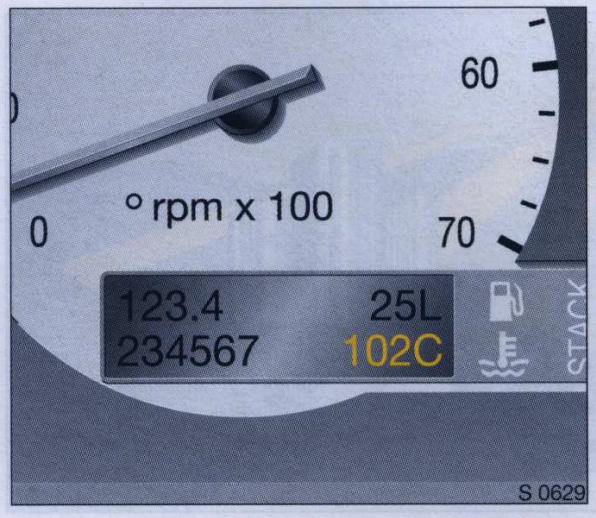
35 litres - full:	Display reads 'Full'
6 - 34 litres:	Displays actual quantity
0 - 5 litres:	Displays quantity and flashes 'Refill'

Never let tank become empty!



Odometer
Records the total distance driven.

Trip odometer
Pressing the reset button - located on the right hand side of the steering column shroud - for less than one second, will zero the setting. This button also controls the brightness of the instrument illumination. Further information, see page 35.

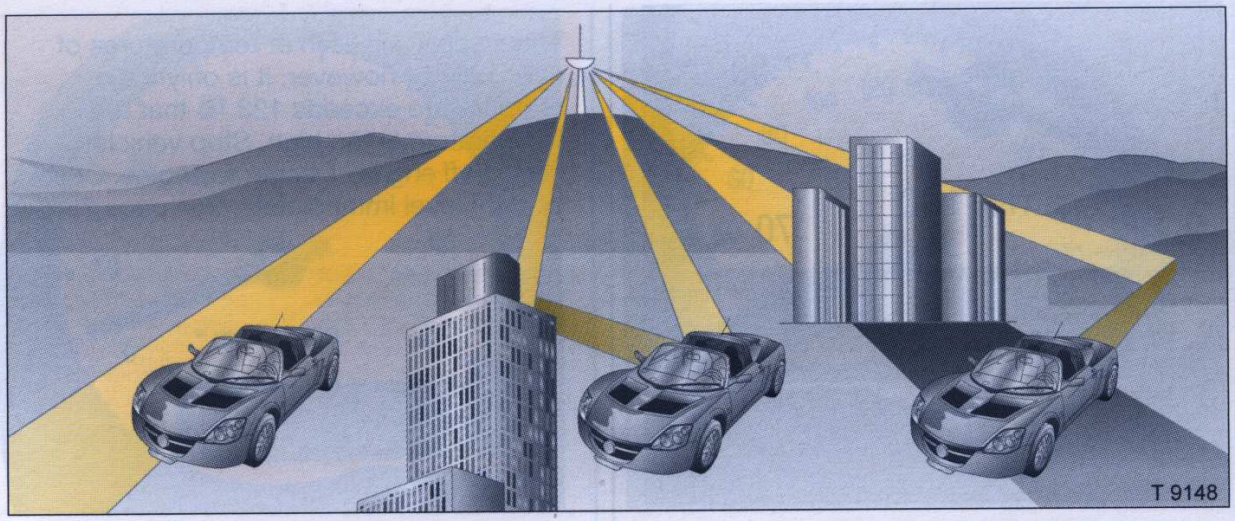


Coolant temperature gauge
The coolant temperature is displayed in the bottom right hand corner of the display as soon as the coolant temperature reaches 70 °C.

For physical reasons, the coolant temperature gauge shows the coolant temperature only if the coolant level is adequate.

During operation the system is pressurized. The temperature may therefore rise to over 100 °C.

The display will flash at temperatures of over 120 °C, however, it is only if the temperature exceeds 123 °C that the temperature is too high. Stop vehicle, switch off engine. Danger to engine. Check coolant level immediately. See page 73.



Radio ✻

The radio ✻ is operated as described in the operating instructions supplied.

Vehicle radio reception will differ from that obtained with domestic radios.

As the vehicle antenna is relatively near the ground, the broadcasting companies cannot guarantee the same quality of reception as is obtained with a domestic radio using an overhead antenna.

- Changes in distance from the transmitter,
- multi-path reception due to reflection and
- shadowing

may cause hissing, noise, distortion or loss of reception altogether.

Mobile telephones and radio equipment (CB) ✻

When used in the vehicle interior, mobile telephones and radio equipment (CB) with integrated antenna may cause malfunctions in the vehicle electronics on account of the high-frequency transmission energy.

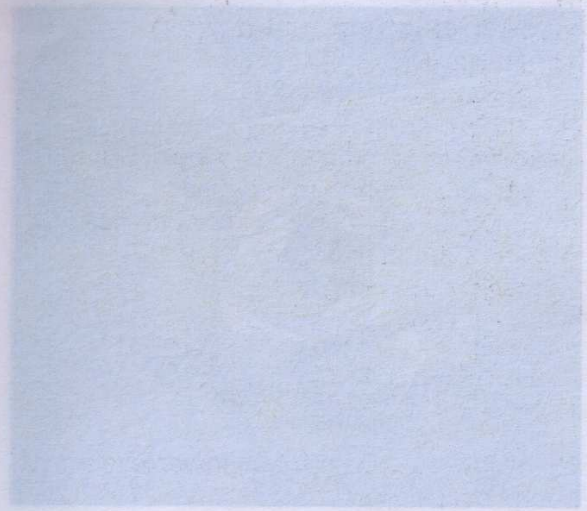
Mobile telephones and radio equipment (CB) should only be used with an antenna fitted on the vehicle exterior.

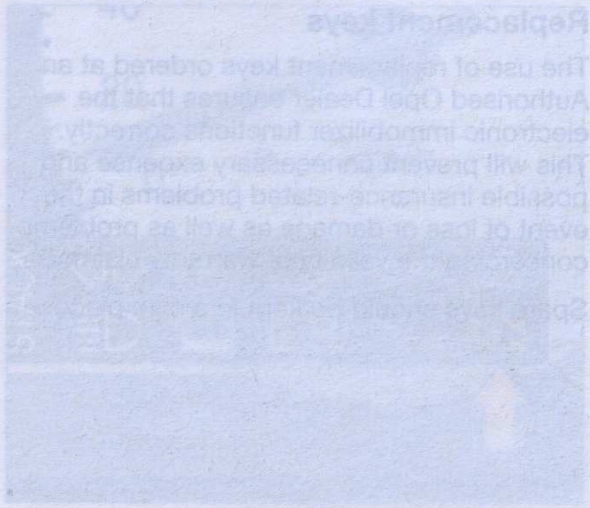
The following transmission power levels must not be exceeded:

Frequency band	Maximum transmission power
Short wave	
up to 50 MHz	100 W
8 m	20 W
4 m	20 W
2 m	50 W
70 cm	50 W
23 cm	10 W
C-Net	
NMT Standard	25 W
D-Net (GSM 900)	20 W
E-Net (GSM 1800)	10 W

Mobile telephones fitted at a later date must be installed by an Authorised Opel Dealer.

Accessory socket, see page 27.





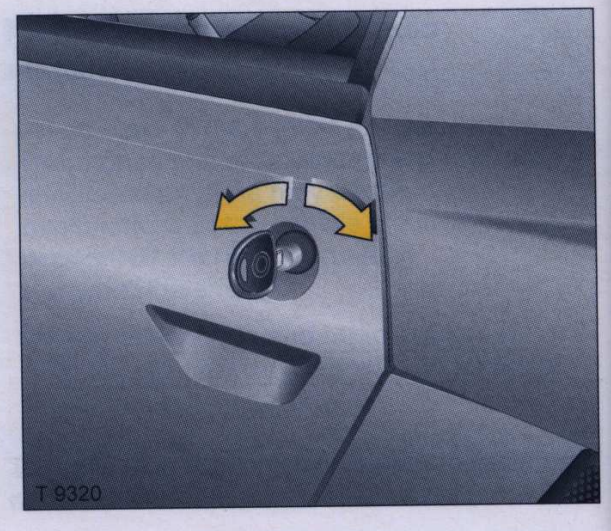

OPEL
Car Pass

Keys, Doors, Bonnet

Replacement keys

The use of replacement keys ordered at an Authorised Opel Dealer ensures that the electronic immobilizer functions correctly. This will prevent unnecessary expense and possible insurance-related problems in the event of loss or damage as well as problems concerning the validity of warranty claims.

Spare keys should be kept in a safe place.



Doors

Push the lock button and pull the outside handle, or the pull the inside lever to open the front door.

Each door can only be locked or unlocked with the key.

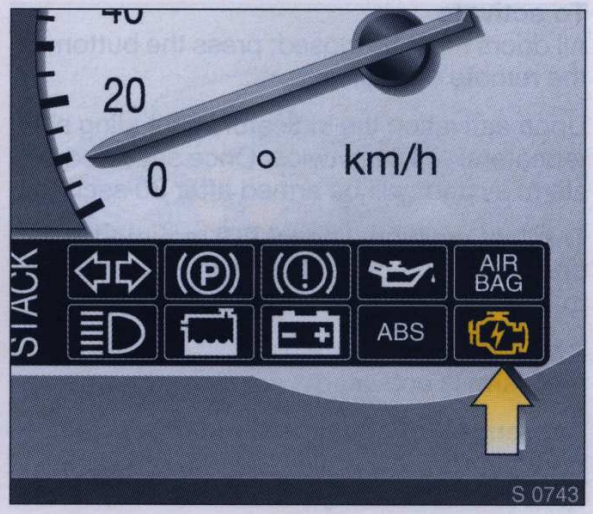
Electronic immobilizer

Protects the vehicle against being stolen by means of an electronic system which prevents the engine being started.

To activate:
Switch the ignition off and remove key.

To deactivate:
Insert ignition key and turn the ignition on; the engine can then be started.

Deactivation is not possible in any other way, so keep the spare key to hand in a safe place.



The control indicator lights up when the ignition is switched on then goes out.

If the control indicator remains illuminated after the ignition is switched on, there is a fault in the immobilizer system.

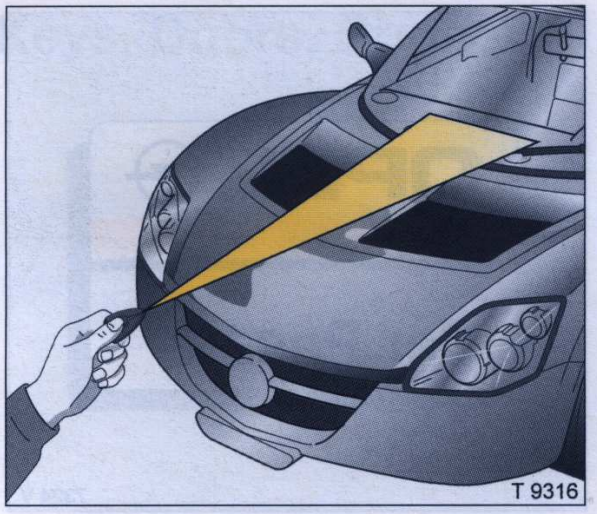
- Turn ignition off and remove key,
- wait approximately two seconds,
- then repeat starting procedure.

If the control indicator fails to extinguish, consult your Authorised Opel Dealer.

Note
The immobilizer does not lock the doors. After leaving the vehicle, therefore, always lock it.

The Car Pass contains all the vehicle's data and therefore must not be kept in the vehicle.

Have your Car Pass ready to hand when consulting an Authorised Opel Dealer.



Anti-theft alarm system

The system monitors:
- doors, engine cover, bonnet.
- passenger compartment.

Only the remote control can be used to operate the anti-theft alarm system.

The remote control has a range of approximately 3 meters. The range may be reduced owing to shadowing and reflection of the radio waves. To operate the remote control, direct the remote control unit at the vehicle.

Treat the remote control unit with care; it should be protected against moisture and should not be operated unnecessarily.

To activate
All doors must be closed; press the button on the remote control unit.

Upon activation the indicators (including side repeaters) will flash twice. Once activated the alarm system will be armed after 30 seconds.

The light emitting diode (LED) mounted in the passenger compartment flashes continuously to indicate that the alarm is armed.

If any of the doors are not fully closed when the alarm is activated a warning will sound.

Passenger compartment monitoring
When the anti-theft alarm is activated, the system automatically monitors the inside of the vehicle for any movement.

To disable the passenger compartment monitoring, (for example if an animal is left in the vehicle):
- Press and hold the button on the remote control for 4 seconds,
- the indicators (including side repeaters) will flash three times to confirm that the passenger compartment monitoring function is disabled.

The disable monitoring function will remain until the alarm is deactivated or the doors unlocked.

To deactivate
Press the button on the remote control.

The indicators (including side repeaters) will flash once. The alarm system is immediately disarmed.

Under normal circumstances the light emitting diode (LED) will not flash when the alarm is deactivated, however if it does, it indicates that the alarm has been triggered. Consult your Authorised Opel Dealer.

Alarm back-up system ✻
The alarm system has a battery back-up siren unit which in the event of its power supply being disconnected or disconnection of the vehicle battery, it will sound for approx. 4.5 minutes on its internal batteries.

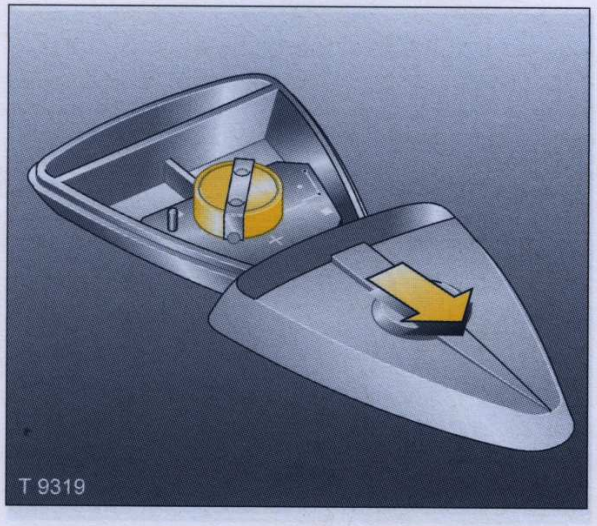
If the vehicle battery has to be disconnected it will be necessary to:
- Switch on the ignition,
- Open bonnet to gain access to vehicle battery,
- Turn off ignition,
- Disconnect battery leads within 15 seconds.

If battery is disconnected after 15 seconds the siren will sound on its internal power. To stop the siren, reconnect the vehicle battery and press the rear button on remote control unit.

Note
If the anti-theft alarm system cannot be operated with the remote control, this may be due to the following reasons:

- The remote control is out of range.
- The battery voltage of the remote control is too low. Change the battery in the remote control unit.
- The remote control has been operated many times in succession outside the vehicle's reception range (e.g. at too great a distance from the vehicle).

  The remote control must be reprogrammed by an Authorised Opel Dealer.



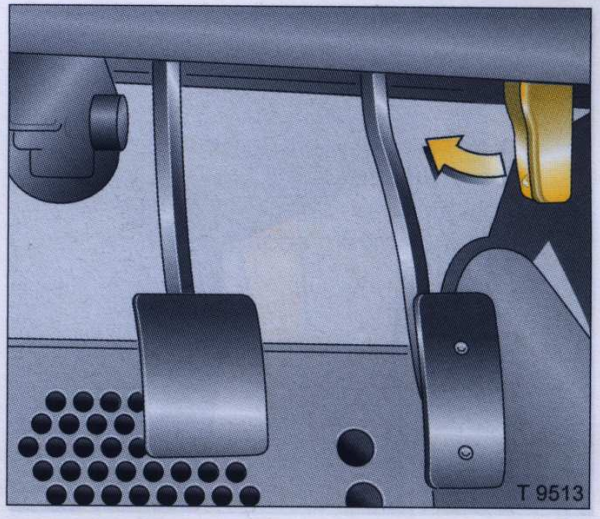
Changing the battery in remote control unit
Replace the battery in accordance with the Service Booklet or when the range of the remote control starts to become reduced.

Open the battery compartment by removing key ring and sliding the cover downwards.

Ensure the new battery is installed correctly.

Replace the cover and slide it upwards until it is fully engaged.

Make sure that you dispose of old batteries in accordance with environmental protection regulations.



Bonnet release

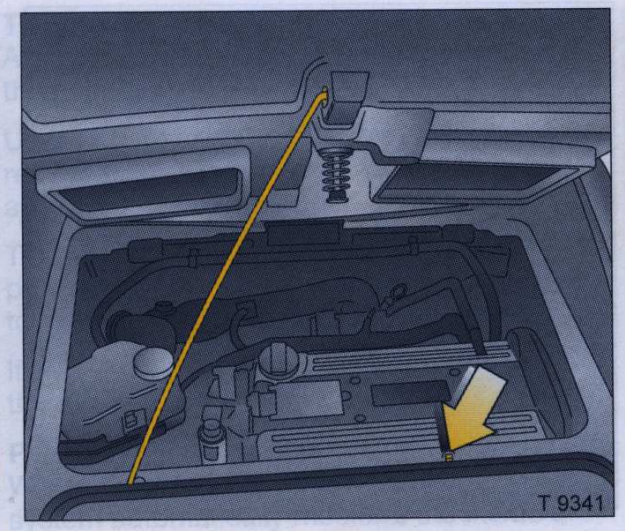
The bonnet release lever is located centrally under the instrument panel. To open the bonnet, pull the lever toward the pedals. The bonnet will then be unlocked and will partially open - return release lever to its original position.

Lift bonnet upwards to fully open.

Check that the bonnet is locked in position by pulling at its edge. If it is not locked in position, press the bonnet firmly down in the area of its latch to ensure it is fully closed.

Engine and load compartment cover release

The engine cover release lever is located behind the driver's seat. To open the engine cover, pull the lever forwards. The engine cover will then be unlocked and will partially open - return release lever to its original position.



To hold the cover in the open position, insert the support rod into the slot provided in the underside of the engine cover.

Before closing the cover, press the support rod firmly into its retainer. Lower cover gently and then allow it to fall under it's own weight.

Press firmly down centrally in the area of its latch to ensure it is fully closed.

The maximum weight of items placed in the load compartment must not exceed 50 kg.

Aerosol cans i.e. de-icers, deodorants etc. must not be stored in the rear storage area as engine heat may create the risk of explosion!

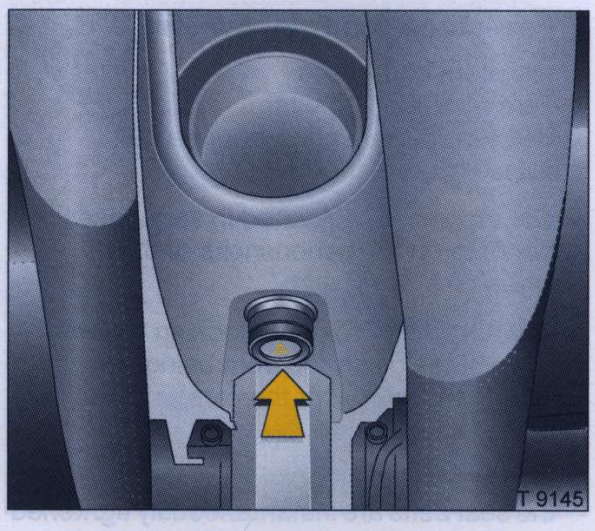
Seats, Interior

Seat adjustment

see page 4.

Seat lumbar adjustment

see page 5.



Cigarette lighter

With ignition switched on, press the cigarette lighter. Heating up ceases once element is glowing. Withdraw lighter.

Accessory socket

The socket for the cigarette lighter can be used to connect electrical accessories when the ignition is switched on. When the engine is not running this will cause the battery to be discharged.

The maximum power requirement of electrical accessories must not exceed 240 watts.

The use of non-approved accessories may cause damage to the socket.

Do not connect any current-delivering accessories, e.g. electrical charging devices or batteries.

Connected electrical accessories must comply with DIN VDE 40 839 standard in terms of electromagnetic compatibility. otherwise malfunctions may occur in the vehicle.

Safety Systems

Three-stage restraint system

The system comprises
- Three-point seat belts.
- Belt tensioners on the front seats.
- Airbag system for driver.

These stages are activated in sequence depending on the seriousness of the accident:

- The automatic seat belt locking devices prevent the belt strap from being pulled out and thus ensure that the vehicle occupants are retained in their seats.
- The seat belts are pulled down. As a result, the seat belts are instantaneously tightened and the occupants are made aware of the deceleration of the vehicle at a very early stage. This reduces stress placed on the body.
- The airbag system is additionally triggered in the event of a serious accident involving a frontal impact and forms a safety cushion for the driver.

The airbag system serves to supplement the three-point seat belts. The seat belts must therefore always be worn.

Be sure to read the descriptions of all the restraint systems on the following pages!

Seat belts

Always wear your seat belt - and that means also in urban traffic. It can save your life!

Pregnant women too must always wear a seat belt (see page 29).

Seat belts are designed to be used by only one person at a time. They are only suitable for children aged over 12 or taller than 150 cm.

Three-point seat belts

The vehicle is equipped with three-point seat belts with automatic retractors and locking devices, allowing freedom of body movement although the spring tensioned belts are always a snug fit.

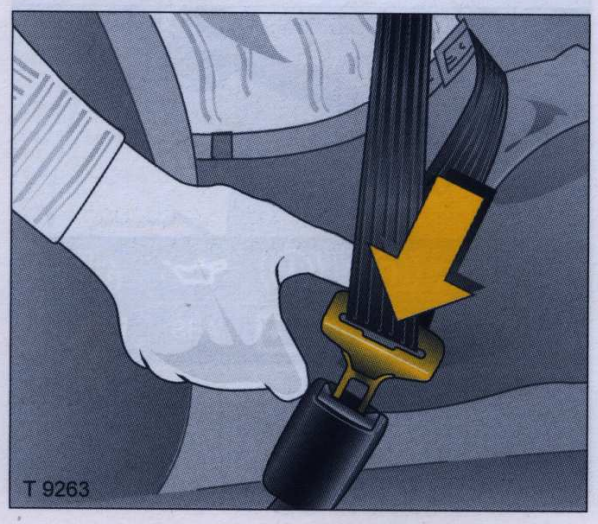
The belt has a “vehicle sensitive retractor” which is designed to lock during heavy acceleration or deceleration in any direction.

Using the belts

Fitting the belt

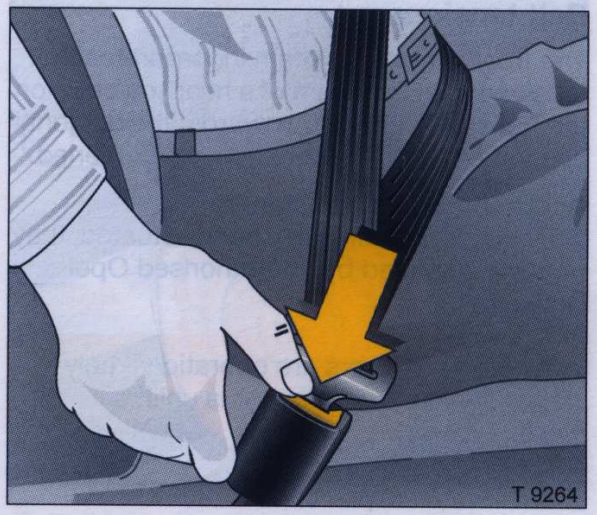
Pull the belt out evenly from the retractor and guide it across the body, making certain that it is not twisted.

Insert the latch plate into the buckle. The lap belt must not be twisted and must fit snugly across the body. Tension the belt frequently whilst driving by tugging the diagonal part of the belt.



On pregnant women in particular the lap belt must be positioned as low as possible across the pelvis in order to prevent pressure on the abdomen.

Bulky clothing prevents the belt from fitting properly. The belt must not rest against hard or fragile objects in the pockets of your clothing (e.g. ballpoint pens, keys, spectacles) because these could cause injury. Do not place any objects (e.g. handbags) between the belt and your body.



Removing the belt

To remove the belt, depress the red push-button on the buckle; the belt will retract automatically.

Belt tensioners

The front seat belt system incorporates belt tensioners. In the event of a head-on collision the belts are pulled downwards; the diagonal and lap belts are instantaneously tightened.

Actuation of belt tensioners

If the belt tensioners have been actuated, they must be replaced by an Authorised Opel Dealer.

The belt tensioners are operational only when the control indicator is unlit.

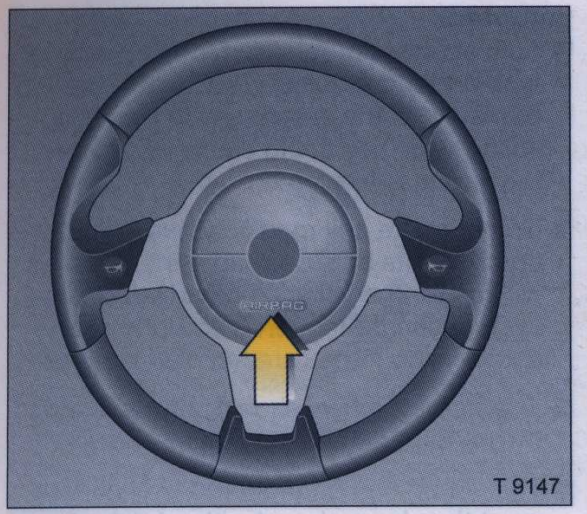
Belt tensioner control indicator

The seat belt tensioners are monitored electronically together with the airbag, and their operational readiness shown by the AIR BAG control indicator in the instrument panel.

When the ignition is switched on, the control indicator lights up, then extinguishes. If it does not light up or if it lights up during driving, there is a fault in the airbag system or the belt tensioners (see also page 32). Have the system checked without delay by an Authorised Opel Dealer. The system's integral self-diagnosis facility allows faults to be quickly remedied.

Important

- Accessories not released for your vehicle type and other objects must not be affixed or placed in the action zone of the belt tensioners since this may result in injury if the tensioners are triggered.
- Do not make any modifications to the components of the belt tensioners. The pyrotechnic belt tensioners may be triggered abruptly and cause injury if handled incorrectly.
- The seats and belts must be removed only by an Authorised Opel Dealer.
- The belt tensioners actuate only once. Actuated belt tensioners should only be replaced by an Authorised Opel Dealer.
- The Opel safety directives must always be observed when disposing of the vehicle or components of the belt tensioners. For this reason, disposal should be performed by an Authorised Opel Dealer.

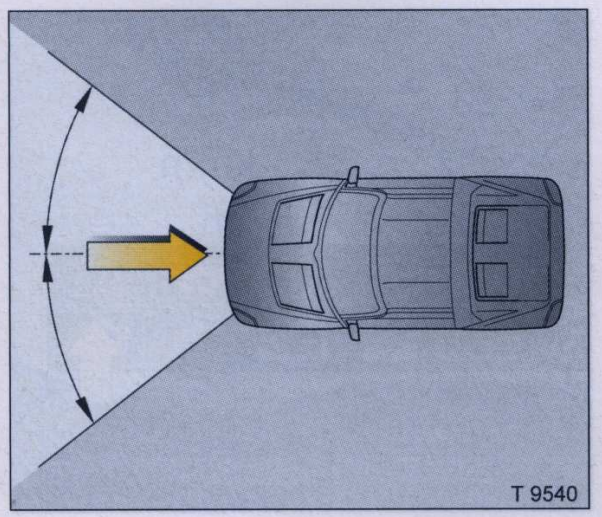


Airbag system

The airbag system is identified by the word "airbag" on the steering wheel.

The airbag system comprises:

- an airbag with an inflator in the steering wheel,
- the control electronics with impact sensor,
- the airbag system control indicator AIR BAG in the instrument panel.



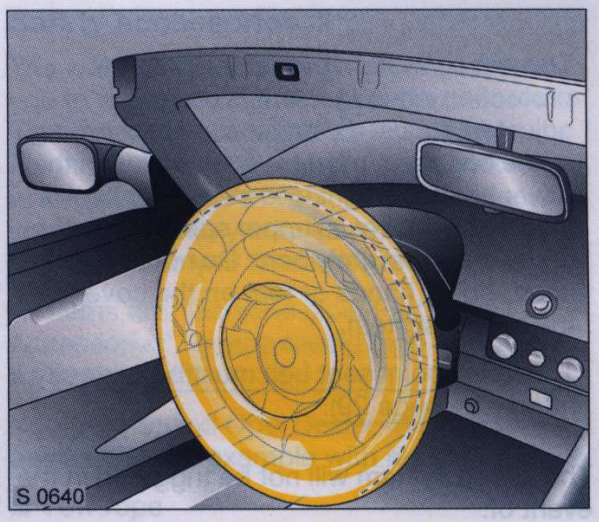
The airbag system is triggered:

- depending on the severity of the accident
- depending on the type of impact
- within the range shown in the illustration.

Examples:

- Impact against a non-yielding obstacle: the airbag is triggered at low vehicle speed.
- Impact against a yielding obstacle (such as another vehicle): the airbag is only triggered at a higher vehicle speed.

The speeds, directions of movement and deformation properties of the vehicles, and the properties of the obstacle concerned, determine the severity of the accident and triggering of the driver's airbag.



The degree of damage to your vehicle and the resulting repair costs alone are not indicative that the criteria for triggering of the driver's airbag were met.

When triggered, the airbag inflates in milliseconds and forms a safety cushion for the driver. The forward movement of the driver is checked and the risk of injuries to the upper body and head thereby substantially reduced.

No impairment of view will occur, because the airbag inflates and deflates so quickly in an accident.

▶

The airbag system provides optimum protection when the seat is correctly adjusted. Adjust the driver's seat according to the occupant's height such that with the driver sitting upright, the steering wheel is held in the area of its upper spokes with the driver's arms slightly bent. Do not place the head, body, hands or feet on the cover of the airbag system.

The three-point seat belt must be correctly fitted (see page 29).

The airbag system will not be triggered in the event of:

- the ignition being switched off.
- minor frontal collisions.
- accidents in which the vehicle overturns.
- collisions involving a side or rear impact where it would not be of benefit to the occupants.

Seat belts must therefore always be worn. The airbag system serves to supplement the three-point seat belts. If you do not wear your seat belt you risk being seriously injured, or even thrown from the vehicle, in the event of an accident.

The belt helps to keep you in the correct seating position, in which the airbag system will provide you with effective protection in the event of an accident.

Airbag control indicator AIR BAG

The airbag system is monitored electronically together with the belt tensioners, and their operational readiness shown by the control indicator in the instrument panel. When the ignition is switched on, the control indicator lights up then extinguishes. If it does not light up, or if it lights up during driving, there is a fault in the airbag system.

The system might not be triggered in the event of an accident. Have the airbag system checked without delay by an Authorised Opel Dealer.

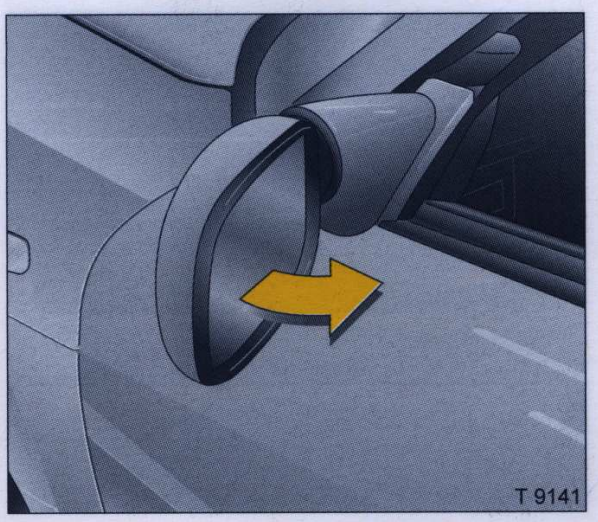
The system's integral self-diagnosis facility allows faults to be quickly remedied.

Important

- Accessories not released for your vehicle type and other objects must not be affixed or placed in the area in which the airbag inflates, as they could cause injury when the airbag is triggered.
- Do not make any modifications to the components of the airbag system, as this will render the vehicle unroadworthy. The system can be triggered abruptly and cause injury if they are handled improperly.
- The steering wheel should only be removed by an Authorised Opel Dealer.
- The airbag can be triggered only once. It must then be replaced without delay by an Authorised Opel Dealer.
- Do not stick anything on the steering wheel or cover it with other materials.
- Use only a dry cloth or interior cleaner to clean the steering wheel. Aggressive cleaning agents may cause damage.
- The Opel safety directives must always be observed when disposing of the vehicle. For this reason, disposal should be performed by an Authorised Opel Dealer.

Child seats

The use of child seats in your Speedster is not recommended.



Exterior mirrors

For the safety of pedestrians, the exterior mirrors will swing out of their normal mounting position in the event of an accident-like impact.

Safety accessories *

The wide range of Opel accessories allows you to equip your vehicle in accordance with your own wishes. In addition to safety accessories, items for improving comfort and a complete range of vehicle care products you will find many articles which will be of great value to you when needed.

All items are “Genuine Opel Parts and Accessories”, guaranteeing high quality and an accurate fit.

Your Authorised Opel Dealer will be happy to advise you, for example with regard to:

- Tow rope
- Tow rod
- Jump leads
- Spare bulb kit
- Spare fuse kit
- Halogen fog lamps
- Warning triangle
- First-aid kit (box)
- First-aid kit (cushion)

Lighting

Exterior lights

= Side lamps
= Headlamps and side lamps
= Fog tail lamp
= Front fog lamps ✻
= Hazard warning lamps

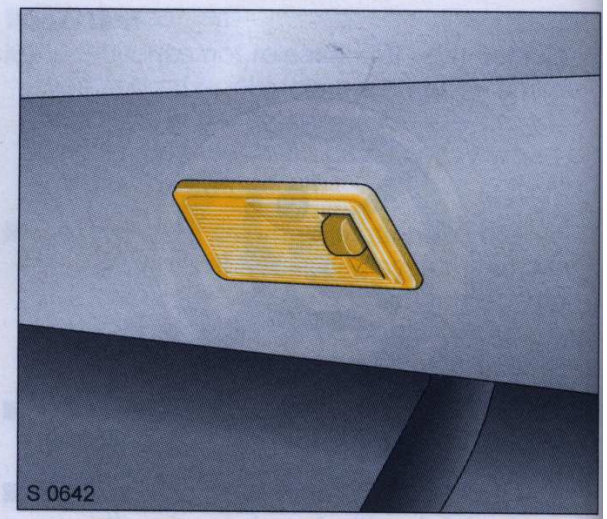
Press button to switch on and press again to switch off.

The headlamps must be switched on before the fog tail lamp or front fog lamps ✻ can be switched on.

Dipped/main beam and headlamp flash, see page 9.

Turn signals, hazard warning flashers

See page 9.

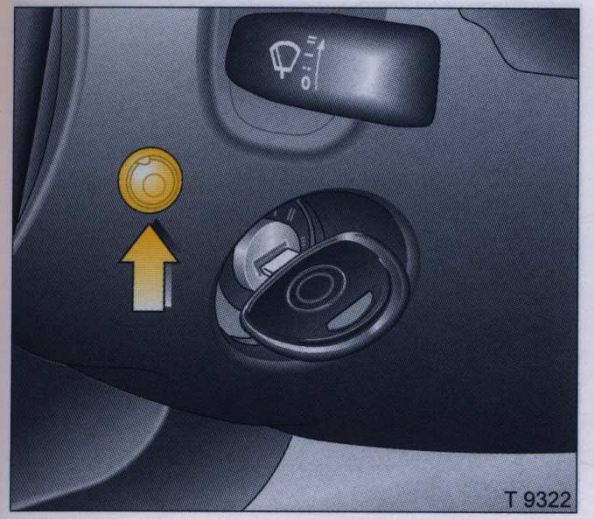


Interior lamp

Operated by the switch. With the switch in its uppermost position, the lamp functions as a courtesy light and operates when the doors are opened or closed.

Reverse lamp

Comes on when reverse gear is engaged and ignition is switched on.



Instruments, cigarette lighter illumination

Comes on when headlamps are switched on.

To adjust the brightness of the instrument illumination press and hold the trip odometer button (arrowed). The instruments cycle through 4 levels of brightness, release the button when the desired level has been reached. Trip odometer, see page 19.

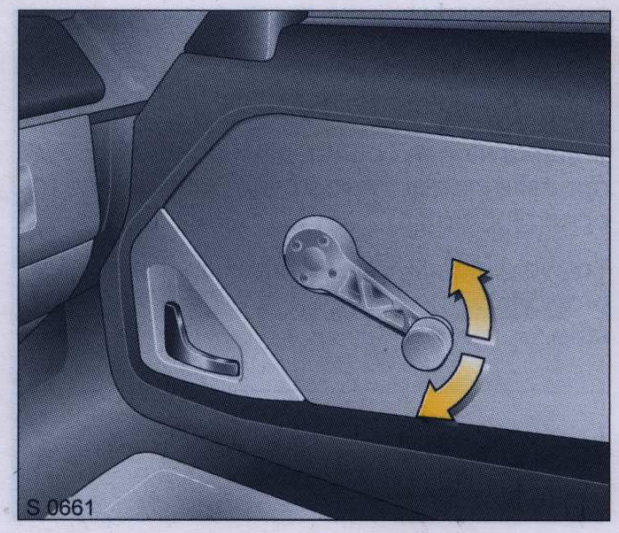
Headlamps when driving abroad

The asymmetrical dipped beam increases the field of vision on the near side of the lane.

When driving in countries which drive on the opposite side of the road, this causes glare for oncoming traffic.

To avoid glare, the headlamp glasses must be provided with an appropriate black cover strip.

Windows, Soft top, Hard top

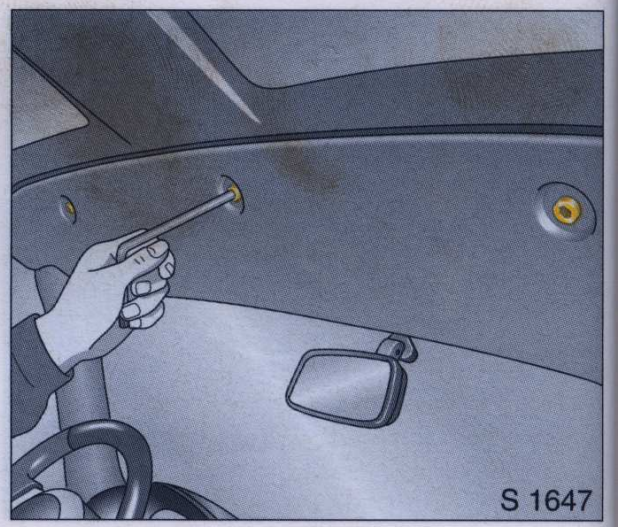


Door windows

The door windows can be operated with the crank.

Hard top *

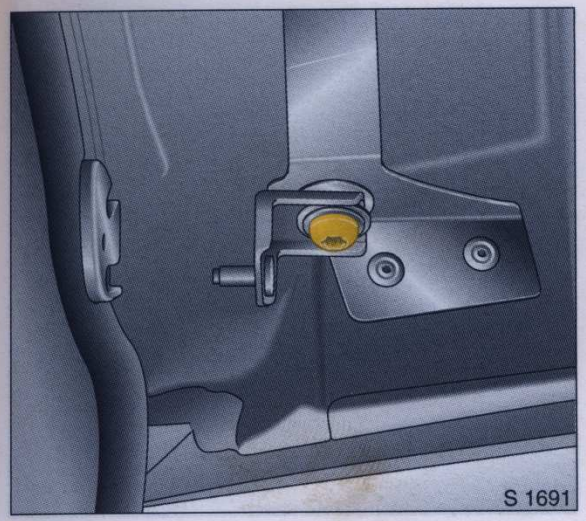
- Installation and removal of the hard top is intended to be seasonal, rather than as a frequent occurrence.
- If you experience difficulty or are unsure about the procedure, contact your Authorised Opel Dealer.
- Only use the 'torx' tool supplied when installing or removing the hard top.
- The occasional assistance of a second person is recommended during the installation or removal procedure.
- The 'torx' bolts and other parts are captive to prevent loss - do not attempt fully remove them.



If the hard top is purchased as an accessory, we recommend that an Authorised Opel Dealer performs the initial fitting to ensure correct alignment of the locking brackets. Bracket alignment is critical for reasons of safety and weather sealing.

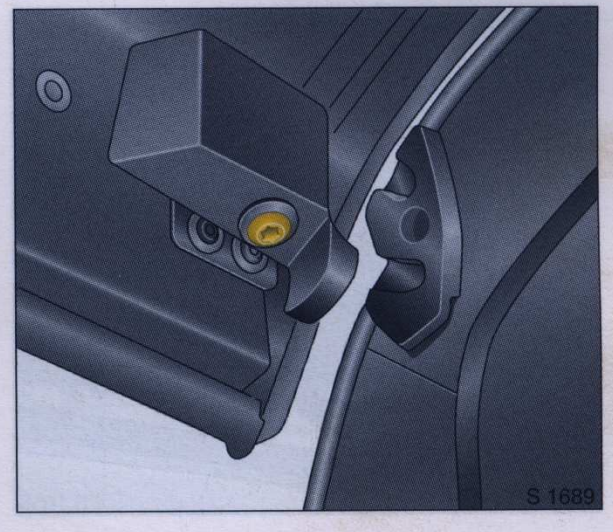
To remove

1. Open both doors or lower the windows.
2. Unscrew the three bolts that secure the front header panel and remove the panel.



