Saab 900

Owner's Manual M1994

SAAB SCANIA

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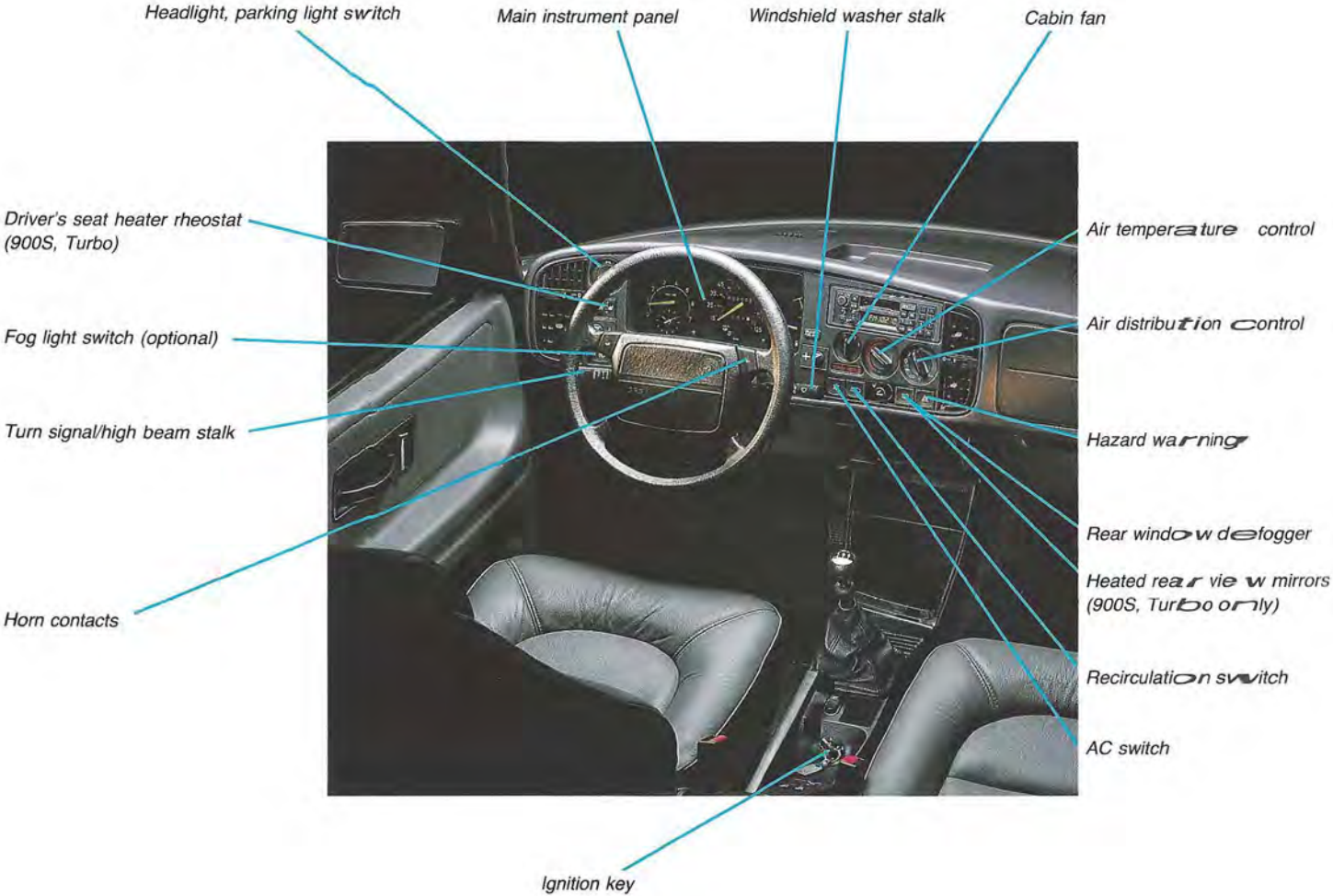
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Main instrument panel
Windshield washer stalk
Cabin fan
Driver's seat heater rheostat (900S, Turbo)
Fog light switch (optional)
Turn signal/high beam stalk
Horn contacts
Air temperature control
Air distribution control
Hazard warning
Rear window defogger
Heated rear view mirrors (900S, Turbo only)
Recirculation switch
AC switch
Ignition key

Owner's Manual
Saab 900 - 1994

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Introduction

Your Saab is a product of Saab Automobile AB which has its main production and development center in Trollhättan, Sweden. Certain Saab models are produced in Finland.

Importation and distribution of Saab automobiles, spare parts and accessories in the United States are handled exclusively by Saab Cars USA, Inc.

In Canada, importation and distribution of Saab automobiles, spare parts and accessories are handled exclusively by General Motors of Canada Ltd.

This manual for the Saab 900 provides some practical advice on driving and caring for your car. A technical description of the various systems is given in a special section. The manual also describes the most important differences between model versions.

WARNING!

Indicates the possibility of personal injury or death if you do not follow the instructions in the warning.

NOTE

Indicates the potential for damage to your Saab if you do not follow the directions in the caution.

Read through the manual before taking the car out for the first time, then keep it in the car for future reference.

A list of contents is provided for each section of the manual and there is also a comprehensive index at the back.

Also supplied with the car are a Warranties & Service Record Booklet, Audio System Manual and a tire warranty folder. You should also become familiar with this material.

Since the policy at Saab Automobile AB is one of continual improvement, we retain the right to incorporate modifications and alter specifications during production without prior notice.

Best Wishes,

Saab Automobile AB

Note: The radio shown in some of the photographs in this manual differs from that which is standard equipment on U.S. and Canadian models. A separate audio manual is provided.

Note: The steering wheel shown in some of the photographs in this manual differs from that which is standard on U.S. and Canadian models.

Instruments and controls

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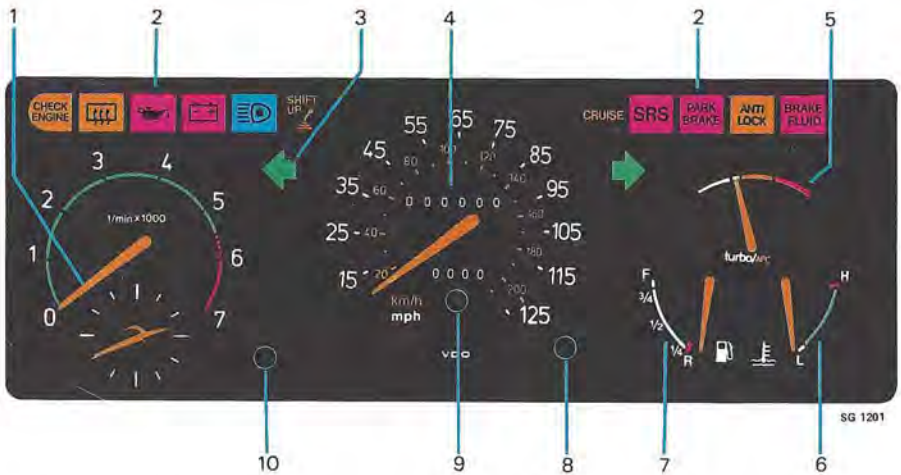
Instrument panel



Combination instrument

1 Clock and tachometer
2 Warning and indicator lights
3 Turn signal indicator lamp
4 Speedometer, odometer and trip meter *
5 Pressure gauge (Turbo)
6 Temperature gauge
7 Fuel gauge
8 Dimmer, instrument panel lighting
9 Reset button for trip meter
10 Clock adjustment knob

* U.S speedometer/odometer shown. Canadian speedometer/odometer displays km/h and km only.

Instruments

Fuel gauge

This gauge accurately measures the quantity of fuel remaining in the tank.

Temperature gauge

The temperature gauge indicates the temperature of the engine coolant. After the initial warming-up period, the needle should generally indicate normal running temperature.

If the needle repeatedly approaches the red zone, stop the car immediately and check the coolant level.

WARNING!

Do not remove the radiator cap or the coolant expansion tank cap when the engine is hot. They contain hot fluid which is under pressure. Failure to heed this warning may result in personal injury. Refer to page 72 for further instructions and warnings.

NOTE

Do not operate the engine at full throttle until the needle on the temperature gauge has entered the green zone. Possible engine damage could occur if full throttle is used before the engine coolant is sufficiently warm.

Speedometer, odometer and trip meter

The speedometer indicates road speed on the primary scale in miles per hour. A secondary scale in orange indicates kilometers per hour. The odometer records the distance in miles, and the trip meter in miles and tenths.

The reset button for the trip meter is located in the lower section of the meter. Push to reset.

Pressure gauge, Turbo

The pressure gauge indicates the charging pressure in the inlet manifold. At low engine loads and during engine deceleration, a vacuum will be present in the manifold. In such cases, movement of the needle will be within the white zone. At increased loads or engine speeds, the turbo compressor will increase the charging pressure in the inlet manifold. In this case, the needle will move into the orange zone.

The charging pressure will not normally be high enough to cause the needle to enter the red zone, since the engine is equipped with a charging pressure regulator (wastegate). However, under full load and with sufficiently high octane fuel, the needle may briefly enter the red zone. There is also an overpressure safety switch to protect against excessive pressure which could damage the engine.

Tachometer and clock

The tachometer indicates the speed of the engine in thousands of revolutions per minute. The RPM range for economical operation is indicated in green on the tachometer. Driving within this range aids in achieving best possible fuel economy. The needle should only be allowed to enter the broken red zone for brief periods. It must never enter the red zone. A safety device limits engine speed to approximately 6000 rpm.