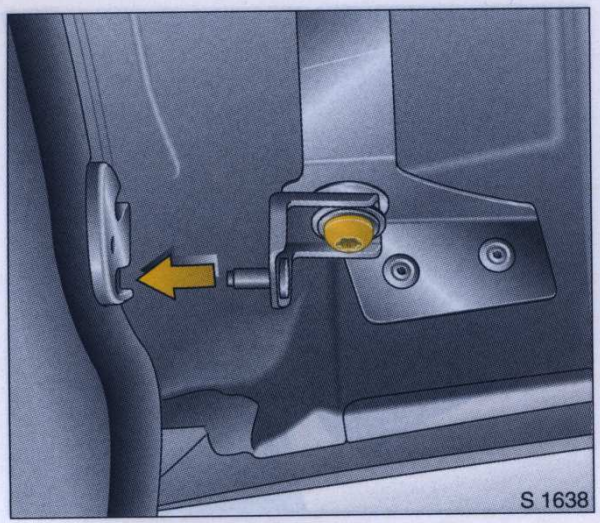
3. Unscrew the bolt that secures the front dowel bracket and remove the bracket.
4. Repeat this operation for the front dowel bracket located on the opposite side.

5. Unscrew the bolt that secures the rear cover panel and remove the panel.
6. Repeat this operation for the rear cover panel located on the opposite side.



7. Unscrew the bolt that secures the rear cup bracket and remove the bracket.
8. Repeat this operation for the cup bracket located on the opposite side.
9. With the assistance of another person, lift the hard top clear of the vehicle.

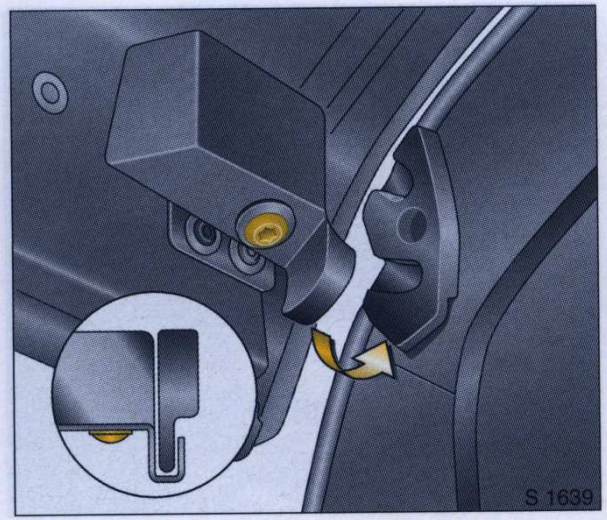
To avoid loss or damage, all components should be loosely reassembled to the hard top and the complete assembly placed in the storage bag ✻. Disassemble all components prior to installation.



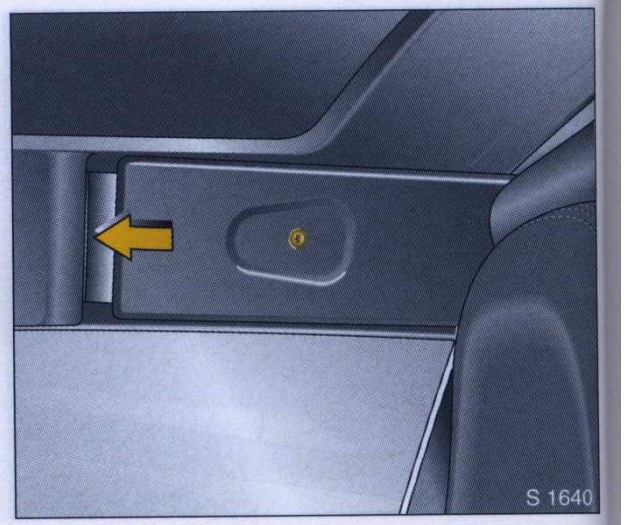
To install

- During installation, ensure that the bracket tether wires do not become trapped.
- The bolts should only be tightened using the tool supplied. Do not over-tighten.

1. Open both doors or lower the windows.
2. With the assistance of another person, lift the hard top onto the vehicle, ensuring the front locates correctly and without trapping the seal, before lowering the rear into position.
3. Install the front dowel bracket, ensuring it locates fully into the cantrail bracket and retain with the bolt. Do not fully tighten until the rear cup brackets have been installed.
4. Repeat this operation for the front dowel bracket on the opposite side.



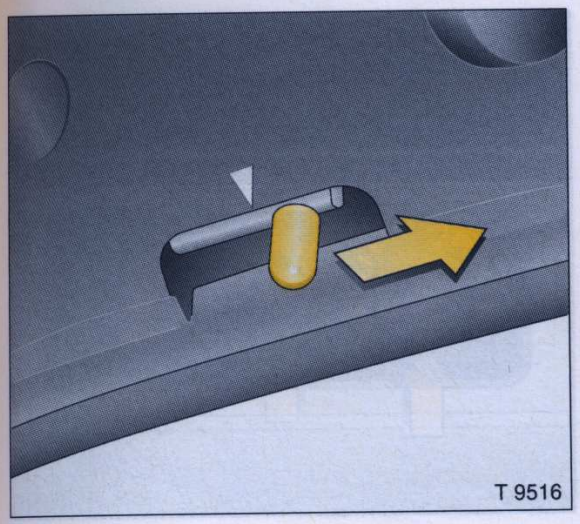
5. Install the rear cup bracket, ensuring that the cup locates correctly over the cantrail bracket (see inset), and retain with the bolt.
6. Repeat this operation for the rear cup bracket on the opposite side.
7. Fully tighten the front dowel bracket bolts and the rear cup bracket bolts using the tool supplied.



The rear cover panels are handed and can only be installed to their respective sides.

8. Install the rear cover panel and tighten the bolt.
9. Repeat this operation for the cover panel on the opposite side.
10. Install the front header panel and tighten the three retaining bolts.

Finally, check the security of hard top installation by applying modest upward pressure in the area of all of the mounting brackets. Repeat the installation operation if movement of the hard top is evident.



Soft top

To remove

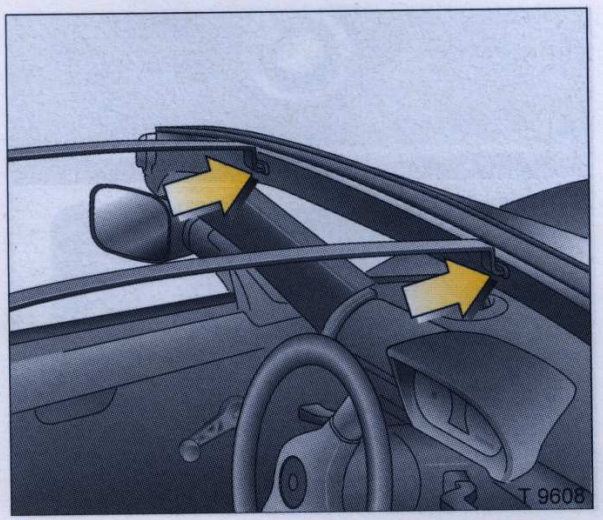
Ensure that the soft top canopy is dry and that the windows or doors are open.

Release the latches and rotate the driver's side cantrail and disengage it from the brackets, repeating the procedure for the passenger's side cantrail.

Pull up the front and rear edges of the soft top to release the tensioning cables.

Roll each side of the canopy up to the centre and place in the stowage bag provided.

Flex the roof bows and disengage. Place roof bows in the stowage bag and store in the load compartment. Soft top care, see page 79.



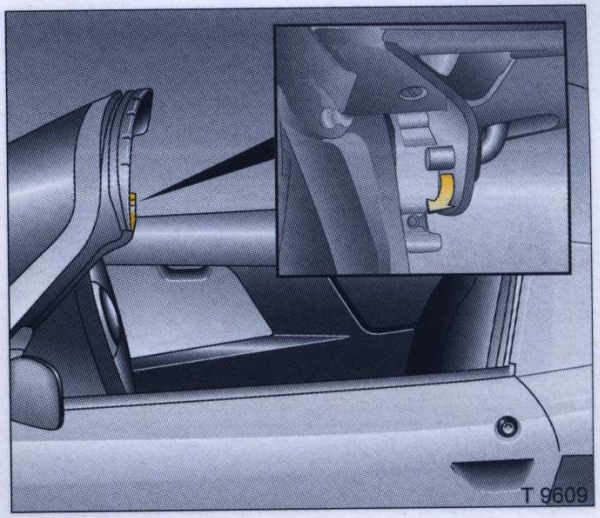
To install

Ensure that the windows are down or that the vehicle doors are open.

Remove the stowage bag containing the canopy and roof bows from the load compartment.

Flex roof bows and install in the vehicle with the arrows on the top surface pointing forwards.

Unroll soft top canopy and lay loosely over roof bows with the arrows on the cantrail body pointing forwards.



Load one cantrail into the bracket, rotating down to ensure that the latches engage.

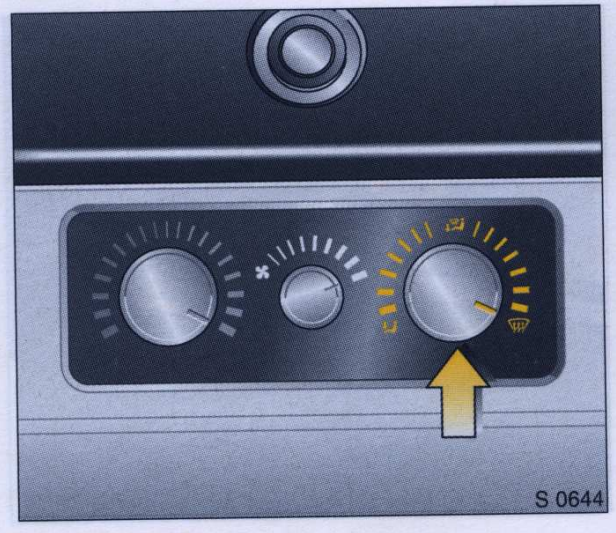
From the other side of the vehicle, load the second cantrail and rotate down, ensuring that the latches engage.

Visually inspect the roof to ensure a good fit at the front and rear.

Heating, Ventilation

Heating and ventilation system

Opel air mixture system: by mixing cold and hot air the temperature can be regulated without delay and held practically constant at all speeds.



Heating and ventilation controls

Air distribution switch

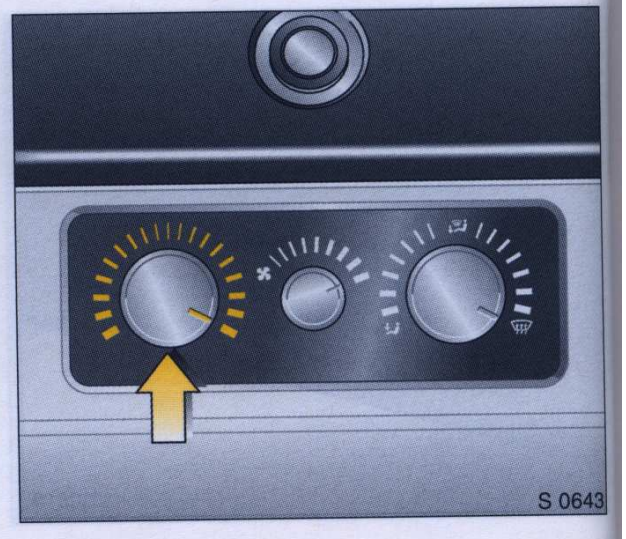
To foot area

To defrosters and foot area

To defrosters

The rotary switch can be set to any intermediate position in order to adjust the air distribution to suit personal requirements.

Open the ventilation jets when the switch is set to or .



Temperature switch

To red Hotter

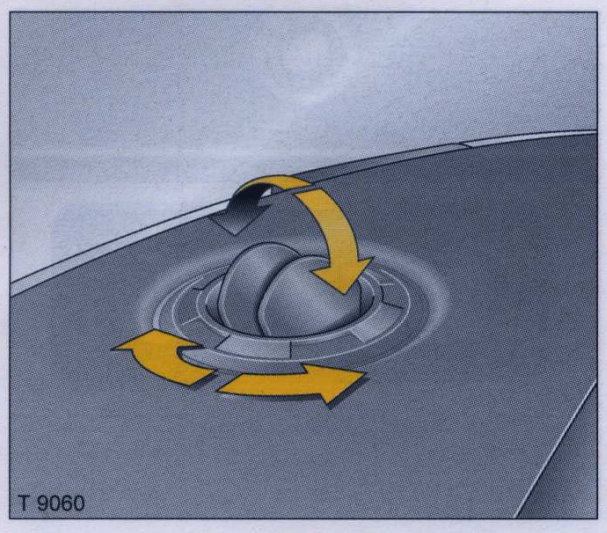
To blue Colder

Fan switch
Three speeds:

0 Off

3 High speed

The rate of air flow is determined by the fan. The fan should therefore also be switched on during driving.



Ventilation jets

Depending upon the position of the temperature switch, cold or heated air will be directed into the vehicle via these jets.

The air flow can be directed as desired by tilting and swivelling fins.

To increase the air supply, switch on the fan.

Ventilation

- Turn temperature switch to blue.
- Switch on fan.
- For maximum ventilation in head area: set air distribution switch to , open and swivel the ventilation jet fins to direct the air toward the driver and passenger.
- For ventilation to foot area: set air distribution switch to .
- For simultaneous ventilation to head and foot areas: set air distribution switch to .

Heating

The amount of heat is dependant on the engine temperature and is thus not fully attained until the engine is warm.

For rapid warming of the passenger compartment:

- Turn temperature switch to red.
- Switch on fan.
- Set the air distribution switch to the desired position.

The comfort and general well-being of the vehicle occupants are to a large extent dependent on a correct setting of the ventilation and heating.

Heating the foot area

- Turn temperature switch to red.
- Set the air distribution switch to .
- Switch on fan.

Window demisting and defrosting

- Turn temperature switch to red.
- Switch on fan.
- Set air distribution switch to .
- Open ventilation jets as required and direct them towards the door windows.

For simultaneous warming of the foot area, set air distribution switch to .

Driving Hints

Clutch

Always depress the clutch pedal fully to the floor to prevent slipping clutch and transmission damage. These may be no noise in the area of the pedals.

When driving do not use the pedal as a foot rest; this will cause substantial clutch wear.

Battery care whilst driving

When driving slowly or when the vehicle is stationary, e.g. in slow urban traffic, stop-and-go traffic or traffic jams, turn off all unnecessary electrical loads where possible (auxiliary headlamps etc.).

When starting the engine, depress the clutch pedal so that transient load reliance is eliminated and the starter motor and battery are relieved.

Driving Hints

The first 1000 km (600 miles)

Drive your vehicle at various speeds. Do not use full throttle. Never allow the engine to labour at low revs.

Make good use of all gears. Depress the accelerator pedal a maximum of around three quarters of the available pedal travel in all gears and drive ranges.

Do not drive faster than three quarters of maximum speed.

The information concerns the engine and parts of the power train, e.g. the final drive.

Never coast with engine not running

Many units will then not function (e.g. brake servo unit). Driving in this manner is a danger to yourself and others.

Brake servo unit

With the engine not running the brake servo unit is no longer effective once the brake pedal has been depressed once or twice. The braking effect is not reduced but substantially greater foot pressure is necessary to stop the vehicle.

Driving in mountainous terrain

Electrically driven fan: The fan cooling capacity is not dependant on engine speed. It is not necessary, therefore, when driving uphill to shift down into a lower gear if the vehicle can climb in a higher gear.

Switching off the engine

If the engine temperature is very high, e.g. after driving in mountainous terrain: allow the engine to idle for approximately two minutes in order to prevent heat accumulation.

When you switch off, fans may continue running for a time to cool the engine.

Save energy – more miles

Please observe the running-in hints on the previous page and the tips for energy saving on the following pages.

Good, technically correct and economical driving ensures maximum durability and performance for your vehicle.

Overrun

The fuel supply is automatically shut off during overrun, e.g. when the vehicle is being driven down long gradients or during braking. To enable the overrun cut-off to come into action, do not accelerate or declutch during overrun.

Engine rpm

Under all driving conditions drive in a favourable engine speed range.

Warming up

Run the engine warm, do not allow it to "tick over" when started from cold. Speed should be moderate until the engine has reached operating temperature.

Correct gear selection

Do not race your engine whilst in neutral or with a low gear selected. Driving too fast in individual gears or drive ranges as well as stop-and-go traffic increase engine wear and fuel consumption.

Change down

When decreasing speed shift down into the next lowest gear. Do not slip the clutch with a high-revving engine. This is especially important when hill climbing.

Clutch

Always depress the clutch pedal hard to the floor to prevent shifting difficulties and transmission damage. There must be no mats in the area of the pedals.

When driving do not use the pedal as a foot rest; this will cause substantial clutch wear.

Battery care whilst driving

When driving slowly or when the vehicle is stationary, e.g. in slow urban traffic, stop-and-go traffic or traffic jams, turn off all unnecessary electrical loads where possible (auxiliary headlamps etc.).

When starting the engine, depress the clutch pedal so that transmission resistance is eliminated and the starter motor and battery are relieved.

Saving Fuel

Energy-conscious driving

- High fuel consumption is often a result of failing to drive in an energy-conscious manner.
- You should therefore drive with energy in mind - “more miles with less fuel”.

  Fuel consumption depends to a great extent on your own personal driving style. The following hints will help you to achieve fuel consumption as close as possible to the specified levels.

  Check your vehicle's fuel consumption every time you fill up. In this way you will be able at an early stage to detect any irregularities causing increased consumption.

Warming up

- Driving at full throttle or idling while the engine is still cold increases engine wear and fuel consumption.
- Drive away immediately after starting. Engine speed should be moderate until the engine has reached operating temperature.

Uniform speed

- Hectic driving significantly increases fuel consumption.
- Do not accelerate and brake unnecessarily.

  Drive as often as possible in top gear.

  In many cases you can shift into fourth gear at speeds as low as 50 km/h (30 mph) in urban traffic.

  In fourth gear fuel consumption in the 50 to 80 km/h (30 to 50 mph) range is around 25 % lower than in third gear.

  In the 70 to 90 km/h (45 to 55 mph) range, fuel consumption in fifth gear is roughly 15 % lower than in fourth gear.

  Select the next higher gear as soon as possible, and only change down when the engine is no longer running perfectly smoothly.

Idling

- The engine also consumes fuel when idling.
- If you have to wait for more than one minute, it is worthwhile switching off the engine. Five minutes of idling corresponds to approx. one kilometre (0.6 miles) of driving.

Overrun

- The fuel supply is automatically shut off during overrun, e.g. when the vehicle is being driven down long gradients or during braking.
- To enable the overrun cut-off to come into action and save fuel, do not accelerate or declutch during overrun.

Correct gear selection

- High revs increase engine wear and fuel consumption.
- Do not race your engine. Driving too fast in individual gears or drive ranges increases engine wear and fuel consumption.

  Making use of the tachometer helps to save fuel: If possible, drive in each gear in the low engine speed range (between approx. 2000 and 3000 rpm) and maintain a steady vehicle speed.

Urban traffic

- Frequent driving off and stopping - for example at traffic lights, in stop-and-go traffic or traffic queues - greatly increases average fuel consumption.
- Plan carefully to avoid traffic congestion.

  Good anticipation avoids unnecessary stopping.

  If possible, select roads with a good traffic flow.

  By keeping a safe distance from the vehicle in front and by not lane-hopping you will be able to avoid frequent braking and acceleration, which uses up a lot of fuel.

High speed

- The higher the speed the greater the fuel consumption. At top speed you consume a great deal of fuel.
- Slightly releasing the accelerator pedal results in distinct fuel savings with no major loss of speed.

  Drive at no more than around three quarters of maximum speed and you will use up to 50% less fuel, without losing a great deal of time.

Tyre inflation pressure

- Inadequate tyre pressure, leading to higher road resistance, costs money in two ways: for more fuel and increased tyre wear.
- Regular checks (every 14 days) pay off.

Electrical loads

- The power consumption of electrical equipment increases fuel consumption.
- Switch off all auxiliary electrical loads when not needed.

Loading

- Unnecessary weight increases fuel consumption, especially when accelerating (urban traffic). A load of 100 kg can increase fuel consumption in urban traffic by up to 0.5 l/100 km.
- Reduce the loads you carry.

Repair and maintenance

- Improper repairs or adjustment and maintenance work can increase fuel consumption. Do not carry out work on the engine yourself.
- You will save fuel by consulting an Authorised Opel Dealer.

Extreme driving conditions

- Going up steep slopes, driving on poor roads, cornering or winter driving all increase fuel consumption.

  Fuel consumption increases dramatically in urban traffic and at winter temperatures, especially on short trips when the engine operating temperature is not reached.
- Follow the hints given above to keep consumption to a minimum under such conditions.

Environmental Protection

Trend-setting technology

Environmental protection plays an important role in the research and design work carried out by engineers at Adam Opel AG.

When developing and manufacturing your vehicle, Opel used environment-friendly and largely recyclable materials. The production methods used to make your vehicle are likewise environment-friendly.

Production wastes are recycled, with materials being recovered for re-use. Reduction of water requirements also helps to conserve natural resources.

A highly advanced design means that your vehicle can be easily disassembled and the individual materials separated for subsequent re-use.

Materials such as asbestos and cadmium are not used.

New painting techniques employ water as a solvent.

The pollutants contained in exhaust gas are reduced.

As an Opel driver, you can make a major contribution to protecting the environment:

- Save fuel when driving. The previous section, entitled "Saving Fuel", gives you numerous useful hints on this.
- Be conscious of the environment when driving. The following section gives you some further valuable hints in this regard.

Environment-conscious driving

- High noise levels and exhaust emissions are often a result of driving without due attention to the environment.
- Reduce the noise level and exhaust emissions by adopting an environment-conscious driving style. This is extremely worthwhile and improves the quality of life.

  "Jackrabbit" starts, i.e. screeching of tyres and high revs, can increase the noise level up to four times over[1].

  Select the next higher gear as soon as possible. A vehicle travelling at 50 km/h (30 mph) in second gear causes as much noise as three vehicles driven at 50 km/h (30 mph) in fourth.

Warming up

- Driving at full throttle or idling when the engine is still cold increases fuel consumption, exhaust emissions and noise.
- Drive away immediately after starting. Engine speed should be moderate until the engine has reached operating temperature.

[1] By up to 18 dB(A).
dB: unit of noise level (decibel)
dB(A): standardized evaluation curve (frequency evaluation curve) for relating objective measured values to the sensitivity of the human ear. An increase in noise level of 10 dB(A) is registered as a doubling of the volume.

Uniform speed

- Hectic driving significantly increases noise and exhaust emissions.
- Do not accelerate and brake unnecessarily. Drive at uniform speed.

  If you drive as often as possible in top gear, and in urban traffic where possible select fourth gear at speeds of 50 km/h (30 mph) and above, and if you select the next higher gear as soon as possible, only changing down when the engine is no longer running perfectly smoothly, you will reduce the noise impact on the environment many times over.

Urban traffic

- Frequent driving off and stopping - for example at traffic lights - greatly increases the noise level.
- Avoid unnecessary stops by always anticipating the driving conditions in front.

  If possible, select roads with a good traffic flow.

  By keeping a safe distance from the vehicle in front and by not lane-hopping you will be able to avoid frequent braking and acceleration which cause noise and pollution in the form of exhaust emissions.

  Drive considerately, especially in residential areas and particularly at night.

High speed

- At top speed you cause excessive noise. As speed increases, so does tyre and wind noise. In top gear, tyre noise determines the level of driving noise from speeds as low as 70 km/h (45 mph). A vehicle travelling at 150 km/h (90 mph) causes just as much noise as four vehicles travelling at 100 km/h (60 mph) or ten vehicles travelling at 70 km/h (45 mph).
- Avoid travelling at high speeds by carefully planning your journeys.

Doors

- Slamming of doors creates noise.
- Close doors quietly. Be considerate, especially in residential areas and particularly at night.

The first 1000 km/600 miles

- Technically incorrect and uneconomical driving will impair the performance of your vehicle and shorten its service life.
- Drive your vehicle at various speeds, making good use of all gears. Depress the accelerator pedal a maximum of around three quarters of the available pedal travel. Do not use full throttle.

  Do not drive faster than three quarters of maximum speed.

  Never allow the engine to labour at low revs.

  Further information - see page 44.

Repair and maintenance

- Never carry out any repairs or adjustment and maintenance work on the engine yourself:

  You may out of ignorance infringe environmental laws by not disposing of materials properly.

  Appropriate parts might not be recycled.

  Contact with some of the materials involved may be hazardous to the health.
- By consulting an Authorised Opel Dealer, you protect yourself, other road users and the environment.

Fuel Consumption, Fuel, Refuelling

Fuel consumption

Optional equipment increases the kerb weight and in some cases also the permissible gross vehicle weight. This in turn increases fuel consumption and reduces the maximum speed of the vehicle.

When the vehicle is new, there is increased friction between the engine and transmission components lasting for several thousand kilometres/miles. This increases fuel consumption.

Fuel for petrol engines

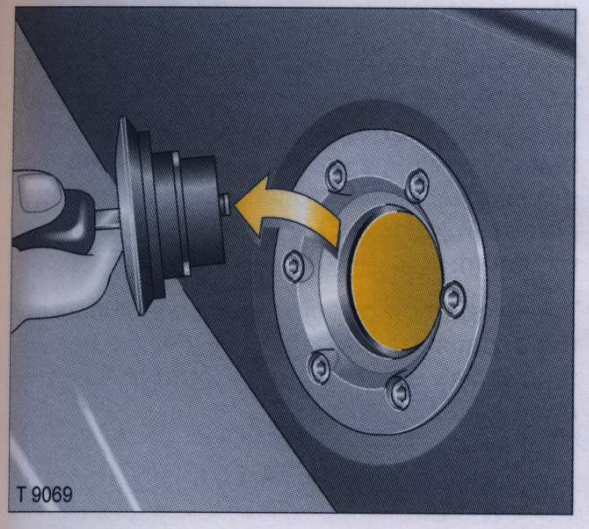
Commercially available high-quality fuels are suitable. Fuel quality has a decisive influence on the power output, driveability and life of the engine. The additives contained in the fuel play an important role in this connection. You should therefore use only high-quality fuels containing additives.

Fuel with too low an octane rating can cause pinking. Opel cannot be held liable for resultant damage.

Petrol with a higher octane rating can always be used.

Use unleaded fuel. A dispensing pump for leaded fuel cannot be inserted in the fuel tank filler neck.

Use of petrol with an octane rating of 95 will ' ensure economical driving.



Refuelling

Care must be taken when dealing with fuel.

Before refuelling it is absolutely vital to switch off the engine.

Petrol is flammable and explosive, therefore avoid dealing with fuel near naked flames and doing anything that would generate sparks. No smoking! This also applies where the smell of fuel is noticeable. If the smell of fuel vapour occurs in the vehicle itself, have the cause immediately determined by an Authorised Opel Dealer and a remedy found.

The fuel tank filler neck with bayonet cap is located on the right-hand side of the vehicle.

To unlock filler cap: insert key and turn anti-clockwise.

The fuel tank has a limiting system which prevents overfilling of the tank.

Correct refuelling is largely dependent on correct operation of the dispensing pump:

- Position dispensing pump nozzle at an angle to ensure that the pump handle does not contact the bodywork. Ensure this position is maintained when refuelling.
- Insert nozzle as far as it will go and switch on.
- After the first automatic cut-off, do not fill the tank any further.

Replace the filler cap and turn key clockwise as far as it will go.

Wipe off any overflowing fuel immediately.

Fuel cut-off device

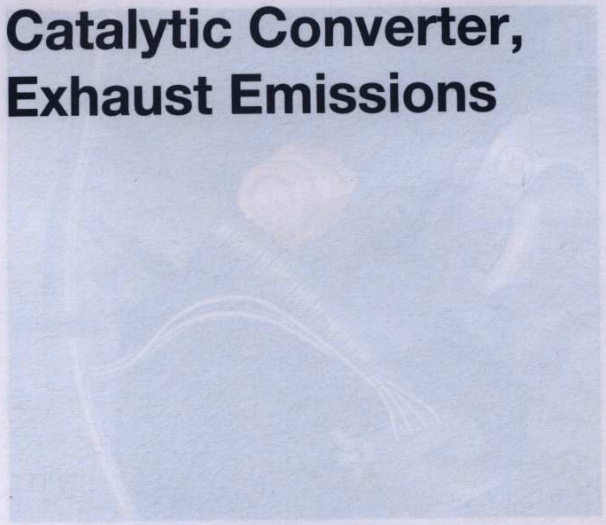
The fuel cut-off device is located in the engine compartment.

If the vehicle is involved in a collision, the fuel cut off device automatically isolates the fuel supply.

Prior to restarting first check:
- That the vehicle is driveable,
- there is no smell of fuel,
- fuel is not leaking.

To restart the fuel supply, reset the cut-off device by pressing down the button.

Catalytic Converter, Exhaust Emissions



Exhaust system

When the vehicle is driven for the first time, wax and oil on the exhaust system may evaporate, producing smoke-like emissions which should not be inhaled. Allow wax and oil to evaporate while the vehicle is in the open air. Avoid inhaling.

Engine exhaust gases – Avoid inhaling!

Engine exhaust gases contain poisonous carbon monoxide, which has no colour or odour and can be lethal if inhaled.

If at any time you suspect that exhaust fumes are entering the vehicle, open the windows and consult an Authorised Opel Dealer.

Controlling exhaust emission

Through design-related measures - mainly in the area of the mixture formation system and ignition system - the proportion of noxious materials in the exhaust, such as carbon monoxide (CO), hydrocarbons (CH) and nitrogen oxides (NO_x), is reduced to a minimum.

The proportion of poisonous constituents in the exhaust gas is determined by the correct functioning of the mixture formation system and ignition system.

All checks and setting work should therefore be left to an Authorised Opel Dealer which has suitable equipment and trained personnel available. Electronic testing systems permit rapid diagnosis and remedying of faults.

You are thereby making an important contribution towards keeping the air clean and compliance with emissions legislation.

Checking and adjustment of the mixture formation system and ignition system forms part of the Service Plan. For this reason you should have all maintenance work carried out at the intervals specified in your Service Booklet.

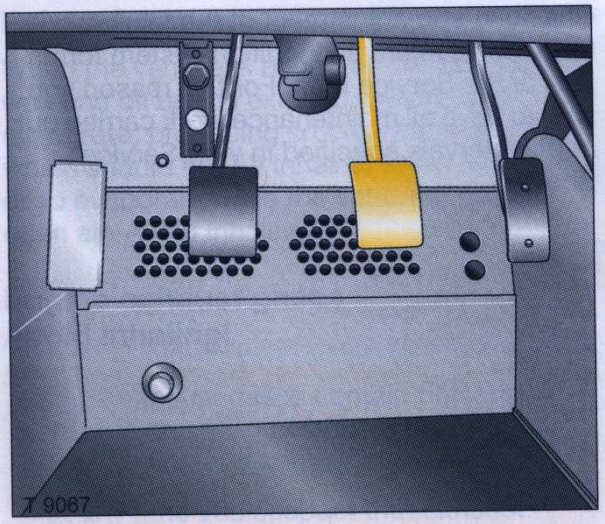
Brakes

The effectiveness of the brakes is an important factor for traffic safety.

In the interest of effectiveness, do not brake unnecessarily hard during the first 200 km (120 miles) after new disc brake pads have been fitted.

Wear of the brake linings must not exceed a certain limit. Regular maintenance as detailed in the Service Booklet is therefore of the utmost importance for traffic safety.

Have worn brake linings replaced by an Authorised Opel Dealer, thereby ensuring that only Opel approved parts, which guarantee optimum brake performance, will be installed.



Foot brake

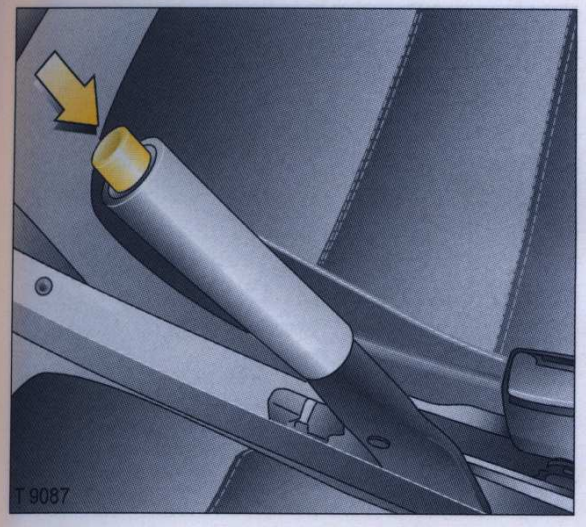
The braking system comprises two separate, brake circuits. If one brake circuit should fail, the vehicle can still be stopped with the second remaining circuit. If this happens, the brake pedal must be fully depressed with greater pedal pressure. The distance required for braking will be greater. Consult an Authorised Opel Dealer before continuing your journey.

In order to utilise the full pedal travel - particularly in the event of a brake circuit fault - there must be no mats in the area of the pedals.

With the engine stopped the servo assistance is discontinued after the brake pedal has been depressed once or twice. The braking action will not be reduced but increased foot pressure will be necessary. Take extra care when the vehicle is being towed.

Check the brake lamps before starting out on a journey. Shortly after the start of each journey the brake system should be tested at low speed for its effectiveness, especially if the brakes are wet, e.g. after washing your vehicle.

The brake fluid level should be checked regularly, see page 73.



Hand brake

The mechanical hand brake acts only on the rear wheels to secure the stopped or parked vehicle. It engages automatically when applied.

ABS

The ABS (anti-lock brake system) continuously monitors the vehicle's brake system and prevents the wheels from locking, irrespective of the road condition and tyre grip.

It starts to regulate the braking pressure as soon as a wheel shows a tendency to lock. The vehicle remains steerable, even in the event of very heavy braking, for instance on bends or when swerving to avoid an obstacle. Even in the case of full-on braking, the ABS makes it possible to drive round an obstacle without releasing the brakes.

The ABS makes itself noticeable through pulsating of the brake pedal and the noise of the regulation process. Your vehicle is now in a critical situation; the ABS allows you to keep control of the vehicle and reminds you to match your speed to the road conditions.

To achieve optimum braking, keep the brake pedal fully depressed throughout the braking process, despite the fact that the pedal is pulsating. Do not reduce the pressure on the pedal.

Do not let this special safety feature tempt you into taking risks when driving.

Traffic safety can only be achieved by adopting a responsible driving style.

When the ignition is switched on, the ABS control indicator lights up. At the same time, the system performs a self-check which may be audible. When the control indicator goes out the system is ready for operation. If the control indicator does not go out after a few seconds, or if it lights up during driving, there is a fault in the ABS. The vehicle's brake system remains operational without ABS regulation.

The wheels will tend to lock in the event of heavy braking if the ABS fails. This may cause the vehicle to swerve. The benefits of the ABS are lost.

You can continue driving, provided you drive with care and anticipation. Consult an Authorised Opel Dealer to have the cause of the fault eliminated.

Wheels, Tyres

To protect yourself and other road users, it is essential to observe the following rules.

Tyres

Factory-fitted tyres are matched to the chassis and offer optimum driving comfort and safety. Consult an Authorised Opel Dealer before changing over to different tyres or wheels and obtain their advice as regards technical possibilities.

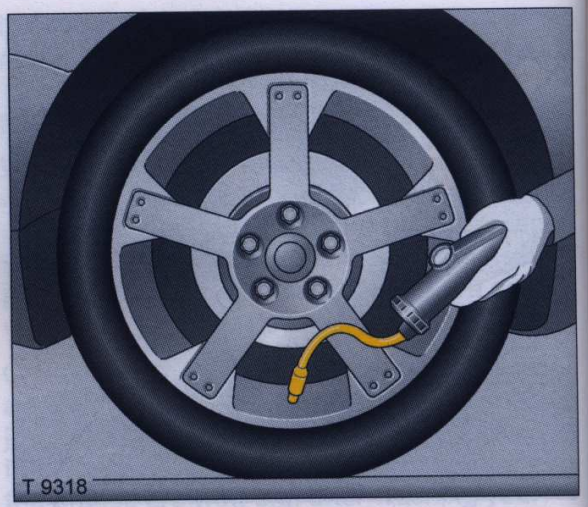
Use of unsuitable tyres or wheels may lead to accidents and render the vehicle unroadworthy.

New tyres should be fitted in pairs, or for preference in sets. Make sure that both tyres on an axle are

- the same size
- the same design
- the same make
- and have the same tread pattern.

Tyre inflation pressure

Check tyre pressures, at least every 14 days and prior to any long journey. The tyres should be checked when cold.
Tyre pressures, see page 88.



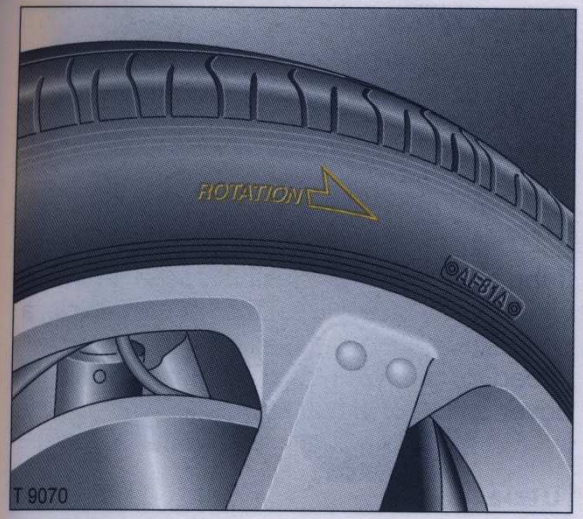
Increased pressure resulting from tyre warm-up must not be reduced, otherwise the pressure may drop below the permissible minimum.

After having checked the tyre pressures, securely tighten the valve caps.

Incorrect inflation pressures will impair safety, vehicle handling, comfort and fuel economy and will increase tyre wear.

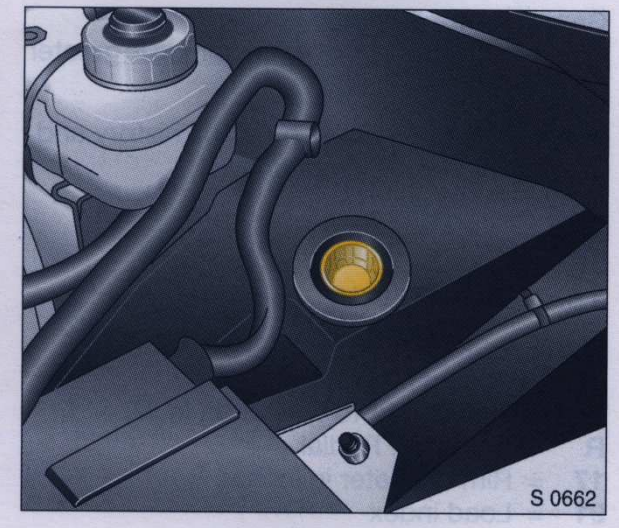
If the pressure is too low, this can result in considerable tyre warm-up and internal damage, leading to tread separation and even to tyre blow-out at high speeds.

Hidden tyre damage is not eliminated by subsequently adjusting the inflation pressure.



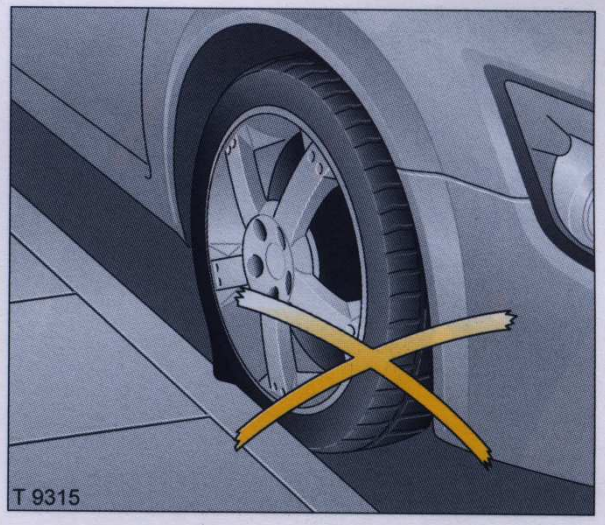
Wheels and tyres

The vehicle is equipped with sport directional tyres. Directional tyres must be installed in their correct direction for forward rotation. The tyre's forward rotation is shown by an arrow on its sidewall (tyre illustrated is on vehicle off-side).



To prevent theft, each wheel incorporates a security bolt. To change the wheel, this bolt must be removed using the special socket supplied.

The socket is stowed in the front compartment.



Tyre condition, wheel condition

Driving over sharp edges can lead to hidden tyre damage and wheel damage which is only noticed later on: there is a danger of tyre blow-out.

Drive over edges slowly and at a right angle if possible. When parking, ensure that the tyres are not pressed against the edge of the kerb.

Check tyres regularly for damage (foreign bodies, punctures, cuts, cracks, bulges in sidewalls). A damaged tyre could burst. Check wheels for damage. In the event of damage or abnormal wear, consult an Authorised Opel Dealer.

For safety reasons, tyres should be replaced when their tread depth has worn down to 2-3 mm. The legal permissible minimum tread depth (1.6 mm) has been reached when the tread has worn down as far as one of the wear indicators.

Wear indicators are spaced at equal intervals around the tyre within the tread. Their position is indicated by markings on the tyre sidewall. In the event of tyres requiring changing consult an Authorised Opel Dealer.

General information
Note that the danger of aquaplaning is greater if the tyres are worn.

Never fit used tyres the previous history and use of which you do not know.

Tyre designations
Meanings:

e.g. **225/45 R17 91V**

225 = Tyre width in mm
45 = Aspect ratio in %
(tyre height to tyre width in %)
R = Belt type: Radial
17 = Rim diameter in inches
91 = Load index
V = Speed rating

Speed code letters:

Q Up to 160 km/h (100 mph)
S Up to 180 km/h (112 mph)
T Up to 190 km/h (118 mph)
H Up to 210 km/h (130 mph)
V Up to 240 km/h (150 mph)
W Up to 270 km/h (168 mph)

Winter tyres

See page 88 for restrictions.

M+S tyres improve safety and should therefore be fitted on all wheels.

The design of summer tyres means they have limited qualities for winter driving.

If the maximum permissible speed for the winter tyres is less than that of the vehicle, a notice indicating the maximum permissible speed for the tyres must be affixed within the driver's field of vision ✻ [1].

[1] Varies from country to country on account of national regulations.

Tyre chains

See page 88 for restrictions.

Tyre chains may be used only on the drive wheels (rear axle). They must be fitted symmetrically on the tyre to ensure that they are seated concentrically.

Only fine-linked chains - not protruding more than 15 mm on the tyre tread and inboard sides (including chain lock) - as recommended by Opel may be used.

Tyre chains may only be used at speeds up to 50 km/h (30 mph) and, when travelling on roads that are free of snow, they may only be used for brief periods since they are subject to rapid wear on a hard road and may snap.

Self-Help

Do not start with quick charger

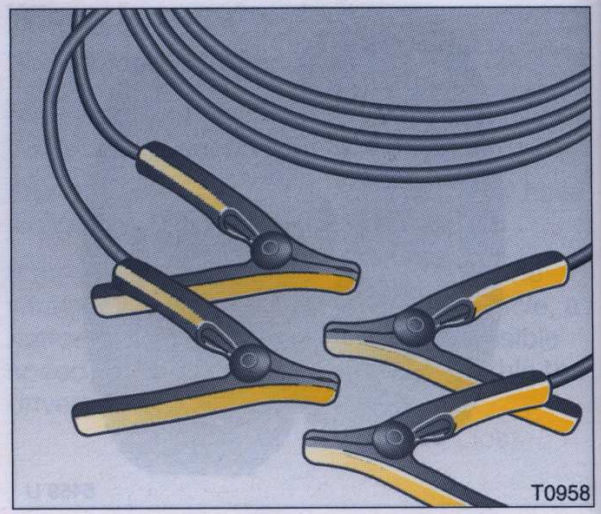
This prevents damage to electronic components.

Fuel cut-off device

see page 51.

Starting the engine by pushing or towing

To avoid damage to you vehicle's catalytic converter the vehicle must not be started by pushing or towing.

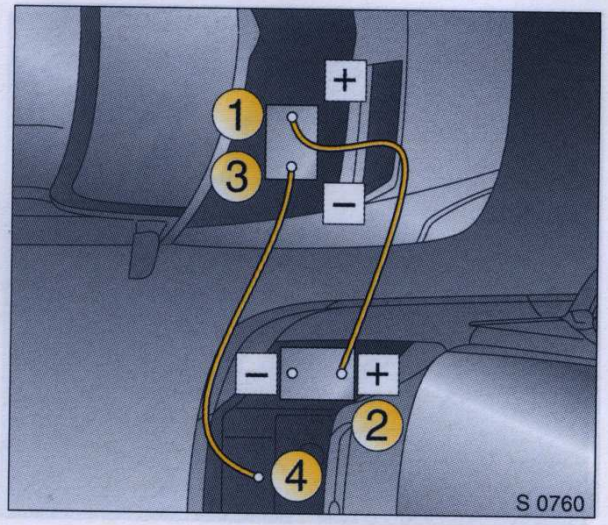


Starting the engine with jump leads ✻

A vehicle with a discharged battery can be started using jump leads and the battery of another vehicle.

This must be done with extreme care. Any deviation from the following instructions could lead to personal injury or damage resulting from battery explosion, as well as to damage to the electrical systems in both vehicles.

- Never expose the battery to naked flames or sparks.
- Do not allow battery fluid to contact eyes, skin, fabrics or painted surfaces. The fluid contains sulphuric acid which can cause injuries and damage in the event of direct contact.
- To lessen the risk of injury wear eye protection when working near any battery.
- Make sure that the battery providing the jump start has the same voltage as the battery in your vehicle (12 V). Its capacity (Ah) must not be substantially lower than that of the discharged battery. The voltage and capacity are given on the batteries.
- Do not disconnect the discharged battery from the vehicle.
- Switch off all unnecessary electrical loads.
- Do not lean over the battery during jump starting.
- Do not allow the terminals of one lead to touch those of the other lead.
- Apply hand brake. Place gear shift lever in neutral.

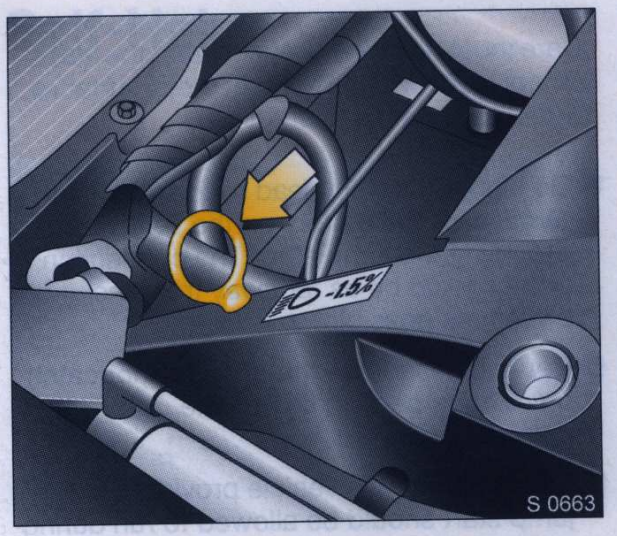


Slide windscreen wash bottle upwards to remove. Connect the leads in the order shown in the picture:

1. Remove the rubber cover and connect one end of the first jump lead to the positive terminal **1** of the discharged battery (identified by "+" sign on battery case or terminal).
2. Connect the other end of this lead to the positive terminal **2** of the battery providing the jump start ("+" sign).
3. Connect the first end of the second jump lead to the negative terminal **3** of the discharged battery ("-" sign).
4. Connect the other end of this jump lead **4** to ground on the vehicle providing the jump start, e.g. engine block or screw connection in engine suspension.

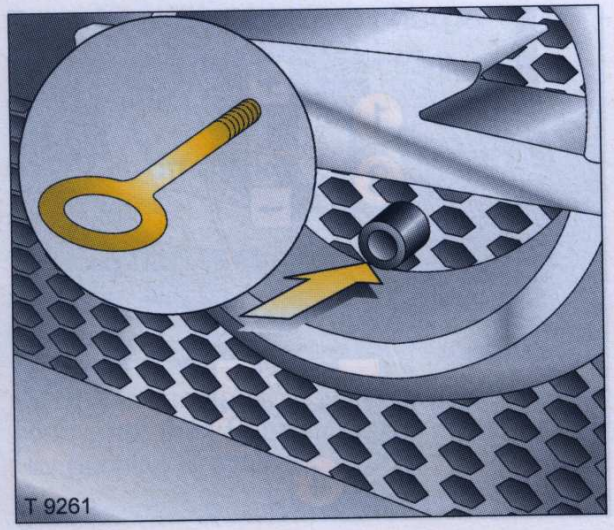
Care must be taken to ensure that the leads do not inadvertantly contact metal surfaces within the compartment area.

- Do not connect the lead to the negative terminal of the battery on the vehicle providing the jump start! The connection point should be as far away from the battery as possible.
- Route the leads so that they cannot catch on rotating parts in the engine compartment.
- The engine of the vehicle providing the jump start should be allowed to run during starting. Attempts to start the engine of the vehicle with the discharged battery should be made at intervals of one minute and should not last longer than 15 seconds. After starting, allow both engines to idle for approx. 3 minutes with the leads still connected.
- Reverse above sequence exactly when removing leads and replace the rubber cover on the positive terminal.



Towing the vehicle

The towing eye is stowed in the front compartment.



Screw the towing eye fully into the towing point.

Attach the tow rope ✻ - or better still, a tow rod ✻ - to the towing eye, never to the front suspension units.

Never lift the vehicle using the towing eye!

Place the gear shift lever in the neutral position. Switch on the ignition to release the steering column lock and to permit the operation of the brake lamps, horn and windscreen wiper.

Drive off slowly and avoid jerky movements. Impermissible tractive forces could damage the vehicles.

More brake pedal pressure is necessary when braking since the brake servo unit is operative only when the engine is running.

To prevent the entry of exhaust fumes from the towing vehicle, close the windows.

Have your vehicle taken to the nearest Authorised Opel Dealer, who will serve you best to get your vehicle back on the road.

Towing service

Entrust your vehicle only to the towing service of your choice and obtain an estimate on towing costs before employing any towing service. This will prevent unnecessary expense and possible insurance problems during claim processing.

First-aid kit ⊕ ✻ and warning triangle ⚠ ✻

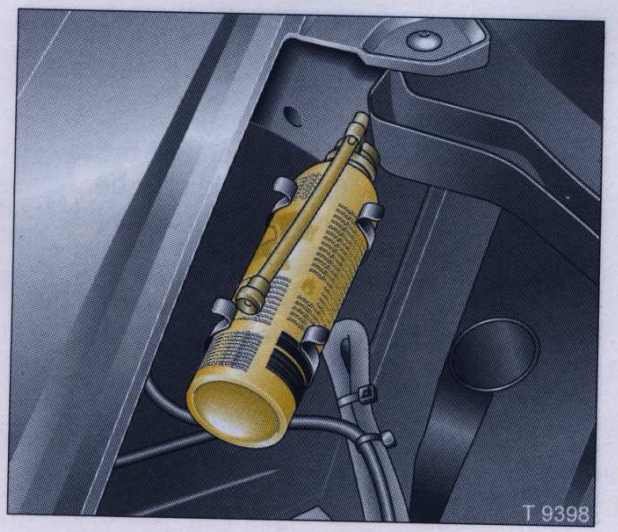
Your first-aid kit and warning triangle can be accommodated in the load compartment.

Puncture

In order to minimise vehicle weight the Speedster is not fitted with a jack or a spare wheel.

It is recommended that wheel changing and jacking of the vehicle are only carried out by an Authorised Opel Dealer.

However, if the vehicle needs to be lifted in an emergency suitable jacking points are indicated on the vehicle underbody by stickers.



Temporary puncture repair
Retrieve the emergency tyre inflator aerosol from the front compartment.

Remove the object causing the puncture and rotate the wheel so that the puncture site is lower-most. Fully deflate the tyre.

Shake the can vigorously, in cold conditions warm the can using the vehicle's heater outlets.

Screw the aerosol tube on to the tyre valve and remove the cap. Hold the can upright and press the button, holding until the tyre is fully inflated.

Immediately drive for 10 to 20 km (6 to 12 miles) in a moderate manner and not exceeding 45 km/h (30 mph) to allow the sealant to spread. Then check and inflate tyres to operating pressure.

Use of the aerosol does not constitute a permanent repair but is designed as an emergency measure, to allow the car to be driven while awaiting tyre replacement.

The aerosol can be used for one repair only, it must then be replaced. Consult your Authorised Opel Dealer.

- Do not drive with more than one repaired tyre.
- Do not drive faster than 80 km/h (50 mph).
- Take bends slowly.
- Do not use the repaired wheel for a lengthy period.
- Renew repaired tyre without delay.

▶

In order to reduce the chance of possible injuries when using the emergency tyre inflator aerosol, make the following preparations and note the procedure:

- Park on a level, firm and non-slippery surface.
- Switch on hazard warning flashers and apply hand brake. Engage first gear or reverse.
- Correctly set up warning triangle ✻.
- Never use the tyre aerosol on more than one wheel at a time.

Fuses

When replacing a fuse, turn off the respective switch and the ignition.

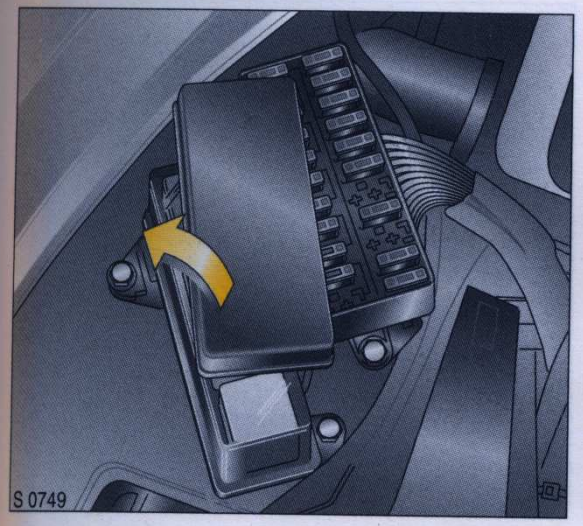
A defective fuse can be recognized by its melted wire. A new fuse should only be installed after the cause of the trouble has been eliminated.

Only fuses of the specified rating should be installed. The rating is given on all fuses.

It is recommended to carry a complete spare set of fuses, obtainable from an Authorised Opel Dealer.

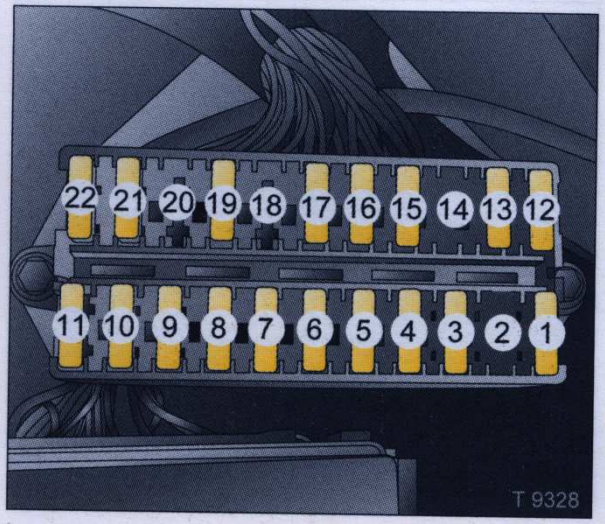
Fuses, Colour	Fuses, Rating[1)]
Grey	2 A
Violet	3 A
Pink	4 A
Beige	5 A
Brown	7.5 A
Red	10 A
Blue	15 A
Yellow	20 A
Clear	25 A

[1)] Rating in Amperes.



Fuse box

The fuse box is located in the front compartment. To open, remove cover.



Fuses and the most important circuits they protect

No.	Circuit	Rating[1)]
1	Rear fog lamp	3 A
2	Alarm Siren ✻	2 A
3	Interior fan	20 A
4	Wiper motor	15 A
5	Stop lamp / Reversing lamp	7.5 A
6	Direction indicators	7.5 A
7	Ignition services	10 A
8	B+ services	7.5 A
9	Hazard warning	10 A
10	Horn	7.5 A
11	Alarm and interior lamp	10 A
12	Cooling fan	25 A
13	-	-
14	Head lamps	25 A
15	Radio ✻	20 A
16	Sidelamp LH	5 A
17	Sidelamp RH	5 A
18	-	-
19	Lamp switches	10 A
20	-	-
21	Front fog lamp	15 A
22	ABS	10 A

[1)] Rating in Amperes

Bulb replacement

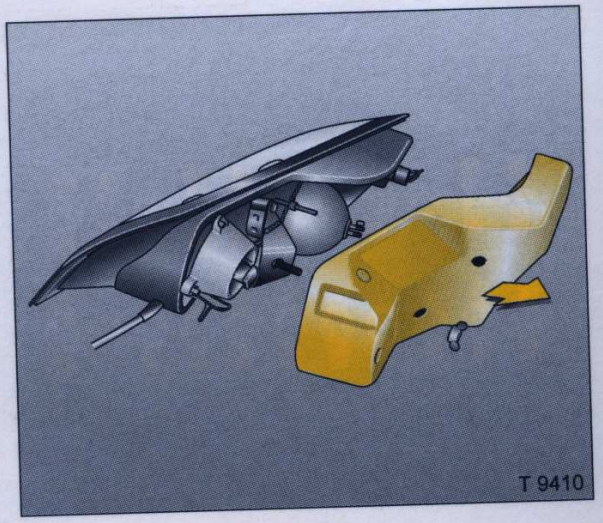
Before replacing a bulb, turn off the respective light switch.

Only hold new bulb at base! Oil and grease stains on the glass evaporate, eventually resulting in a dull reflector. Inadvertently stained bulbs may be cleaned with a clean non-fluffy cloth, using alcohol or white spirit.

Replacement bulb must be in accordance with data on base of defective bulb. Do not exceed wattage given on bulb base.

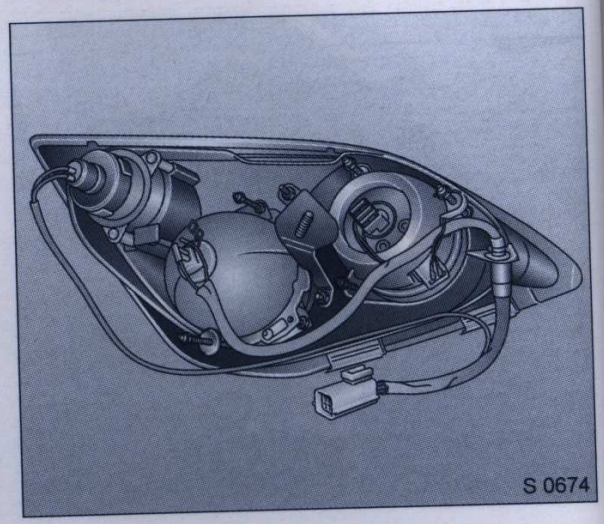
Headlamp aiming

Caution! Headlamp aiming should be carried out by an Authorised Opel Dealer.

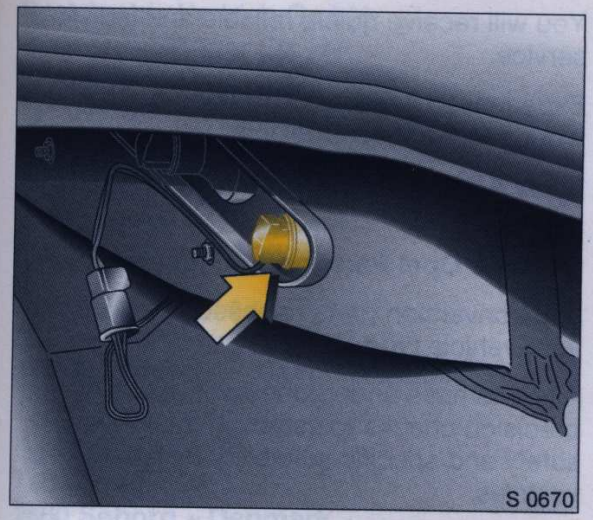


Headlamp dipped and main beam, parking and front turn signal indicator lamps

1. The rear of the headlamp assembly is accessed through the front compartment.
2. Remove the nut on the rear of the headlamp assembly and slide out.
3. Remove the headlamp multiplug and remove the rear cover of the headlamp assembly.

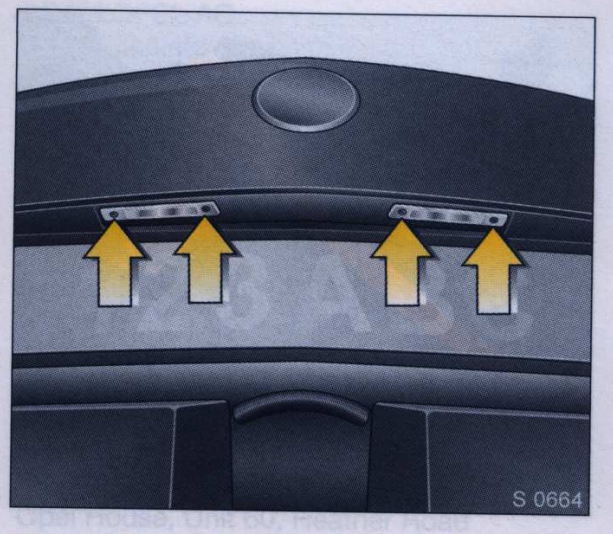


4. Twist and remove the bulb housing(s) as required and remove the defective bulb(s).
5. Insert a new bulb and replace the housing(s).
6. Replace the rear cover of the head lamp assembly and re-connect the multi-plug.
7. Re-position the headlamp assembly on to the vehicle and tighten the nut.



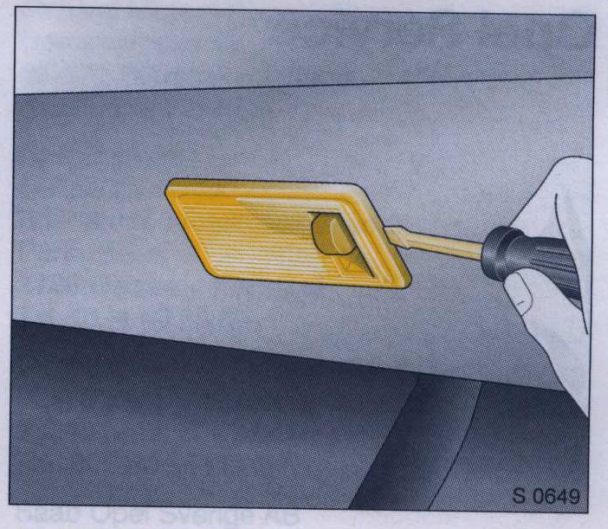
Rear brake, tail, turn signal, reverse and fog lamps

1. The rear lamp assembly can be accessed directly through the rear load compartment.
2. Twist and remove the bulb housing(s) as required and remove the defective bulb(s).
3. Insert a new bulb and replace the housing(s).



Number plate lamps

1. Remove two screws with a suitable screwdriver.
2. Remove lens.
3. Renew bulb and install lens.



Interior lamp

1. Unclip lens assembly using a flat blade.
2. Renew bulb.
3. Reinstall lens assembly.

Instrument illumination

Have bulbs replaced by an Authorised Opel Dealer.

Opel Service

Our aim: to keep you happy with your car.

Should your vehicle develop a technical fault you have no need to worry, for Opel Assistance/Mobilservice is there to help you in Germany and over 30 other European countries.

In addition, all selected Opel Dealers offer first class service at competitive prices. The addresses and telephone numbers can be found in the

"Opel Service Brochure",

available from all dealers and service operations.

You will receive quick, reliable and individual service.

Experienced mechanics, trained by Opel, work according to Opel instructions.

Every Authorised Opel Dealer can supply you with

Genuine Opel Parts and Accessories

and conversion parts released expressly for your vehicle type.

All parts have undergone special quality and precision checks to establish their reliability, safety and specific suitability for Opel vehicles.

Opel Service is backed by the experience of one of the world's leading automobile manufacturers.

The Service Departments of Adam Opel AG and the General Motors branches everywhere will provide information and assistance:

Opel Austria Vertrieb GmbH
Groß-Enzersdorfer Str. 59
1220 Wien - Österreich
Tel. 01 28 87 70

Opel Belgium N.V.
Prins Boudewijnlaan 30
2550 Kontich – Belgium
Tel. 03-4 50 63 11

Opel C & S spol. s.r.o.
Na Pankráci 26
140 00 Prague 4 – Czech Republic
Tel. 02-61 21-88 21

Opel Danmark
Tobaksvejen 22
2860 Søborg – Denmark
Tel. 39 57 85 00

Vauxhall Motors Ltd.
Customer Care
Griffin House, Osborne Road
Luton, Bedfordshire, LU1 3YT – England
Tel. 0 15 82-42 72 00

Opel Oy
Pajuniityntie 5
00320 Helsinki – Finland
Tel. Helsinki 61 58 81

Opel France
1 - 9, avenue du Marais
Angle Quai de Bezons
95101 Argenteuil Cedex – France
Tel. 1-34 26 30 00

ADAM OPEL AG
Bahnhofsplatz 1
65423 Rüsselsheim – Germany
Tel. 0 61 42-77 50 00 or 0 61 42-7 70

Opel Hellas S.A.
56 Kifisias Avenue & Delfon str.
Amarousion
151 25 Athens – Greece
Tel. 1-6 80 65 01

Opel Southeast Europe Ltd.
Kapás utca 11-15
1027 Budapest – Hungary
Tel. 06-1-45 79-1 99

Opel Ireland Ltd.
Opel House, Unit 60, Heather Road
Sandyford, Dublin 18 – Ireland
Tel. 01-216 10 00

Opel Italia S.p.A.
Piazzale dell'Industria 40
00144 Rome – Italy
Tel. 06-5 46 51

For Luxembourg - contact
Opel Service Department in
Kontich - Belgium

Opel Nederland B.V.
Baanhoekweg 188
3361 GN Sliedrecht – Netherlands
Tel. 0 78-6 42 21 00

Opel Norge AS
Kjeller-Vest 6
2021 Skedsmokorset – Norway
Tel. 63 89 52 00

General Motors Poland Sp. z o. o.
Domaniewska 41
06-672 Warsaw – Poland
Tel. 0 22-606 17 00

Opel Portugal
Quinta da Fonte
Ed. Fernão Magalhães, Piso 2
Porto Salvo
2780 Oeiras – Portugal
Tel. 01-4 40 75 00

Opel España de Automóviles S.A.
Paseo de la Castellana, 91
28046 Madrid – Spain
Tel. 900 20 25 20

Saab Opel Sverige AB
Esbogatan 8
164 74 Kista – Sweden
Tel. 08-632 85 00

Opel Suisse S.A.
Salzhausstraße 21
2501 Biel/Bienne – Switzerland
Tel. 0848 810 820 or 0 32-3 21 51 11

Opel Türkiye Ltd. Sti.
Kemalpasa yolu üzeri
35861 Torbali/Izmir – Turkey
Tel. 02 32-8 53-14 53

In **Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Macedonia, Romania, Slovenia and Yugoslavia** please contact the Opel Service Department in Budapest, Hungary.
Tel. 00 36-1 -45 79-1 99

Service Plan, Maintenance

In order to guarantee economical and safe vehicle operation and to maintain the value of your vehicle it is of vital importance that all maintenance work is carried out at the proper intervals as specified by Opel in the Service Booklet. Time or mileage/kilometre intervals - whichever is reached first - determine when your vehicle is due for its next service.

In the case of low kilometre/mileage accumulation with frequent cold starts or predominantly urban traffic and stop-and-go traffic, an additional engine oil and filter change is recommended.

You will find the Service Booklet in the literature pack.

Have maintenance work, as well as repairs to the bodywork and units, carried out by an Authorised Opel Dealer. They are familiar with Opel vehicles and are in possession of the special tools required and the latest service instructions from Opel.

A note on safety

To avoid the possibility of injury, only carry out engine compartment checks (e.g. checking the brake fluid level or the engine oil level) when the ignition is switched off.

The cooling fan may be operated by a thermoswitch and can therefore start to operate unexpectedly even when the ignition is switched off - risk of injury!

Never carry out any repairs or adjustment and maintenance work on the vehicle yourself. This especially applies to the engine, chassis and safety parts. You may out of ignorance infringe the provisions of the law and, by not performing the work properly, you may endanger yourself and other road users.

Checking and topping up fluids

To aid identification, the engine oil filler cap, the coolant expansion tank cap, the lid of the fluid container for the windscreen wash system and the handle of the oil dipstick are coloured yellow.

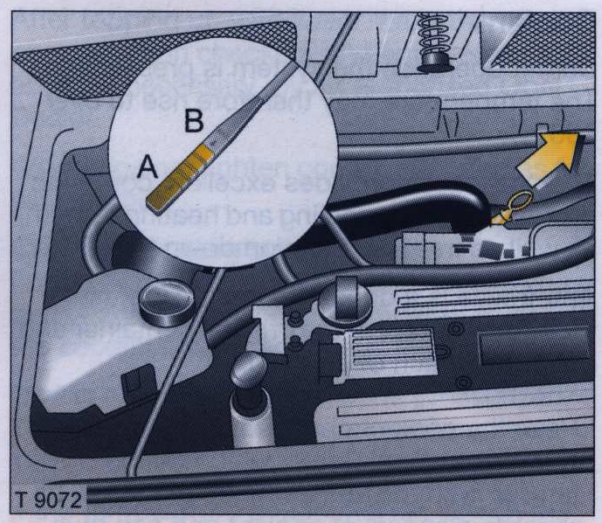
Engine oil

Opel engine oil is particularly suitable for the engine.

These high-quality oils are suitable for summer and winter operation.

You may also use good-quality brand HD oils with the proper viscosity class (SAE) and quality (ACEA). See page 83 for information on oils. The ACEA category may be taken as a quality criterion.

In the case of brand oils the manufacturers are responsible for ensuring that the oils they supply are suitable for Opel vehicles.

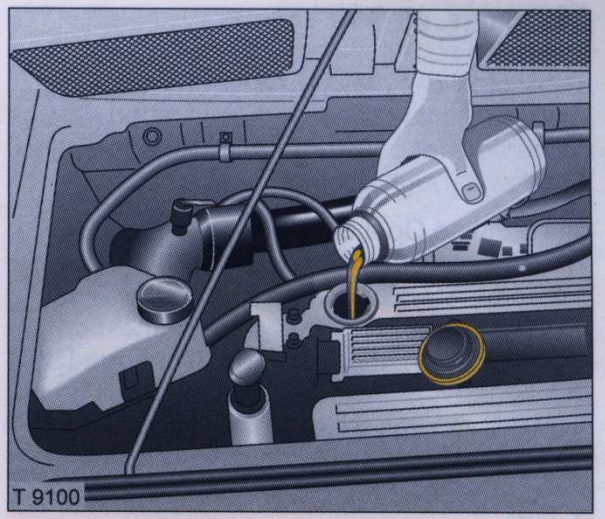


Engine oil level

It is normal for every engine to consume some oil. For this reason the engine oil level should be checked every 500 km (300 miles) or before starting a long trip.

The oil level must be checked with the vehicle horizontal and with the engine (which must be at operating temperature) switched off. Wait at least two minutes before checking the level to allow the normal oil accumulation in the engine to drain back into the oil pan. To check the level, remove the oil gauge (dipstick), wipe it clean and re-insert it as far as it will go. Top up if the oil level has dropped to the "add oil" mark **A**.

The oil level must not go above the upper mark **B** on the dipstick. This would lead, for example, to increased oil consumption and excessive formation of carbon residue.



When replenishing, attempt to use the same type of oil as used at the last oil change.

Lubricant chart, see page 84.

Capacities, see page 90.

A stabilisation of the oil consumption will not take place until the vehicle has been driven several thousand kilometres. Only then can the actual degree of consumption be established.

Oil change, oil filter change
Engine oil changes are to be carried out depending on time intervals or mileage intervals, since oil loses its lubrication properties not only through engine operation but also through ageing.

Use genuine Opel oil filters.

Used oil filters and empty oil containers should not be disposed of as domestic refuse. Have the oil and oil filter changed by an Authorised Opel Dealer, which will be familiar with the requirements of the law as regards disposal of used oil and can thus help to protect the environment and your health.

Coolant

During operation the system is pressurized. The temperature may therefore rise to over 100 °C.

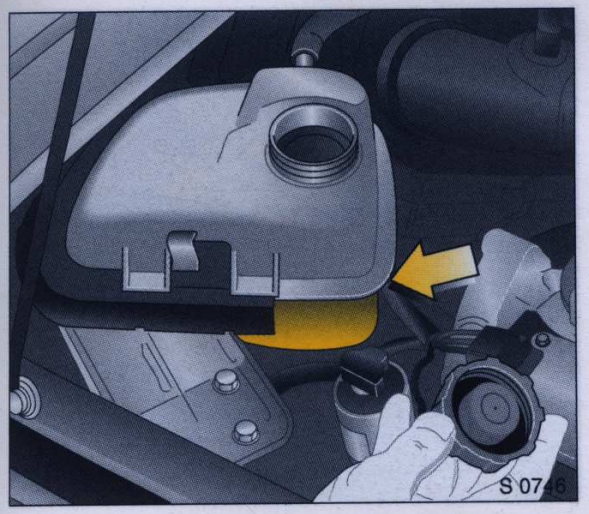
The anti-freeze provides excellent corrosion protection for the cooling and heating system, as well as freeze protection down to -30 °C.

Anti-freeze is a danger to health; it must therefore be kept in the original container and out of the reach of children.

Have the coolant changed by an Authorised Opel Dealer which will be familiar with the requirements of the law as regards disposal of coolant and can thus help to protect the environment and your health.

Freeze protection and corrosion protection
Before the start of the cold weather season, have the coolant checked with a calibrated hydrometer for correct concentration by an Authorised Opel Dealer. The anti-freeze content must guarantee freeze protection down to approximately -30 °C. An insufficient concentration will reduce freeze and corrosion protection. Add anti-freeze if necessary.

If coolant loss is topped up with water, have anti-freeze concentration checked and more anti-freeze added as necessary.



Coolant level
Hardly any losses occur since the cooling system is sealed and it is thus rarely necessary to top up the coolant.

The coolant level in the expansion tank should be level with the centre seam when the system is cold. It rises at engine operating temperature and drops again when the engine cools down. If the level falls below the centre seam, the coolant should be replenished.

Remove filler cap carefully so that pressure can escape slowly. Top up anti-freeze. If no anti-freeze is available, top up with clean tap water.

After topping up with water, have the concentration checked, and anti-freeze added if necessary, by an Authorised Opel Dealer.

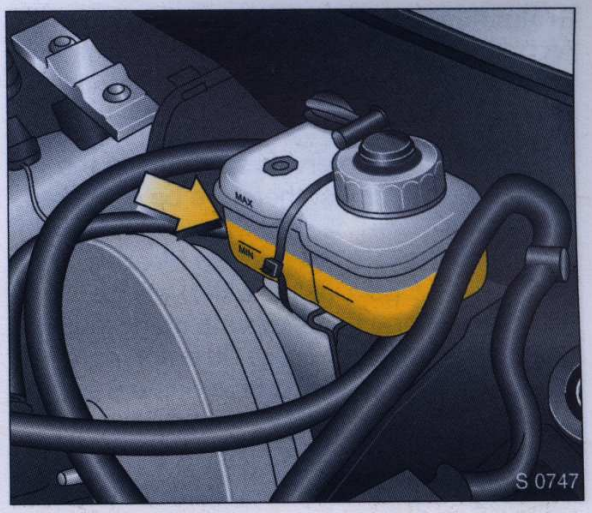
When closing, tighten coolant filler cap as far as it will go.

Coolant temperature
For physical reasons, the engine temperature gauge shows the coolant temperature only if the coolant level is adequate.

During operation the system is pressurized. The temperature may therefore rise to over 100 °C.

If the temperature gauge flashes, check the coolant level immediately.

- Coolant level too low:
  Top up coolant, see Coolant level. To remedy the cause of the coolant loss, consult an Authorised Opel Dealer.
- Coolant level OK:
  Consult an Authorised Opel Dealer immediately to remedy the increased coolant temperature.



Brake fluid

Brake fluid level

Caution - brake fluid is poisonous and corrosive. Do not allow it to contact eyes, skin, fabrics or painted surfaces. Direct contact may cause injuries and damage.

The fluid level in the container must not be higher than the "MAX" mark or lower than the "MIN" mark.

To top up, use Opel heavy-duty brake fluid (see Technical Data). It is essential to ensure absolute cleanliness during this process as contamination of the brake fluid can lead to malfunction of the braking system.

After correcting the brake fluid level, have the cause of the loss eliminated by an Authorised Opel Dealer.

Brake fluid change

As brake fluid is hygroscopic, it absorbs water. Vapour bubbles which impair the braking effect may occur during braking.

The fluid change intervals specified in the Service Booklet must therefore be observed.

Have the brake fluid changed by an Authorised Opel Dealer, which will be familiar with the requirements of the law as regards disposal of brake fluid and can thus help to protect the environment and your health.

Windscreen wiper

Clear vision is essential for safe driving.

You should therefore perform regular checks on the windscreen wiper to make sure that it is operating correctly.

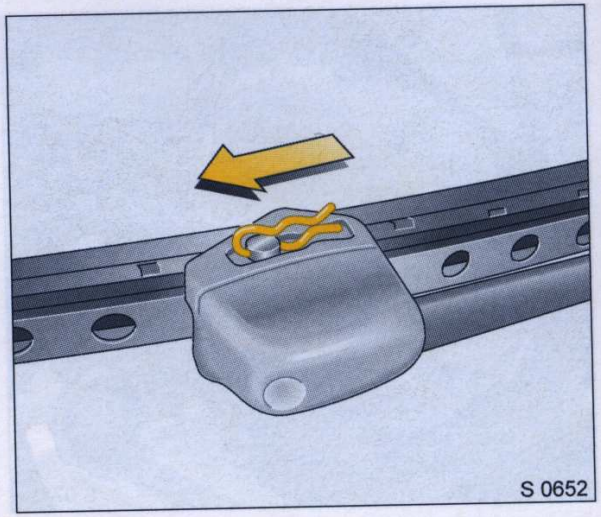
Operation of the windscreen wiper on iced-up glass will result in damage to the wiper lip.

Clean smearing wiper blades with a soft cloth and Opel Windscreen Wash Solvent.

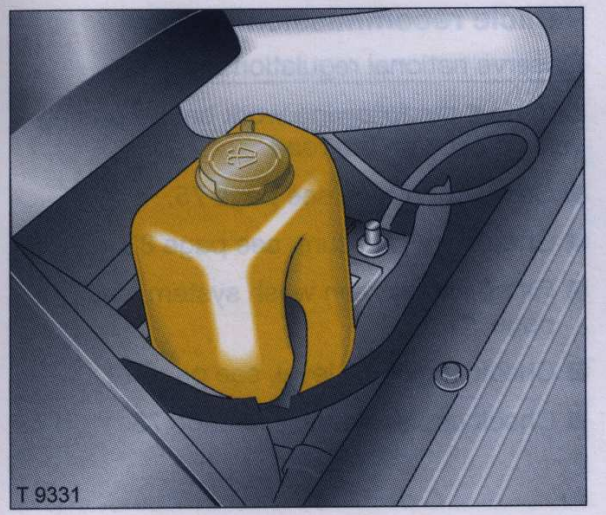
If the wiper becomes frozen onto the glass, it should be released with the aid of Opel De-icer Spray.

Operating the windscreen wiper if it is frozen to the windscreen may result in damage to parts of the wiper system.

Wiper blades whose lips have become hardened, cracked or covered with silicone must be replaced. This may be necessary as a result of the effects of ice, thawing salt or heat, or the incorrect use of cleaning agents.



To renew blade, lift wiper arm, remove release clip and detach wiper blade.



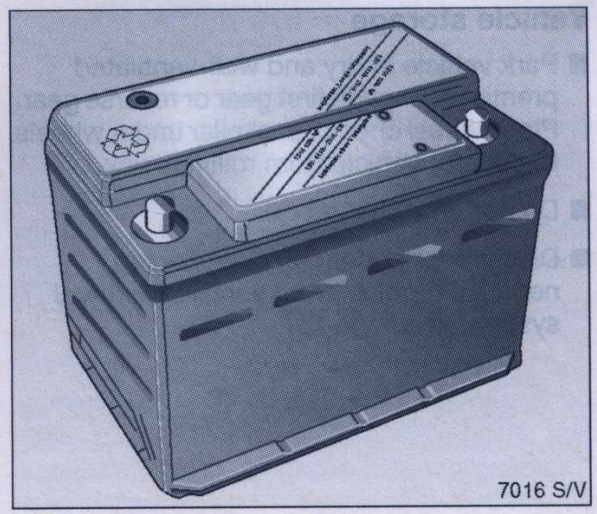
Windscreen wash system

Fill only with clean water to prevent the nozzles from clogging. To improve cleaning efficiency, add a little Opel Windscreen Wash Solvent.

To prevent the windscreen wash system freezing in winter:

Freeze protection down to	Mixture - Opel Windscreen Wash Solvent : Water
- 5 °C	1 : 3
- 10 °C	1 : 2
- 20 °C	1 : 1
- 30 °C	2 : 1

When closing the container, press the lid firmly over the beaded edge.

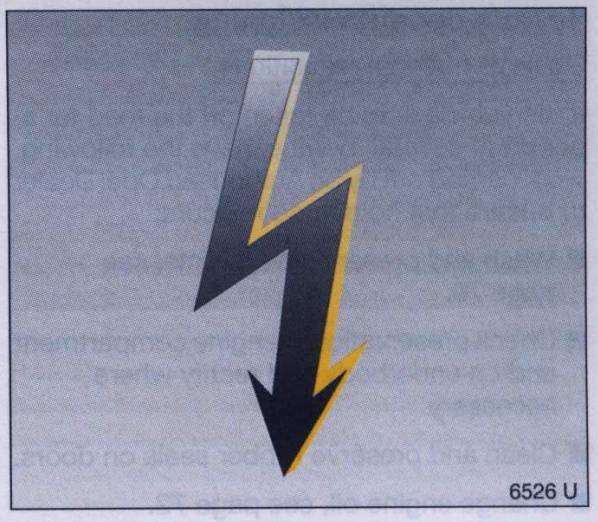


Battery

The battery is maintenance-free.

Ignition system

Electronic ignition systems use a very high voltage. Do not touch the ignition system, danger to life.