Warning and indicator lights

All of the warning lights and some of the indicator lights will come on as the ignition switch is turned to start the vehicle. The lights should then all extinguish within a few moments after the engine has been started.

High beam indicator light

This light will glow when the headlights are switched to high beam.

BRAKE FLUID Warning Light

WARNING!

If the BRAKE FLUID and ANTI LOCK warning lights are illuminated at the same time, the car must not be driven. After several pedal applications, the brake pedal effort will increase unexpectedly and the braking effect will be greatly reduced. Note, however, that the operation of the handbrake will be unaffected. Failure to heed this warning may result in inadequate braking and possibly personal injury.

The BRAKE FLUID warning light will illuminate when the fluid level in the brake fluid reservoir falls too low. If the light comes on, stop the car at the nearest safe opportunity and check the level of the brake fluid in the reservoir. If the BRAKE FLUID warning light remains on after replenishing the fluid, the car should not be driven and should be checked and corrected immediately by an authorized Saab dealer.

NOTE

The fluid level gradually lowers as the brake pads wear. Blinking of the light may indicate that the pads are due for replacement.

ANTI LOCK Warning Light

The ANTI LOCK warning light will illuminate when a problem or fault occurs in the anti-lock braking system. When the ANTI LOCK warning light illuminates and the BRAKE FLUID warning light does not, the anti-lock braking system will deactivate and the vehicle will revert to a standard braking system without the benefit of the anti-lock features. The anti–lock brake system should be checked and any problems corrected immediately by an authorized Saab dealer.

Handbrake indicator light

This light will glow when the handbrake is applied.

Charge warning light

This light will come on when the battery is not being charged. If the light comes on while you are driving, stop at the earliest safe opportunity, switch off the engine and check the condition of the alternator drive belt. A loose or missing belt can affect engine cooling and the charging system.

Indicator light, electric rear window defroster

This light will glow when the rear window defroster is switched on. The light will automatically extinguish after approximately 10 minutes to prevent unnecessary temperature loading of the rear glass. The light also indicates heated mirror operation.

Shift indicator light (U.S. models only)

This light is fitted to cars with manual transmission. The light tells you when you can get better fuel economy by shifting to a higher gear. See page 53.

Fuel control system warning light

This light will come on if there is an electrical malfunction in the fuel injection system. In the event of a serious malfunction, a back up system in the control unit will take over, enabling the car to continue its journey with somewhat diminished performance. This light may also indicate an emission control system fault or, in naturally-aspirated cars, a fault in the ignition system.

Should the "Check engine" light illuminate and stay on, please have the problem checked by your Saab dealer as soon as possible.

Oil pressure warning light (engine oil)

This light will come on if the engine oil pressure drops too low. If the light blinks or comes on while you are driving, stop the car immediately, switch off the engine and check the oil level. If the oil light stays on, do not drive the vehicle under any circumstances, even if the oil level is correct, as severe engine damage can result.

Low fuel warning light

This lamp will glow continuously when the quantity of gasoline in the fuel tank is less than approximately 2.5–3.1 U.S. gallons (10–12 liters). Refuel at your next oppurtunity.

If the fuel tank has run dry, at least 1.5 gallons (6 liters) of fuel will have to be added for the engine to be started when the car is standing on level ground. If the car is on a slope, as much as 3 gallons (11 liters) may have to be added.

Cruise control indication

This light indicates that the cruise control switch is in the ON position. If the RESUME portion of the cruise control switch is depressed while the light is on the car may revert to a previously set speed.

Under normal driving conditions we recommend that the cruise control switch remain in the OFF position.

Supplementary Restraint System

A blinking or steady glow indicates a fault in the Supplementary Restraint System. The system should be checked and corrected immediately by a Saab dealer. When the light remains on, the SRS (driver's side airbag) may not be activated in an accident. The light is illuminated for a few seconds when the ignition is turned to the start or drive position.

In the event of a collision severe enough to deploy the SRS, the SRS warning light will flash for 5 seconds and then remain lit.

Lighting switches

Headlight switch

The headlight switch has three positions:

The lighting is off.

Parking lights on.

Headlights and parking lights on.

WARNING !

Many jurisdictions require you to turn on your headlights at dusk or during inclement weather. Failure to do so could result in violation of local traffic ordinances and limit your visibility to other drivers.

Daytime Running Lights (optional in the U.S., standard in Canada)

On cars equipped with the optional Daytime Running lights the three headlight switch positions provide the following combinations with the ignition switch in the on position:

Daytime running lights

Daytime running lights

Headlights and parking lights

Switch for headlights, parking lights and optional daytime running lights SG 910

Daytime Running Lights are essentially identical to the regular low beam headlights except that they cannot be switched to a constant high beam. The high-beam "flash" function remains, however. Your Saab dealer can activate this feature by installing an extra-cost system relay.

The Canadian Federal Government believes that Daytime Running Lights are a useful feature, in that they make your vehicle more visible to pedestrians and other drivers during daylight hours. Daytime Running Lights are standard on new vehicles sold in Canada.

Fog lights (if equipped)

The fog lights are located under the front bumper and are provided with protective covers. Keep the lights covered when not in use.

The fog light switch is located below the headlight switch. To turn on the fog lights, rotate the headlight switch to either the parking light or headlight position and push in the fog light switch. The fog lights will not be illuminated when the high beams are switched on. Push and release the fog light switch and/or rotate the headlamp switch to the off position to turn off the fog lights.

Use of fog lights are subject to applicable state/provincial law. Operation with parking lights may be restricted. Amber-colored lenses are available as an extra-cost alternative where preferred or required. See your Saab dealer for details.

WARNING!

In fog or driving conditions with limited visibility, reduce speed, turn on low beam headlights and fog lights (if equipped) and refrain from following the tail lights of vehicles in front of you. Following the taillights in front of you can lead to an accident causing personal injury.

NOTE

Use care when parking close to curbs or snow banks. Contact with the fog lights will damage them.

Hazard warning

When the switch is pushed on, all direction indicator lights flash simultaneously. The hazard warning lights should be used if the car constitutes a danger or obstruction to other road users. The switch flashes red when in use.

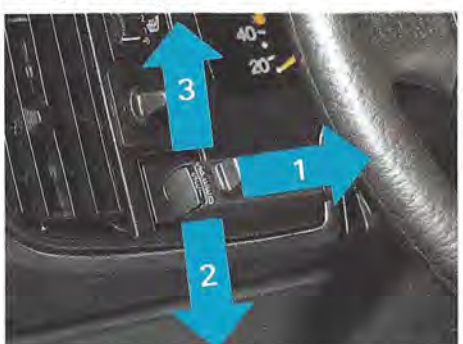
SG 957

Headlight dimmer, high beam flasher, and turn signal control

The spring loaded lever is moved towards the steering wheel to switch from high beam or vice versa. The same action provides a warning high beam flash when the headlights are switched off. A blue indicator light glows whenever the high beams are on. The turn signals and cornering lights are operated by moving the lever in the direction in which the steering wheel is turned. "Lane change" detents are provided.

Use care when operating the turn signal switch with the CRUISE light illuminated. Failure to do so could lead to inadvertent operation of the cruise control RESUME function.

1 Flash headlight, high beams
2 Left turn signal
3 Right turn signal



SG966A

Instrument panel lighting

The instrument panel lighting is switched on and off with the headlight switch. Separate dimmer controls are supplied for the instrument lighting and control lighting.

Interior illumination

The interior illumination comprises three lights located: above the front seats, behind the rear view mirror, and beside the ignition switch.

On Convertible models the overhead light is replaced by two side reading lights in the rear speaker panels. The switch on the console between the front seats has three positions:
Forward: Lighting on continously
Middle: Lighting off
Rear: Lighting comes on when a door is opened

Certain models are equipped with a time delay shut-off for the interior lights. The lights will remain on for about 15 seconds after the doors have been closed or until the ignition key is turned on, whichever occurs first.

Be certain that the interior lights are switched off when parking the car.

Rear reading light (operated by interior light switch), Convertible SG 935

Interior illumination switch

SG 879

Wiper and washer controls

The control lever for the windshield wipers and washer has the following positions:

0 Off position
1 Windshield wiper, intermittent operation. The wipers will make a sweep at intervals of a few seconds. This function is particularly useful in light drizzle, fog or road spray.
2 Windshield wipers, low speed
3 Windshield wipers, high speed
4 Windshield washer

Check your wiper blades periodically and replace them when worn for safer driving.

SG 878

Adjustment of washer jets SG 898

The windshield washer pump will operate as long as the lever is held toward the steering wheel. If the lever is pulled when in the "wipers-off" position, the washer pump and the wipers (both windshield and headlight) will actuate. The wipers will automatically make a few sweeps after the lever is released.

Headlight washers and wipers

The headlight washers and wipers operate in conjunction with the windshield washers. Whenever the stalk switch is pulled towards the driver, both the windshield and headlight washers will function.

Climate control system

Electrically heated rear window, rear view mirrors

The rear window defroster grid and outside rear view mirror heating elements are controlled by means of a push switch near the center of the instrument panel.

An indicator light glows when the heating is on. Pushing the switch a second time will turn off the defrosters.

The defrosters will also automatically turn off after approximately 10 minutes of operation or when the ignition is switched off, whichever occurs first. Do not switch on the window heating before starting the engine.

SG 958

NOTE

Damage to the rear window may result if the defroster is operated for a long period of time when the rear window is dry.

Do not use abrasive cleansers on the inside of the rear window which may damage the electrical continuity of the grid. Avoid placing hard or sharp objects on the rear window shelf as the heating wires may easily be damaged.