Protection of electronic components

In order to avoid the breakdown of electronic components within the electrical system, never disconnect the battery with the engine running. Never start the engine while the battery is disconnected (e.g. when using jump leads).

The battery must be disconnected from the vehicle before being charged: first disconnect the negative cable and then the positive cable. The polarity of the battery, i.e. the connections for the positive and negative cables, must not be interchanged. When reconnecting, first connect the positive cable and then the negative cable.

Vehicle decommissioning

Observe national regulations.

If the vehicle is to be taken off the road for a period of several months, have the following work carried out by an Authorised Opel Dealer to ensure that no damage occurs:

- Wash and preserve the vehicle, see page 79.
- Check preservation in engine compartment and on underbody and rectify where necessary.
- Clean and preserve rubber seals on doors.
- Change engine oil, see page 72.
- Check anti-freeze and corrosion protection, see page 72.
- Check coolant level, see page 73.
- Empty windscreen wash system.

Vehicle storage

- Park vehicle in dry and well-ventilated premises. Engage first gear or reverse gear. Place wheel chocks or similar under wheels to prevent vehicle from rolling away.
- Do not apply hand brake.
- Disconnect battery by disengaging negative terminal from vehicle electrical system, see page 75.

Vehicle recommissioning

Observe national regulations.

Carry out the following work before putting a vehicle back on the road.

- Connect battery, see page 75.
- Check tyre pressure, see page 88.
- Fill up windscreen wash system, see page 75.
- Check engine oil level, see page 71.
- Check coolant level, see page 73.

Vehicle Care

Consult an Authorised Opel Dealer with regard to care aids tested and recommended by Opel.

In caring for your vehicle observe all national environmental regulations, particularly when washing your vehicle.

Regular, thorough care contributes to improving the appearance of your vehicle and maintaining its value. It is also a prerequisite for claims made under the warranty in the event of paint or corrosion damage. In the following pages, we give you tips for vehicle care which, with correct use, will help to ward off unavoidable and harmful environmental influences.

Vehicle care aids ✻

Vehicle wash:
- Car Shampoo
- Sponges
- Chamois Leather
- Wheel Cleaners
- Engine Cleaners
- Glass Cleaners

Exterior care:
- Touch-up Paints
- Car Polishes/Colour Restorers
- Car Waxes/Sealers
- Rust Preventative
- Lubricant Sprays
- De-icer Sprays
- Tar Removal Spray
- Windscreen Wash Solvent

Interior care:
- Interior/Upholstery Cleaner

Washing

It is recommended that the vehicle is washed by hand and that automatic car washes are avoided.

The paintwork of your vehicle is exposed to environmental influences, e.g. continuous changes in weather conditions, industrial waste gases and dust or thawing salts, so wash and wax your vehicle regularly.

Bird droppings, dead insects, resin, pollen and the like should be cleaned off immediately, as they contain aggressive constituents which can cause paint damage.

Many contaminants are water soluble and can be removed by thorough washing with plenty of lukewarm water together with a car wash detergent (household detergents are not recommended as they can remove wax and accelerate oxidation).

It is recommended that the vehicle be washed by hand, in the shade, using a cotton wash-mitt or sponge that is regularly rinsed. Use a straight back and forth washing motion to avoid swirled micro-scratches.

To minimise the damage from road salt, the underside of the vehicle should be rinsed with clean water as soon as possible after travelling on treated roads.

Thoroughly rinse off and leather-off the vehicle. Rinse leather frequently. Use separate leathers for paint and window surfaces: remnants of wax on the windows will impair vision.

Soft top care

Particular care should be taken when washing the fabric soft top. Carefully vacuum the soft top before washing to remove excess dust and dirt particles. Wash in shade with a sponge (a chamois will leave lint, while a brush may abrade the threads) and use a Opel Car Shampoo and lukewarm water solution.

Wash the entire top uniformly to avoid rings or spots. Rinse with plenty of clean water.

Remove surface water with a sponge and allow to air dry. Be sure to allow the soft top to dry completely before stowing as prolonged stowage of a wet or damp roof will promote rotting of the fabric.

- Remove bird droppings from the roof immediately.
- Do not use aggressive cleaning agents or stain removers.
- Do not direct water jets on to the edges of the roof.
- Do not use sharp-edged objects to remove snow and ice from the roof.

Whilst the soft top is weatherproof, it cannot be guaranteed to be fully waterproof if the vehicle is washed in an automatic car wash. It is therefore recommended that the vehicle is hand-washed and that automatic car washes are avoided.

Exterior storage

Due to the soft top design being weatherproof and not water tight in all conditions, extended periods of rainfall may result in some water collection in the passenger compartment. Therefore, it is recommended that the vehicle is not stored outside without a suitable protective covering such as a shower cover (available from your Authorised Opel Dealer).

Waxing

Wax your vehicle regularly, in particular after it has been washed using shampoo and at the latest when water no longer forms beads on the paintwork, otherwise the paintwork will dry out.

Never let things deteriorate this far. Waxing prevents harmful chemical action.

Also wax edges and folds on opened doors and flaps as well as the areas they cover.

Polishing

Polishing is necessary only if the paint has become dull or if solid deposits have become attached to it.

Polishing with silicone forms a protective film, making waxing unnecessary.

Wheels

For alloy wheels we recommend use of Alloy Wheel Cleaner.

Paint damage

Minor paint damage such as stone chips, scratches etc. should be treated immediately with Opel Touch-Up Paint or Aerosol. If surface cracking is beginning to form, consult an Authorised Opel Dealer. Do not forget the surfaces and edges nearest to the road where surface cracks may also form unnoticed.

Tar spots

Tar spots must not be removed with hard objects, but instead immediately cleaned off with Tar Removal Spray. Do not use Tar Removal Spray on the covers of the exterior lights.

Exterior lights

Headlamp and other protective lamp covers are made of plastic. If the lamp covers require additional cleaning after the vehicle has been washed, clean them with Car Shampoo. Do not use any abrasive or caustic agents, do not use an ice scraper, and do not clean them dry.

Plastic and rubber parts

For additional cleaning of plastic and rubber parts use Cleaner. Do not use any other agent, and in particular do not use solvents or petrol.

Wheels and tyres

Do not use high-pressure jet cleaners on wheels and tyres.

Interior and upholstery

Clean the vehicle trim, including the instrument panel using Cleaner.

Clean fabric upholstery with a vacuum cleaner and brush. For removal of stains use Cleaner, which is suitable for both fabrics and vinyl.

For cleaning fabrics, carpets, the instrument panel and leather trim ✻ in the vehicle interior, do not use cleaning agents such as acetone, carbon tetrachloride, paint thinner, paint remover, nail varnish remover, washing powder or bleach. Petrol is also unsuitable.

Seat belts

Always keep seat belts clean and dry.

Clean only with lukewarm water or Cleaner.

Windows

Use a soft fluff-free cloth or chamois leather in conjunction with Window Cleaning Spray.

Opel Windscreen Wash Solvent is suitable for de-icing windows.

For mechanical removal of ice, use a commercially available sharp-edged ice scraper. Press the scraper firmly against the glass so that no dirt can get under it and scratch the glass.

Windscreen wiper blade

A smearing wiper blade should be cleaned with a soft cloth and Opel Windscreen Wash Solvent, and replaced if necessary.

Locks

The locks are lubricated before they leave the factory with a high-grade lock cylinder grease. Opel lock cylinder grease prevents the locks from freezing up. Use de-icing agents only in emergencies, as they have a degreasing effect and will impair the functioning of the locks. After using de-icing agents re-grease the locks.

Engine compartment

Important areas of the engine compartment have been provided with permanent protection at the factory in the form of a high-quality, smooth protective lacquer coating. Parts of the engine compartment lacquered in the same colour as the vehicle's paintwork can be treated in the same way as all painted surfaces. Wash engine only if absolutely necessary. Before washing the engine, protect alternator and load compartment with plastic covers.

When washing the engine with a steam-jet cleaner, do not direct the steam jet at the belt drive and its components.

Underbody

The underbody should be washed following the end of the cold weather season to remove any dirt adhering to the underbody.

Technical Data

The technical data are determined in accordance with European Community standards. Opel reserve the right to make modifications. Specifications in the vehicle documents always have priority over those given in this manual.

Vehicle identification data

The vehicle identification number is on the vehicle identification plate, which is mounted on the right-hand side B-pillar and on the forward chassis, visible through the front right-hand side wheel spokes.

Engine identifier code and engine number

The engine identifier code and engine number is located on the forward face of the oil filter housing.

Oils, coolant, brake fluid

Engine oils

We recommend using Opel engine oils with the following qualities and viscosities:
ACEA A3-/B3- SAE 0W-30
– or –
ACEA A3-/B3- SAE 5W-40
– or –
ACEA A3-/B3- SAE 10W-40

When using commercially available engine oils, as a matter of principle only those oils that meet the minimum quality requirements specified in the following table are permissible.

Engines	Oils
Petrol	ACEA- A3- or ACEA- A3-/B3-

Only the following viscosity classes are permissible for petrol engines:
SAE 10 W-30 (or higher than 30) or
SAE 5 W-30 (or higher than 30) or
SAE 0 W-30 (or higher than 30).

The range of application of the oil is dependent on the outside temperature, see the viscosity chart on the next page.

Information on ACEA classifications

The **A**ssociation des **C**onstructeurs **E**uropéens d'**A**utomobiles classifies engine oils according to their performance (quality).

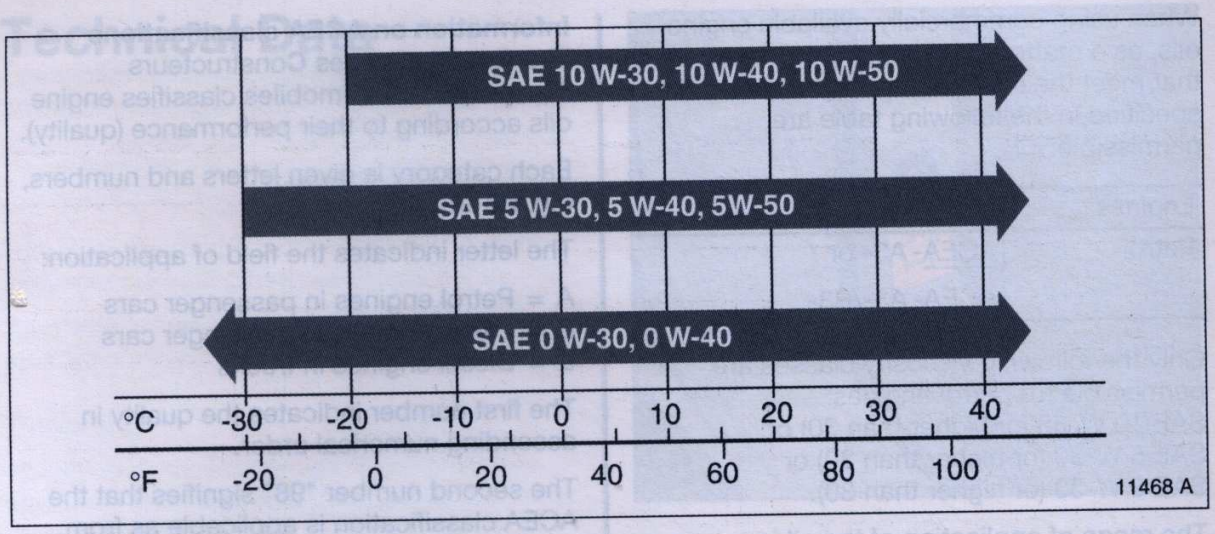
Each category is given letters and numbers, e.g. A3-98.

The letter indicates the field of application:

A = Petrol engines in passenger cars
B = Diesel engines in passenger cars
E = Diesel engines in trucks

The first number indicates the quality in ascending numerical order.

The second number "98" signifies that the ACEA classification is applicable as from January 1998. Higher year numbers indicate progressively refined oil classifications.



Information on SAE classifications
Engine and transmission oils are classified by the **S**ociety of **A**utomobile **E**ngineers according to their viscosity. Viscosity is the measure of internal friction of the oil in flux, dependent on its temperature.

The SAE classification does not provide information on the quality of the oil; it merely indicates the range of application of the oil dependent on the outside temperature; see diagram.

Refer to the information given on the previous page.

Do not switch to a different viscosity in the event of brief temperature fluctuations.

Further information, see Service Booklet.

Transmission fluid
Opel specified transmission oil

Coolant
Opel LLC (long life coolant)

Brake fluid
DOT4 brake fluid meeting US Safety Standard FMVSS § 571.116 and SAE Specification J 1703.

Engine data

Sales designation	2.2i
Engine identifier code	**Z 22 SE**
Number of cylinders	4
Bore dia. (mm)	86.0
Stroke (mm)	94.6
Piston displacement (cm^3)	2198
Max. engine power (kW)	108
at rpm	5800
Torque (Nm)	203
at rpm	4000
Compression ratio	10.0
Octane requirement (RON)[1]	
unleaded	**95** (P)[1]
or unleaded	98 (PP)[1]
or unleaded	91 (R)[1][2]
Max. permissible engine speed, continuous (rpm) approx.	6500
Max. vehicle speed (km/h; mph)	217/135
Oil consumption (l/100 km)	0.075

[1] Standard high-quality fuels, e.g. unleaded EN 228: R = Regular, P = Premium, PP = Premium Plus; value printed in bold: recommended fuel.

[2] If no unleaded premium-grade fuels are available, 91 RON can be used, taking care to avoid severe engine loads and driving at full throttle.

Fuel consumption, CO_2 emission (approx.)

The EC Directive 80/1268/EEC as last amended by 1999/100/EC applies to measurement of the fuel consumption of vehicles.

Fuel consumption was previously given for urban traffic, and constant speeds of 90 km/h (56 mph) and 75 km/h (120 mph). The new standard is based on the emission drive cycles to determine CO_2 emission and fuel consumption.

Urban driving is assumed to make up around 1/3 of the overall consumption figure and extra-urban driving around 2/3. Cold starting and acceleration phases are additionally taken into account. The new figures are consequently higher than the old ones.

The new regulation also requires the CO_2 emission level to be stated.

The figure given must not be taken as a guarantee for the actual fuel consumption of the vehicle.

Discrepancies between actual fuel consumption and the figures given can result from driving style, road and traffic conditions or the condition of the vehicle.

Fuel consumption (approx. l/100 km [1]), **CO_2 emissions** (approx. g/km).

Engine	Z 22 SE
Urban	12.3
Extra-urban	6.4
Combined	8.5
CO_2	205

[1] To convert l/100 km into mpg, divide 282 by number of litres/100 km.

Weights, payload and roofload

The payload is the difference between the permissible gross vehicle weight and the EC kerb weight.

The combined total of front and rear axle loads (see vehicle identification plate) must not exceed the permissible gross vehicle weight, i.e. if the front axle load is being fully utilized, the rear axle load must not be such that the permissible gross vehicle weight is exceeded.

Optional equipment and accessories increase the kerb weight and in some cases also the permissible gross vehicle weight, which means that the payload will also change slightly.

Note the weights given on the vehicle identification plate.

Roof loads must not be carried on the Speedster.

Driving hints – page 44.

Vehicle weights (kg)

Model	Permissible gross vehicle weight	Kerb weight [1)]
Speedster	1150	945

[1)] According to EC Directive, including assumed weights for driver (68 kg), luggage (7 kg) and all fluids (tank 90% full).

Tyres

Restrictions

Not all tyres available on the market currently fulfill the necessary design requirements. Consult an Authorised Opel Dealer to establish which makes of tyre have been approved by Opel.

Winter tyres

The tyre sizes given may be used as winter tyres (M+S tyres).

Tyre chains

Restrictions

Tyre chains may be used on the rear drive wheels only.

Further information - see page 56.

Wheels

Tightening torque: 90 Nm

Tyre inflation pressures in bar/psi

The tyre pressures given are valid for cold tyres. The increased tyre pressure resulting from extensive driving must not be reduced.

The pressures given apply to both summer and winter tyres - see page 56.

Tyre [1]	Inflation pressure with full load (bar/psi) [2]	
	Front	Rear
175/55 R17 81 V	1.8/26	-
225/45 R17 90 V	-	1.9/27.5

[1] Bridgestone Potenza RE040 only, available from your Authorised Opel Dealer.
[2] To convert to kPa multiply bar by 100 (1 bar = 100 kPa).

Electrical system

Electronic ignition systems use a very high voltage. Do not touch; danger to life.

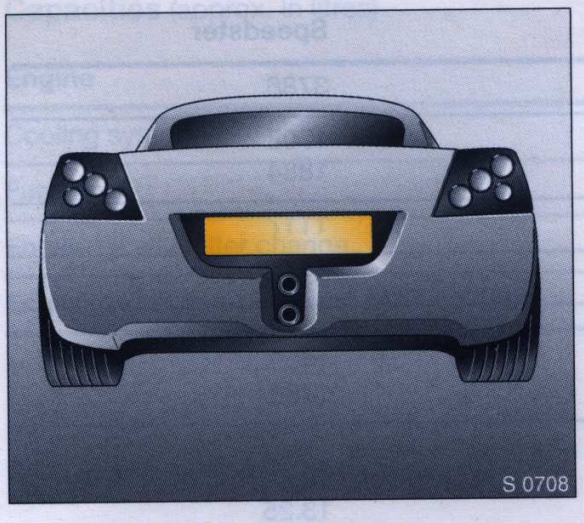
Battery	Voltage	12 Volt
	Amp Hours	45 Ah
Spark gap		1.0 ± 0.1 mm

Capacities (approx. in litres)

Engine	**Z 22 SE** [1]
Cooling system	12.3
Fuel tank	36.0
Engine oil with filter change	5.5
Engine oil between MIN and MAX on dipstick	1.0

[1] Sales designation: see page 85

Dimensions (mm)	**Speedster**
Length	3786
Width	1708
with exterior mirrors	1884
Height	1117
Wheelbase	2330
Track width:	
Front	1450
Rear	1488
Turning circle diameter (m):	
kerb to kerb	10.6
wall to wall	13.25



Number plate mounting

When installing to the front of the vehicle it is important not to obscure the air intake.

When installing to the rear of the vehicle be sure to mount it as high as possible. This is especially relevant for plastic number plates that may be damaged by heat from the exhaust system.

Index

Index

D

H
Hand brake 13, 55

N

S

Vehicle recommissioning 76

OPEL

The information and illustrations contained in this Owner's Manual are effective as of the date indicated below. Adam Opel AG reserves the right to make changes to the technical specifications, features and design of the vehicles relative to the information and illustrations contained in this Owner's Manual, as well as changes to the Owner's Manual itself.

Edition: July 2001

Adam Opel AG, Rüsselsheim.

Printed on chlorine-free
bleached paper.

KTA-2399/2-GB
Art.-Nr. 09 927 102 07/01

Opel Speedster

SPEEDSTER

Operation, Safety, Maintenance

Opel Speedster

Owner's Manual

In Brief

Key numbers, Code numbers

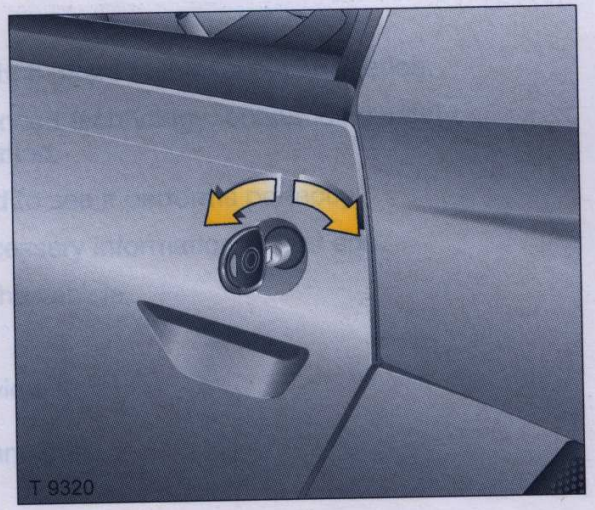
Remove key number from key.

The key number is given in the vehicle papers and in the Car Pass.

Immobilizer, radio ✻: the code numbers are given in the Car Pass and Radio Pass ✻ respectively.

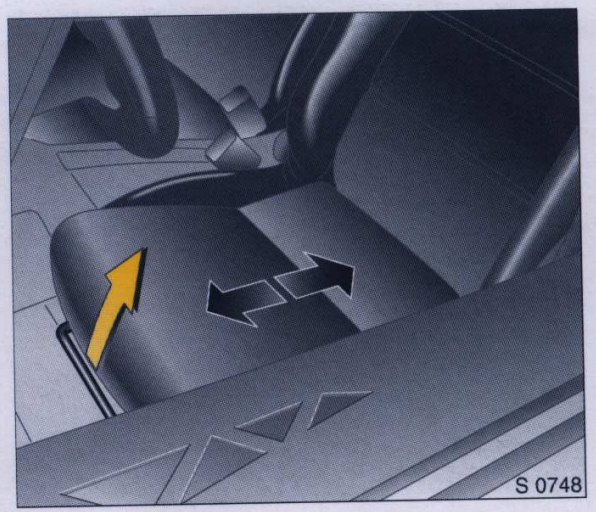
Do not keep the Car Pass and Radio Pass ✻ in the vehicle.

► Further information - pages 22, 23.



Unlocking the vehicle: Turn key in door lock, remove key Press lock button and open door

► Door locks - pages 22,
electronic immobilizer - page 23,
remote control - page 24,
anti-theft alarm system - page 24.



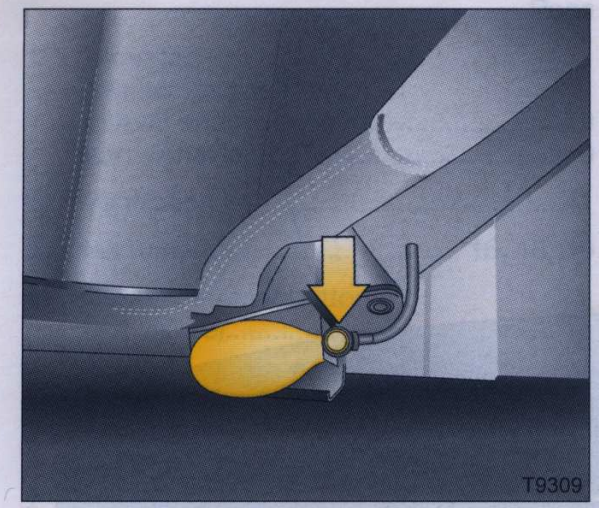
Adjusting the seat: Pull handle, move seat, release handle, lock seat in position

Never adjust the driver's seat whilst driving. It could move in an uncontrolled manner when the handle has been pulled.

The passenger's seat is not adjustable.

Passenger footrest ✻

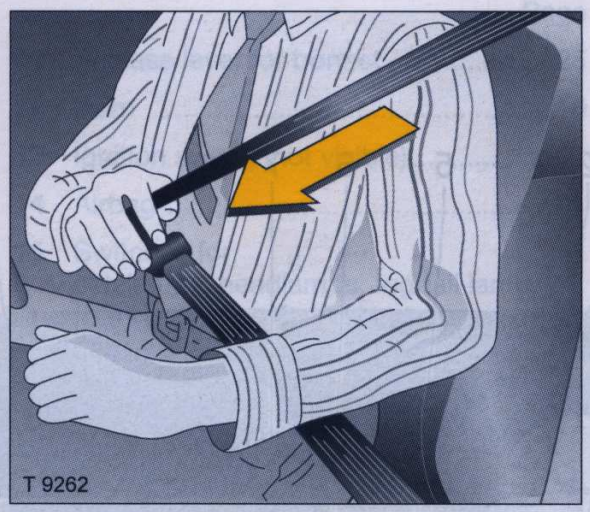
The passenger footrest can be adjusted for comfort. Lift the footrest and move to the desired position. Press the footrest firmly down to ensure that it is locked securely in position.



Lumbar support:
Pump on outboard side of seat

Operate pump to increase support.

To decrease support, release pressure with valve button (arrowed).

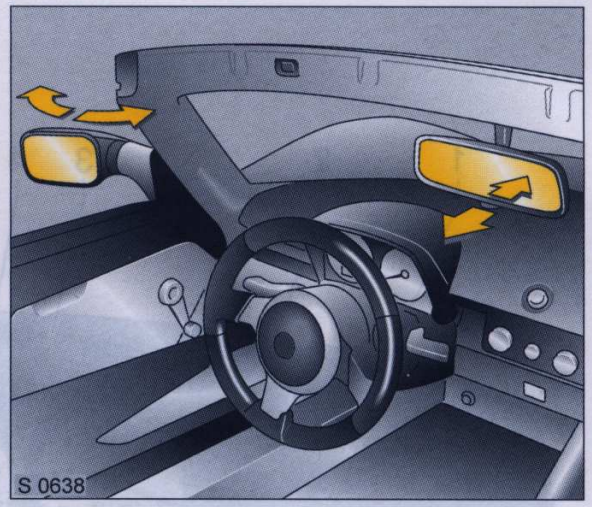


Seat belt:
Draw smoothly from inertia reel, guide over the shoulder and engage in buckle

The belt must not be twisted at any point. The lap belt must fit snugly across the body.

To release belt, press red button on belt buckle.

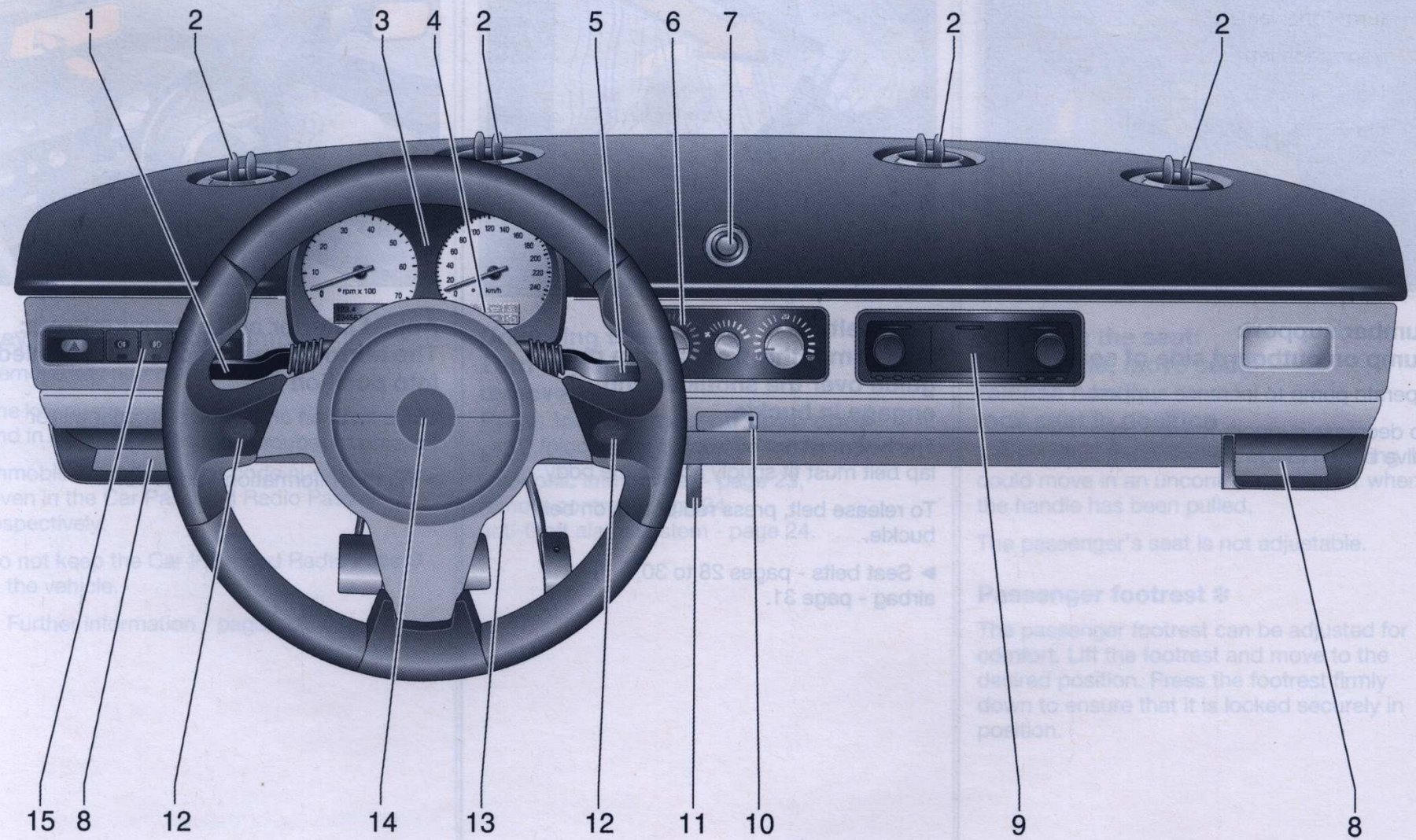
► Seat belts - pages 28 to 30, airbag - page 31.

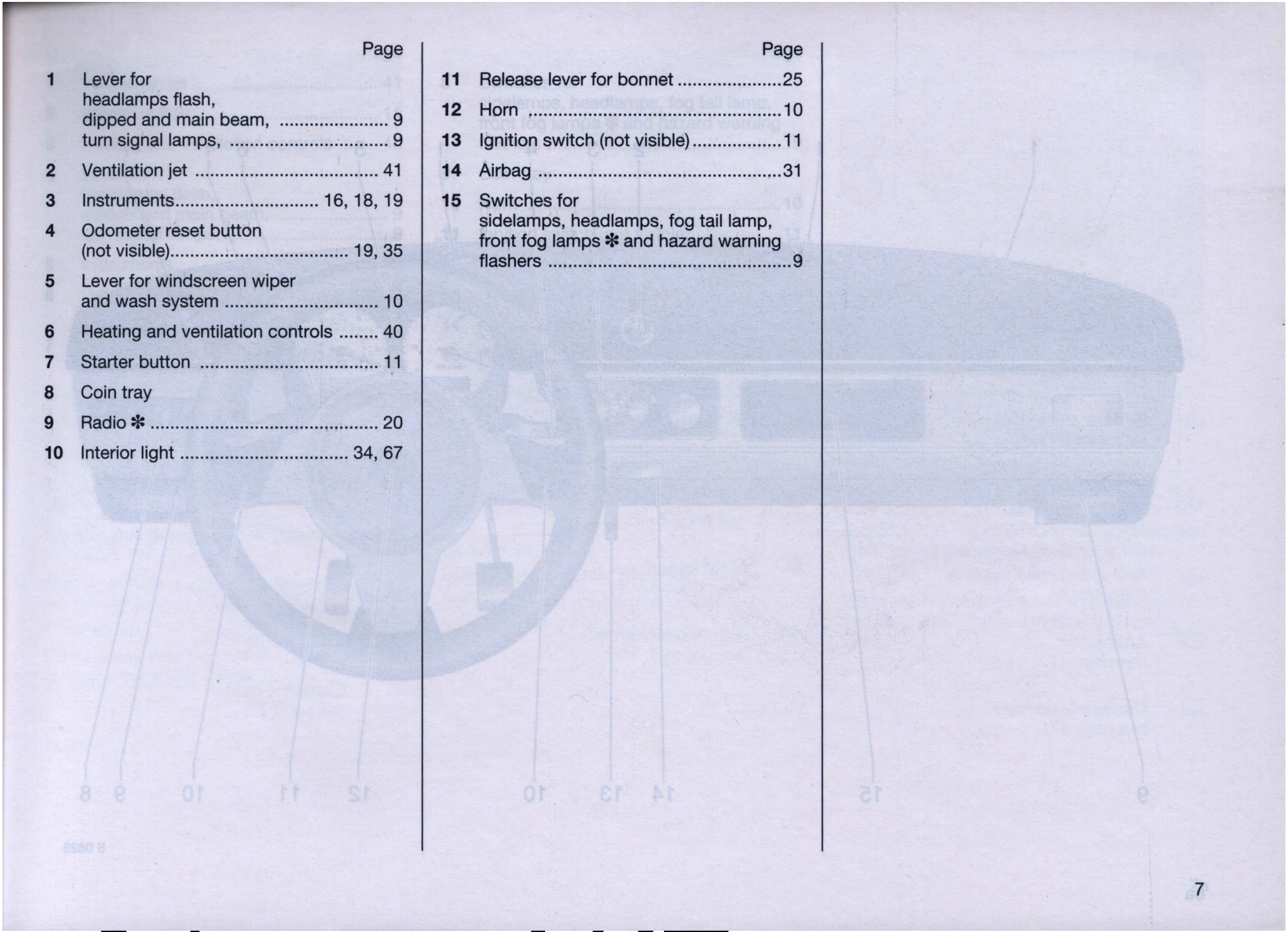


Adjust interior and exterior mirrors:
The mirror housings can be swivelled into position

Move lever on underside of interior mirror housing to reduce dazzle at night.

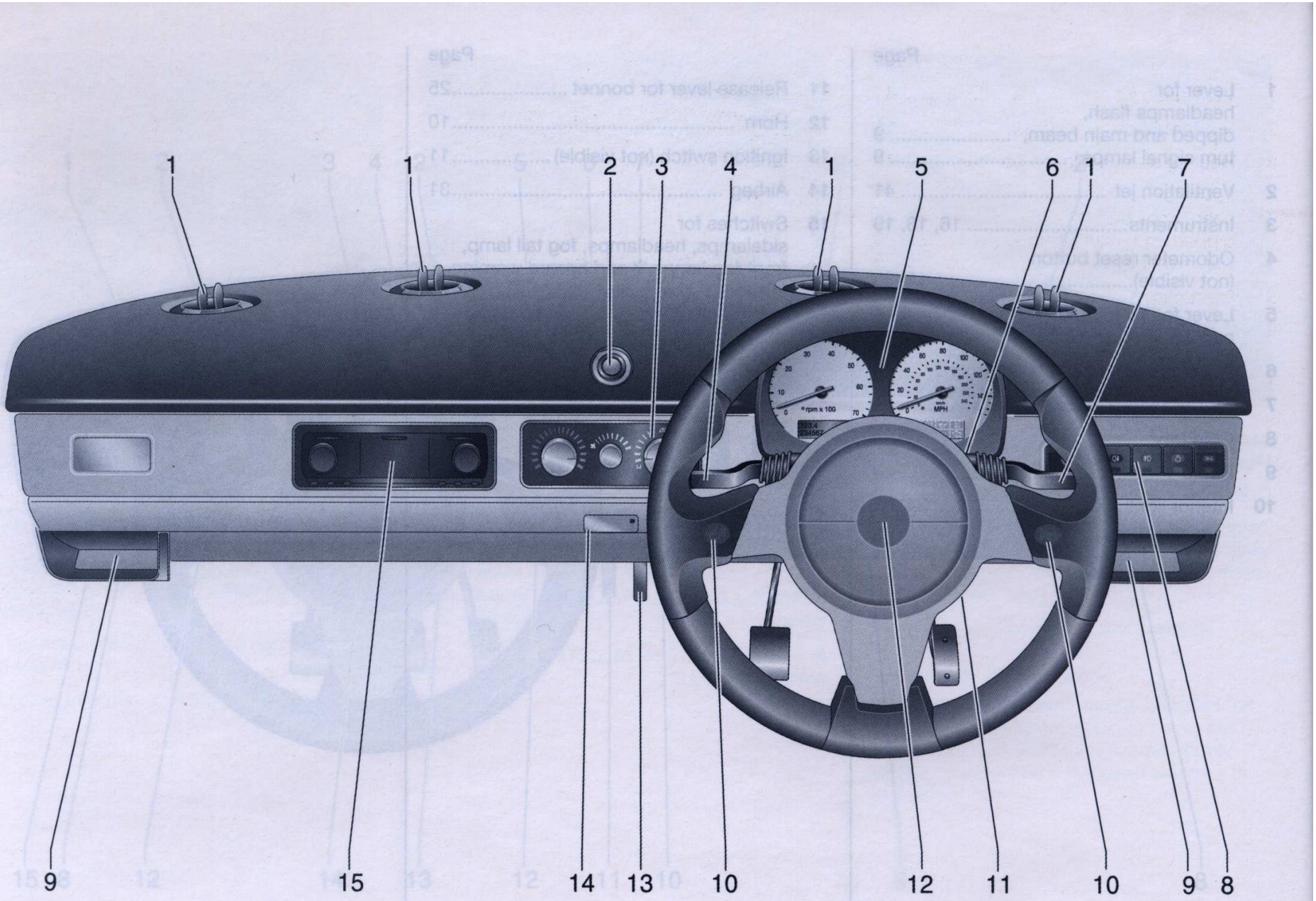
► Further information - page 33.


1
2
3
4
2
5
6
7
2
2
15
8
12
14
13
12
11
10
9
8
S 0622



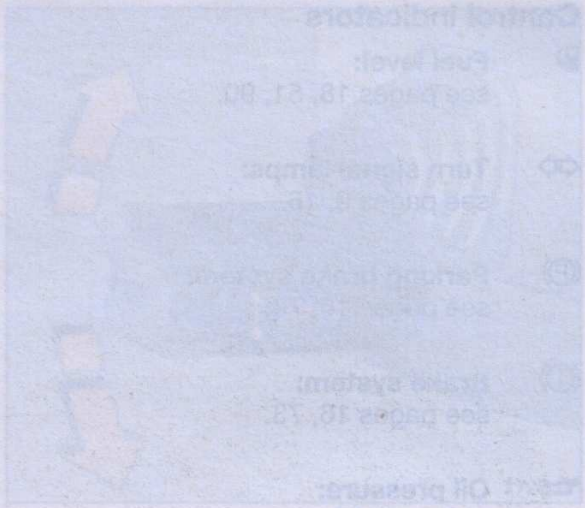
		Page
1	Lever for headlamps flash, dipped and main beam, ... 9 turn signal lamps, ... 9	
2	Ventilation jet 41	
3	Instruments..... 16, 18, 19	
4	Odometer reset button (not visible)..... 19, 35	
5	Lever for windscreen wiper and wash system 10	
6	Heating and ventilation controls 40	
7	Starter button 11	
8	Coin tray	
9	Radio ✻ 20	
10	Interior light 34, 67	

		Page
11	Release lever for bonnet 25	
12	Horn 10	
13	Ignition switch (not visible).....11	
14	Airbag 31	
15	Switches for sidelamps, headlamps, fog tail lamp, front fog lamps ✻ and hazard warning flashers 9	


1
1
2
3
4
1
5
6
1
7
9
15
14
13
10
12
11
10
9
8
S 0623

		Page
1	Ventilation jet	41
2	Starter button	11
3	Heating and ventilation controls	40
4	Lever for headlamps flash, dipped and main beam, turn signal lamps,	9 9
5	Instruments	16, 18, 19
6	Odometer reset button (not visible)	19, 35
7	Lever for windscreen wiper and wash system	10

		Page
8	Switches for sidelamps, headlamps, fog tail lamp, front fog lamps ✻ and hazard warning flashers	9
9	Coin tray	
10	Horn	10
11	Ignition switch (not visible)	11
12	Airbag	31
13	Release lever for bonnet	25
14	Interior light	34, 67
15	Radio ✻	20



Control indicators

Fuel level:
see pages 18, 51, 90.

Turn signal lamps:
see pages 9, 16.

Parking brake system:
see pages 16, 73.

Brake system:
see pages 16, 73.

Oil pressure:
see page 17.

AIR BAG **Drivers airbag system, belt tensioners:**
see page 28.

Engine electronics:
see page 17.

ABS **Anti-lock brake system:**
see page 55.

Alternator:
see page 17.

Coolant level low:
see page 17.

Headlamp main beam:
see pages 9, 34.

Coolant temperature:
see pages 17, 72.

Lighting

Side lamps:
see page 9, 34.

Headlamps/side lamps:
see pages 9, 34.

Fog tail lamp:
see page 9, 34.

Front fog lamps: ✻
see pages 9, 34.

Hazard warning flashers:
see page 8, 34.

Main beam:
see pages 17, 34.

Turn signal lamps:
see pages 9, 16.

Heating and ventilation

Blower switch:
see page 41.

Air distribution:
see page 40,

to foot area

to head area and to foot area

to demister

Windscreen wiper

Lever positions:
see page 10,

0 Off

-- Timed interval wipe

— Slow

═ Fast

Windscreen wash

Miscellaneous

Horn:
see page 10.

Cigarette lighter:
see page 27.

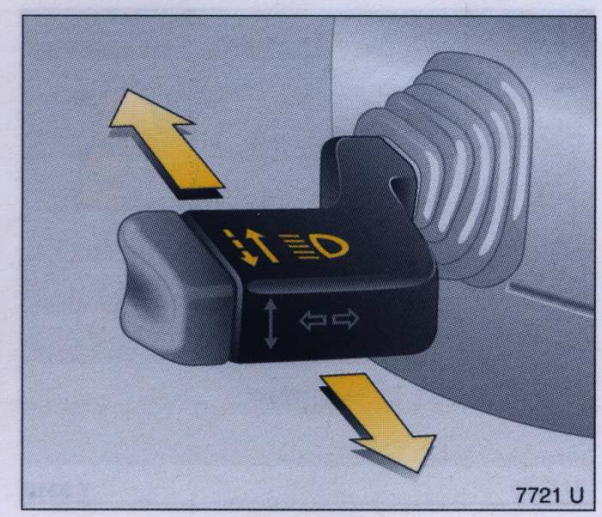
Light switches:

= Side lamps
= Headlamps and side lamps
= Fog tail lamp
= Front fog lamps ✻
= Hazard warning lamps

Press button to switch on and press again to switch off.

The headlamps must be switched on before the fog tail lamp or front fog lamps ✻ can be switched on.

▶ Headlamp warning device - page 14, Further information - page 34.

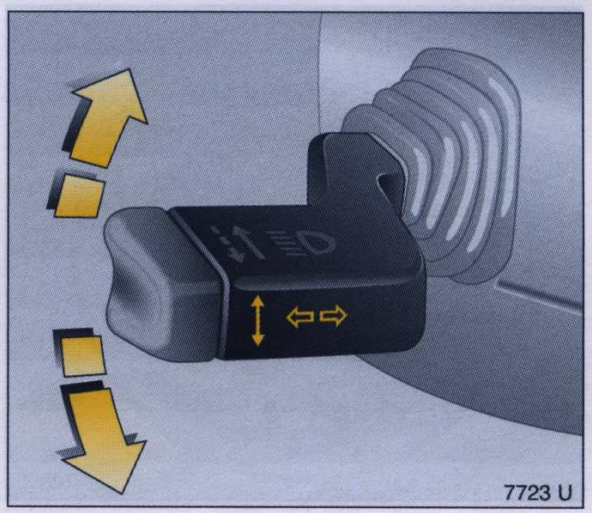


Dipped and main beam:
Push lever forwards = Main beam
Pull lever towards steering wheel = Dipped beam

Pulling the lever towards the steering wheel to the first stop operates the headlamp flash.

Headlamp flash:
Pull lever towards steering wheel

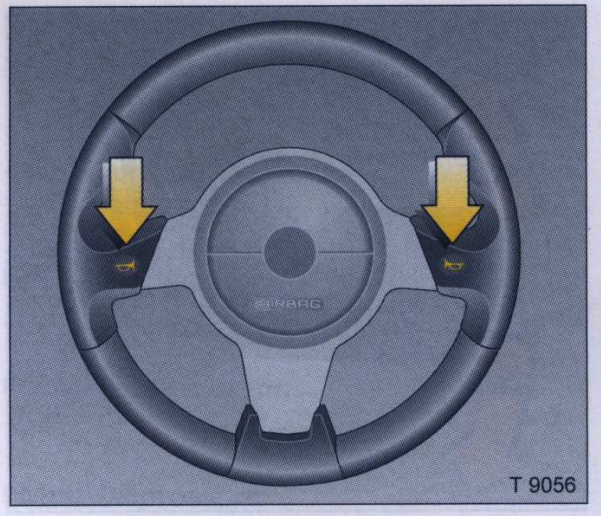
Headlamp flash can also be operated when turn signal lamps are on.



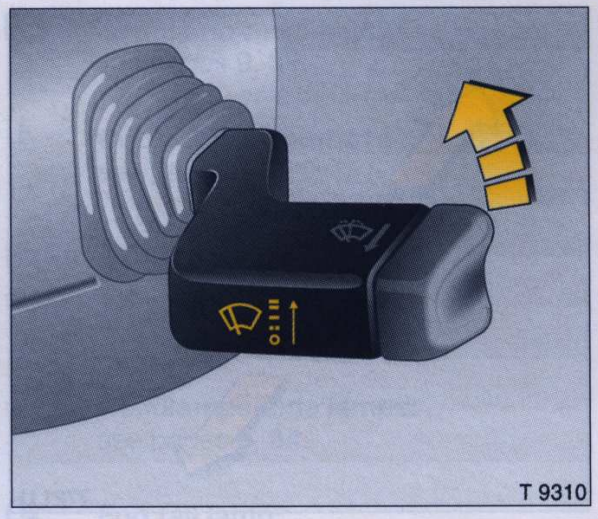
Turn signal lamps:
Lever in rest position
Upwards = Right turn
Downwards = Left turn

When the steering wheel is turned back, the lever automatically returns to its original position. This will not happen when making a minor steering manoeuvre such as lane changing.

When lane changing, move lever part way to first stop. When released, lever will spring back.

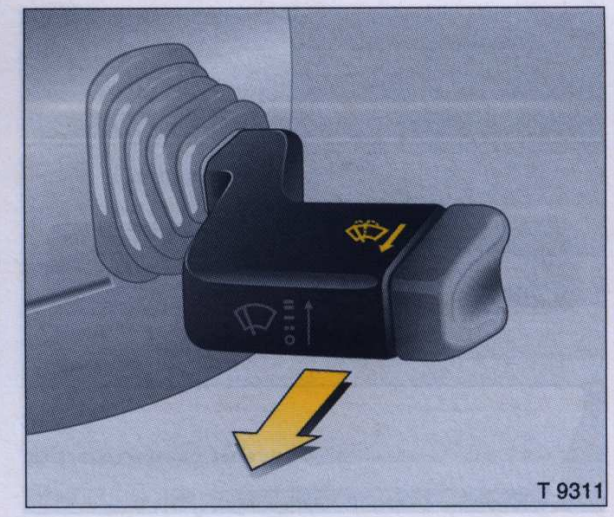


Horn:
Press



Windscreen wiper:
Move lever upwards

0 = Off
– – = Timed interval wipe
— = Slow
═ = Fast



Windscreen wash system:
Pull lever towards steering wheel

Wash fluid is sprayed onto the windscreen at the same time the wiper is operated for several cycles.

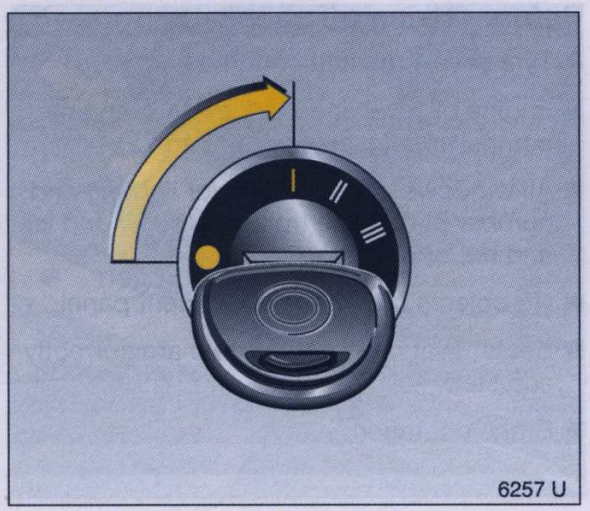
► Further information - page 75.

Ignition switch:

I = Ignition off
II = Steering unlocked, ignition on
III = Key returns to position II

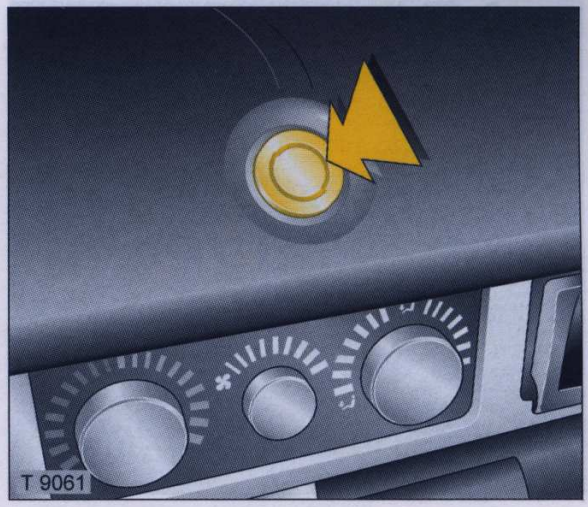
Press the starter button to start the engine.

► Electronic immobilizer - page 23.



Releasing the steering column lock: To release the lock, move steering wheel slightly and turn key to position I

► Remove key and lock steering wheel - page 14.

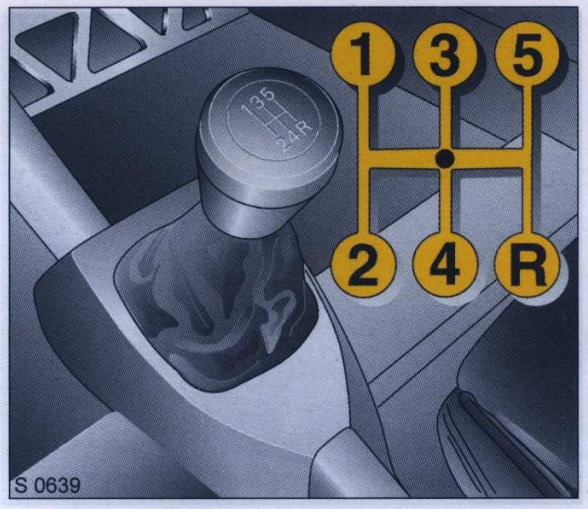


Starter button:

Depress button with the ignition on to start the engine - (transmission in neutral).

Starter button is deactivated once the engine is running.

► Starting - page 13.



Manual transmission:

● = Neutral
1 to 5 = 1st to 5th gear
R = Reverse gear

When shifting up from 4th to 5th gear, pressure must be exerted towards the right at the beginning of the shift operation.

When shifting from 5th to 4th gear, do not exert any force towards the left.

Reverse gear: with vehicle stationary, move shift lever to the right three seconds after declutching and engage gear.

If the gear does not engage: with lever in neutral, release clutch pedal and depress again, then repeat gear selection.

Before driving off check:

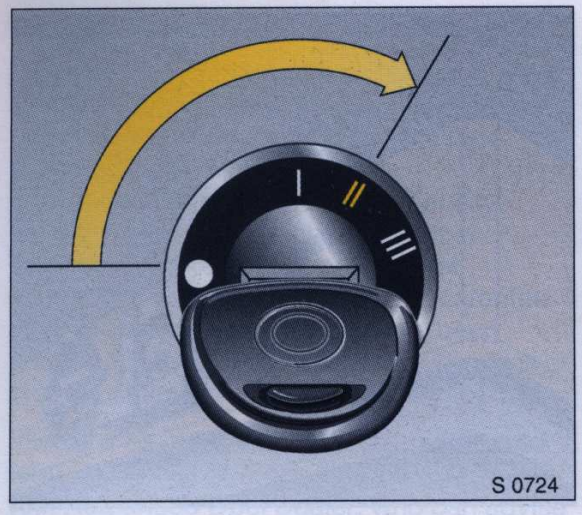
- Tyre pressures and condition.
- Engine oil level and fluid levels in engine compartment (see pages 71 to 72).
- All windows, mirrors, exterior lighting and number plates free from dirt, snow and ice and are operational.
- No objects are on the instrument panel.
- Seats, seat belts and mirrors are correctly adjusted.
- Brake operation.

Exhaust gases are poisonous

Exhaust gases contain carbon monoxide, which is extremely poisonous but has no odour or colour.

Therefore, never inhale exhaust gases, and never run the engine in a garage with the garage doors closed.

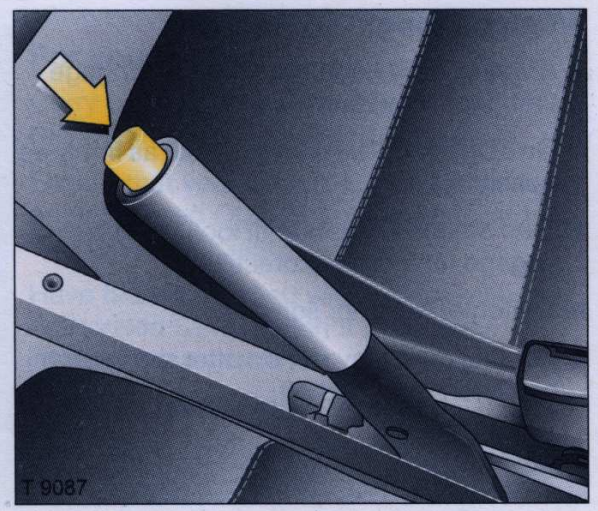
► Exhaust gas - page 52.



Starting:
Transmission in neutral
Depress clutch
Do not accelerate
Turn key to II
Press starter button

When the engine starts, use the accelerator pedal to maintain an increased engine speed until normal combustion conditions are obtained, then release the accelerator pedal.

► Electronic immobilizer - page 23,
further information - pages 44, 46, 48.

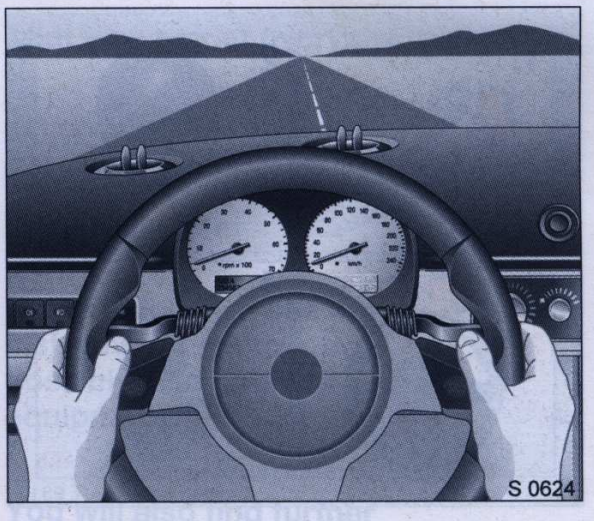


Releasing the hand brake

Slightly raise lever. Depress lock button. Lower lever fully.

The mechanical hand brake acts on the rear wheels. It engages automatically when applied.

► Brakes - page 54.

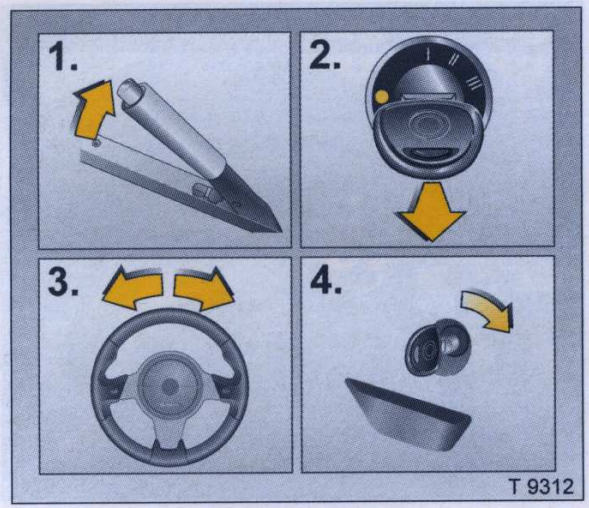


And now, have a good journey –
Drive carefully,
economically and
with the environment in mind

Whilst driving, do not do anything that could distract you.

Take heed of the traffic reports given out on the radio ✻.

► Driving hints - page 44,
saving fuel - page 46,
environmental protection - page 48.



Parking the vehicle:
Apply hand brake firmly
Switch off engine
Remove key
Engage steering wheel lock
Close windows
Lock doors

Further information - pages 23, 45, anti-theft alarm - page 24.

When parking:

- Always apply hand brake firmly. Engage first gear or reverse gear.

  On slopes apply the hand brake as firmly as possible.
- Turn steering wheel until lock is felt to engage (anti-theft protection).
- Switch off exterior lights.
- Cooling fans may run on after the engine has been switched off.

Service, Maintenance

Your Authorised Opel Dealer can provide you with reliable service. All work is correctly performed according to factory instructions.

Genuine Opel Parts and Accessories

We recommend that you use “Genuine Opel Parts and Accessories” and conversion parts released expressly for your vehicle type. These parts have undergone special tests to establish their reliability, safety and specific suitability for Opel vehicles. Despite continuous market monitoring, we cannot assess or guarantee other products - even if they have been granted approval by the relevant authorities or in some other form.

“Genuine Opel Parts and Accessories” and released conversion parts are available from your Authorised Opel Dealer, who can advise you on any point, including permissible technical modifications, and carry out installation.

For your safety

Carry out regularly the checks recommended in this Owner's Manual.

Ensure that your vehicle is maintained by an Authorised Opel Dealer as specified in the Service Booklet.

Have faults remedied without delay by an Authorised Opel Dealer! If necessary, interrupt your journey.

► Maintenance - pages 70 to 75.

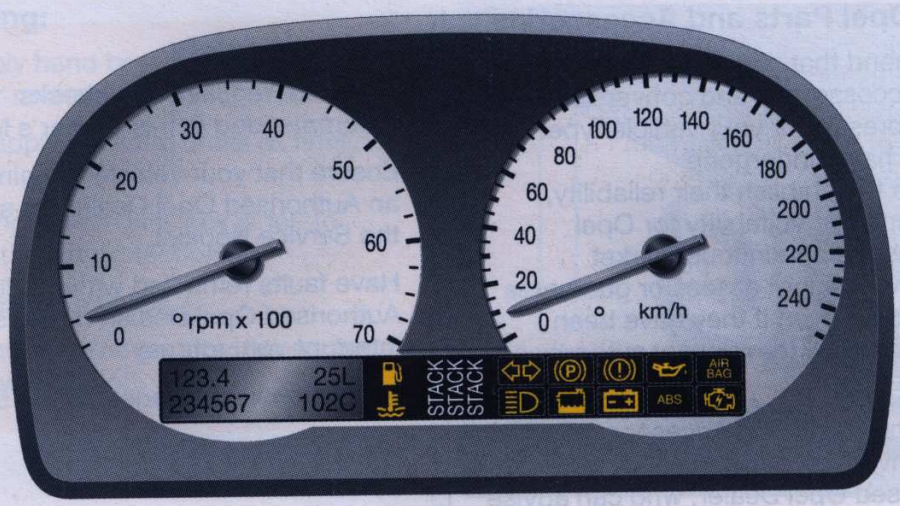
That was a brief overview.

Please read on! ►

Your vehicle has still more instruments and controls, possibly also optional equipment: ✻ ►

You will also find further important information on operation, safety and maintenance and a complete index. ►

Instruments



S 0740

Control indicators

Fuel
Lights up when 'Refill' appears in the display panel. Fill up - never let the tank become empty.

Turn signal
Flashes when turn signal lamps are on.
Flashes rapidly: a turn signal bulb has failed.

Parking brake
Lights up when ignition is switched on if hand brake is applied.

If it lights up when the hand brake is not applied: interrupt your journey. Consult an Authorised Opel Dealer.

Brake system
Lights up when ignition is switched on if fluid level for brake hydraulics is too low. Consult an Authorised Opel Dealer.

Further information - see page 54.

Oil pressure
Lights up when ignition is switched on. Goes out after engine is started. Can light up intermittently when idling with hot engine; must go out when engine speed is increased.

If illuminated during driving: engine lubrication may be interrupted, resulting in damage to the engine and/or locking of the driving wheels:

- Depress clutch.
- Move gear shift lever to neutral.
- Switch off ignition. Considerably greater force will be required for braking.

Do not remove key until vehicle has come to a standstill, otherwise the steering column lock could engage unexpectedly.

Consult an Authorised Opel Dealer.

AIR BAG
Airbag system, belt tensioners
see page 31.

Engine electronics
Lights up when the ignition is switched on. Goes out shortly after the engine starts to run.

If it lights up when the engine is running, there is a fault in the engine control system. The permissible emission limits may be exceeded. Consult an Authorised Opel Dealer.

If it flashes when the engine is running a fault has occurred which may damage the catalytic converter. You may continue driving, provided you lift your foot off the accelerator pedal until the indicator stops flashing and is steadily lit. Should the indicator continue to flash, consult an Authorised Opel Dealer immediately.

ABS
Anti-lock brake system
see page 55.

Alternator
Lights up when ignition is switched on. Goes out after engine is started.

If illuminated during driving: stop vehicle and switch off engine. The battery is not being charged and the engine cooling may be interrupted. Interrupt your journey and consult an Authorised Opel Dealer.

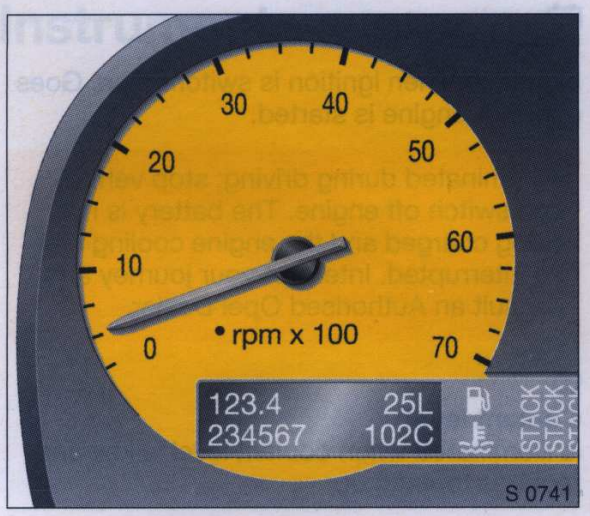
Coolant level
Is illuminated when coolant level is low and requires topping up.

Checking and topping up fluids - page 71.

Main beam
Lights up when main beam is on and headlamp flash is operated.

Coolant temperature
Lights up when coolant temperature is too high. Switch off engine and allow to cool.

Consult an Authorised Opel Dealer.



Tachometer

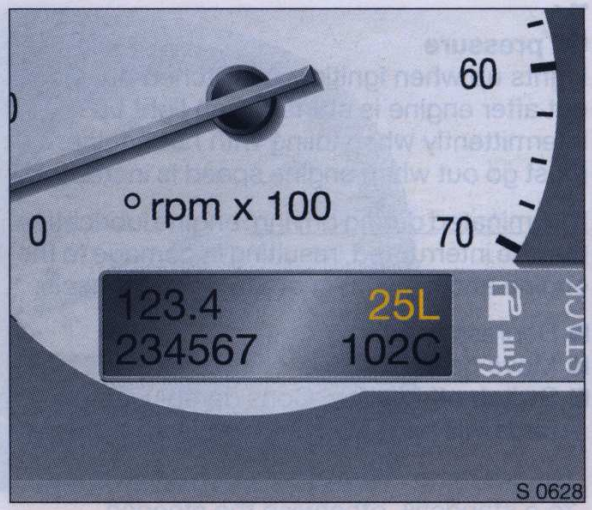
Making use of the tachometer helps to save fuel; it indicates the engine speed in revolutions per minute.

Warning zone on right: maximum permissible engine speed exceeded, danger to engine.

If possible, drive in each gear in the low engine speed range (between approx. 2000 and 3000 rpm) and maintain an even vehicle speed.

Speedometer

Indicates the vehicle speed.



Display panel

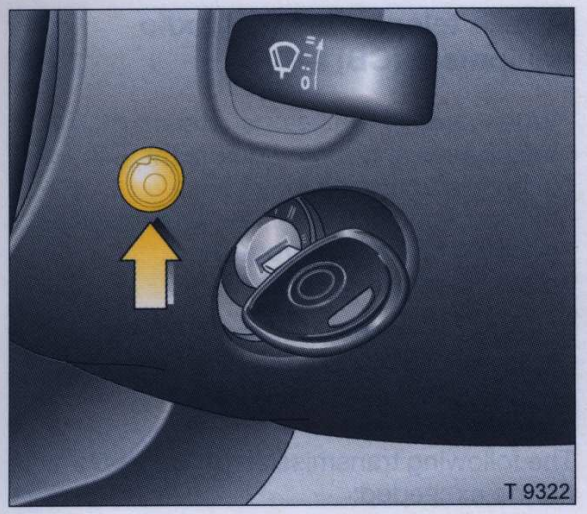
Displays fuel level, odometer, trip odometer and coolant temperature.

Fuel level

The top right hand corner of the LCD displays the approx. fuel level in litres.

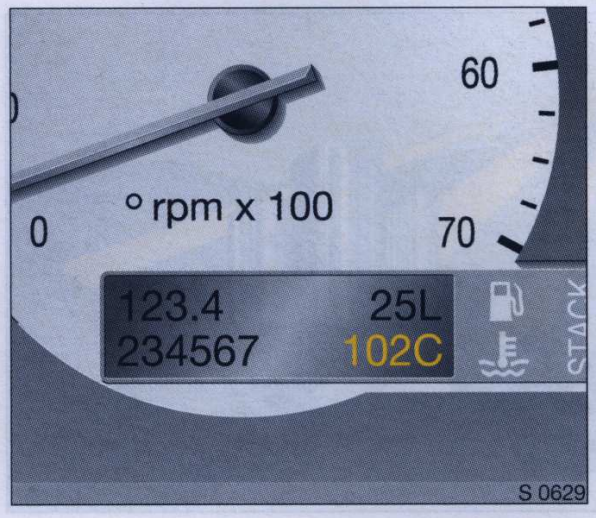
35 litres - full:	Display reads 'Full'
6 - 34 litres:	Displays actual quantity
0 - 5 litres:	Displays quantity and flashes 'Refill'

Never let tank become empty!



Odometer
Records the total distance driven.

Trip odometer
Pressing the reset button - located on the right hand side of the steering column shroud - for less than one second, will zero the setting. This button also controls the brightness of the instrument illumination. Further information, see page 35.

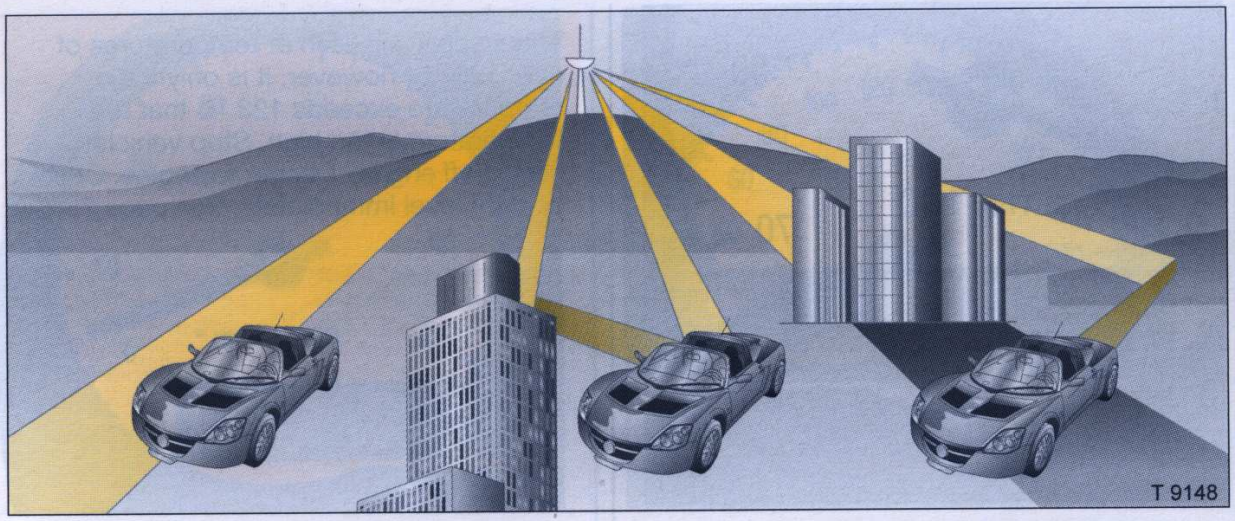


Coolant temperature gauge
The coolant temperature is displayed in the bottom right hand corner of the display as soon as the coolant temperature reaches 70 °C.

For physical reasons, the coolant temperature gauge shows the coolant temperature only if the coolant level is adequate.

During operation the system is pressurized. The temperature may therefore rise to over 100 °C.

The display will flash at temperatures of over 120 °C, however, it is only if the temperature exceeds 123 °C that the temperature is too high. Stop vehicle, switch off engine. Danger to engine. Check coolant level immediately. See page 73.



Radio ✻

The radio ✻ is operated as described in the operating instructions supplied.

Vehicle radio reception will differ from that obtained with domestic radios.

As the vehicle antenna is relatively near the ground, the broadcasting companies cannot guarantee the same quality of reception as is obtained with a domestic radio using an overhead antenna.

- Changes in distance from the transmitter,
- multi-path reception due to reflection and
- shadowing

may cause hissing, noise, distortion or loss of reception altogether.

Mobile telephones and radio equipment (CB) ✻

When used in the vehicle interior, mobile telephones and radio equipment (CB) with integrated antenna may cause malfunctions in the vehicle electronics on account of the high-frequency transmission energy.

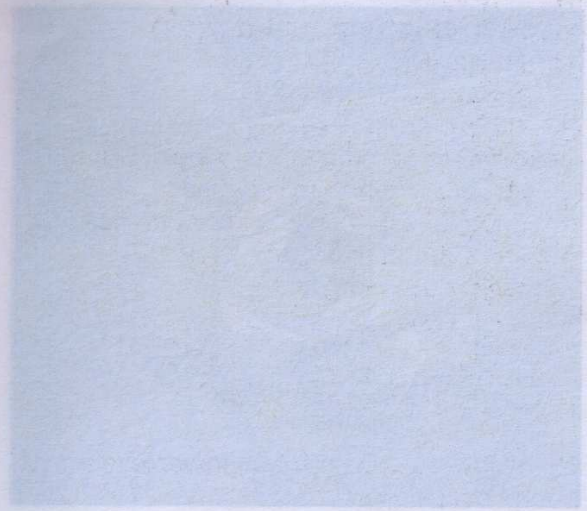
Mobile telephones and radio equipment (CB) should only be used with an antenna fitted on the vehicle exterior.

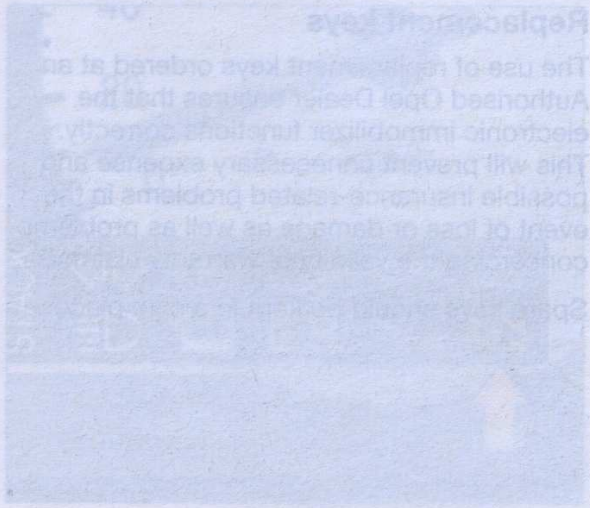
The following transmission power levels must not be exceeded:

Frequency band	Maximum transmission power
Short wave	
up to 50 MHz	100 W
8 m	20 W
4 m	20 W
2 m	50 W
70 cm	50 W
23 cm	10 W
C-Net	
NMT Standard	25 W
D-Net (GSM 900)	20 W
E-Net (GSM 1800)	10 W

Mobile telephones fitted at a later date must be installed by an Authorised Opel Dealer.

Accessory socket, see page 27.





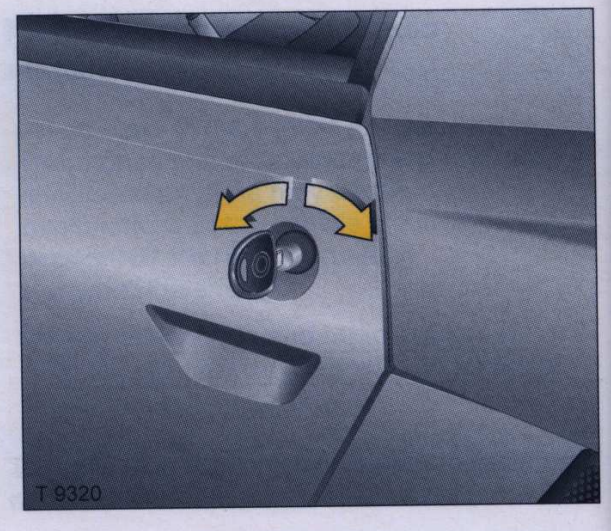

OPEL
Car Pass

Keys, Doors, Bonnet

Replacement keys

The use of replacement keys ordered at an Authorised Opel Dealer ensures that the electronic immobilizer functions correctly. This will prevent unnecessary expense and possible insurance-related problems in the event of loss or damage as well as problems concerning the validity of warranty claims.

Spare keys should be kept in a safe place.



Doors

Push the lock button and pull the outside handle, or the pull the inside lever to open the front door.

Each door can only be locked or unlocked with the key.

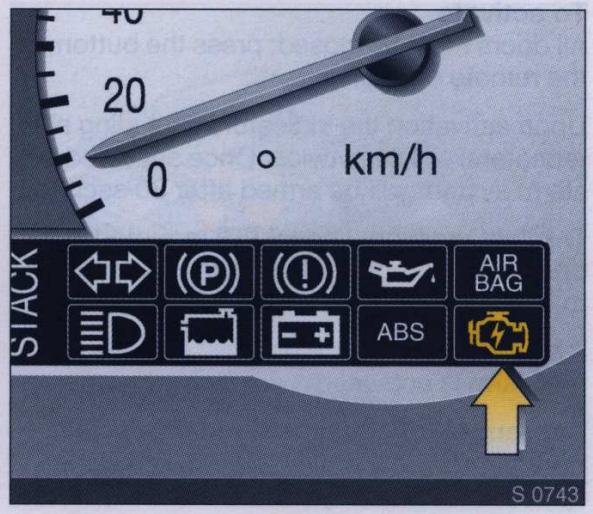
Electronic immobilizer

Protects the vehicle against being stolen by means of an electronic system which prevents the engine being started.

To activate:
Switch the ignition off and remove key.

To deactivate:
Insert ignition key and turn the ignition on; the engine can then be started.

Deactivation is not possible in any other way, so keep the spare key to hand in a safe place.



The control indicator lights up when the ignition is switched on then goes out.

If the control indicator remains illuminated after the ignition is switched on, there is a fault in the immobilizer system.

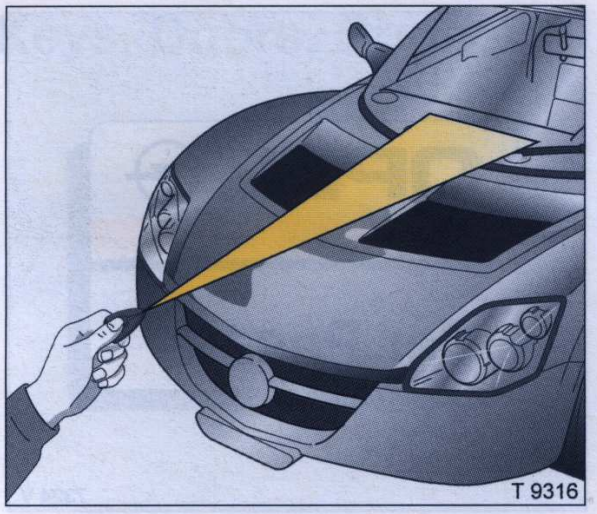
- Turn ignition off and remove key,
- wait approximately two seconds,
- then repeat starting procedure.

If the control indicator fails to extinguish, consult your Authorised Opel Dealer.

Note
The immobilizer does not lock the doors. After leaving the vehicle, therefore, always lock it.

The Car Pass contains all the vehicle's data and therefore must not be kept in the vehicle.

Have your Car Pass ready to hand when consulting an Authorised Opel Dealer.



Anti-theft alarm system

The system monitors:
- doors, engine cover, bonnet.
- passenger compartment.

Only the remote control can be used to operate the anti-theft alarm system.

The remote control has a range of approximately 3 meters. The range may be reduced owing to shadowing and reflection of the radio waves. To operate the remote control, direct the remote control unit at the vehicle.

Treat the remote control unit with care; it should be protected against moisture and should not be operated unnecessarily.

To activate
All doors must be closed; press the button on the remote control unit.

Upon activation the indicators (including side repeaters) will flash twice. Once activated the alarm system will be armed after 30 seconds.

The light emitting diode (LED) mounted in the passenger compartment flashes continuously to indicate that the alarm is armed.

If any of the doors are not fully closed when the alarm is activated a warning will sound.

Passenger compartment monitoring
When the anti-theft alarm is activated, the system automatically monitors the inside of the vehicle for any movement.

To disable the passenger compartment monitoring, (for example if an animal is left in the vehicle):
- Press and hold the button on the remote control for 4 seconds,
- the indicators (including side repeaters) will flash three times to confirm that the passenger compartment monitoring function is disabled.

The disable monitoring function will remain until the alarm is deactivated or the doors unlocked.

To deactivate
Press the button on the remote control.

The indicators (including side repeaters) will flash once. The alarm system is immediately disarmed.

Under normal circumstances the light emitting diode (LED) will not flash when the alarm is deactivated, however if it does, it indicates that the alarm has been triggered. Consult your Authorised Opel Dealer.

Alarm back-up system ✻
The alarm system has a battery back-up siren unit which in the event of its power supply being disconnected or disconnection of the vehicle battery, it will sound for approx. 4.5 minutes on its internal batteries.

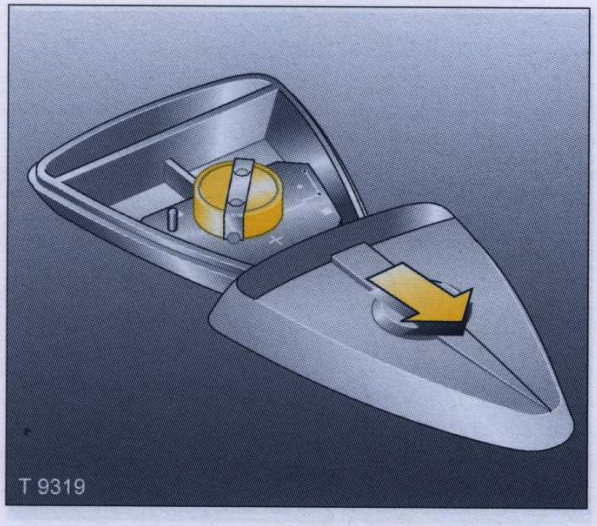
If the vehicle battery has to be disconnected it will be necessary to:
- Switch on the ignition,
- Open bonnet to gain access to vehicle battery,
- Turn off ignition,
- Disconnect battery leads within 15 seconds.

If battery is disconnected after 15 seconds the siren will sound on its internal power. To stop the siren, reconnect the vehicle battery and press the rear button on remote control unit.

Note
If the anti-theft alarm system cannot be operated with the remote control, this may be due to the following reasons:

- The remote control is out of range.
- The battery voltage of the remote control is too low. Change the battery in the remote control unit.
- The remote control has been operated many times in succession outside the vehicle's reception range (e.g. at too great a distance from the vehicle).

The remote control must be reprogrammed by an Authorised Opel Dealer.



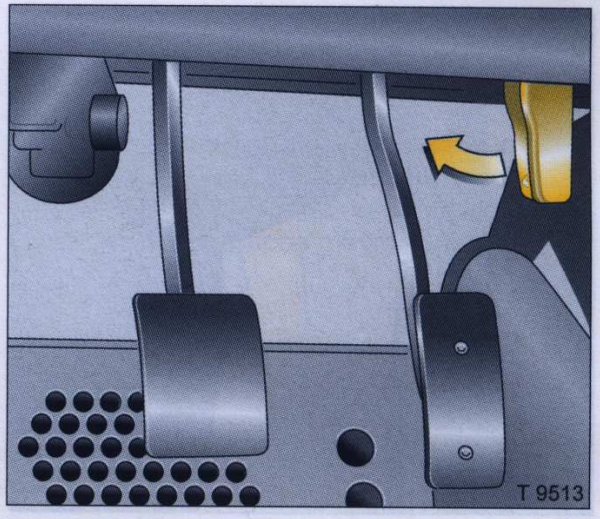
Changing the battery in remote control unit
Replace the battery in accordance with the Service Booklet or when the range of the remote control starts to become reduced.

Open the battery compartment by removing key ring and sliding the cover downwards.

Ensure the new battery is installed correctly.

Replace the cover and slide it upwards until it is fully engaged.

Make sure that you dispose of old batteries in accordance with environmental protection regulations.



Bonnet release

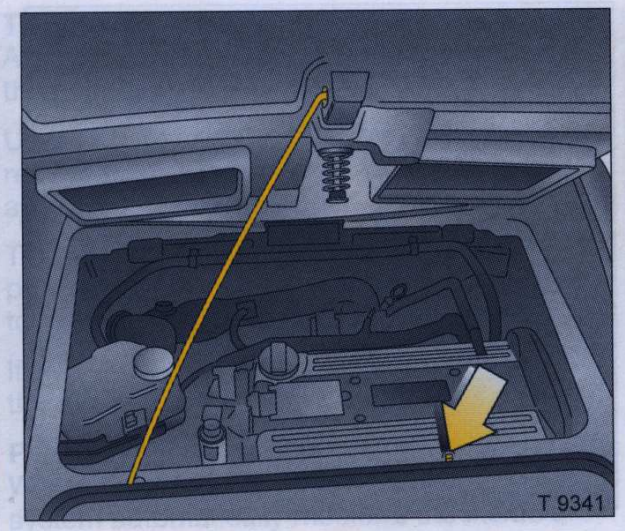
The bonnet release lever is located centrally under the instrument panel. To open the bonnet, pull the lever toward the pedals. The bonnet will then be unlocked and will partially open - return release lever to its original position.

Lift bonnet upwards to fully open.

Check that the bonnet is locked in position by pulling at its edge. If it is not locked in position, press the bonnet firmly down in the area of its latch to ensure it is fully closed.

Engine and load compartment cover release

The engine cover release lever is located behind the driver's seat. To open the engine cover, pull the lever forwards. The engine cover will then be unlocked and will partially open - return release lever to its original position.



To hold the cover in the open position, insert the support rod into the slot provided in the underside of the engine cover.

Before closing the cover, press the support rod firmly into its retainer. Lower cover gently and then allow it to fall under it's own weight.

Press firmly down centrally in the area of its latch to ensure it is fully closed.

The maximum weight of items placed in the load compartment must not exceed 50 kg.

Aerosol cans i.e. de-icers, deodorants etc. must not be stored in the rear storage area as engine heat may create the risk of explosion!