SG 911

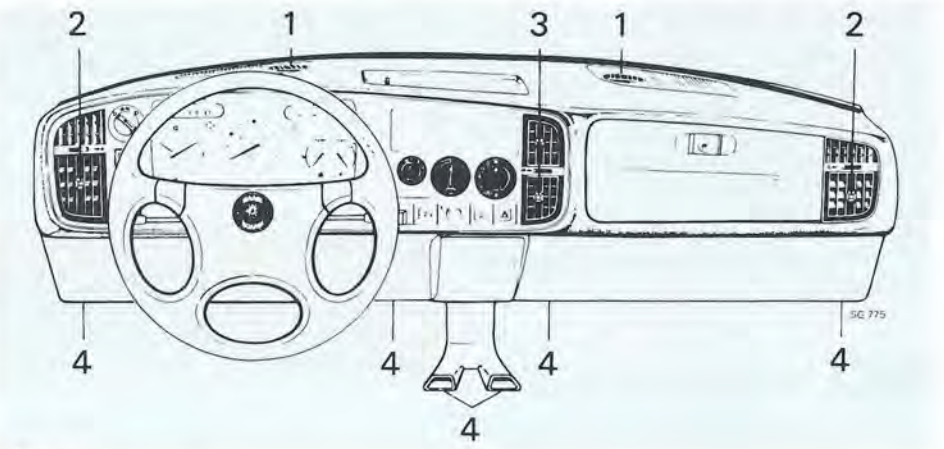
Seat heater rheostat (driver's side)

The temperature regulation of the driver's seat heater is controlled or switched off by means of the rheostat located below the headlight switch. The switch has three settings of heat output. Choose the one that is most comfortable.

The backrest and cushion of the passenger's seats have thermostat-controlled electric heating elements that warm up automatically when the ignition is switched on. The thermostat ensures that the heaters are switched off when the temperature exceeds 82°F (28°C).

Ventilation system

The Saab 900 has a sophisticated flow through ventilation system. Air enters at the right hood louver and exits at the rear quarter panel grilles and/or behind the rear bumper. All incoming air passes through the A/C evaporator, and except for air channeled to the center panel vent, then passes through the heater core. All system controls are located in the center of the instrument panel. The three panel vents are adjustable directionally and have individual thumb wheel shut off switches (0 = Off).



Air vents

1 Defroster vents
2 Side vents
3 Central panel vents (unheated air only)
4 Floor vents

1 Fan switch
2 Temperature control
3 Air distribution control

SG908

Control functions

See the chart on the following page for recommended climate control settings.

Fan switch

The heater fan has four speeds. Speeds one, two and three are controlled by the fan switch. Speed four (maximum) is automatically used when the air distribution selector is moved to the "Max Vent" position. The fan may be completely shut off by selecting "0" on the distribution selector.

Temperature control

All incoming air except that channeled to the center panel vent passes through the heater core. The temperature control regulates the amount of heat added to the air by controlling the flow of heated engine coolant through the core. Turning the rotary knob clockwise increases the temperature. The 6 o'clock position (blue spot) turns off the coolant flow permitting unheated air to reach all vents.

DISTR Air distribution selector

The rotary switch controls distribution of the incoming air. Clockwise from 6 o'clock the positions are "Off" (fresh air intake restricted, fan off), Max Vent (fan on fourth speed), Panel Vent, Floor Vent, Floor, Bi-Level and Defrost.

Air Conditioning

Saab air conditioning is standard on 900 models. Vehicles equipped with A/C have an A/C on/off switch and a recirculation switch on the instrument panel, an auxiliary electric radiator cooling fan and a high coolant temperature cut-out.

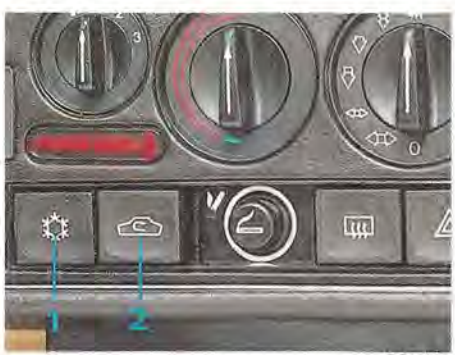
The electronic fuel injection system also has an idle air control valve which automatically adjusts the idle regardless of the engine load. The compressor is a cycling clutch type. Run the air conditioner a few minutes occasionally during the winter to ensure proper compressor seal lubrication.

WARNING!

The A/C system contains freon gas under pressure. Do not loosen or undo the A/C system hoses. Escaping gas may cause blindness or injury.

Switches for the air conditioning system

1 On/off
2 Air recirculation



SG 959

A/C On/Off switch

Push in to engage A/C compressor. Compressor will not switch on below 38°F (3°C). Push a second time to turn the compressor off. Starting of the air conditioner compressor is delayed for a short period of time when the engine is started, in order to avoid applying additional load to the engine.

Recirculation switch

The recirculation switch closes the fresh air intake and opens the recirculation flap to recirculate the air inside the car. This feature is intended for use when maximum cooling is required or to avoid exhaust fumes being drawn into the ventilation system when the car is in slow moving traffic.

WARNING!

Do not use recirculation in cold weather as this may cause ice or mist to form on the windshield and side windows.

Climate system tips

Defogging windows - Switching on the A/C compressor in combination with turning up the temperature control will accelerate defogging. The recirculation switch should be off.

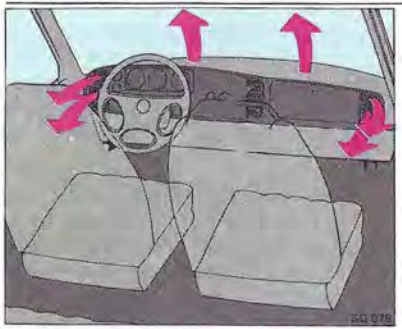
Defrosting windshield - For maximum effect, turn the temperature control fully clockwise and the air distribution control to twelve o'clock. Increase the fan speed as the air begins to warm up.

Heat plus fresh air - On a long winter drive, cool air directed toward the face can help fight drowsiness. Select the nine o'clock position on the air distribution control and adjust the center panel vent to suit.

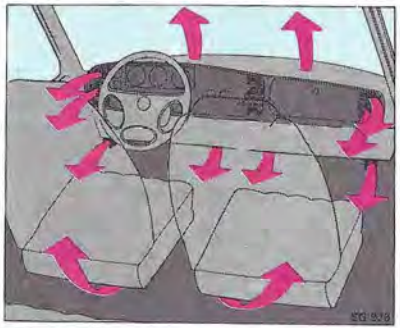
A/C modulation - For maximum cooling, engage both the A/C and recirculation switches and select the seven o'clock position on the air distribution control.

The temperature control should be fully counter clockwise to the blue spot. As the desired comfort level is reached, switch the air distribution to eight o'clock, disengage the recirculation and adjust fan speed to suit.

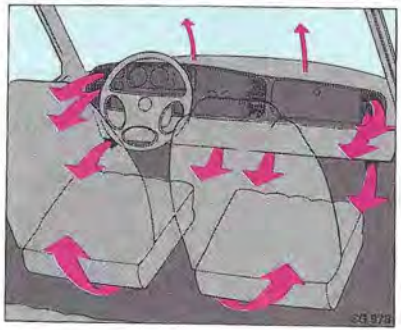
To maintain comfort on moderate days, add heat to the outer vents by turning up the temperature control part way. Direct the fully cold air from the center vent toward the rear, between the front seats, or close it with the thumb wheel switch on the vent itself.



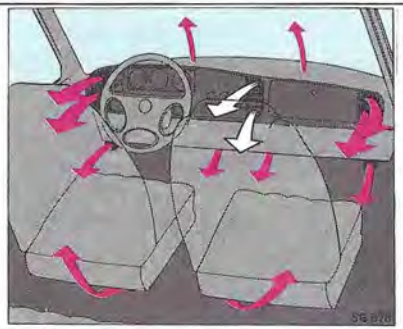
Defroster vents open.



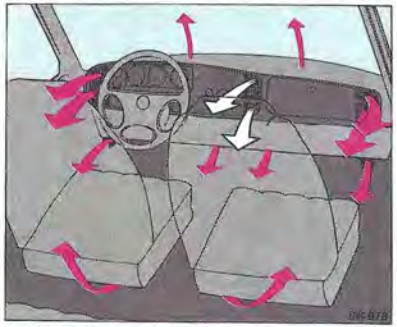
Floor and defroster vents open.



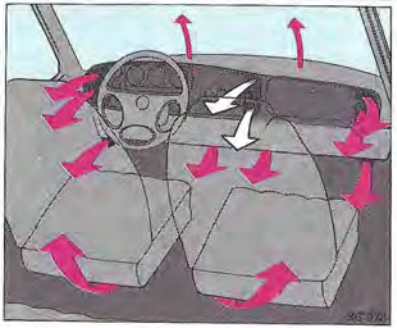
Floor vents open. Central panel vent closed.



Maximum air flow for rapid cooling. All panel vents fully open. Floor vents closed. The fan runs automatically at maximum speed.



All panel vents fully open. Floor vents closed.



Floor vents and central panel vents fully open.