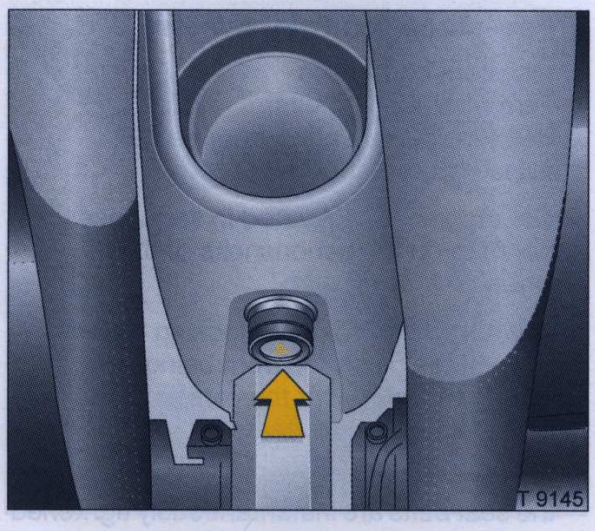
Seats, Interior

Seat adjustment

see page 4.

Seat lumbar adjustment

see page 5.



Cigarette lighter

With ignition switched on, press the cigarette lighter. Heating up ceases once element is glowing. Withdraw lighter.

Accessory socket

The socket for the cigarette lighter can be used to connect electrical accessories when the ignition is switched on. When the engine is not running this will cause the battery to be discharged.

The maximum power requirement of electrical accessories must not exceed 240 watts.

The use of non-approved accessories may cause damage to the socket.

Do not connect any current-delivering accessories, e.g. electrical charging devices or batteries.

Connected electrical accessories must comply with DIN VDE 40 839 standard in terms of electromagnetic compatibility. otherwise malfunctions may occur in the vehicle.

Safety Systems

Three-stage restraint system

The system comprises
- Three-point seat belts.
- Belt tensioners on the front seats.
- Airbag system for driver.

These stages are activated in sequence depending on the seriousness of the accident:

- The automatic seat belt locking devices prevent the belt strap from being pulled out and thus ensure that the vehicle occupants are retained in their seats.
- The seat belts are pulled down. As a result, the seat belts are instantaneously tightened and the occupants are made aware of the deceleration of the vehicle at a very early stage. This reduces stress placed on the body.
- The airbag system is additionally triggered in the event of a serious accident involving a frontal impact and forms a safety cushion for the driver.

The airbag system serves to supplement the three-point seat belts. The seat belts must therefore always be worn.

Be sure to read the descriptions of all the restraint systems on the following pages!

Seat belts

Always wear your seat belt - and that means also in urban traffic. It can save your life!

Pregnant women too must always wear a seat belt (see page 29).

Seat belts are designed to be used by only one person at a time. They are only suitable for children aged over 12 or taller than 150 cm.

Three-point seat belts

The vehicle is equipped with three-point seat belts with automatic retractors and locking devices, allowing freedom of body movement although the spring tensioned belts are always a snug fit.

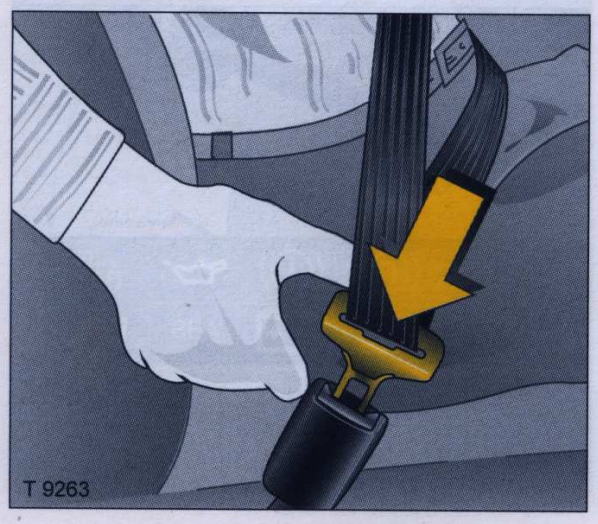
The belt has a “vehicle sensitive retractor” which is designed to lock during heavy acceleration or deceleration in any direction.

Using the belts

Fitting the belt

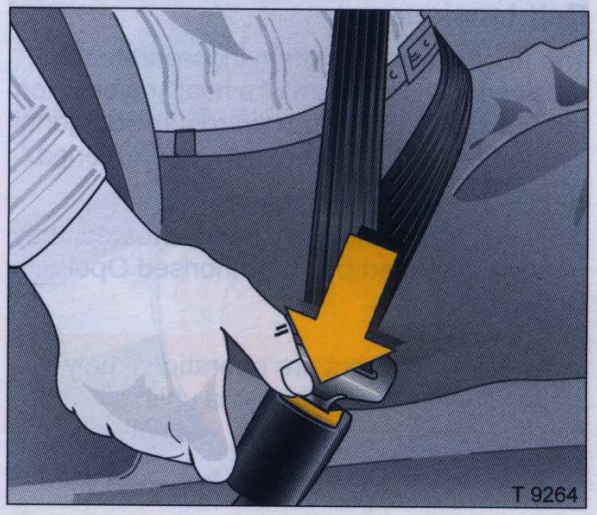
Pull the belt out evenly from the retractor and guide it across the body, making certain that it is not twisted.

Insert the latch plate into the buckle. The lap belt must not be twisted and must fit snugly across the body. Tension the belt frequently whilst driving by tugging the diagonal part of the belt.



On pregnant women in particular the lap belt must be positioned as low as possible across the pelvis in order to prevent pressure on the abdomen.

Bulky clothing prevents the belt from fitting properly. The belt must not rest against hard or fragile objects in the pockets of your clothing (e.g. ballpoint pens, keys, spectacles) because these could cause injury. Do not place any objects (e.g. handbags) between the belt and your body.



Removing the belt

To remove the belt, depress the red push-button on the buckle; the belt will retract automatically.

Belt tensioners

The front seat belt system incorporates belt tensioners. In the event of a head-on collision the belts are pulled downwards; the diagonal and lap belts are instantaneously tightened.

Actuation of belt tensioners

If the belt tensioners have been actuated, they must be replaced by an Authorised Opel Dealer.

The belt tensioners are operational only when the control indicator is unlit.

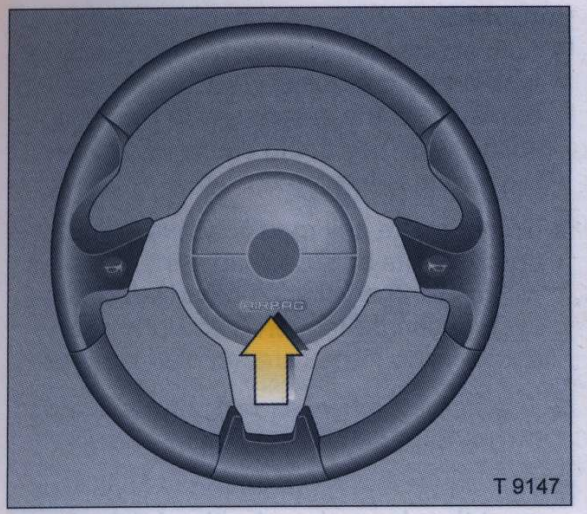
Belt tensioner control indicator

The seat belt tensioners are monitored electronically together with the airbag, and their operational readiness shown by the AIR BAG control indicator in the instrument panel.

When the ignition is switched on, the control indicator lights up, then extinguishes. If it does not light up or if it lights up during driving, there is a fault in the airbag system or the belt tensioners (see also page 32). Have the system checked without delay by an Authorised Opel Dealer. The system's integral self-diagnosis facility allows faults to be quickly remedied.

Important

- Accessories not released for your vehicle type and other objects must not be affixed or placed in the action zone of the belt tensioners since this may result in injury if the tensioners are triggered.
- Do not make any modifications to the components of the belt tensioners. The pyrotechnic belt tensioners may be triggered abruptly and cause injury if handled incorrectly.
- The seats and belts must be removed only by an Authorised Opel Dealer.
- The belt tensioners actuate only once. Actuated belt tensioners should only be replaced by an Authorised Opel Dealer.
- The Opel safety directives must always be observed when disposing of the vehicle or components of the belt tensioners. For this reason, disposal should be performed by an Authorised Opel Dealer.

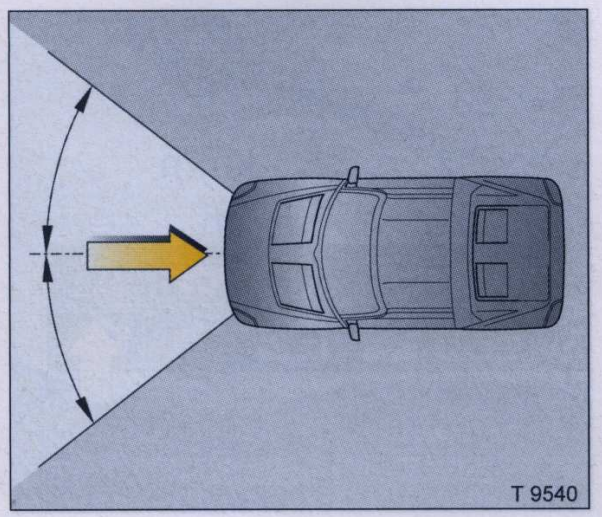


Airbag system

The airbag system is identified by the word "airbag" on the steering wheel.

The airbag system comprises:

- an airbag with an inflator in the steering wheel,
- the control electronics with impact sensor,
- the airbag system control indicator AIR BAG in the instrument panel.



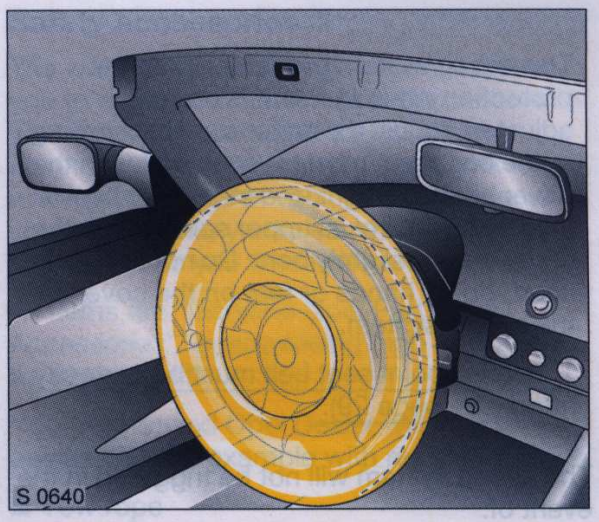
The airbag system is triggered:

- depending on the severity of the accident
- depending on the type of impact
- within the range shown in the illustration.

Examples:

- Impact against a non-yielding obstacle: the airbag is triggered at low vehicle speed.
- Impact against a yielding obstacle (such as another vehicle): the airbag is only triggered at a higher vehicle speed.

The speeds, directions of movement and deformation properties of the vehicles, and the properties of the obstacle concerned, determine the severity of the accident and triggering of the driver's airbag.



The degree of damage to your vehicle and the resulting repair costs alone are not indicative that the criteria for triggering of the driver's airbag were met.

When triggered, the airbag inflates in milliseconds and forms a safety cushion for the driver. The forward movement of the driver is checked and the risk of injuries to the upper body and head thereby substantially reduced.

No impairment of view will occur, because the airbag inflates and deflates so quickly in an accident.

▶

The airbag system provides optimum protection when the seat is correctly adjusted. Adjust the driver's seat according to the occupant's height such that with the driver sitting upright, the steering wheel is held in the area of its upper spokes with the driver's arms slightly bent. Do not place the head, body, hands or feet on the cover of the airbag system.

The three-point seat belt must be correctly fitted (see page 29).

The airbag system will not be triggered in the event of:

- the ignition being switched off.
- minor frontal collisions.
- accidents in which the vehicle overturns.
- collisions involving a side or rear impact where it would not be of benefit to the occupants.

Seat belts must therefore always be worn. The airbag system serves to supplement the three-point seat belts. If you do not wear your seat belt you risk being seriously injured, or even thrown from the vehicle, in the event of an accident.

The belt helps to keep you in the correct seating position, in which the airbag system will provide you with effective protection in the event of an accident.

Airbag control indicator AIR BAG

The airbag system is monitored electronically together with the belt tensioners, and their operational readiness shown by the control indicator in the instrument panel. When the ignition is switched on, the control indicator lights up then extinguishes. If it does not light up, or if it lights up during driving, there is a fault in the airbag system.

The system might not be triggered in the event of an accident. Have the airbag system checked without delay by an Authorised Opel Dealer.

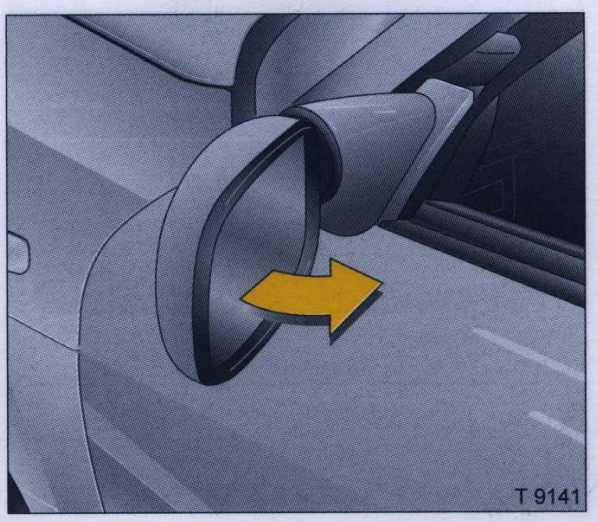
The system's integral self-diagnosis facility allows faults to be quickly remedied.

Important

- Accessories not released for your vehicle type and other objects must not be affixed or placed in the area in which the airbag inflates, as they could cause injury when the airbag is triggered.
- Do not make any modifications to the components of the airbag system, as this will render the vehicle unroadworthy. The system can be triggered abruptly and cause injury if they are handled improperly.
- The steering wheel should only be removed by an Authorised Opel Dealer.
- The airbag can be triggered only once. It must then be replaced without delay by an Authorised Opel Dealer.
- Do not stick anything on the steering wheel or cover it with other materials.
- Use only a dry cloth or interior cleaner to clean the steering wheel. Aggressive cleaning agents may cause damage.
- The Opel safety directives must always be observed when disposing of the vehicle. For this reason, disposal should be performed by an Authorised Opel Dealer.

Child seats

The use of child seats in your Speedster is not recommended.



Exterior mirrors

For the safety of pedestrians, the exterior mirrors will swing out of their normal mounting position in the event of an accident-like impact.

Safety accessories *

The wide range of Opel accessories allows you to equip your vehicle in accordance with your own wishes. In addition to safety accessories, items for improving comfort and a complete range of vehicle care products you will find many articles which will be of great value to you when needed.

All items are “Genuine Opel Parts and Accessories”, guaranteeing high quality and an accurate fit.

Your Authorised Opel Dealer will be happy to advise you, for example with regard to:

- Tow rope
- Tow rod
- Jump leads
- Spare bulb kit
- Spare fuse kit
- Halogen fog lamps
- Warning triangle
- First-aid kit (box)
- First-aid kit (cushion)

Lighting

Exterior lights

= Side lamps
= Headlamps and side lamps
= Fog tail lamp
= Front fog lamps ✻
= Hazard warning lamps

Press button to switch on and press again to switch off.

The headlamps must be switched on before the fog tail lamp or front fog lamps ✻ can be switched on.

Dipped/main beam and headlamp flash, see page 9.

Turn signals, hazard warning flashers

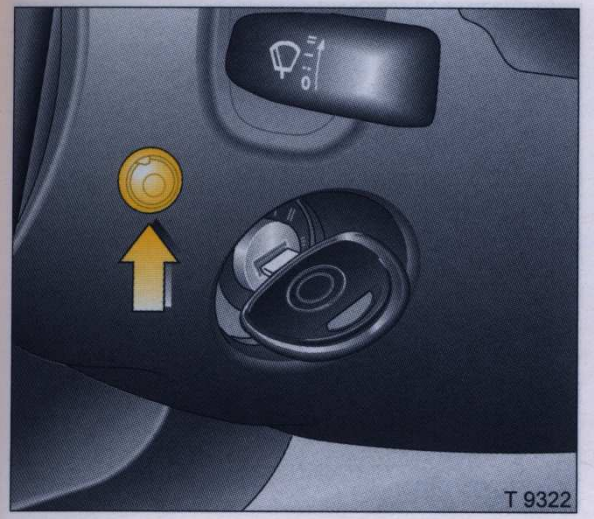
See page 9.

Interior lamp

Operated by the switch. With the switch in its uppermost position, the lamp functions as a courtesy light and operates when the doors are opened or closed.

Reverse lamp

Comes on when reverse gear is engaged and ignition is switched on.



Instruments, cigarette lighter illumination

Comes on when headlamps are switched on.

To adjust the brightness of the instrument illumination press and hold the trip odometer button (arrowed). The instruments cycle through 4 levels of brightness, release the button when the desired level has been reached. Trip odometer, see page 19.

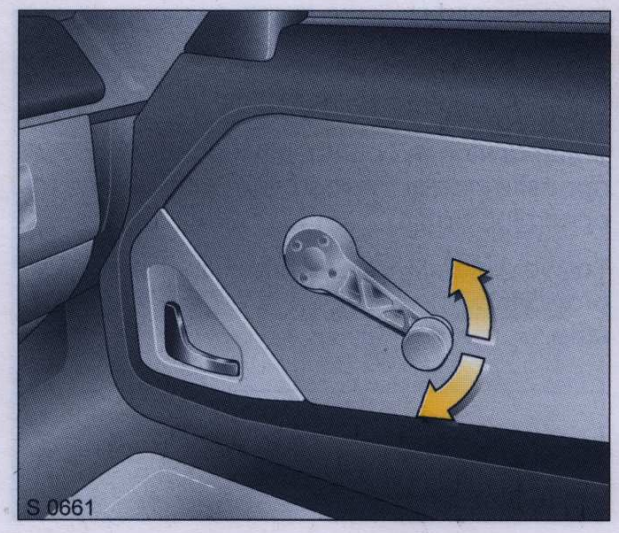
Headlamps when driving abroad

The asymmetrical dipped beam increases the field of vision on the near side of the lane.

When driving in countries which drive on the opposite side of the road, this causes glare for oncoming traffic.

To avoid glare, the headlamp glasses must be provided with an appropriate black cover strip.

Windows, Soft top, Hard top

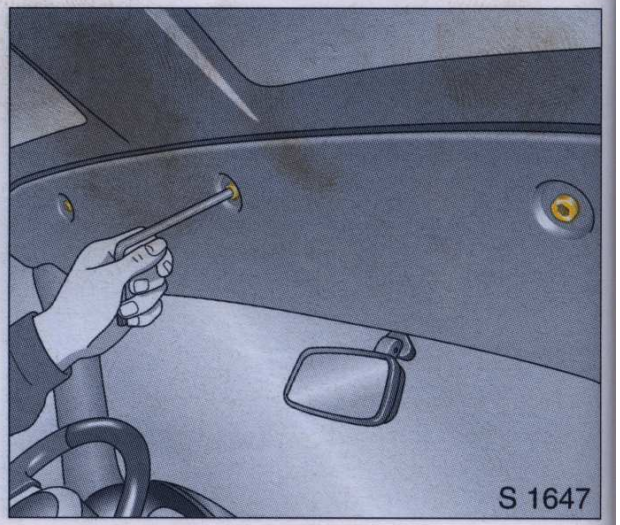


Door windows

The door windows can be operated with the crank.

Hard top *

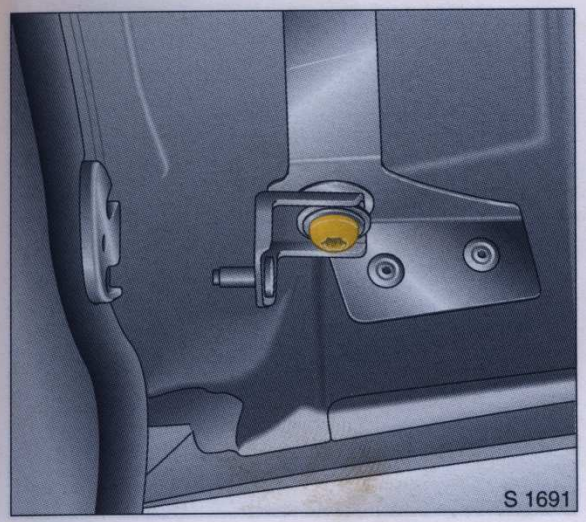
- Installation and removal of the hard top is intended to be seasonal, rather than as a frequent occurrence.
- If you experience difficulty or are unsure about the procedure, contact your Authorised Opel Dealer.
- Only use the 'torx' tool supplied when installing or removing the hard top.
- The occasional assistance of a second person is recommended during the installation or removal procedure.
- The 'torx' bolts and other parts are captive to prevent loss - do not attempt fully remove them.



If the hard top is purchased as an accessory, we recommend that an Authorised Opel Dealer performs the initial fitting to ensure correct alignment of the locking brackets. Bracket alignment is critical for reasons of safety and weather sealing.

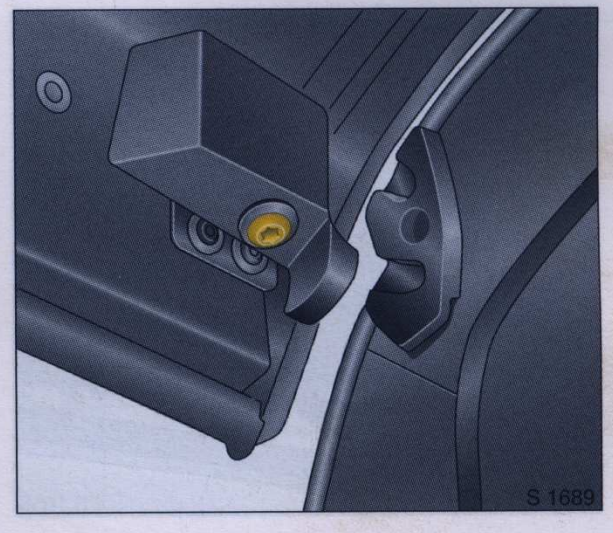
To remove

1. Open both doors or lower the windows.
2. Unscrew the three bolts that secure the front header panel and remove the panel.



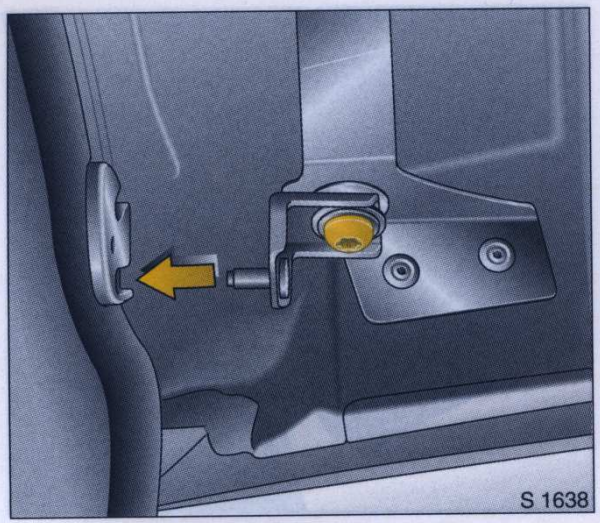
3. Unscrew the bolt that secures the front dowel bracket and remove the bracket.
4. Repeat this operation for the front dowel bracket located on the opposite side.

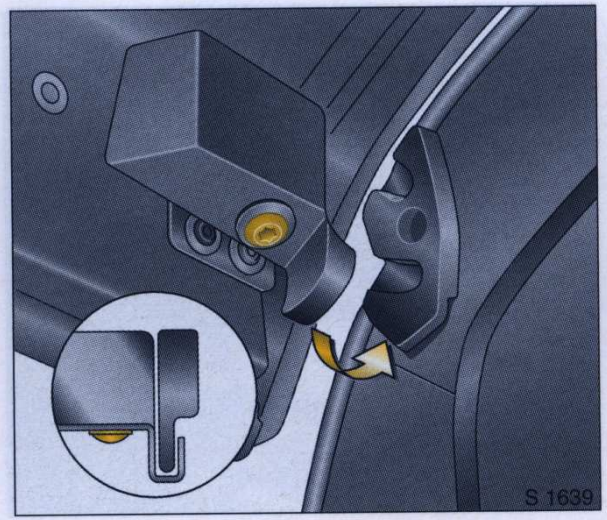
5. Unscrew the bolt that secures the rear cover panel and remove the panel.
6. Repeat this operation for the rear cover panel located on the opposite side.

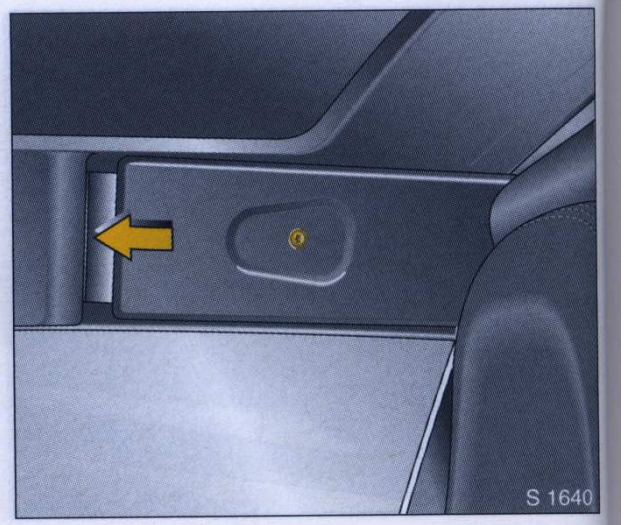


7. Unscrew the bolt that secures the rear cup bracket and remove the bracket.
8. Repeat this operation for the cup bracket located on the opposite side.
9. With the assistance of another person, lift the hard top clear of the vehicle.

To avoid loss or damage, all components should be loosely reassembled to the hard top and the complete assembly placed in the storage bag ✻. Disassemble all components prior to installation.







To install

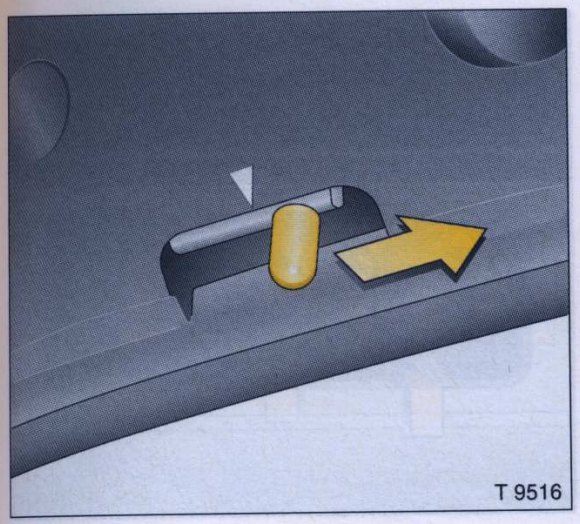
- During installation, ensure that the bracket tether wires do not become trapped.
- The bolts should only be tightened using the tool supplied. Do not over-tighten.

1. Open both doors or lower the windows.
2. With the assistance of another person, lift the hard top onto the vehicle, ensuring the front locates correctly and without trapping the seal, before lowering the rear into position.
3. Install the front dowel bracket, ensuring it locates fully into the cantrail bracket and retain with the bolt. Do not fully tighten until the rear cup brackets have been installed.
4. Repeat this operation for the front dowel bracket on the opposite side.
5. Install the rear cup bracket, ensuring that the cup locates correctly over the cantrail bracket (see inset), and retain with the bolt.
6. Repeat this operation for the rear cup bracket on the opposite side.
7. Fully tighten the front dowel bracket bolts and the rear cup bracket bolts using the tool supplied.

The rear cover panels are handed and can only be installed to their respective sides.

8. Install the rear cover panel and tighten the bolt.
9. Repeat this operation for the cover panel on the opposite side.
10. Install the front header panel and tighten the three retaining bolts.

Finally, check the security of hard top installation by applying modest upward pressure in the area of all of the mounting brackets. Repeat the installation operation if movement of the hard top is evident.



Soft top

To remove

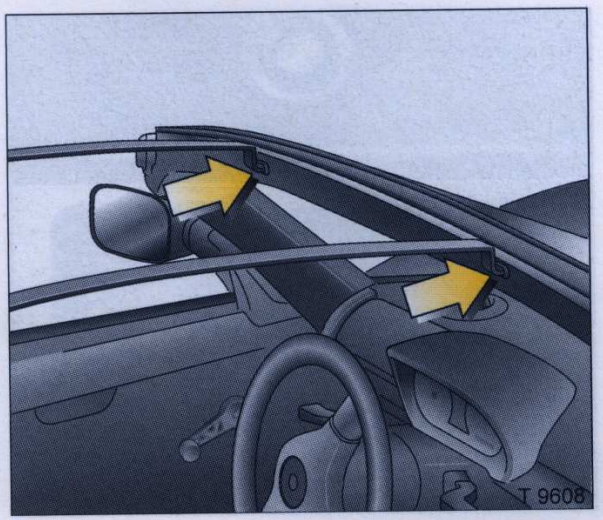
Ensure that the soft top canopy is dry and that the windows or doors are open.

Release the latches and rotate the driver's side cantrail and disengage it from the brackets, repeating the procedure for the passenger's side cantrail.

Pull up the front and rear edges of the soft top to release the tensioning cables.

Roll each side of the canopy up to the centre and place in the stowage bag provided.

Flex the roof bows and disengage. Place roof bows in the stowage bag and store in the load compartment. Soft top care, see page 79.



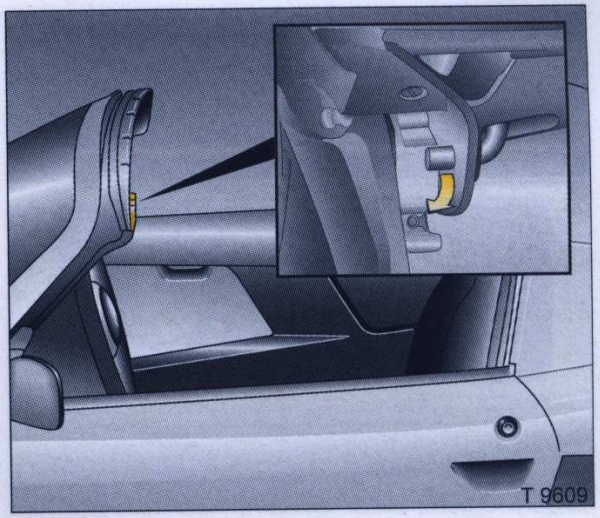
To install

Ensure that the windows are down or that the vehicle doors are open.

Remove the stowage bag containing the canopy and roof bows from the load compartment.

Flex roof bows and install in the vehicle with the arrows on the top surface pointing forwards.

Unroll soft top canopy and lay loosely over roof bows with the arrows on the cantrail body pointing forwards.



Load one cantrail into the bracket, rotating down to ensure that the latches engage.

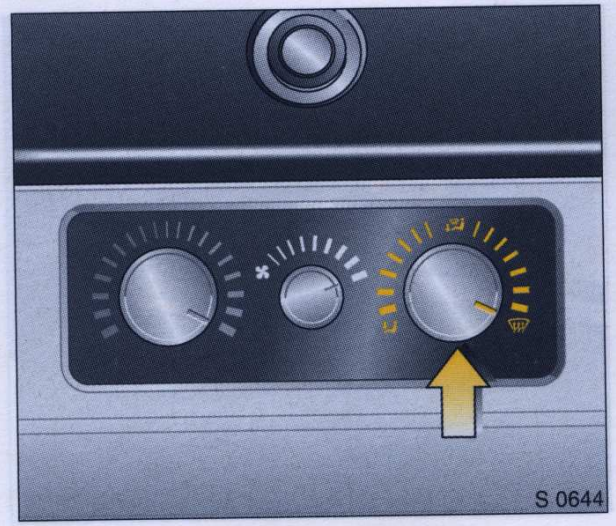
From the other side of the vehicle, load the second cantrail and rotate down, ensuring that the latches engage.

Visually inspect the roof to ensure a good fit at the front and rear.

Heating, Ventilation

Heating and ventilation system

Opel air mixture system: by mixing cold and hot air the temperature can be regulated without delay and held practically constant at all speeds.



Heating and ventilation controls

Air distribution switch

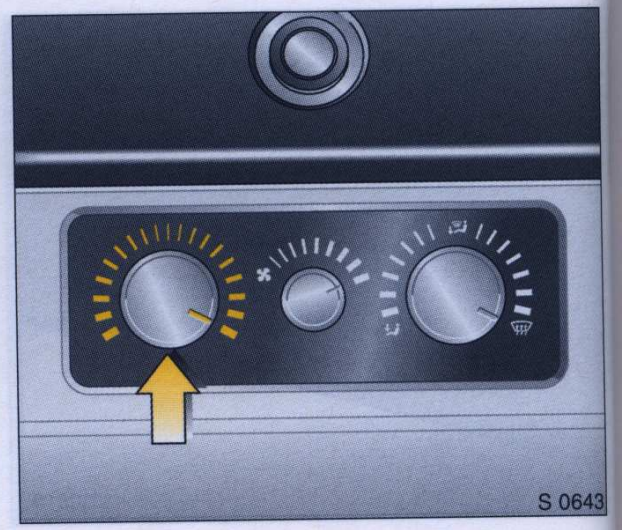
To foot area

To defrosters and foot area

To defrosters

The rotary switch can be set to any intermediate position in order to adjust the air distribution to suit personal requirements.

Open the ventilation jets when the switch is set to or .



Temperature switch

To red Hotter

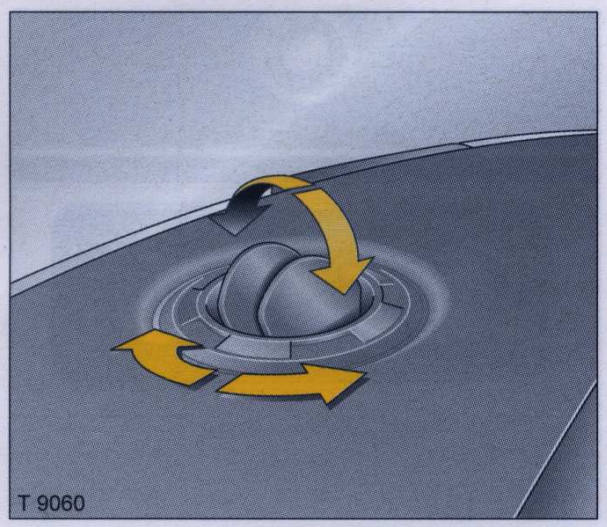
To blue Colder

Fan switch
Three speeds:

0 Off

3 High speed

The rate of air flow is determined by the fan. The fan should therefore also be switched on during driving.



Ventilation jets

Depending upon the position of the temperature switch, cold or heated air will be directed into the vehicle via these jets.

The air flow can be directed as desired by tilting and swivelling fins.

To increase the air supply, switch on the fan.

Ventilation

- Turn temperature switch to blue.
- Switch on fan.
- For maximum ventilation in head area: set air distribution switch to , open and swivel the ventilation jet fins to direct the air toward the driver and passenger.
- For ventilation to foot area: set air distribution switch to .
- For simultaneous ventilation to head and foot areas: set air distribution switch to .

Heating

The amount of heat is dependant on the engine temperature and is thus not fully attained until the engine is warm.

For rapid warming of the passenger compartment:

- Turn temperature switch to red.
- Switch on fan.
- Set the air distribution switch to the desired position.

The comfort and general well-being of the vehicle occupants are to a large extent dependent on a correct setting of the ventilation and heating.

Heating the foot area

- Turn temperature switch to red.
- Set the air distribution switch to .
- Switch on fan.

Window demisting and defrosting

- Turn temperature switch to red.
- Switch on fan.
- Set air distribution switch to .
- Open ventilation jets as required and direct them towards the door windows.

For simultaneous warming of the foot area, set air distribution switch to .

Driving Hints

Clutch

Always depress the clutch pedal fully to the floor to prevent slipping clutches and transmission damage. There must be no mats in the area of the pedals.

When driving do not use the pedal as a foot rest; this will cause substantial clutch wear.

Battery care whilst driving

When driving slowly or when the vehicle is stationary, e.g. in slow urban traffic, stop-and-go traffic or traffic jams, turn off all unnecessary electrical loads where possible (auxiliary headlamps etc.).

When starting the engine, depress the clutch pedal so that transient interference is eliminated and the starter motor and battery are relieved.

Driving Hints

The first 1000 km (600 miles)

Drive your vehicle at various speeds. Do not use full throttle. Never allow the engine to labour at low revs.

Make good use of all gears. Depress the accelerator pedal a maximum of around three quarters of the available pedal travel in all gears and drive ranges.

Do not drive faster than three quarters of maximum speed.

The information concerns the engine and parts of the power train, e.g. the final drive.

Never coast with engine not running

Many units will then not function (e.g. brake servo unit). Driving in this manner is a danger to yourself and others.

Brake servo unit

With the engine not running the brake servo unit is no longer effective once the brake pedal has been depressed once or twice. The braking effect is not reduced but substantially greater foot pressure is necessary to stop the vehicle.

Driving in mountainous terrain

Electrically driven fan: The fan cooling capacity is not dependant on engine speed. It is not necessary, therefore, when driving uphill to shift down into a lower gear if the vehicle can climb in a higher gear.

Switching off the engine

If the engine temperature is very high, e.g. after driving in mountainous terrain: allow the engine to idle for approximately two minutes in order to prevent heat accumulation.

When you switch off, fans may continue running for a time to cool the engine.

Save energy – more miles

Please observe the running-in hints on the previous page and the tips for energy saving on the following pages.

Good, technically correct and economical driving ensures maximum durability and performance for your vehicle.

Overrun

The fuel supply is automatically shut off during overrun, e.g. when the vehicle is being driven down long gradients or during braking. To enable the overrun cut-off to come into action, do not accelerate or declutch during overrun.

Engine rpm

Under all driving conditions drive in a favourable engine speed range.

Warming up

Run the engine warm, do not allow it to "tick over" when started from cold. Speed should be moderate until the engine has reached operating temperature.

Correct gear selection

Do not race your engine whilst in neutral or with a low gear selected. Driving too fast in individual gears or drive ranges as well as stop-and-go traffic increase engine wear and fuel consumption.

Change down

When decreasing speed shift down into the next lowest gear. Do not slip the clutch with a high-revving engine. This is especially important when hill climbing.

Clutch

Always depress the clutch pedal hard to the floor to prevent shifting difficulties and transmission damage. There must be no mats in the area of the pedals.

When driving do not use the pedal as a foot rest; this will cause substantial clutch wear.

Battery care whilst driving

When driving slowly or when the vehicle is stationary, e.g. in slow urban traffic, stop-and-go traffic or traffic jams, turn off all unnecessary electrical loads where possible (auxiliary headlamps etc.).

When starting the engine, depress the clutch pedal so that transmission resistance is eliminated and the starter motor and battery are relieved.

Saving Fuel

Energy-conscious driving

- High fuel consumption is often a result of failing to drive in an energy-conscious manner.
- You should therefore drive with energy in mind - “more miles with less fuel”.

  Fuel consumption depends to a great extent on your own personal driving style. The following hints will help you to achieve fuel consumption as close as possible to the specified levels.

  Check your vehicle's fuel consumption every time you fill up. In this way you will be able at an early stage to detect any irregularities causing increased consumption.

Warming up

- Driving at full throttle or idling while the engine is still cold increases engine wear and fuel consumption.
- Drive away immediately after starting. Engine speed should be moderate until the engine has reached operating temperature.

Uniform speed

- Hectic driving significantly increases fuel consumption.
- Do not accelerate and brake unnecessarily.

  Drive as often as possible in top gear.

  In many cases you can shift into fourth gear at speeds as low as 50 km/h (30 mph) in urban traffic.

  In fourth gear fuel consumption in the 50 to 80 km/h (30 to 50 mph) range is around 25 % lower than in third gear.

  In the 70 to 90 km/h (45 to 55 mph) range, fuel consumption in fifth gear is roughly 15 % lower than in fourth gear.

  Select the next higher gear as soon as possible, and only change down when the engine is no longer running perfectly smoothly.

Idling

- The engine also consumes fuel when idling.
- If you have to wait for more than one minute, it is worthwhile switching off the engine. Five minutes of idling corresponds to approx. one kilometre (0.6 miles) of driving.

Overrun

- The fuel supply is automatically shut off during overrun, e.g. when the vehicle is being driven down long gradients or during braking.
- To enable the overrun cut-off to come into action and save fuel, do not accelerate or declutch during overrun.

Correct gear selection

- High revs increase engine wear and fuel consumption.
- Do not race your engine. Driving too fast in individual gears or drive ranges increases engine wear and fuel consumption.

  Making use of the tachometer helps to save fuel: If possible, drive in each gear in the low engine speed range (between approx. 2000 and 3000 rpm) and maintain a steady vehicle speed.

Urban traffic

- Frequent driving off and stopping - for example at traffic lights, in stop-and-go traffic or traffic queues - greatly increases average fuel consumption.
- Plan carefully to avoid traffic congestion.

  Good anticipation avoids unnecessary stopping.

  If possible, select roads with a good traffic flow.

  By keeping a safe distance from the vehicle in front and by not lane-hopping you will be able to avoid frequent braking and acceleration, which uses up a lot of fuel.

High speed

- The higher the speed the greater the fuel consumption. At top speed you consume a great deal of fuel.
- Slightly releasing the accelerator pedal results in distinct fuel savings with no major loss of speed.

  Drive at no more than around three quarters of maximum speed and you will use up to 50% less fuel, without losing a great deal of time.

Tyre inflation pressure

- Inadequate tyre pressure, leading to higher road resistance, costs money in two ways: for more fuel and increased tyre wear.
- Regular checks (every 14 days) pay off.

Electrical loads

- The power consumption of electrical equipment increases fuel consumption.
- Switch off all auxiliary electrical loads when not needed.

Loading

- Unnecessary weight increases fuel consumption, especially when accelerating (urban traffic). A load of 100 kg can increase fuel consumption in urban traffic by up to 0.5 l/100 km.
- Reduce the loads you carry.

Repair and maintenance

- Improper repairs or adjustment and maintenance work can increase fuel consumption. Do not carry out work on the engine yourself.
- You will save fuel by consulting an Authorised Opel Dealer.

Extreme driving conditions

- Going up steep slopes, driving on poor roads, cornering or winter driving all increase fuel consumption.

  Fuel consumption increases dramatically in urban traffic and at winter temperatures, especially on short trips when the engine operating temperature is not reached.
- Follow the hints given above to keep consumption to a minimum under such conditions.

Environmental Protection

Trend-setting technology

Environmental protection plays an important role in the research and design work carried out by engineers at Adam Opel AG.

When developing and manufacturing your vehicle, Opel used environment-friendly and largely recyclable materials. The production methods used to make your vehicle are likewise environment-friendly.

Production wastes are recycled, with materials being recovered for re-use. Reduction of water requirements also helps to conserve natural resources.

A highly advanced design means that your vehicle can be easily disassembled and the individual materials separated for subsequent re-use.

Materials such as asbestos and cadmium are not used.

New painting techniques employ water as a solvent.

The pollutants contained in exhaust gas are reduced.

As an Opel driver, you can make a major contribution to protecting the environment:

- Save fuel when driving. The previous section, entitled "Saving Fuel", gives you numerous useful hints on this.
- Be conscious of the environment when driving. The following section gives you some further valuable hints in this regard.

Environment-conscious driving

- High noise levels and exhaust emissions are often a result of driving without due attention to the environment.
- Reduce the noise level and exhaust emissions by adopting an environment-conscious driving style. This is extremely worthwhile and improves the quality of life.

  "Jackrabbit" starts, i.e. screeching of tyres and high revs, can increase the noise level up to four times over[1].

  Select the next higher gear as soon as possible. A vehicle travelling at 50 km/h (30 mph) in second gear causes as much noise as three vehicles driven at 50 km/h (30 mph) in fourth.

Warming up

- Driving at full throttle or idling when the engine is still cold increases fuel consumption, exhaust emissions and noise.
- Drive away immediately after starting. Engine speed should be moderate until the engine has reached operating temperature.

[1] By up to 18 dB(A).
dB: unit of noise level (decibel)
dB(A): standardized evaluation curve (frequency evaluation curve) for relating objective measured values to the sensitivity of the human ear. An increase in noise level of 10 dB(A) is registered as a doubling of the volume.

Uniform speed

- Hectic driving significantly increases noise and exhaust emissions.
- Do not accelerate and brake unnecessarily. Drive at uniform speed.

  If you drive as often as possible in top gear, and in urban traffic where possible select fourth gear at speeds of 50 km/h (30 mph) and above, and if you select the next higher gear as soon as possible, only changing down when the engine is no longer running perfectly smoothly, you will reduce the noise impact on the environment many times over.

Urban traffic

- Frequent driving off and stopping - for example at traffic lights - greatly increases the noise level.
- Avoid unnecessary stops by always anticipating the driving conditions in front.

  If possible, select roads with a good traffic flow.

  By keeping a safe distance from the vehicle in front and by not lane-hopping you will be able to avoid frequent braking and acceleration which cause noise and pollution in the form of exhaust emissions.

  Drive considerately, especially in residential areas and particularly at night.

High speed

- At top speed you cause excessive noise. As speed increases, so does tyre and wind noise. In top gear, tyre noise determines the level of driving noise from speeds as low as 70 km/h (45 mph). A vehicle travelling at 150 km/h (90 mph) causes just as much noise as four vehicles travelling at 100 km/h (60 mph) or ten vehicles travelling at 70 km/h (45 mph).
- Avoid travelling at high speeds by carefully planning your journeys.

Doors

- Slamming of doors creates noise.
- Close doors quietly. Be considerate, especially in residential areas and particularly at night.

The first 1000 km/600 miles

- Technically incorrect and uneconomical driving will impair the performance of your vehicle and shorten its service life.
- Drive your vehicle at various speeds, making good use of all gears. Depress the accelerator pedal a maximum of around three quarters of the available pedal travel. Do not use full throttle.

  Do not drive faster than three quarters of maximum speed.

  Never allow the engine to labour at low revs.

  Further information - see page 44.

Repair and maintenance

- Never carry out any repairs or adjustment and maintenance work on the engine yourself:

  You may out of ignorance infringe environmental laws by not disposing of materials properly.

  Appropriate parts might not be recycled.

  Contact with some of the materials involved may be hazardous to the health.
- By consulting an Authorised Opel Dealer, you protect yourself, other road users and the environment.

Fuel Consumption, Fuel, Refuelling

Fuel consumption

Optional equipment increases the kerb weight and in some cases also the permissible gross vehicle weight. This in turn increases fuel consumption and reduces the maximum speed of the vehicle.

When the vehicle is new, there is increased friction between the engine and transmission components lasting for several thousand kilometres/miles. This increases fuel consumption.

Fuel for petrol engines

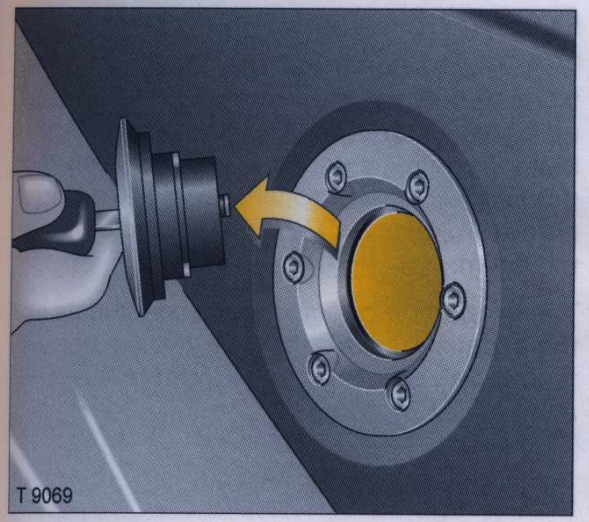
Commercially available high-quality fuels are suitable. Fuel quality has a decisive influence on the power output, driveability and life of the engine. The additives contained in the fuel play an important role in this connection. You should therefore use only high-quality fuels containing additives.

Fuel with too low an octane rating can cause pinking. Opel cannot be held liable for resultant damage.

Petrol with a higher octane rating can always be used.

Use unleaded fuel. A dispensing pump for leaded fuel cannot be inserted in the fuel tank filler neck.

Use of petrol with an octane rating of 95 will ensure economical driving.



Refuelling

Care must be taken when dealing with fuel.

Before refuelling it is absolutely vital to switch off the engine.

Petrol is flammable and explosive, therefore avoid dealing with fuel near naked flames and doing anything that would generate sparks. No smoking! This also applies where the smell of fuel is noticeable. If the smell of fuel vapour occurs in the vehicle itself, have the cause immediately determined by an Authorised Opel Dealer and a remedy found.

The fuel tank filler neck with bayonet cap is located on the right-hand side of the vehicle.

To unlock filler cap: insert key and turn anti-clockwise.

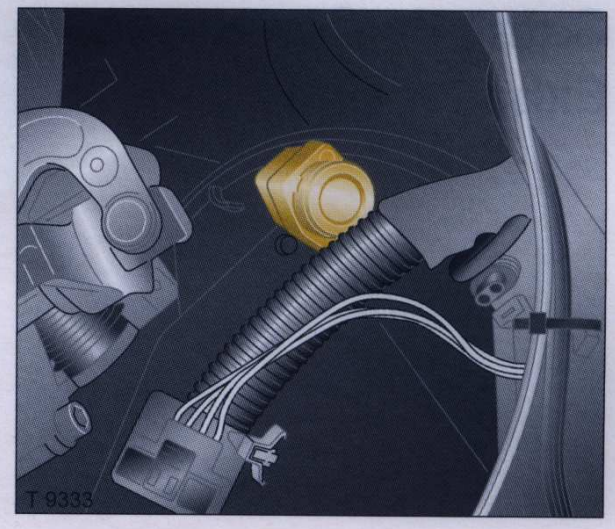
The fuel tank has a limiting system which prevents overfilling of the tank.

Correct refuelling is largely dependent on correct operation of the dispensing pump:

- Position dispensing pump nozzle at an angle to ensure that the pump handle does not contact the bodywork. Ensure this position is maintained when refuelling.
- Insert nozzle as far as it will go and switch on.
- After the first automatic cut-off, do not fill the tank any further.

Replace the filler cap and turn key clockwise as far as it will go.

Wipe off any overflowing fuel immediately.



Fuel cut-off device

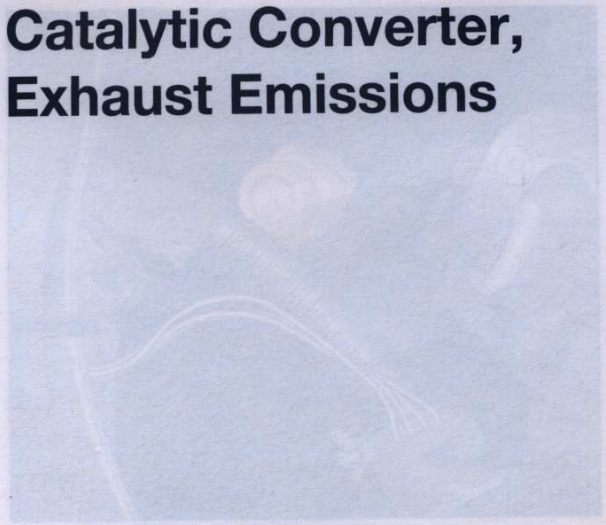
The fuel cut-off device is located in the engine compartment.

If the vehicle is involved in a collision, the fuel cut off device automatically isolates the fuel supply.

Prior to restarting first check:
- That the vehicle is driveable,
- there is no smell of fuel,
- fuel is not leaking.

To restart the fuel supply, reset the cut-off device by pressing down the button.

Catalytic Converter, Exhaust Emissions



Exhaust system

When the vehicle is driven for the first time, wax and oil on the exhaust system may evaporate, producing smoke-like emissions which should not be inhaled. Allow wax and oil to evaporate while the vehicle is in the open air. Avoid inhaling.

Engine exhaust gases – Avoid inhaling!

Engine exhaust gases contain poisonous carbon monoxide, which has no colour or odour and can be lethal if inhaled.

If at any time you suspect that exhaust fumes are entering the vehicle, open the windows and consult an Authorised Opel Dealer.

Controlling exhaust emission

Through design-related measures - mainly in the area of the mixture formation system and ignition system - the proportion of noxious materials in the exhaust, such as carbon monoxide (CO), hydrocarbons (CH) and nitrogen oxides (NO_x), is reduced to a minimum.

The proportion of poisonous constituents in the exhaust gas is determined by the correct functioning of the mixture formation system and ignition system.

All checks and setting work should therefore be left to an Authorised Opel Dealer which has suitable equipment and trained personnel available. Electronic testing systems permit rapid diagnosis and remedying of faults.

You are thereby making an important contribution towards keeping the air clean and compliance with emissions legislation.

Checking and adjustment of the mixture formation system and ignition system forms part of the Service Plan. For this reason you should have all maintenance work carried out at the intervals specified in your Service Booklet.

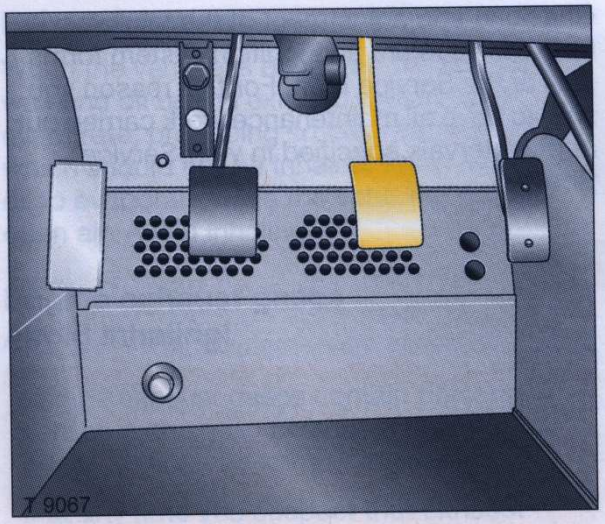
Brakes

The effectiveness of the brakes is an important factor for traffic safety.

In the interest of effectiveness, do not brake unnecessarily hard during the first 200 km (120 miles) after new disc brake pads have been fitted.

Wear of the brake linings must not exceed a certain limit. Regular maintenance as detailed in the Service Booklet is therefore of the utmost importance for traffic safety.

Have worn brake linings replaced by an Authorised Opel Dealer, thereby ensuring that only Opel approved parts, which guarantee optimum brake performance, will be installed.



Foot brake

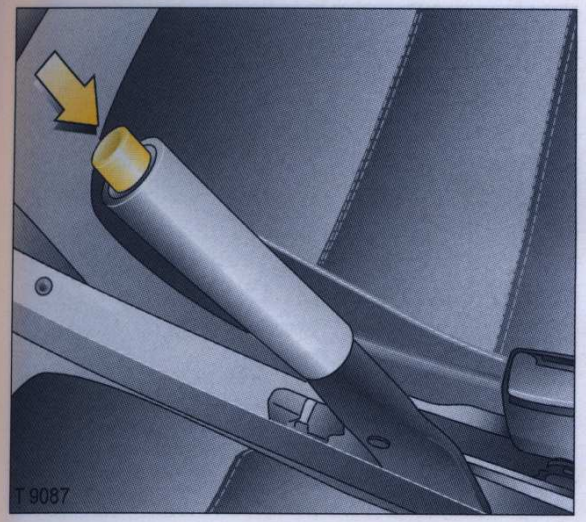
The braking system comprises two separate, brake circuits. If one brake circuit should fail, the vehicle can still be stopped with the second remaining circuit. If this happens, the brake pedal must be fully depressed with greater pedal pressure. The distance required for braking will be greater. Consult an Authorised Opel Dealer before continuing your journey.

In order to utilise the full pedal travel - particularly in the event of a brake circuit fault - there must be no mats in the area of the pedals.

With the engine stopped the servo assistance is discontinued after the brake pedal has been depressed once or twice. The braking action will not be reduced but increased foot pressure will be necessary. Take extra care when the vehicle is being towed.

Check the brake lamps before starting out on a journey. Shortly after the start of each journey the brake system should be tested at low speed for its effectiveness, especially if the brakes are wet, e.g. after washing your vehicle.

The brake fluid level should be checked regularly, see page 73.



Hand brake

The mechanical hand brake acts only on the rear wheels to secure the stopped or parked vehicle. It engages automatically when applied.

ABS

The ABS (anti-lock brake system) continuously monitors the vehicle's brake system and prevents the wheels from locking, irrespective of the road condition and tyre grip.

It starts to regulate the braking pressure as soon as a wheel shows a tendency to lock. The vehicle remains steerable, even in the event of very heavy braking, for instance on bends or when swerving to avoid an obstacle. Even in the case of full-on braking, the ABS makes it possible to drive round an obstacle without releasing the brakes.

The ABS makes itself noticeable through pulsating of the brake pedal and the noise of the regulation process. Your vehicle is now in a critical situation; the ABS allows you to keep control of the vehicle and reminds you to match your speed to the road conditions.

To achieve optimum braking, keep the brake pedal fully depressed throughout the braking process, despite the fact that the pedal is pulsating. Do not reduce the pressure on the pedal.

Do not let this special safety feature tempt you into taking risks when driving.

Traffic safety can only be achieved by adopting a responsible driving style.

When the ignition is switched on, the ABS control indicator lights up. At the same time, the system performs a self-check which may be audible. When the control indicator goes out the system is ready for operation. If the control indicator does not go out after a few seconds, or if it lights up during driving, there is a fault in the ABS. The vehicle's brake system remains operational without ABS regulation.

The wheels will tend to lock in the event of heavy braking if the ABS fails. This may cause the vehicle to swerve. The benefits of the ABS are lost.

You can continue driving, provided you drive with care and anticipation. Consult an Authorised Opel Dealer to have the cause of the fault eliminated.

Wheels, Tyres

To protect yourself and other road users, it is essential to observe the following rules.

Tyres

Factory-fitted tyres are matched to the chassis and offer optimum driving comfort and safety. Consult an Authorised Opel Dealer before changing over to different tyres or wheels and obtain their advice as regards technical possibilities.

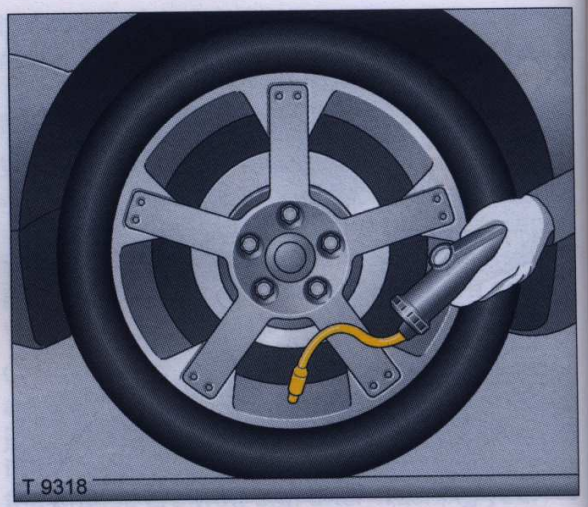
Use of unsuitable tyres or wheels may lead to accidents and render the vehicle unroadworthy.

New tyres should be fitted in pairs, or for preference in sets. Make sure that both tyres on an axle are

- the same size
- the same design
- the same make
- and have the same tread pattern.

Tyre inflation pressure

Check tyre pressures, at least every 14 days and prior to any long journey. The tyres should be checked when cold.
Tyre pressures, see page 88.



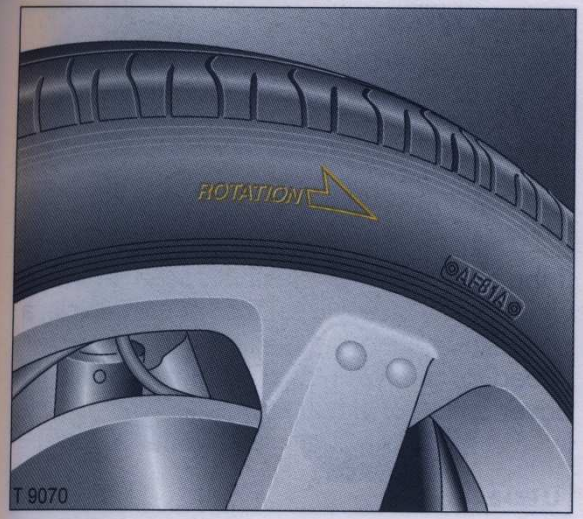
Increased pressure resulting from tyre warm-up must not be reduced, otherwise the pressure may drop below the permissible minimum.

After having checked the tyre pressures, securely tighten the valve caps.

Incorrect inflation pressures will impair safety, vehicle handling, comfort and fuel economy and will increase tyre wear.

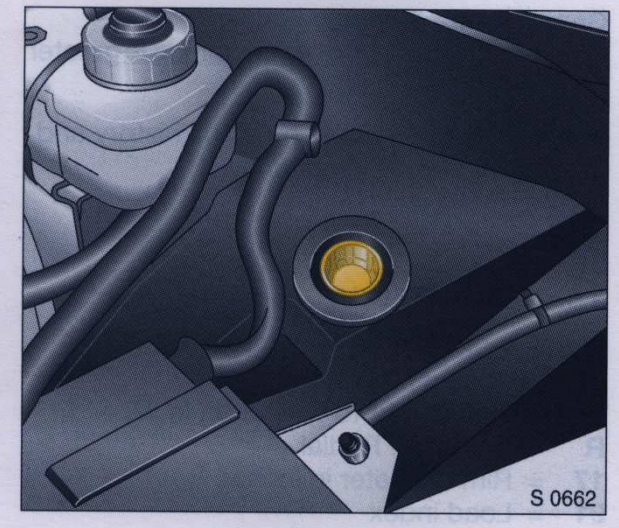
If the pressure is too low, this can result in considerable tyre warm-up and internal damage, leading to tread separation and even to tyre blow-out at high speeds.

Hidden tyre damage is not eliminated by subsequently adjusting the inflation pressure.



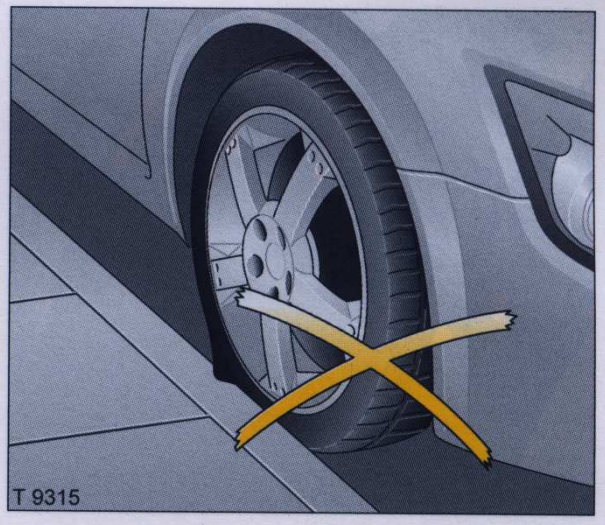
Wheels and tyres

The vehicle is equipped with sport directional tyres. Directional tyres must be installed in their correct direction for forward rotation. The tyre's forward rotation is shown by an arrow on its sidewall (tyre illustrated is on vehicle off-side).



To prevent theft, each wheel incorporates a security bolt. To change the wheel, this bolt must be removed using the special socket supplied.

The socket is stowed in the front compartment.



Tyre condition, wheel condition

Driving over sharp edges can lead to hidden tyre damage and wheel damage which is only noticed later on: there is a danger of tyre blow-out.

Drive over edges slowly and at a right angle if possible. When parking, ensure that the tyres are not pressed against the edge of the kerb.

Check tyres regularly for damage (foreign bodies, punctures, cuts, cracks, bulges in sidewalls). A damaged tyre could burst. Check wheels for damage. In the event of damage or abnormal wear, consult an Authorised Opel Dealer.

For safety reasons, tyres should be replaced when their tread depth has worn down to 2-3 mm. The legal permissible minimum tread depth (1.6 mm) has been reached when the tread has worn down as far as one of the wear indicators.

Wear indicators are spaced at equal intervals around the tyre within the tread. Their position is indicated by markings on the tyre sidewall. In the event of tyres requiring changing consult an Authorised Opel Dealer.

General information

Note that the danger of aquaplaning is greater if the tyres are worn.

Never fit used tyres the previous history and use of which you do not know.

Tyre designations

Meanings:

e.g. **225/45 R17 91V**

225 = Tyre width in mm
45 = Aspect ratio in %
(tyre height to tyre width in %)
R = Belt type: Radial
17 = Rim diameter in inches
91 = Load index
V = Speed rating

Speed code letters:

Q Up to 160 km/h (100 mph)
S Up to 180 km/h (112 mph)
T Up to 190 km/h (118 mph)
H Up to 210 km/h (130 mph)
V Up to 240 km/h (150 mph)
W Up to 270 km/h (168 mph)

Winter tyres

See page 88 for restrictions.

M+S tyres improve safety and should therefore be fitted on all wheels.

The design of summer tyres means they have limited qualities for winter driving.

If the maximum permissible speed for the winter tyres is less than that of the vehicle, a notice indicating the maximum permissible speed for the tyres must be affixed within the driver's field of vision ✻ [1].

[1] Varies from country to country on account of national regulations.

Tyre chains

See page 88 for restrictions.

Tyre chains may be used only on the drive wheels (rear axle). They must be fitted symmetrically on the tyre to ensure that they are seated concentrically.

Only fine-linked chains - not protruding more than 15 mm on the tyre tread and inboard sides (including chain lock) - as recommended by Opel may be used.

Tyre chains may only be used at speeds up to 50 km/h (30 mph) and, when travelling on roads that are free of snow, they may only be used for brief periods since they are subject to rapid wear on a hard road and may snap.

Self-Help

Do not start with quick charger

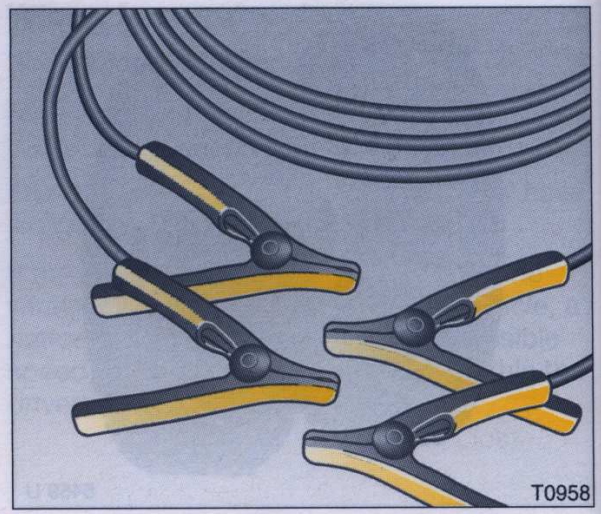
This prevents damage to electronic components.

Fuel cut-off device

see page 51.

Starting the engine by pushing or towing

To avoid damage to you vehicle's catalytic converter the vehicle must not be started by pushing or towing.

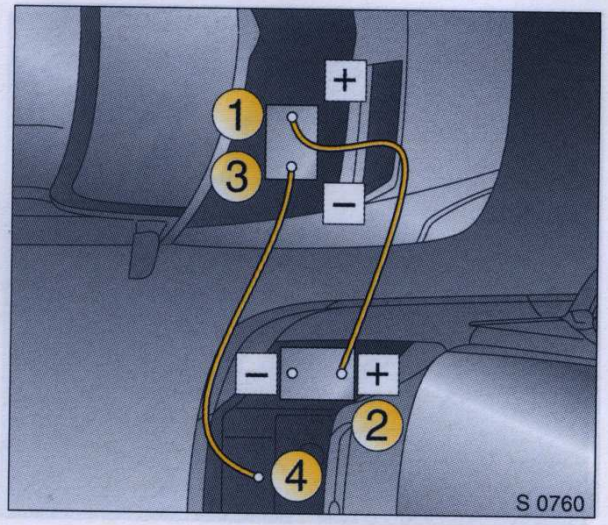


Starting the engine with jump leads ✻

A vehicle with a discharged battery can be started using jump leads and the battery of another vehicle.

This must be done with extreme care. Any deviation from the following instructions could lead to personal injury or damage resulting from battery explosion, as well as to damage to the electrical systems in both vehicles.

- Never expose the battery to naked flames or sparks.
- Do not allow battery fluid to contact eyes, skin, fabrics or painted surfaces. The fluid contains sulphuric acid which can cause injuries and damage in the event of direct contact.
- To lessen the risk of injury wear eye protection when working near any battery.
- Make sure that the battery providing the jump start has the same voltage as the battery in your vehicle (12 V). Its capacity (Ah) must not be substantially lower than that of the discharged battery. The voltage and capacity are given on the batteries.
- Do not disconnect the discharged battery from the vehicle.
- Switch off all unnecessary electrical loads.
- Do not lean over the battery during jump starting.
- Do not allow the terminals of one lead to touch those of the other lead.
- Apply hand brake. Place gear shift lever in neutral.

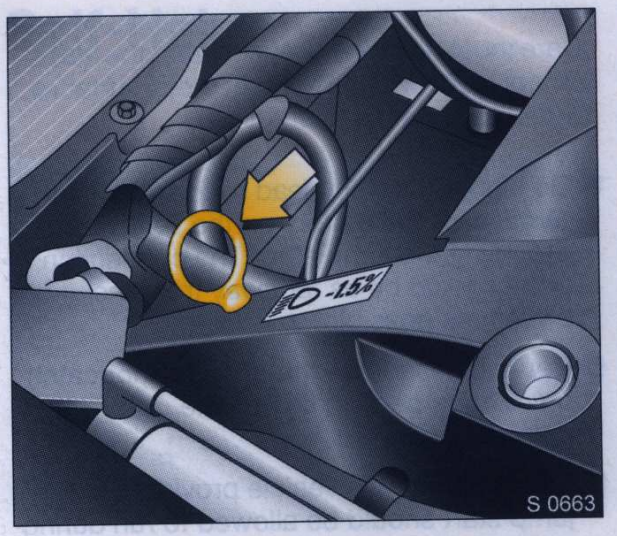


Slide windscreen wash bottle upwards to remove. Connect the leads in the order shown in the picture:

1. Remove the rubber cover and connect one end of the first jump lead to the positive terminal **1** of the discharged battery (identified by "+" sign on battery case or terminal).
2. Connect the other end of this lead to the positive terminal **2** of the battery providing the jump start ("+" sign).
3. Connect the first end of the second jump lead to the negative terminal **3** of the discharged battery ("-" sign).
4. Connect the other end of this jump lead **4** to ground on the vehicle providing the jump start, e.g. engine block or screw connection in engine suspension.

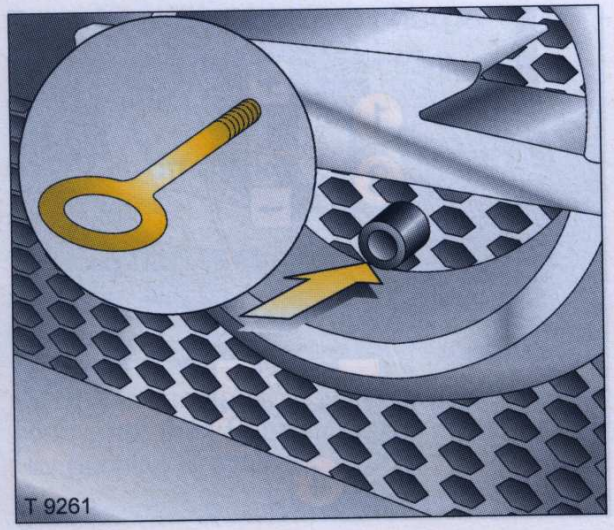
Care must be taken to ensure that the leads do not inadvertantly contact metal surfaces within the compartment area.

- Do not connect the lead to the negative terminal of the battery on the vehicle providing the jump start! The connection point should be as far away from the battery as possible.
- Route the leads so that they cannot catch on rotating parts in the engine compartment.
- The engine of the vehicle providing the jump start should be allowed to run during starting. Attempts to start the engine of the vehicle with the discharged battery should be made at intervals of one minute and should not last longer than 15 seconds. After starting, allow both engines to idle for approx. 3 minutes with the leads still connected.
- Reverse above sequence exactly when removing leads and replace the rubber cover on the positive terminal.



Towing the vehicle

The towing eye is stowed in the front compartment.



Screw the towing eye fully into the towing point.

Attach the tow rope ✻ - or better still, a tow rod ✻ - to the towing eye, never to the front suspension units.

Never lift the vehicle using the towing eye!

Place the gear shift lever in the neutral position. Switch on the ignition to release the steering column lock and to permit the operation of the brake lamps, horn and windscreen wiper.

Drive off slowly and avoid jerky movements. Impermissible tractive forces could damage the vehicles.

More brake pedal pressure is necessary when braking since the brake servo unit is operative only when the engine is running.

To prevent the entry of exhaust fumes from the towing vehicle, close the windows.

Have your vehicle taken to the nearest Authorised Opel Dealer, who will serve you best to get your vehicle back on the road.

Towing service

Entrust your vehicle only to the towing service of your choice and obtain an estimate on towing costs before employing any towing service. This will prevent unnecessary expense and possible insurance problems during claim processing.

First-aid kit ⊕ ✻ and warning triangle ⚠ ✻

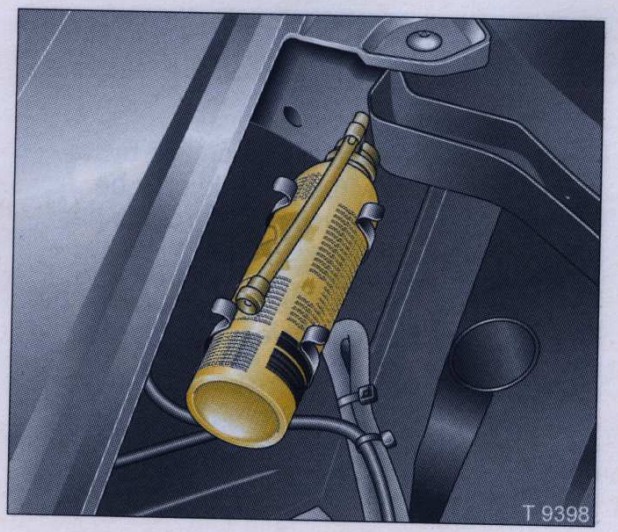
Your first-aid kit and warning triangle can be accommodated in the load compartment.

Puncture

In order to minimise vehicle weight the Speedster is not fitted with a jack or a spare wheel.

It is recommended that wheel changing and jacking of the vehicle are only carried out by an Authorised Opel Dealer.

However, if the vehicle needs to be lifted in an emergency suitable jacking points are indicated on the vehicle underbody by stickers.



Temporary puncture repair
Retrieve the emergency tyre inflator aerosol from the front compartment.

Remove the object causing the puncture and rotate the wheel so that the puncture site is lower-most. Fully deflate the tyre.

Shake the can vigorously, in cold conditions warm the can using the vehicle's heater outlets.

Screw the aerosol tube on to the tyre valve and remove the cap. Hold the can upright and press the button, holding until the tyre is fully inflated.

Immediately drive for 10 to 20 km (6 to 12 miles) in a moderate manner and not exceeding 45 km/h (30 mph) to allow the sealant to spread. Then check and inflate tyres to operating pressure.

Use of the aerosol does not constitute a permanent repair but is designed as an emergency measure, to allow the car to be driven while awaiting tyre replacement.

The aerosol can be used for one repair only, it must then be replaced. Consult your Authorised Opel Dealer.

- Do not drive with more than one repaired tyre.
- Do not drive faster than 80 km/h (50 mph).
- Take bends slowly.
- Do not use the repaired wheel for a lengthy period.
- Renew repaired tyre without delay.

▶

In order to reduce the chance of possible injuries when using the emergency tyre inflator aerosol, make the following preparations and note the procedure:

- Park on a level, firm and non-slippery surface.
- Switch on hazard warning flashers and apply hand brake. Engage first gear or reverse.
- Correctly set up warning triangle ✻.
- Never use the tyre aerosol on more than one wheel at a time.

Fuses

When replacing a fuse, turn off the respective switch and the ignition.

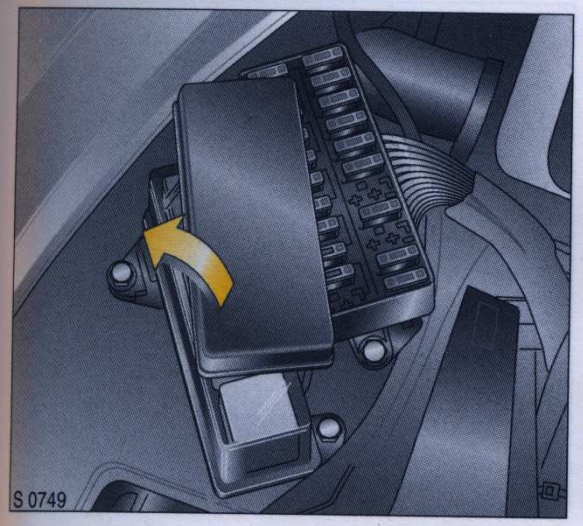
A defective fuse can be recognized by its melted wire. A new fuse should only be installed after the cause of the trouble has been eliminated.

Only fuses of the specified rating should be installed. The rating is given on all fuses.

It is recommended to carry a complete spare set of fuses, obtainable from an Authorised Opel Dealer.

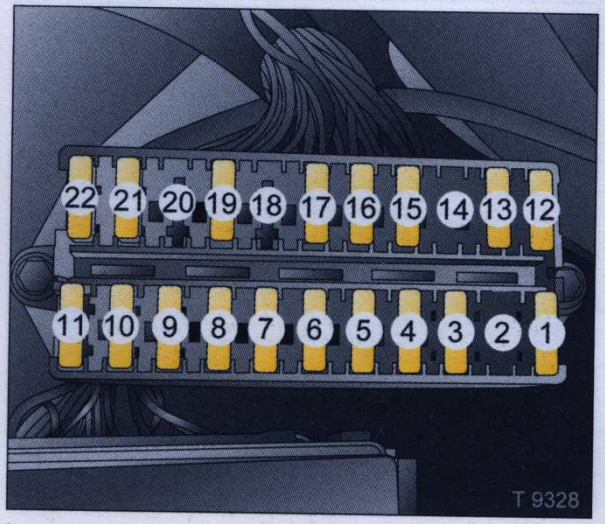
Fuses, Colour	Fuses, Rating[1)]
Grey	2 A
Violet	3 A
Pink	4 A
Beige	5 A
Brown	7.5 A
Red	10 A
Blue	15 A
Yellow	20 A
Clear	25 A

[1)] Rating in Amperes.



Fuse box

The fuse box is located in the front compartment. To open, remove cover.



Fuses and the most important circuits they protect

No.	Circuit	Rating[1)]
1	Rear fog lamp	3 A
2	Alarm Siren ✻	2 A
3	Interior fan	20 A
4	Wiper motor	15 A
5	Stop lamp / Reversing lamp	7.5 A
6	Direction indicators	7.5 A
7	Ignition services	10 A
8	B+ services	7.5 A
9	Hazard warning	10 A
10	Horn	7.5 A
11	Alarm and interior lamp	10 A
12	Cooling fan	25 A
13	-	-
14	Head lamps	25 A
15	Radio ✻	20 A
16	Sidelamp LH	5 A
17	Sidelamp RH	5 A
18	-	-
19	Lamp switches	10 A
20	-	-
21	Front fog lamp	15 A
22	ABS	10 A

[1)] Rating in Amperes

Bulb replacement

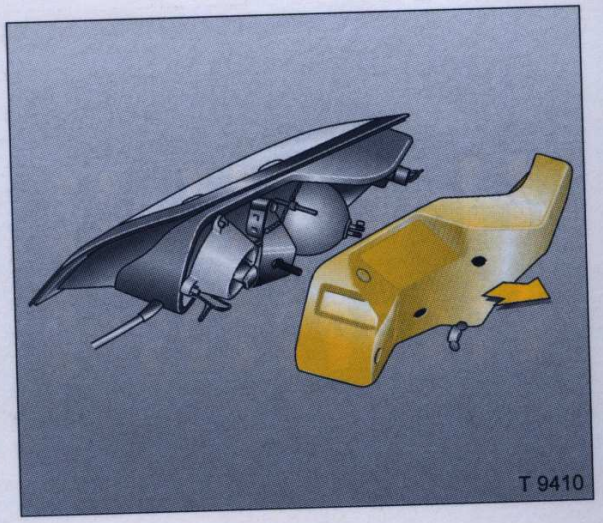
Before replacing a bulb, turn off the respective light switch.

Only hold new bulb at base! Oil and grease stains on the glass evaporate, eventually resulting in a dull reflector. Inadvertently stained bulbs may be cleaned with a clean non-fluffy cloth, using alcohol or white spirit.

Replacement bulb must be in accordance with data on base of defective bulb. Do not exceed wattage given on bulb base.

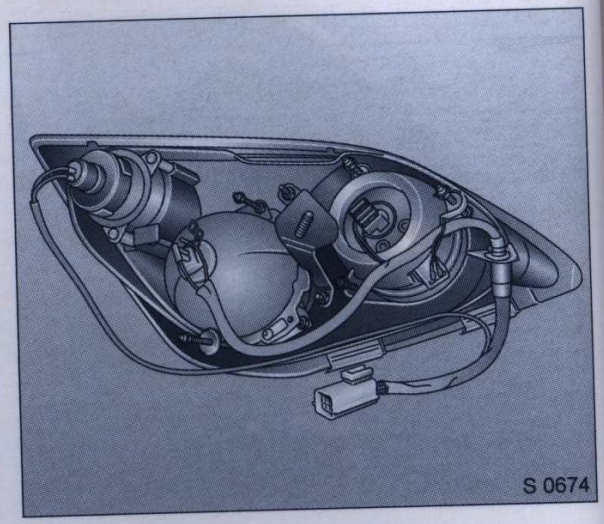
Headlamp aiming

Caution! Headlamp aiming should be carried out by an Authorised Opel Dealer.