Interior equipment

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Seats

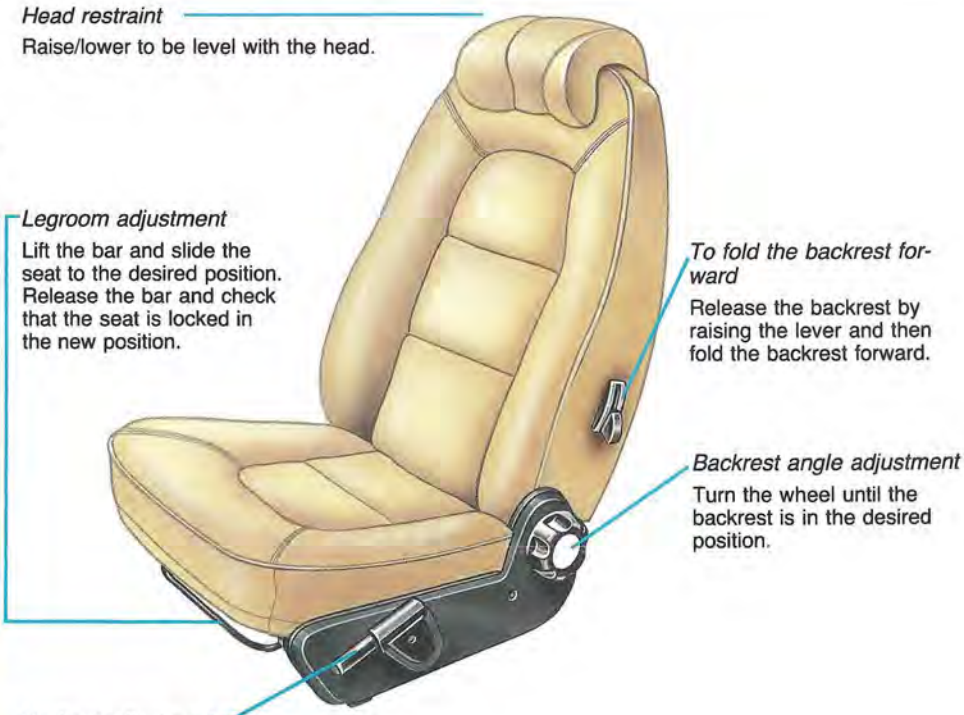
Manually adjusted front seats

The front seats can be adjusted for legroom, the rake angle of the backrests has infinitely variable adjustment within the limits and the head restraints can be raised or lowered. The driving seat also has adjustable height.

In two-door and three-door models, the backrests can be folded forwards.

WARNING!

- All seat adjustments should be completed before any vehicle motion. Adjustments to the driver's seat while driving may cause the driver to lose control of the vehicle.
- After each legroom adjustment, ensure that the seat is securely latched into position. Failure to properly latch the seat may allow unexpected seat movement during driving and may cause the driver to lose control of the vehicle. Also, an unlatched seat may move during a collision and contribute to personal injuries.
- The front seat backrest must always be in an upright position during vehicle motion in order for the seat belts and seat back rests to afford maximum occupant protection in a collision or sudden stop. The seat back should never be fully reclined while driving.



Head restraint

Raise/lower to be level with the head.

To fold the backrest forward

Release the backrest by raising the lever and then fold the backrest forward

Controls for electrically adjustable front seats

1 Backrest rake angle
2 Legroom and height adjustment

WARNING!

To avoid the risk of injury, keep hands well clear of the locking mechanism on both sides at the base of the backrest when moving the backrest to the upright position.

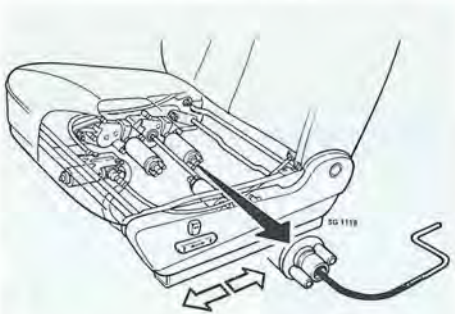
Head restraints

Front seat head restraints have a vertical adjustment range of approximately 3 1/2 inches (90 mm). To raise, grasp both sides of the cushion and pull upwards. To lower, press down on the top center of the cushion. A system of detents will secure the cushion at the desired height.

For the best protection, adjust the center of the head restraints approximately at ear level.

Headrest cushions

Removable rear headrest cushions (two outboard seating positions) are standard equipment. Rear cushions have a mounting post which fits into a bracket attached to the back of the rear seat backrest. The rear headrest cushions must be pulled out when the seat is to be folded down.



Position of crank

Electrically adjustable front seats

Electrically adjustable front seats are available on certain models.

The top control is for movement of the backrest. The lower control is for legroom adjustment and for individual height adjustment of the front (thigh support) and back of the seat.

In the event of an electrical fault, a special flexible crank included in the tool kit can be used to adjust the seat manually for legroom. From underneath at the back of the seat, insert the crank in the electric motor located on the right-hand side, nearest to the back of the seat.

Turn the crank clockwise to move the seat rearwards and counter-clockwise to move the seat forward. Movement of the seat using the crank is very gradual.

Seat belt, front seat SG1130

1 Latch tongue
2 Latch buckle

Seat belt system

WARNING!

Seat belts, properly worn, reduce the risk of serious occupant injury in an accident or emergency maneuver. Belt type restraints are provided at all seating positions. Use them for your comfort and protection.

Inertia reel-type three point manual belts are provided at the front and outboard rear seating positions. A manually adjusted lap belt is provided for the center rear position.

Using manual lap and shoulder belts

Each lap and shoulder (three point) restraint consists of a continuous belt, a latch buckle, and a locking retractor mechanism which allows passenger movement under normal circumstances and locks the belt in emergency situations.

To put the belt on, grasp the belt near the shoulder guide loop and pull out a sufficient length of belt to reach the latch mechanism between the front seats.

NOTE

On Convertible models, take hold of the seat belts close to the bottom anchor point and gently draw out sufficient belt to reach the latch mechanism.

Taking hold of the front seat belt (Conv.)

SG1129

One section of the belt should now be lying low over the hips and the other well in on the shoulder but not too close to the neck. Position the latch tongue on the belt so that it can be inserted into the latch buckle.

Pull up on the upper portion of the belt to take up any slack in the lap portion. The retractor mechanism will automatically adjust the shoulder portion. The belt is released by pressing the red button on the latch buckle. The retractor will return the belt to its stored position.

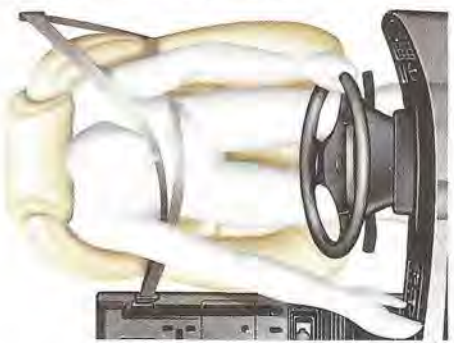
WARNING!

Use the shoulder belt portion of the seatbelt on the outside shoulder only. Never wear the shoulder belt under the arm. Never swing it around your neck over the inside shoulder. Be sure the lap portion of the belt is fitted snugly and as low as possible around the hips, not on the waist. Remove heavy overcoats prior to fastening the shoulder and lap belt portion. Failure to follow these precautions could increase the chance and/or severity of injury in an accident.

WARNING!

Pregnant women should use the belt as described above paying special attention to applying the lap portion of the belt as low and snug over the hips as possible.

Correct position for seat belt



SG 919

When the belts are in use the retractor mechanism is normally unlocked. This allows freedom of movement for the restrained occupant. The belt locking mechanism is activated automatically by rapid belt motion and/or sudden vehicle deceleration. The belts will lock during hard braking or when the vehicle is climbing or descending steep grades.

SG 912

Seat belt reminder system

This vehicle is equipped with a seat belt reminder system as required by Federal Motor Vehicle Safety Standard 208, Occupant Crash Protection. The purpose of this standard is to reduce the number and severity of traffic accident injuries by promoting increased usage of seat belt systems. The vehicle may be started whether or not the seat belts are fastened. The reminder light on the instrument panel will glow for about 8 seconds. The audible chime will sound until this light goes out or the driver's seat belt is fastened, whichever occurs first.

WARNING!

1 No alterations or additions should be made to this belt system.
2 The webbing must not be bleached or redyed.
3 Each belt is meant for one person only. The belts at outboard seating positions must be used as a lap/shoulder restraint only.
4 Fully reclining the front seat back increases the risk of sliding under the seat belts in the event of a frontal collision.
5 If in doubt on any matter concerning restraints or their use, please consult your dealer.

WARNING!

All safety belt assemblies including retractors and attaching hardware must be inspected after any collision. Saab recommends that all safety belt assemblies in use during a collision be replaced unless the collision was minor and a qualified technician finds that the belts show no damage and continue to operate properly. Safety belt assemblies not in use during a collision should also be inspected and replaced if either damage or improper operation is noted.

Child safety

WARNING!

For maximum protection in the event of a collision or sudden stop, always protect your infant or small child occupant of your vehicle with a suitable safety seat designed especially for them and which conforms to applicable motor vehicle safety standards. Follow seat manufacturer's installation and use instructions and obey all warnings supplied with the infant and child safety seats. Failure to follow each of these manufacturer warnings and instructions for ANY infant or child restraint system could increase the chance or severity of an injury in the event of a collision or sudden stop. Do not hold an infant or small child while the vehicle is in motion. Do not permit children to sit in the vehicle where they cannot be properly restrained.

WARNING!