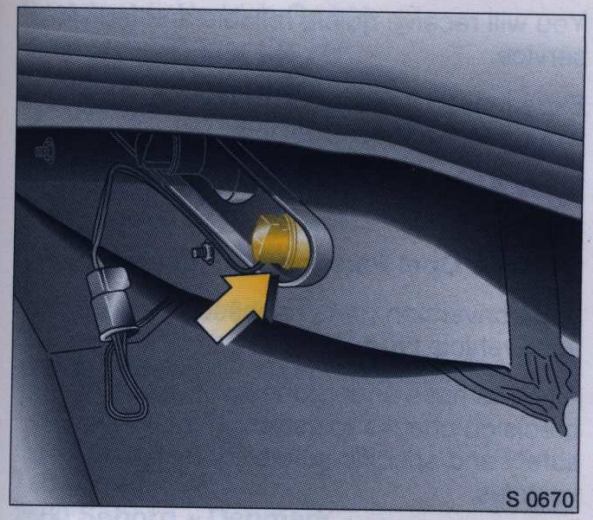


Headlamp dipped and main beam, parking and front turn signal indicator lamps

1. The rear of the headlamp assembly is accessed through the front compartment.
2. Remove the nut on the rear of the headlamp assembly and slide out.
3. Remove the headlamp multiplug and remove the rear cover of the headlamp assembly.

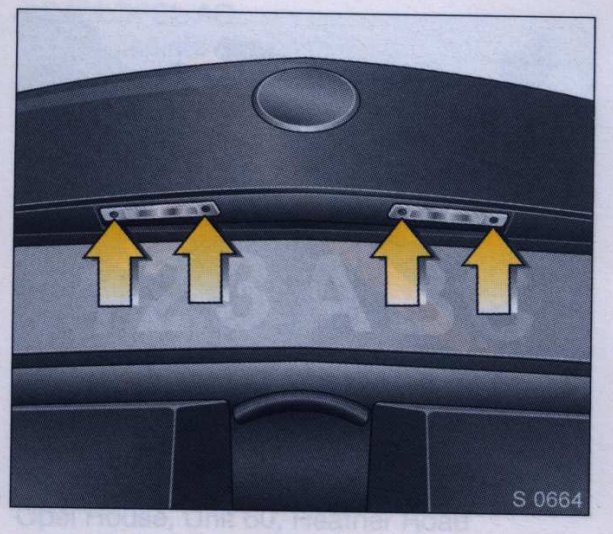


4. Twist and remove the bulb housing(s) as required and remove the defective bulb(s).
5. Insert a new bulb and replace the housing(s).
6. Replace the rear cover of the head lamp assembly and re-connect the multi-plug.
7. Re-position the headlamp assembly on to the vehicle and tighten the nut.



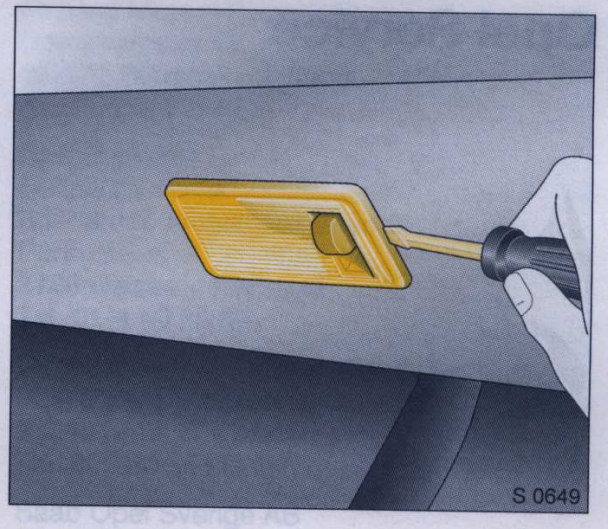
Rear brake, tail, turn signal, reverse and fog lamps

1. The rear lamp assembly can be accessed directly through the rear load compartment.
2. Twist and remove the bulb housing(s) as required and remove the defective bulb(s).
3. Insert a new bulb and replace the housing(s).



Number plate lamps

1. Remove two screws with a suitable screwdriver.
2. Remove lens.
3. Renew bulb and install lens.



Interior lamp

1. Unclip lens assembly using a flat blade.
2. Renew bulb.
3. Reinstall lens assembly.

Instrument illumination

Have bulbs replaced by an Authorised Opel Dealer.

Opel Service

Our aim: to keep you happy with your car.

Should your vehicle develop a technical fault you have no need to worry, for Opel Assistance/Mobilservice is there to help you in Germany and over 30 other European countries.

In addition, all selected Opel Dealers offer first class service at competitive prices. The addresses and telephone numbers can be found in the

"Opel Service Brochure",

available from all dealers and service operations.

You will receive quick, reliable and individual service.

Experienced mechanics, trained by Opel, work according to Opel instructions.

Every Authorised Opel Dealer can supply you with

Genuine Opel Parts and Accessories

and conversion parts released expressly for your vehicle type.

All parts have undergone special quality and precision checks to establish their reliability, safety and specific suitability for Opel vehicles.

Opel Service is backed by the experience of one of the world's leading automobile manufacturers.

The Service Departments of Adam Opel AG and the General Motors branches everywhere will provide information and assistance:

Opel Austria Vertrieb GmbH
Groß-Enzersdorfer Str. 59
1220 Wien - Österreich
Tel. 01 28 87 70

Opel Belgium N.V.
Prins Boudewijnlaan 30
2550 Kontich – Belgium
Tel. 03-4 50 63 11

Opel C & S spol. s.r.o.
Na Pankráci 26
140 00 Prague 4 – Czech Republic
Tel. 02-61 21-88 21

Opel Danmark
Tobaksvejen 22
2860 Søborg – Denmark
Tel. 39 57 85 00

Vauxhall Motors Ltd.
Customer Care
Griffin House, Osborne Road
Luton, Bedfordshire, LU1 3YT – England
Tel. 0 15 82-42 72 00

Opel Oy
Pajuniityntie 5
00320 Helsinki – Finland
Tel. Helsinki 61 58 81

Opel France
1 - 9, avenue du Marais
Angle Quai de Bezons
95101 Argenteuil Cedex – France
Tel. 1-34 26 30 00

ADAM OPEL AG
Bahnhofsplatz 1
65423 Rüsselsheim – Germany
Tel. 0 61 42-77 50 00 or 0 61 42-7 70

Opel Hellas S.A.
56 Kifisias Avenue & Delfon str.
Amarousion
151 25 Athens – Greece
Tel. 1-6 80 65 01

Opel Southeast Europe Ltd.
Kapás utca 11-15
1027 Budapest – Hungary
Tel. 06-1-45 79-1 99

Opel Ireland Ltd.
Opel House, Unit 60, Heather Road
Sandyford, Dublin 18 – Ireland
Tel. 01-216 10 00

Opel Italia S.p.A.
Piazzale dell'Industria 40
00144 Rome – Italy
Tel. 06-5 46 51

For Luxembourg - contact
Opel Service Department in
Kontich - Belgium

Opel Nederland B.V.
Baanhoekweg 188
3361 GN Sliedrecht – Netherlands
Tel. 0 78-6 42 21 00

Opel Norge AS
Kjeller-Vest 6
2021 Skedsmokorset – Norway
Tel. 63 89 52 00

General Motors Poland Sp. z o. o.
Domaniewska 41
06-672 Warsaw – Poland
Tel. 0 22-606 17 00

Opel Portugal
Quinta da Fonte
Ed. Fernão Magalhães, Piso 2
Porto Salvo
2780 Oeiras – Portugal
Tel. 01-4 40 75 00

Opel España de Automóviles S.A.
Paseo de la Castellana, 91
28046 Madrid – Spain
Tel. 900 20 25 20

Saab Opel Sverige AB
Esbogatan 8
164 74 Kista – Sweden
Tel. 08-632 85 00

Opel Suisse S.A.
Salzhausstraße 21
2501 Biel/Bienne – Switzerland
Tel. 0848 810 820 or 0 32-3 21 51 11

Opel Türkiye Ltd. Sti.
Kemalpasa yolu üzeri
35861 Torbali/Izmir – Turkey
Tel. 02 32-8 53-14 53

In **Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Macedonia, Romania, Slovenia and Yugoslavia** please contact the Opel Service Department in Budapest, Hungary.
Tel. 00 36-1 -45 79-1 99

Service Plan, Maintenance

In order to guarantee economical and safe vehicle operation and to maintain the value of your vehicle it is of vital importance that all maintenance work is carried out at the proper intervals as specified by Opel in the Service Booklet. Time or mileage/kilometre intervals - whichever is reached first - determine when your vehicle is due for its next service.

In the case of low kilometre/mileage accumulation with frequent cold starts or predominantly urban traffic and stop-and-go traffic, an additional engine oil and filter change is recommended.

You will find the Service Booklet in the literature pack.

Have maintenance work, as well as repairs to the bodywork and units, carried out by an Authorised Opel Dealer. They are familiar with Opel vehicles and are in possession of the special tools required and the latest service instructions from Opel.

A note on safety

To avoid the possibility of injury, only carry out engine compartment checks (e.g. checking the brake fluid level or the engine oil level) when the ignition is switched off.

The cooling fan may be operated by a thermoswitch and can therefore start to operate unexpectedly even when the ignition is switched off - risk of injury!

Never carry out any repairs or adjustment and maintenance work on the vehicle yourself. This especially applies to the engine, chassis and safety parts. You may out of ignorance infringe the provisions of the law and, by not performing the work properly, you may endanger yourself and other road users.

Checking and topping up fluids

To aid identification, the engine oil filler cap, the coolant expansion tank cap, the lid of the fluid container for the windscreen wash system and the handle of the oil dipstick are coloured yellow.

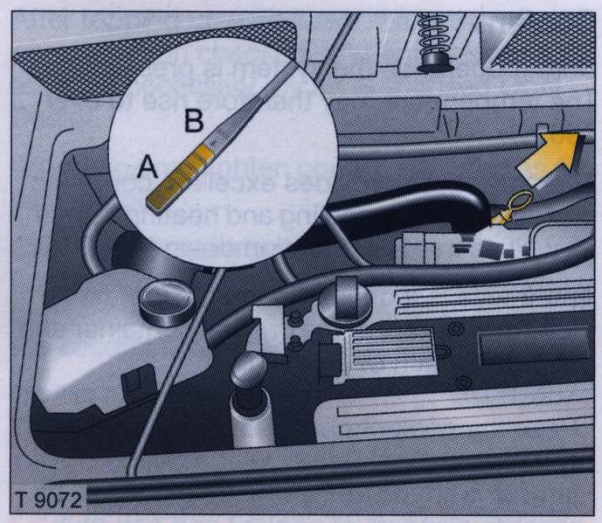
Engine oil

Opel engine oil is particularly suitable for the engine.

These high-quality oils are suitable for summer and winter operation.

You may also use good-quality brand HD oils with the proper viscosity class (SAE) and quality (ACEA). See page 83 for information on oils. The ACEA category may be taken as a quality criterion.

In the case of brand oils the manufacturers are responsible for ensuring that the oils they supply are suitable for Opel vehicles.

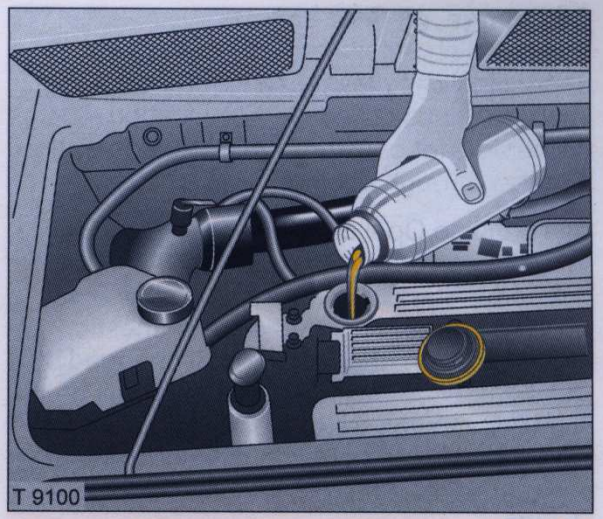


Engine oil level

It is normal for every engine to consume some oil. For this reason the engine oil level should be checked every 500 km (300 miles) or before starting a long trip.

The oil level must be checked with the vehicle horizontal and with the engine (which must be at operating temperature) switched off. Wait at least two minutes before checking the level to allow the normal oil accumulation in the engine to drain back into the oil pan. To check the level, remove the oil gauge (dipstick), wipe it clean and re-insert it as far as it will go. Top up if the oil level has dropped to the "add oil" mark **A**.

The oil level must not go above the upper mark **B** on the dipstick. This would lead, for example, to increased oil consumption and excessive formation of carbon residue.



When replenishing, attempt to use the same type of oil as used at the last oil change.

Lubricant chart, see page 84.

Capacities, see page 90.

A stabilisation of the oil consumption will not take place until the vehicle has been driven several thousand kilometres. Only then can the actual degree of consumption be established.

Oil change, oil filter change
Engine oil changes are to be carried out depending on time intervals or mileage intervals, since oil loses its lubrication properties not only through engine operation but also through ageing.

Use genuine Opel oil filters.

Used oil filters and empty oil containers should not be disposed of as domestic refuse. Have the oil and oil filter changed by an Authorised Opel Dealer, which will be familiar with the requirements of the law as regards disposal of used oil and can thus help to protect the environment and your health.

Coolant

During operation the system is pressurized. The temperature may therefore rise to over 100 °C.

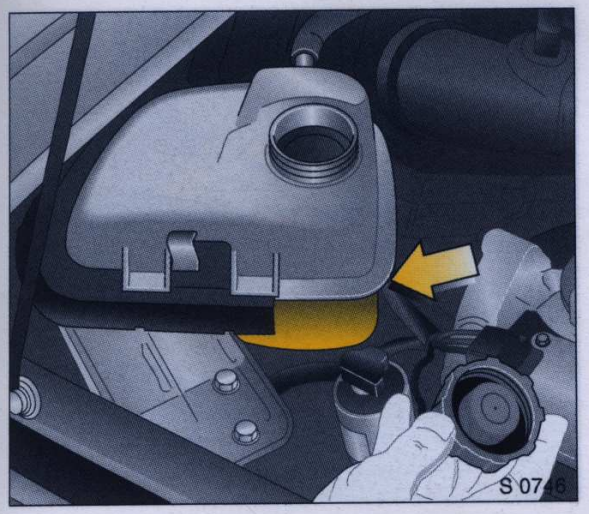
The anti-freeze provides excellent corrosion protection for the cooling and heating system, as well as freeze protection down to -30 °C.

Anti-freeze is a danger to health; it must therefore be kept in the original container and out of the reach of children.

Have the coolant changed by an Authorised Opel Dealer which will be familiar with the requirements of the law as regards disposal of coolant and can thus help to protect the environment and your health.

Freeze protection and corrosion protection
Before the start of the cold weather season, have the coolant checked with a calibrated hydrometer for correct concentration by an Authorised Opel Dealer. The anti-freeze content must guarantee freeze protection down to approximately -30 °C. An insufficient concentration will reduce freeze and corrosion protection. Add anti-freeze if necessary.

If coolant loss is topped up with water, have anti-freeze concentration checked and more anti-freeze added as necessary.



Coolant level
Hardly any losses occur since the cooling system is sealed and it is thus rarely necessary to top up the coolant.

The coolant level in the expansion tank should be level with the centre seam when the system is cold. It rises at engine operating temperature and drops again when the engine cools down. If the level falls below the centre seam, the coolant should be replenished.

Remove filler cap carefully so that pressure can escape slowly. Top up anti-freeze. If no anti-freeze is available, top up with clean tap water.

After topping up with water, have the concentration checked, and anti-freeze added if necessary, by an Authorised Opel Dealer.

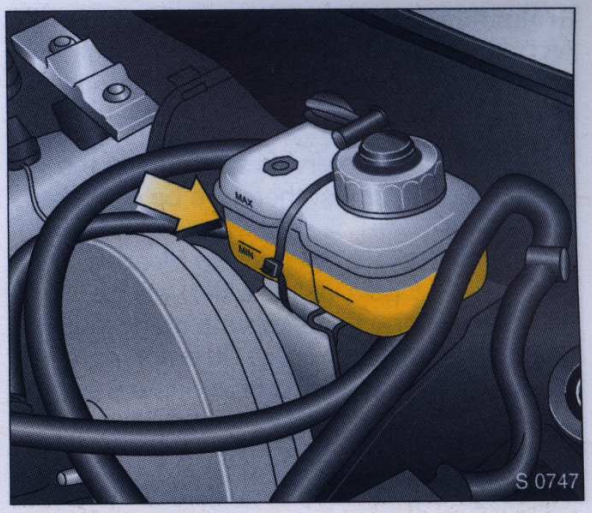
When closing, tighten coolant filler cap as far as it will go.

Coolant temperature
For physical reasons, the engine temperature gauge shows the coolant temperature only if the coolant level is adequate.

During operation the system is pressurized. The temperature may therefore rise to over 100 °C.

If the temperature gauge flashes, check the coolant level immediately.

- Coolant level too low:
  Top up coolant, see Coolant level. To remedy the cause of the coolant loss, consult an Authorised Opel Dealer.
- Coolant level OK:
  Consult an Authorised Opel Dealer immediately to remedy the increased coolant temperature.



Brake fluid

Brake fluid level

Caution - brake fluid is poisonous and corrosive. Do not allow it to contact eyes, skin, fabrics or painted surfaces. Direct contact may cause injuries and damage.

The fluid level in the container must not be higher than the "MAX" mark or lower than the "MIN" mark.

To top up, use Opel heavy-duty brake fluid (see Technical Data). It is essential to ensure absolute cleanliness during this process as contamination of the brake fluid can lead to malfunction of the braking system.

After correcting the brake fluid level, have the cause of the loss eliminated by an Authorised Opel Dealer.

Brake fluid change

As brake fluid is hygroscopic, it absorbs water. Vapour bubbles which impair the braking effect may occur during braking.

The fluid change intervals specified in the Service Booklet must therefore be observed.

Have the brake fluid changed by an Authorised Opel Dealer, which will be familiar with the requirements of the law as regards disposal of brake fluid and can thus help to protect the environment and your health.

Windscreen wiper

Clear vision is essential for safe driving.

You should therefore perform regular checks on the windscreen wiper to make sure that it is operating correctly.

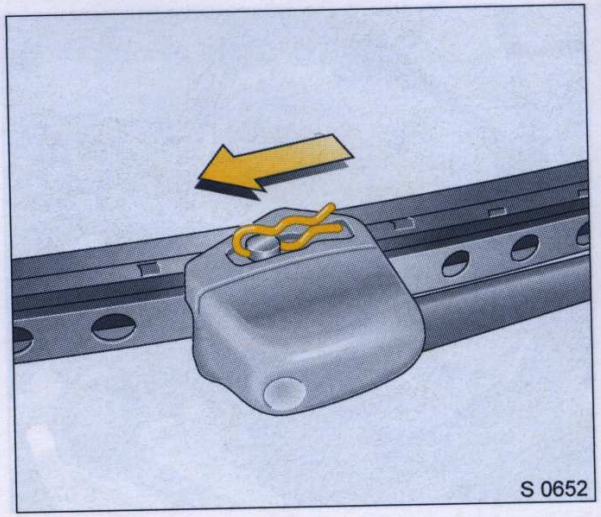
Operation of the windscreen wiper on iced-up glass will result in damage to the wiper lip.

Clean smearing wiper blades with a soft cloth and Opel Windscreen Wash Solvent.

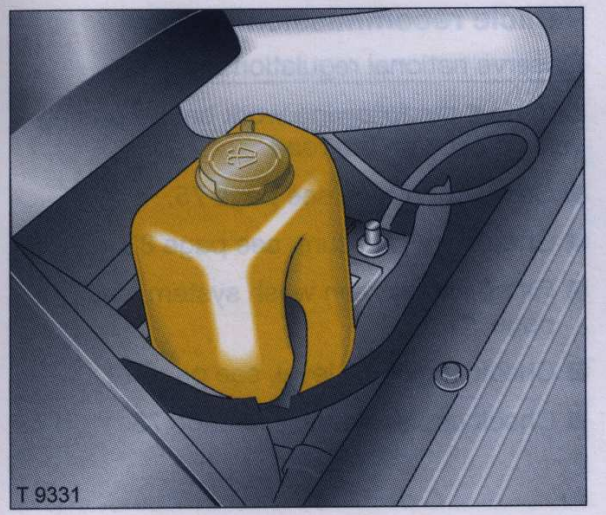
If the wiper becomes frozen onto the glass, it should be released with the aid of Opel De-icer Spray.

Operating the windscreen wiper if it is frozen to the windscreen may result in damage to parts of the wiper system.

Wiper blades whose lips have become hardened, cracked or covered with silicone must be replaced. This may be necessary as a result of the effects of ice, thawing salt or heat, or the incorrect use of cleaning agents.



To renew blade, lift wiper arm, remove release clip and detach wiper blade.



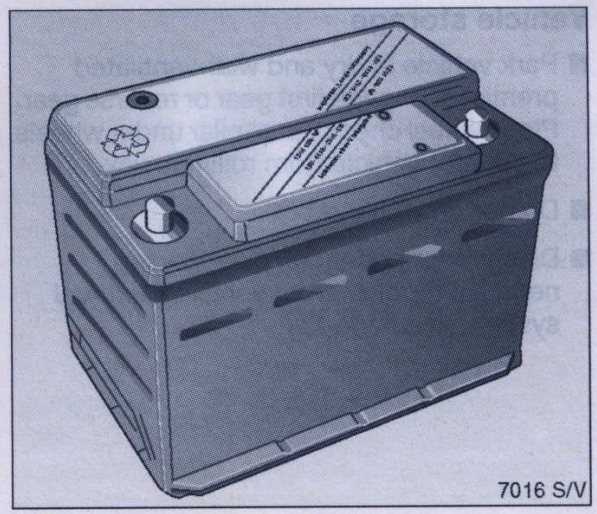
Windscreen wash system

Fill only with clean water to prevent the nozzles from clogging. To improve cleaning efficiency, add a little Opel Windscreen Wash Solvent.

To prevent the windscreen wash system freezing in winter:

Freeze protection down to	Mixture - Opel Windscreen Wash Solvent : Water
- 5 °C	1 : 3
- 10 °C	1 : 2
- 20 °C	1 : 1
- 30 °C	2 : 1

When closing the container, press the lid firmly over the beaded edge.

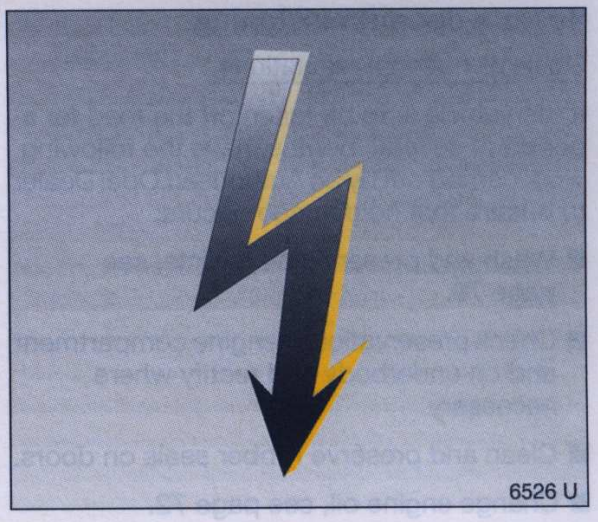


Battery

The battery is maintenance-free.

Ignition system

Electronic ignition systems use a very high voltage. Do not touch the ignition system, danger to life.



Protection of electronic components

In order to avoid the breakdown of electronic components within the electrical system, never disconnect the battery with the engine running. Never start the engine while the battery is disconnected (e.g. when using jump leads).

The battery must be disconnected from the vehicle before being charged: first disconnect the negative cable and then the positive cable. The polarity of the battery, i.e. the connections for the positive and negative cables, must not be interchanged. When reconnecting, first connect the positive cable and then the negative cable.

Vehicle decommissioning

Observe national regulations.

If the vehicle is to be taken off the road for a period of several months, have the following work carried out by an Authorised Opel Dealer to ensure that no damage occurs:

- Wash and preserve the vehicle, see page 79.
- Check preservation in engine compartment and on underbody and rectify where necessary.
- Clean and preserve rubber seals on doors.
- Change engine oil, see page 72.
- Check anti-freeze and corrosion protection, see page 72.
- Check coolant level, see page 73.
- Empty windscreen wash system.

Vehicle storage

- Park vehicle in dry and well-ventilated premises. Engage first gear or reverse gear. Place wheel chocks or similar under wheels to prevent vehicle from rolling away.
- Do not apply hand brake.
- Disconnect battery by disengaging negative terminal from vehicle electrical system, see page 75.

Vehicle recommissioning

Observe national regulations.

Carry out the following work before putting a vehicle back on the road.

- Connect battery, see page 75.
- Check tyre pressure, see page 88.
- Fill up windscreen wash system, see page 75.
- Check engine oil level, see page 71.
- Check coolant level, see page 73.

Vehicle Care

Consult an Authorised Opel Dealer with regard to care aids tested and recommended by Opel.

In caring for your vehicle observe all national environmental regulations, particularly when washing your vehicle.

Regular, thorough care contributes to improving the appearance of your vehicle and maintaining its value. It is also a prerequisite for claims made under the warranty in the event of paint or corrosion damage. In the following pages, we give you tips for vehicle care which, with correct use, will help to ward off unavoidable and harmful environmental influences.

Vehicle care aids ✻

Vehicle wash:
- Car Shampoo
- Sponges
- Chamois Leather
- Wheel Cleaners
- Engine Cleaners
- Glass Cleaners

Exterior care:
- Touch-up Paints
- Car Polishes/Colour Restorers
- Car Waxes/Sealers
- Rust Preventative
- Lubricant Sprays
- De-icer Sprays
- Tar Removal Spray
- Windscreen Wash Solvent

Interior care:
- Interior/Upholstery Cleaner

Washing

It is recommended that the vehicle is washed by hand and that automatic car washes are avoided.

The paintwork of your vehicle is exposed to environmental influences, e.g. continuous changes in weather conditions, industrial waste gases and dust or thawing salts, so wash and wax your vehicle regularly.

Bird droppings, dead insects, resin, pollen and the like should be cleaned off immediately, as they contain aggressive constituents which can cause paint damage.

Many contaminants are water soluble and can be removed by thorough washing with plenty of lukewarm water together with a car wash detergent (household detergents are not recommended as they can remove wax and accelerate oxidation).

It is recommended that the vehicle be washed by hand, in the shade, using a cotton wash-mitt or sponge that is regularly rinsed. Use a straight back and forth washing motion to avoid swirled micro-scratches.

To minimise the damage from road salt, the underside of the vehicle should be rinsed with clean water as soon as possible after travelling on treated roads.

Thoroughly rinse off and leather-off the vehicle. Rinse leather frequently. Use separate leathers for paint and window surfaces: remnants of wax on the windows will impair vision.

Soft top care

Particular care should be taken when washing the fabric soft top. Carefully vacuum the soft top before washing to remove excess dust and dirt particles. Wash in shade with a sponge (a chamois will leave lint, while a brush may abrade the threads) and use a Opel Car Shampoo and lukewarm water solution.

Wash the entire top uniformly to avoid rings or spots. Rinse with plenty of clean water.

Remove surface water with a sponge and allow to air dry. Be sure to allow the soft top to dry completely before stowing as prolonged stowage of a wet or damp roof will promote rotting of the fabric.

- Remove bird droppings from the roof immediately.
- Do not use aggressive cleaning agents or stain removers.
- Do not direct water jets on to the edges of the roof.
- Do not use sharp-edged objects to remove snow and ice from the roof.

Whilst the soft top is weatherproof, it cannot be guaranteed to be fully waterproof if the vehicle is washed in an automatic car wash. It is therefore recommended that the vehicle is hand-washed and that automatic car washes are avoided.

Exterior storage

Due to the soft top design being weatherproof and not water tight in all conditions, extended periods of rainfall may result in some water collection in the passenger compartment. Therefore, it is recommended that the vehicle is not stored outside without a suitable protective covering such as a shower cover (available from your Authorised Opel Dealer).

Waxing

Wax your vehicle regularly, in particular after it has been washed using shampoo and at the latest when water no longer forms beads on the paintwork, otherwise the paintwork will dry out.

Never let things deteriorate this far. Waxing prevents harmful chemical action.

Also wax edges and folds on opened doors and flaps as well as the areas they cover.

Polishing

Polishing is necessary only if the paint has become dull or if solid deposits have become attached to it.

Polishing with silicone forms a protective film, making waxing unnecessary.

Wheels

For alloy wheels we recommend use of Alloy Wheel Cleaner.

Paint damage

Minor paint damage such as stone chips, scratches etc. should be treated immediately with Opel Touch-Up Paint or Aerosol. If surface cracking is beginning to form, consult an Authorised Opel Dealer. Do not forget the surfaces and edges nearest to the road where surface cracks may also form unnoticed.

Tar spots

Tar spots must not be removed with hard objects, but instead immediately cleaned off with Tar Removal Spray. Do not use Tar Removal Spray on the covers of the exterior lights.

Exterior lights

Headlamp and other protective lamp covers are made of plastic. If the lamp covers require additional cleaning after the vehicle has been washed, clean them with Car Shampoo. Do not use any abrasive or caustic agents, do not use an ice scraper, and do not clean them dry.

Plastic and rubber parts

For additional cleaning of plastic and rubber parts use Cleaner. Do not use any other agent, and in particular do not use solvents or petrol.

Wheels and tyres

Do not use high-pressure jet cleaners on wheels and tyres.

Interior and upholstery

Clean the vehicle trim, including the instrument panel using Cleaner.

Clean fabric upholstery with a vacuum cleaner and brush. For removal of stains use Cleaner, which is suitable for both fabrics and vinyl.

For cleaning fabrics, carpets, the instrument panel and leather trim ✻ in the vehicle interior, do not use cleaning agents such as acetone, carbon tetrachloride, paint thinner, paint remover, nail varnish remover, washing powder or bleach. Petrol is also unsuitable.

Seat belts

Always keep seat belts clean and dry.

Clean only with lukewarm water or Cleaner.

Windows

Use a soft fluff-free cloth or chamois leather in conjunction with Window Cleaning Spray.

Opel Windscreen Wash Solvent is suitable for de-icing windows.

For mechanical removal of ice, use a commercially available sharp-edged ice scraper. Press the scraper firmly against the glass so that no dirt can get under it and scratch the glass.

Windscreen wiper blade

A smearing wiper blade should be cleaned with a soft cloth and Opel Windscreen Wash Solvent, and replaced if necessary.

Locks

The locks are lubricated before they leave the factory with a high-grade lock cylinder grease. Opel lock cylinder grease prevents the locks from freezing up. Use de-icing agents only in emergencies, as they have a degreasing effect and will impair the functioning of the locks. After using de-icing agents re-grease the locks.

Engine compartment

Important areas of the engine compartment have been provided with permanent protection at the factory in the form of a high-quality, smooth protective lacquer coating. Parts of the engine compartment lacquered in the same colour as the vehicle's paintwork can be treated in the same way as all painted surfaces. Wash engine only if absolutely necessary. Before washing the engine, protect alternator and load compartment with plastic covers.

When washing the engine with a steam-jet cleaner, do not direct the steam jet at the belt drive and its components.

Underbody

The underbody should be washed following the end of the cold weather season to remove any dirt adhering to the underbody.

Technical Data

The technical data are determined in accordance with European Community standards. Opel reserve the right to make modifications. Specifications in the vehicle documents always have priority over those given in this manual.

Vehicle identification data

The vehicle identification number is on the vehicle identification plate, which is mounted on the right-hand side B-pillar and on the forward chassis, visible through the front right-hand side wheel spokes.

Engine identifier code and engine number

The engine identifier code and engine number is located on the forward face of the oil filter housing.

Oils, coolant, brake fluid

Engine oils

We recommend using Opel engine oils with the following qualities and viscosities:
ACEA A3-/B3- SAE 0W-30
– or –
ACEA A3-/B3- SAE 5W-40
– or –
ACEA A3-/B3- SAE 10W-40

When using commercially available engine oils, as a matter of principle only those oils that meet the minimum quality requirements specified in the following table are permissible.

Engines	Oils
Petrol	ACEA- A3- or ACEA- A3-/B3-

Only the following viscosity classes are permissible for petrol engines:
SAE 10 W-30 (or higher than 30) or
SAE 5 W-30 (or higher than 30) or
SAE 0 W-30 (or higher than 30).

The range of application of the oil is dependent on the outside temperature, see the viscosity chart on the next page.

Information on ACEA classifications

The **A**ssociation des **C**onstructeurs **E**uropéens d'**A**utomobiles classifies engine oils according to their performance (quality).

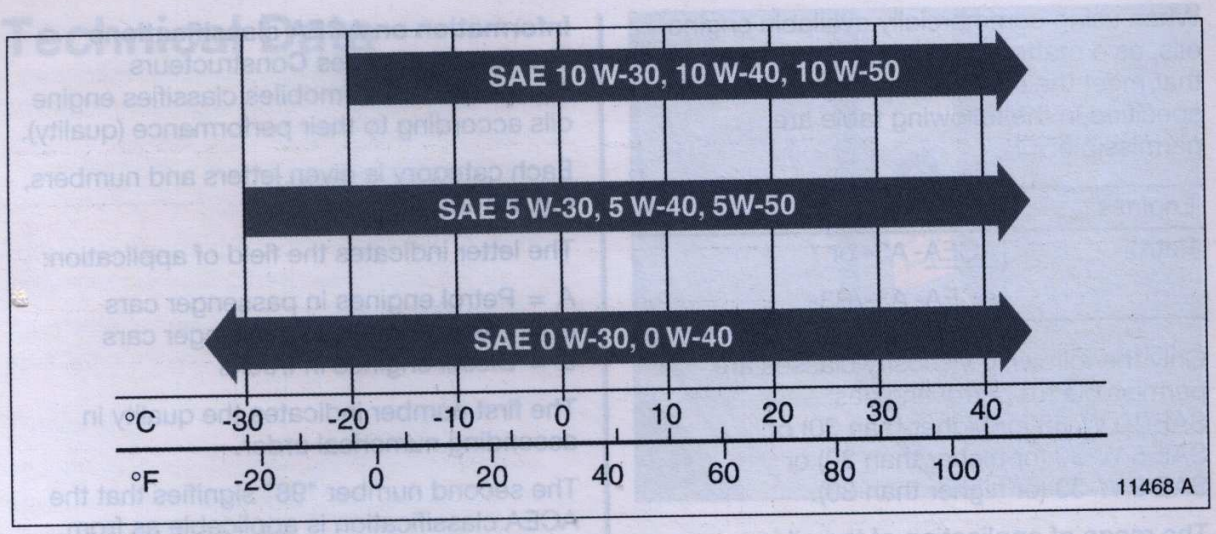
Each category is given letters and numbers, e.g. A3-98.

The letter indicates the field of application:

A = Petrol engines in passenger cars
B = Diesel engines in passenger cars
E = Diesel engines in trucks

The first number indicates the quality in ascending numerical order.

The second number "98" signifies that the ACEA classification is applicable as from January 1998. Higher year numbers indicate progressively refined oil classifications.



Information on SAE classifications
Engine and transmission oils are classified by the **S**ociety of **A**utomobile **E**ngineers according to their viscosity. Viscosity is the measure of internal friction of the oil in flux, dependent on its temperature.

The SAE classification does not provide information on the quality of the oil; it merely indicates the range of application of the oil dependent on the outside temperature; see diagram.

Refer to the information given on the previous page.

Do not switch to a different viscosity in the event of brief temperature fluctuations.

Further information, see Service Booklet.

Transmission fluid
Opel specified transmission oil

Coolant
Opel LLC (long life coolant)

Brake fluid
DOT4 brake fluid meeting US Safety Standard FMVSS § 571.116 and SAE Specification J 1703.

Engine data

Sales designation	2.2i
Engine identifier code	**Z 22 SE**
Number of cylinders	4
Bore dia. (mm)	86.0
Stroke (mm)	94.6
Piston displacement (cm^3)	2198
Max. engine power (kW)	108
at rpm	5800
Torque (Nm)	203
at rpm	4000
Compression ratio	10.0
Octane requirement (RON)[1)]	
unleaded	**95** (P)[1)]
or unleaded	98 (PP)[1)]
or unleaded	91 (R)[1)2)]
Max. permissible engine speed, continuous (rpm) approx.	6500
Max. vehicle speed (km/h; mph)	217/135
Oil consumption (l/100 km)	0.075

1) Standard high-quality fuels, e.g. unleaded EN 228: R = Regular, P = Premium, PP = Premium Plus; value printed in bold: recommended fuel.
2) If no unleaded premium-grade fuels are available, 91 RON can be used, taking care to avoid severe engine loads and driving at full throttle.

Fuel consumption, CO_2 emission (approx.)

The EC Directive 80/1268/EEC as last amended by 1999/100/EC applies to measurement of the fuel consumption of vehicles.

Fuel consumption was previously given for urban traffic, and constant speeds of 90 km/h (56 mph) and 75 km/h (120 mph). The new standard is based on the emission drive cycles to determine CO_2 emission and fuel consumption.

Urban driving is assumed to make up around 1/3 of the overall consumption figure and extra-urban driving around 2/3. Cold starting and acceleration phases are additionally taken into account. The new figures are consequently higher than the old ones.

The new regulation also requires the CO_2 emission level to be stated.

The figure given must not be taken as a guarantee for the actual fuel consumption of the vehicle.

Discrepancies between actual fuel consumption and the figures given can result from driving style, road and traffic conditions or the condition of the vehicle.

Fuel consumption (approx. l/100 km [1]), **CO_2 emissions** (approx. g/km).

Engine	Z 22 SE
Urban	12.3
Extra-urban	6.4
Combined	8.5
CO_2	205

[1] To convert l/100 km into mpg, divide 282 by number of litres/100 km.

Weights, payload and roofload

The payload is the difference between the permissible gross vehicle weight and the EC kerb weight.

The combined total of front and rear axle loads (see vehicle identification plate) must not exceed the permissible gross vehicle weight, i.e. if the front axle load is being fully utilized, the rear axle load must not be such that the permissible gross vehicle weight is exceeded.

Optional equipment and accessories increase the kerb weight and in some cases also the permissible gross vehicle weight, which means that the payload will also change slightly.

Note the weights given on the vehicle identification plate.

Roof loads must not be carried on the Speedster.

Driving hints – page 44.

Vehicle weights (kg)

Model	Permissible gross vehicle weight	Kerb weight [1)]
Speedster	1150	945

[1)] According to EC Directive, including assumed weights for driver (68 kg), luggage (7 kg) and all fluids (tank 90% full).

Tyres

Restrictions

Not all tyres available on the market currently fulfill the necessary design requirements. Consult an Authorised Opel Dealer to establish which makes of tyre have been approved by Opel.

Winter tyres

The tyre sizes given may be used as winter tyres (M+S tyres).

Tyre chains

Restrictions

Tyre chains may be used on the rear drive wheels only.

Further information - see page 56.

Wheels

Tightening torque: 90 Nm

Tyre inflation pressures in bar/psi

The tyre pressures given are valid for cold tyres. The increased tyre pressure resulting from extensive driving must not be reduced.

The pressures given apply to both summer and winter tyres - see page 56.

Tyre [1]	Inflation pressure with full load (bar/psi) [2]	
	Front	Rear
175/55 R17 81 V	1.8/26	-
225/45 R17 90 V	-	1.9/27.5

[1] Bridgestone Potenza RE040 only, available from your Authorised Opel Dealer.
[2] To convert to kPa multiply bar by 100 (1 bar = 100 kPa).

Electrical system

Electronic ignition systems use a very high voltage. Do not touch; danger to life.

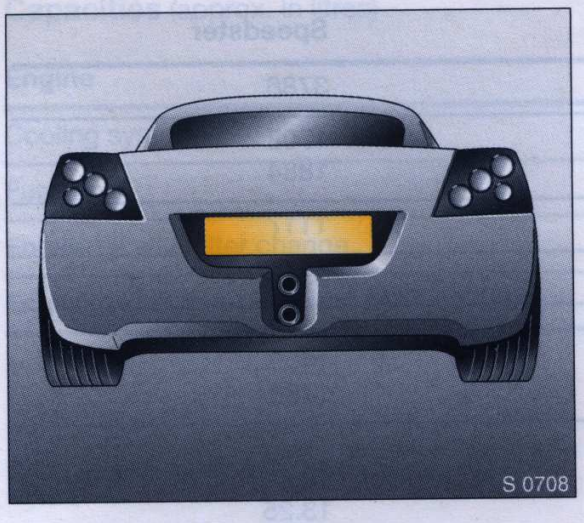
Battery	Voltage	12 Volt
	Amp Hours	45 Ah
Spark gap		1.0 ± 0.1 mm

Capacities (approx. in litres)

Engine	Z 22 SE [1]
Cooling system	12.3
Fuel tank	36.0
Engine oil with filter change	5.5
Engine oil between MIN and MAX on dipstick	1.0

[1] Sales designation: see page 85

Dimensions (mm)	**Speedster**
Length	3786
Width	1708
with exterior mirrors	1884
Height	1117
Wheelbase	2330
Track width:	
Front	1450
Rear	1488
Turning circle diameter (m):	
kerb to kerb	10.6
wall to wall	13.25



Number plate mounting

When installing to the front of the vehicle it is important not to obscure the air intake.

When installing to the rear of the vehicle be sure to mount it as high as possible. This is especially relevant for plastic number plates that may be damaged by heat from the exhaust system.

Index

Index

OPEL

The information and illustrations contained in this Owner's Manual are effective as of the date indicated below. Adam Opel AG reserves the right to make changes to the technical specifications, features and design of the vehicles relative to the information and illustrations contained in this Owner's Manual, as well as changes to the Owner's Manual itself.

Edition: July 2001

Adam Opel AG, Rüsselsheim.

Printed on chlorine-free
bleached paper.

KTA-2399/2-GB
Art.-Nr. 09 927 102 07/01