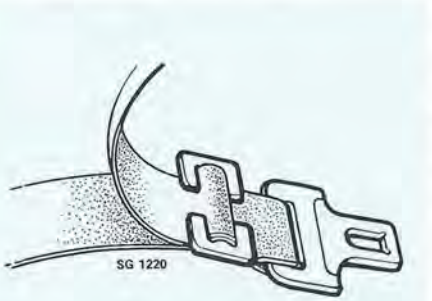
All child safety restraint systems are designed to be secured in vehicle seats by lap belts or the lap portion of a lap/shoulder belt system. Child safety seats positioned on the front passenger seat must not be attached to the seat adjustment controls (in particular, the seat/legroom adjustment bar). Using a child restraint system without properly securing it to the vehicle could increase the risk of personal injury to the child occupying it in a collision or sudden stop, or, if improperly installed, the restraint could endanger other occupants of the vehicle.

Saab recommends using infant and child safety seats in rear seats rather than in the front seat to reduce the chance or severity of personal injury in the event of a collision or a sudden stop.

If the child safety seat is designed to be restrained solely by a lap belt, use the seat in the center rear seating position (except Convertible models). Make sure the correct latch is used.

WARNING!

Restraining the seat with a 3-point belt (lap/shoulder combination) may require a special locking clip (contact the seat manufacturer) to restrict belt movement and prevent the seat from tipping over. Refer to the manufacturer's instructions to determine clip necessity and availability.



Locking clip for 3-point belt SG1220

Before placing the child in the safety seat, fasten and tighten the lap belt. Forcibly tilt the seat from side to side, and also pull the seat forward to determine if the lap belt holds it securely in place. If belt slippage occurs, the child seat should be properly installed in a different seating position in the vehicle, repeating the above procedure for the new position.

A child should never be allowed to ride unrestrained in a vehicle. For children who are too large for child safety seats, (see instructions with your child seat to determine maximum recommended size), the lap belts in the center rear seats can be used. Lap/shoulder belts in other seats may be used if the lap belt portion fits snugly and low on the hips and the shoulder belt does not contact or rest in front of the face, chin, neck or throat.

WARNING!

Children should not be seated in the right front, left rear, or right rear seats unless they can be positioned so that the shoulder strap does not contact or rest in front of the face, chin, neck or throat. Failure to follow this precaution can increase the chance or severity of injury in the event of a collision or sudden stop.

Child restraint anchorages (Canada)

On Canadian vehicles one child tether anchorage kit is provided with the vehicle. Please refer to the following installation instructions:

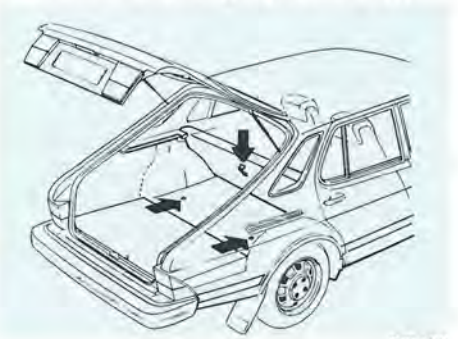
To attach restraint tether anchorages on Canadian 3- and 4-door models:

1 Remove the covering plugs from the holes under the two cross-shaped cuts in the luggage compartment floor carpet.

2 Fasten the anchor bolts with their shackles in the holes, using specially designed spacers.

3 Bolt dimension: M8 x 25

Child restraint anchorages (Canada only)



SG 136

To attach restraint tether anchorages on Convertible models for Canada:

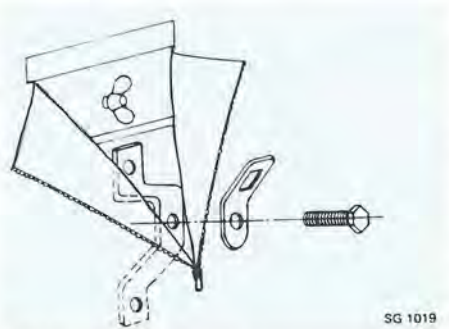
1 Raise the convertible top and lower the backlight.

2 Operating from outside of the car, locate the zippers situated in the space between the back seat and the backlight, just below each headrest. Open the zipper.

3 Detach the head rest by unscrewing the wing screw which locks the head restraint. Remove the headrest and retighten the screw.

4 After removing the headrest, attach the child restraint to the anchorage by fastening the anchor bolt in the hole. The package including M8 bolt and child restraint is in the trunk.

SG1018



Child restraint anchorage SG1019

WARNING!

Do not lower the top with passengers in the rear seat area.

When driving with the top lowered and a child restraint in the back seat, do not fit the cover panels.

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

Supplementary Restraint System

All Saab 900 models are equipped with a Supplementary Restraint System which is identified by the letters SRS on the steering wheel and a SRS indicator light in the instrument cluster (see p. 9).

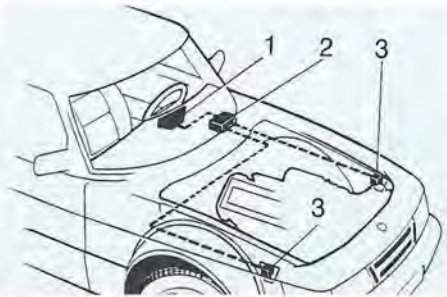
Seat belts should be worn by all occupants at all times to afford maximum protection.

The SRS consists of an airbag built into the steering wheel. The airbag is activated in the event of a severe front end collision. The system is not activated in a minor front end collision, a rollover or a side or rear collision.

When activated, the airbag in the steering wheel inflates, thus providing improved protection for the driver in the initial impact. The airbag is most effective when the driver's seat belt is fastened.

WARNING!

If the SRS warning light does not go off or stays on or blinks when driving, the vehicle should be checked and repaired at a Saab dealer immediately. When the light is on or blinking the SRS may not be activated in the event of a head-on collision.



Supplementary Restraint System

1 Steering wheel with airbag
2 Electronic unit with safety sensor
3 Front sensors

SRS technical description

The SRS consists of a sensor system which initiates the inflation of an airbag in the steering wheel pad when one of the two front sensors and the safety sensor have been activated in a front end collision.

The SRS is activated when a severe impact of at least 16 g occurs to the front end of the car in an arc of 60°. It takes 20-30 milliseconds for the airbag to be inflated by the inert non-toxic gas generated by the system. The bag will deflate, after deployment, at a controlled rate.

No attempts should be made to adjust the steering wheel, install a steering wheel of another type or modify the steering wheel.

The electronic unit is self-diagnosing and continuously monitors the SRS. If an intermittent or persistent fault should occur in the electronic unit or in components connected to it, this is indicated by the red symbol SRS lighting up in the instrument cluster. This illumination may be a blinking or a steady glow.

A fault in the system should be checked and corrected immediately by a Saab dealer, who has the special equipment required to retrieve fault codes stored in the electronic unit.

In order to ensure that the system remains functional, the electronic unit must be inspected every ten years by an authorized Saab dealer.

There are several very important reasons to use safety belts with the SRS. First, the seat belt properly positions the driver during the airbag inflation (the driver's seat should always be adjusted to provide a view of the instrument cluster). Second, safety belts provide occupant restraint and reduce the risk of harm in rollover, side and rear impacts- collisions in which the SRS is not designed to deploy. Third, the SRS only deploys in moderate to severe frontal collisions. Safety belts reduce the risk of harm in less severe frontal crashes as well. Fourth, safety belts reduce the risk of ejection, and reduce the risk of injury. And fifth, safety belts, unlike the airbag , can provide occupants restraint for more than one impact in a multi-collision accident.

NOTE

Illumination of the SRS lamp does not indicate imminent deployment of the airbag.

WARNING!

1 After an airbag deployment, the airbag surface may contain deposits of sodium hydroxide, a by-product of the gas generated during deployment. Because sodium hydroxide is irritating to the skin, wash thoroughly with lukewarm water and a mild soap.
2 Airbags that have been activated during an accident must be replaced and must only be replaced by an authorized dealer.
3 No modifications must be made to the steering wheel or to the padded cover of the airbag. Do not install any fabric over the pad or attach any badges or emblems. No modifications of any kind may be made to wiring of the airbag.
4 Improper installation may result in inadvertent activation or render the system useless. Only trained personnel should work on or replace an airbag.
5 Airbags must be set off before the car is scrapped or if the components are removed for scrapping. Your Saab dealer

has instructions and tools to perform such operations.

6 When welding, disconnect the battery and the SRS electronic unit. Prior to processing the car through a paint oven, the electronic unit must be disconnected and removed from the car.

7 The Supplementary Restraint System requires special equipment for testing and repairs. No attempts at repair or alterations to the airbag system should be made except by properly trained technicians. If in doubt on any matter concerning the SRS, seat belts or their use, please consult your dealer.

SG 924

Convertible top operating instructions

General safety precautions

- When raising or lowering the top, keep hands well clear of the hinges, linkage and windshield header.
- Remove all objects from the space behind the back seat before raising or lowering the top. To avoid damage to the backlight and the top components, this space must not be used as a storage space.
- Before driving the car, make sure that the top is either properly secured to the windshield header on both sides, or that it is in the fully lowered position.
- Do not raise or lower the top with passengers in the rear seat area or with people standing close to the car.
- Remove child seats, infant carriers and children from the back seat before lowering the top.
- Do not raise or lower the top when the outside temperature is below 35°F (2°C).
- Make sure that the valve for manual operation of the top is closed before raising or lowering the top by means of the ROOF switch.
- Note that automatic car washers may damage the fabric of the top. Do not run the Saab 900 Convertible through automatic car washes.
- Lowering the top while wet or damp may cause interior water damage, water stains or mildew of the top material.

NOTE

The 900 Convertible is intended as a four passenger vehicle, two front (including driver) and two rear. Do not overload the car. All occupants should wear seat belts at all times when the vehicle is being operated.

Lowering the top

WARNING!

To avoid injury, keep hands well clear of the hinges and linkage when lowering the top.

Do not lower the top with passengers in the rear seat area or people standing close to the car.

Remove all objects from the space between the back seat and the rear window. To avoid damage to the backlight and the top components, this space must not be used as a storage space.

Note that the backlight must be either raised and secured with the zipper or completely lowered into the space behind the back seat. Under no circumstances may the backlight be left in a horizontal position against the edge at the back-seat backrest.

1 Apply the parking brake.

The parking brake must be applied to complete an electrical circuit allowing the top to operate.

2 Turn the ignition switch to the run position.

SG1127

Latching handle open

1 Hook
2 Striker

Latching handle closed SG 972

3 Lower the sun visors.

4 Release the two latching handles, so that the latches are unhooked from the striker.

5 Press the ROOF switch briefly, so that the top will raise up about 8 - 12 inches (20 - 30 cm) from the windshield header.

6 Move the two latching handles back to their original closed positions.

NOTE

Failure to close the latch handle can cause upholstery or latch damage.

Convertible top control switch

SG 874

7 Press the ROOF switch until the top has moved all the way down.

8 Make sure that the headliner fabric is properly behind the backrest, if necessary push it into place by hand.

Fitting the boot panels

- Release the storage bag located in the trunk which contains the boot panels. It is fastened at both ends.
- Open the boot storage package.
- Check and clean if necessary the groove of the black metal strip behind the lowered top (pos. 1).
- Start by fitting the right boot side panel. Fit the boot side panel rear edge about 1 inch (25 mm) inside the right side spoiler section and push it under the black metal strip. Then press down the front part of the boot side panel (pos. 2) so that it snaps into place and is locked by the metal latch. Pull the rear edge to the side so that is on the same level as the black metal strip (pos. 3). In the same way install the left boot side panel.

Fitting the boot side panel SG767

NOTE

Check that the inner headliner fabric is not between the boot side panels and the backrest.

- Open the trunk lid, then push the rear edge of the center boot panel under the black metal strip and align the locking pins over the holes in the boot side panels. Push the straps attached at the rear of the panel edge under the trunk lid. Close the lid. Press down to lock the center boot panel in position. Attach the rubber straps at the back seat headrest cushions to the front of the panel.

Mounting hole in the boot side panel SG 929

NOTE

Check that the boot panels are firmly secured in position before driving the car.

Removing the boot panels

- Release the rubber straps, then pull up from the locking pins. Open the trunk lid and remove the center panel by lifting its front edge upwards. Place the center panel in the storage bag. (Note: Packing instructions are included in the bag.)

- Push the rear edge of the left side panel and lift it up. Set it in the bag. In the same way remove and store the right boot side panel.
- Replace the storage bag in the trunk and secure it.

Raising the top

Prepare to raise the roof by removing the boot panels from the lowered top.

Center boot panel rubber straps SG 928

SG 927

SG 924

WARNING!

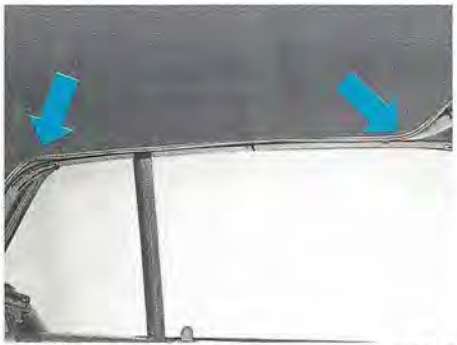
Keep hands well clear of the hinges and linkage when raising the top. To avoid injury, keep hands clear of the windshield header. Do not raise the top with passengers in the rear seat area or with people standing close to the car.

1 Apply the parking brake.
2 Lower all side windows and the sun visors.
3 Press the ROOF switch and raise the top until it is 8 - 12 inches (20 - 30 cm) from the windshield header.
4 Open up both latching handles fully.

Latch handle, open position

SG1127

Latching handle, closed position SG1125



Headliner fabric retainers (Velcro ® tape) SG969A

Valve for manual operation of the top SG1124

5 Press the ROOF switch again until the top is against the windshield header.

NOTE

Do not pull the top down with the latch handles. Doing so may damage the handles.

6 Lock the top by locking the two latching handles. It may be necessary to pull gently downward on the roof to aid in locking the top.
Check that the hooks are fully engaged on both sides.

7 If necessary, adjust the headliner fabric at the Velcro ® retainers (see figure).

Raising the top manually

The top can be raised manually (in the event of a system fault) after opening a valve inside the trunk. The valve is located on the right side at the extreme front of the trunk, behind the forward trunk lining.

WARNING!

Keep hands well clear of the hinges and linkage when raising the top. To avoid injuries, keep hands well clear of the windshield header. Do not raise the top with passengers in the rear seat area or people standing close to the car.

1 Remove the boot panels and stow them away in the trunk (see Raising the top).

2 Apply the parking brake.

3 Lower all side windows and the sun visors.

4 Open the manual release valve by turning the handle a quarter-turn clockwise.

5 Kneel on the back seat. Open the latching handles at the front rail of the top. Then grip the center of the rail and lift the top.

6 Continue raising the top until it is up against the windshield header.

Latching handle, closed position SG1125

NOTE

Do not pull the top down with the latch handles. Doing so may damage the handles.

7 Sitting in the front seat, pull the top down onto the windshield header. Lock the top by means of the two latching handles. Check that the hooks engage securely on both sides.

8 If necessary, adjust the headliner fabric at the retainers.

9 Close the manual release valve by turning it clockwise as far as it will go. Replace the panel that covers the valve.

Lowering the top manually

The top can also be lowered manually by two people in the event of a system fault after opening a valve inside the trunk. The valve is located on the right side at the extreme front of the trunk, behind the lining.

WARNING!

To avoid the risk of injury, keep hands well clear of the hinges and linkage when lowering the top. Do not lower the top with passengers in the rear seat area or people standing close to the car.

Remove all objects from the space between the back seat and the window. To avoid damage to the backlight and the top components, this space must not be used as a storage space.

Note that the backlight must be either raised and secured with the zipper or completely lowered into the space behind the back seat. Under no circumstances may the backlight be horizontal against the edge at the backrest of the back seat.

1 Apply the parking brake.

2 Lower the side windows and the sun visors.

3 Release the two latching handles, so that the hooks disengage from the striker.

4 Raise the roof about 8-12 inches (20-30 cm) and close the two latching handles.

Latching handle open SG1127

1 Hook
2 Striker
3 Handle

5 Open the manual release valve by turning the handle counterclockwise as far as it will go.

6 With one person standing on either side of the car, use the open palm of the hand against the side rail to raise the top. Keep hands away from side rail linkages.

7 Continue moving the front section of the top towards the rear of the car until the top is fully lowered.

8 Close the manual release valve by turning the handle a quarter-turn counterclockwise. Refit the valve cover.

9 Fit the boot panels as described in the section entitled "Fitting the boot panels."

Opening the backlight

The backlight can be opened to provide a good flow of air through the interior when the side windows are open. To open the backlight proceed as follows:

1 Secure the support strap to prevent the backlight from falling when it is unzipped.
2 Open the zipper fully.
3 Release the backlight support strap and carefully lower the backlight completely into the space behind the back seat.

Zipper for backlight

SG 968

Support strap for backlight SG 964

NOTE

To prevent damage to the backlight, never store hard or sharp objects behind the back seat when the backlight is open.

Raising the backlight

1 Unlatch the top at the header to loosen the tension of the top.
2 Lift the backlight and secure it in position by means of the support strap.
3 Close the zipper.
4 Re-latch the top.

Front ashtray SG 856

1 Metal tang
2 Cigarette lighter

Ashtrays

Two ashtrays are provided in the car. Both are located centrally, one below the instrument panel and the other in the rear of the center console.

The ashtrays can be removed from the holders for emptying. To remove the ashtrays, depress the metal tang. When the front tray is reinserted in the console, be sure the sliding surfaces engage properly.

WARNING!

Do not exert excessive downward force on the front ashtray when it is in the open position. Clean trays regularly and do not deposit flammable materials in them. Ensure that smoking materials are completely extinguished. Materials not fully extinguished may cause a vehicle fire and personal injury.

Rear ashtray SG 855

Cigarette lighter

To use the cigarette lighter, push it into the holder. It will spring back as soon as it is hot. Do not touch a hot element.

Use care when operating extra electrical devices that utilize the lighter socket as a power source. Improper use may damage the socket.

Glove compartment

To open the glove compartment door, squeeze the catches on the lock. To lock, turn the key clockwise and withdraw it. To unlock the compartment, turn the key counter-clockwise. The key is the same as that for the other car locks.

Glove compartment lock operation

SG 100

Sun visors/vanity mirror

Padded sun visors are provided above the windshield to the left and right of the rear view mirror. The visors may be folded down to prevent direct sunlight or unlatched and swung away to shield the occupant from sunlight from the side. The right sun visor has a vanity mirror which may be exposed by folding down the visor.

Sunvisors in lowered position

Magazine pockets

The front seat backs of some models have a large pocket which is a convenient place for rear seat passengers to stow magazines or papers.

Sunroof (if equipped)

Electrically driven sunroof

The sunroof is operated by the ROOF switch on the center console. The sunroof can be opened fully or partially. As soon as the switch is released, the sunroof is locked in position.

To open the sunroof fully from the closed position:

- Depress the back part of the switch to open.
- Press the front (with symbol imprint) part of the switch to close.

The drive motor and emergency crank are located under the right rear part of the trunk sill. To use the crank, lift the tool well cover, unclip the crank and push it onto the motor shaft. Cranking counter-clockwise will close the roof.

Hand crank in position on sunroof electric motor SG 881

WARNING!

Always remove the ignition key when leaving the car to reduce the risk of injury arising from unattended children operating the windows or sunroof.

Rear view mirrors

The interior rear view mirror can be deflected to avoid glare by operation of the control button underneath it. The exterior rear view mirrors are electrically adjustable from inside the car.

The electrical adjustment is done by means of four-way toggle controls located on the instrument panel on each side of the steering wheel. Exterior mirrors are anti-glare coated. To prevent scratching of this coating do not clean mirrors with sharp objects or abrasives.

The exterior rear view mirrors are electrically heated to defog or demist in inclement weather. The mirror heating elements operate in conjunction with the rear window defroster.

Depress the switch in the center of the instrument panel to activate the system. The system automatically shuts off after approximately 10 minutes.

Right side convex mirror SG 871

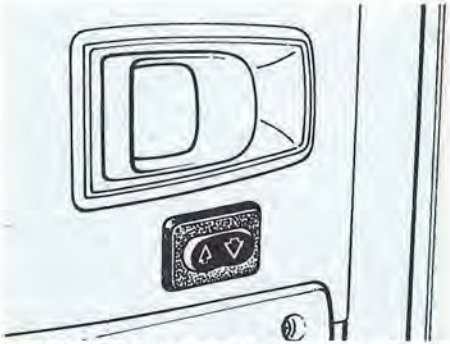
WARNING!

- The righthand exterior mirror has a convex glass. Objects seen in the mirror are closer than they appear to be.
- Remove ice, snow or frost before driving off to ensure adequate visibility.

Catch for door mirror (Convertible) SG 388

If subjected to excessive force, the mirrors fitted to Convertible models will fold back. The mirrors can also be parked in the folded back position. Carefully fold the mirror backwards until it engages the catch. To release the mirror, push it further into the folded position to take pressure off the catch. Push in the catch and release the mirror.

Power window switches, 4-door SG1116



Rear door power window switch SG 237

Power windows

Rocker-type switches for the electrically operated window regulators are located on the center console next to the hand brake. On sedans there are also switches on the rear doors near the door handles. The ribbed switches on the console are for the front door windows.

Both front power windows are equipped with a "one-touch down" feature. This feature allows the windows to be lowered fully without the need for keeping the switch depressed. Pressing the button past the spring-loaded stop position will lower the window fully. Momentarily pressing the back of the switch will interrupt the "one-touch down" operation.

On sedans an additional switch is provided on the console to disengage the window switches on the rear doors. This feature is useful, for example, when children are riding in the rear seat.

Audio equipment

All Saab 900 models are equipped with a four-speaker stereo sound system featuring a Saab/Clarion electronic AM/FM Stereo Receiver/Cassette player and an automatic retracting antenna. In addition, certain models have a combined graphic equalizer and compact disc player mounted in the center console (this unit is also available as an accessory). All radios feature a slide-out bracket permitting the radio to be easily removed and installed as a theft preventative measure. In addition, radios are protected when removed by an Electronic Lock-Out feature which renders the radio useless without a security lock-out code. This must be entered whenever power is disconnected from the radio such as removing the radio or disconnecting the battery.

Refer to the separate Audio Equipment Manual for complete information about features, controls and use.

Electric antenna

An electric antenna is standard. The antenna will rise/retract when the radio is turned on/off and the key is switched on.

NOTE

Be sure the antenna is retracted when driving in areas with low overhead clearance or when entering a car wash.

Cassette tapes

Refer to the Audio Equipment Manual for recommendations about maximum tape length for your type of equipment. Do not leave cassettes in direct sunlight or store them in the car under hot or extremely cold conditions. In extremely cold weather refrain from playing a cassette until the car interior reaches a comfortable temperature.

Regularly clean the cassette player with an approved head/capstan cleaner. The radio display will indicate "Clean" at periodic intervals to serve as a reminder for cleaning the cassette mechanism.

Compact disc player/Graphic equalizer

A combined compact disc player and graphic equalizer is standard on certain models and available as a dealer–installed option on other models. An equalizer (without CD player) is also an available option. These units utilize the same slide out bracket design as the radio head.

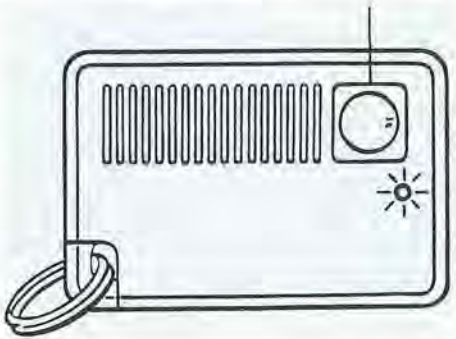
Saab Anti-Theft Security System (U.S. Convertible models)

The Saab Anti-Theft Security system combines a remotely controlled alarm system with a keyless entry feature. This system is standard on Saab 900 Convertible models (U.S. only). A similar system, without keyless entry, is available as a dealer-installed option on other U.S. 900 models.

System description

The Saab Anti-Theft Security System consists of an electronic control unit located under the rear seat, a pocket-size remote control transmitter, a central lock actuating motor, a siren, and a "valet" switch mounted under the right front passenger seat. A light emitting diode (LED), which signals information about the system, is located in the left front speaker grill.

A microphone which senses glass breakage is hidden near the valet switch. The sensitivity of the glass breakage sensor may be adjusted by your Saab dealer to suit specific protection requirements. The hood, trunk and glass breakage sensors will sound the siren instantly when disturbed. The door sensors will also respond instantly if the alarm has been remotely armed, but will provide an entry delay of 25 seconds if the passive mode automatic arming has been selected.



System function

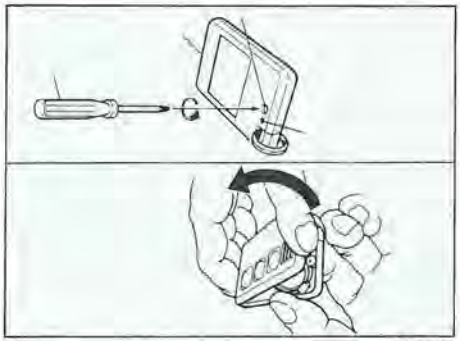
When a sensor is activated, the alarm will sound for 60 seconds and the starter will be disabled for 10 minutes. After completing the siren cycle, the control unit will reset and respond to any new sensor input. If the original sensor input is still active, the siren will halt for 5 seconds and then continue to sound. After 10 minutes the control unit will ignore the continuously activated sensor until the alarm has been disarmed and re-armed again. This limits the total duration of a sounding alarm to avoid draining the battery. Note that all of the other sensors remain active and can activate the alarm if disturbed. When the alarm is disarmed using the correct procedures, or after the 10 minute disable period, which ever occurs first, the starter also returns to normal operation.

The Saab Anti-Theft system will inform a returning owner that the alarm has been set off by sounding three short siren chirps and by a series of LED signals. Three different LED signals may appear either singularly or in combination. One flash, repeated after a short pause, indicates that a door has been opened. Two flashes indicates disturbance of the trunk or hood and three flashes indicates that the glass brakeage detector has been activated. The signals will continue for one minute after the disarming.

Remote Control Transmitter

The remote control transmitter is equipped with a transmit button which, when depressed, sends a signal to the control unit. A small red LED on the face of the transmitter illuminates when the button is depressed. This same LED will glow faintly when the transmitter battery is reaching the end of its useful life.

Battery replacement requires first removing the phillips-head screw located in the center bottom of the back of the transmitter. Then while holding the unit with the transmit button facing upward, remove the top cover by gently lifting the end with the attachment ring and pulling it toward you. **Do not pry on the case.** Remove the old battery and insert a new lithium battery (CR 2025). Make sure that the polarity of the battery matches the symbols in the transmitter. Reinstall the top and the phillips-screw.



SG1009

NOTE

The attachment loop on the remote transmitter is **not** a key ring. It is intended to be used to attach the transmitter to your regular key fob. Use of the attachment loop for keys may result in damage to the transmitter.

Arming and disarming the Anti-Theft system

The control unit is factory preset to the **active arming mode** which requires the use of the remote transmitter to set the alarm feature after exiting the car. If desired, your Saab dealer can select the passive mode, which automatically sets the alarm after exiting the vehicle and closing all doors. Both features are described below.

Active arming/disarming

To arm the alarm system and lock the doors and trunk lid, remove the ignition key, exit the vehicle and close all doors. Then depress the transmit button briefly. The central locking system will actuate both door locks and the trunk lock and the alarm system will verify that it is armed by a short chirp of the siren. The LED will now be flashing regularly.

To disarm the system and unlock the doors, approach the vehicle but do not open a door or the trunk. Press the transmit button. The central locking system will unlock, and the siren will chirp twice indicating that the alarm is now disarmed. The interior lights will also illuminate and the LED will stop flashing.

Passive arming/disarming

If you select the alternative passive arming feature of the Saab Anti-Theft Security System, the alarm will automatically arm each time you exit the vehicle and close all the doors. Ten seconds after the interior light extinguishes the arming is complete. As with active arming, the siren will chirp once and the LED will flash regularly when the system is armed.

Disarming a passively armed Anti-Theft system may be accomplished by using the remote transmitter as described above. An alternative method is available because of the 25 second entry delay built into the control unit in the passive arming mode. Enter

the vehicle, turn the ignition switch to the ON position and then depress the valet switch before the 25 second entry delay expires.

NOTE

In the event that the remote transmitter is lost or becomes inoperative, it is possible to use the valet switch to disarm a remotely armed system. **The siren will sound immediately upon opening the door**, but turning the ignition switch to the ON position and depressing the valet switch will stop the siren and disarm the system.

Additional features

Two other features are incorporated into the system for owner use.

Panic mode

The Panic feature permits the owner to intentionally turn on the alarm system siren by using the remote control transmitter. Depress and hold down the transmit button on the remote control transmitter for approximately 2 seconds. The siren will sound. To deactivate the siren, depress the transmit button briefly.

NOTE

Even though the alarm siren is sounding when the panic mode is activated, the starter remains functional. It is therefore possible to start the car and drive away while the siren is sounding.

Valet mode

The valet mode permits the owner to temporarily disable the system so that it cannot be armed either by the remote control transmitter or by the passive feature. This is particularly helpful when working on or washing the car, or when the car is to be parked by an attendant.

The valet mode is activated by using the push button valet switch located under the right front passenger seat. To place the system in the valet mode it must first be in the **disarmed condition**. Depress and hold the valet switch for 1 second. The LED will flash once and the alarm system is deactivated.

NOTE

When the alarm system is in the valet mode the LED will flash once each time a door is opened or the ignition is shut off as a reminder that the alarm cannot be activated.

To exit from the valet mode, depress and hold the valet switch for 1 second. The LED will flash twice indicating that the system is now ready for normal use.

Doors, locks and luggage compartment

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Doors and locks

Two keys are supplied with the car. Both fit the ignition switch and all locks. The serial number of the key will be found engraved on a small plastic lug on the key ring. Keep the lug and make a note of the serial number in case the key is lost.

All side doors are fitted with safety lock buttons which can be used to lock the door from the inside. The lock button on the driver's door cannot be pushed down when the door is open.

Lock button SG 869

Door lock, left hand door

1 Unlock
2 Lock

SG 890

Child safety lock

SG 917

Both front side doors have lockable outside handles. These are locked and unlocked as follows:

To lock:

Give the key a quarter turn rearward and let it spring back to the vertical position.

To unlock:

Give the key a quarter turn forward and let it spring back to the vertical position.

Child safety locks

The rear doors of the 4-door models are provided with safety locks to prevent the doors from being unintentionally opened from the inside by children. When the lever is in the lower position (1), the doors can be opened from both inside and out, but when the lever is in the upper position (2), the door can only be opened from the outside.

Central locking system

(Except U.S. Convertible models)

An electronic control unit connected to the driver's side door lock actuates all door locks and the luggage compartment lock when the driver's side door is locked or unlocked. Passenger doors or the luggage compartment may be locked or unlocked independent of the central locking system using a key or the lock buttons.

Keyless entry, Convertible models (U.S. only)

As an additional feature on U.S. Convertible models, the central locking function is also integrated with the Saab Anti-Theft System. When the transmit button is depressed on the alarm system remote transmitter, the central lock system will also operate. A push button is also located on the central console to permit convenient operation of the central lock system by the front seat passengers.

Both front door locks and the trunk lock can be operated manually, if desired. Note that the driver's door lock does not actuate the central locking system. This can only be done by the remote anti-theft transmitter or by the button on the center console.

Sedan and Convertible trunk

The sedan trunk lid is unlatched by pressing the release lever rearward. The key lock is located in the lid face directly above the release lever.

The sedan trunk lock has three positions:

- When the key is withdrawn while in the horizontal position, the lock will lock/unlock with the central locking system.
- When the key is withdrawn while in the vertical position, the trunk is locked and will remain locked regardless of the status of the central locking system.
- The trunk lid can be unlocked separately by inserting the key in the lock and turning it clockwise until it stops (approximately 2 o'clock position). With the key in this position press the release lever to unlatch the lid. Return the key to the 12 o'clock position and remove it from the lock. The lid will be automatically locked when closed. When the driver's door is unlocked the trunk lid may be unlocked by turning the key 1/4 turn counterclockwise (9 o'clock position).

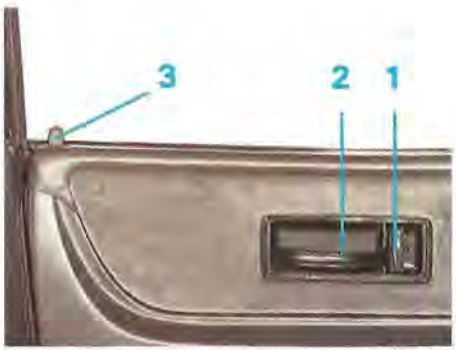
Saab 900 Sedan and Convertible trunck lock

1 Lock operated by central locking system
2 Locked position, cannot be unlocked by central locking system
3 To unlock

SG 918

Door in 3-door models

1 Door handle
2 Closing handle
3 Locking button



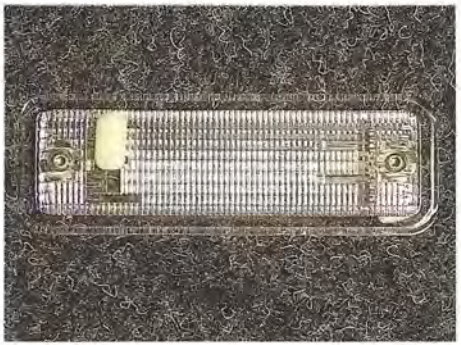
SG969B

Hatchback

The hatchback rear lid is unlatched by pressing the release lever upward. The lid is locked or unlocked with the key lock to the right of the lever. An inside hand grip is provided to assist closing.

The rear lid of the hatchback models may also be locked or unlocked independently of the central locking. To unlock the rear lid turn the key in the lock clockwise to the 3 o'clock position. Turning the key counter-clockwise to the 10 o'clock position will lock the rear lid.

Catch, rear window shelf SG 899



Trunk light SG 884

Rear lid, hatchback models

1 To unlock
2 To lock

SG 889

Luggage compartment

On hatchback models the rear shelf can be removed and placed on the floor in the luggage compartment. The luggage compartment door is equipped with a catch to hold the raised position to facilitate loading.

The tool kit, spare tire and jack are stowed under the luggage compartment floor in the tool well.

Trunk lighting

Trunk lighting is provided for all models and is controlled by a combination light/switch situated on the left inner trunk wall. By means of the switch, you may shut the light off permanently (middle position) or allow it to be operated by the automatic shut-off device built into the rear hatch/trunk lid mechanism.

Loop strap SG 875

Cargo space expansion

When desired, the rear seat can be converted to extend the luggage/cargo compartment. This feature does not apply to Convertibles.

To fold the rear seat:

1 Pull the loop strap at the back of the seat cushion diagonally upward and forward to unlatch the cushion. Tip it on edge behind the front seats.

2 Firmly lift the headrest cushions out of the brackets on the backrest.

3 Release the backrest by pulling the handle at either upper corner, then fold the backrest forward.

4 When returning the seat to its normal position ensure that the cushion and backrest are securely latched and the seat belts are orderly. Reinstall headrest cushions securely.

Seat back latch

SG 992

WARNING!

- Secure all cargo or luggage when loading the car especially with the rear seat folded or with the rear window shelf removed. Also, never place any objects on top of the rear window shelf. In the event of a collision, unsecured cargo may present a safety hazard and cause personal injuries to vehicle occupants.
- Do not obstruct outward vision or the ability to exit the vehicle when loading the vehicle.
- When the rear seat backrest is placed upright after having been folded forward, ensure that all rear seat belts are accessible and properly routed.
- Observe weight capacity ratings for your specific vehicle model. Make sure that tire pressures are properly adjusted in accordance with altered vehicle weight (refer to tire pressures in the Specifications section of this manual).

Hood

The hood release handle is located under the instrument panel next to the inner left wheel housing.

To open the hood:

1 Pull the release handle under the instrument panel on the driver's left side. The hood will then open to the half-locked position, retained by a safety latch at the leading edge (to the right of center when facing the car).

2 Press the leading edge of the hood down slightly and pull the safety catch. The hood will then spring up and can be tilted forward without effort.

Hood release handle

SG 903

Hood safety catch SG 902

To close the hood:

1 Tilt the hood rearward and down until the runners make contact with the rear hood guides.

2 Slowly push hood rearward (with a slight upward motion) until the safety catch engages. Note: push at the center of the forward edge of the hood in order to engage the runners at the rear corners in their locking guides in the fenders.

3 Press down firmly until the main lock engages securely.

Starting and driving

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Ignition and gear selector lock

Ignition key

The ignition and gear lock key also fits all other locks in the car. The key number is stamped into the plastic lug on the key ring. Detach and keep the lug so that the serial number is available if the key should be lost.

NOTE

Dirt, food scraps or spilled liquids can cause damage to the ignition switch/lock assembly. Avoid placing such items on the center console.

Ignition lock operation

The ignition and gear lever lock has four positions:

Lock position. On manual transmission cars, the gear lever must be placed in the reverse position before the key can be turned to the L position and withdrawn. On cars equipped with the automatic transmission, the selector lever must be moved to the Park (P) positon. In this way both the ignition and gear selector are locked simultaneously. Parking and hazard warning lamps may be activated.

Park position. All lights and the radio can be operated. Make sure that the ignition switch is in the "P" or "L" position when the engine is not running. Otherwise the ignition coil may be damaged.

Running position. The entire electrical system, including ignition, is operative.

Starting position. The switch is spring loaded to return to Running position when the key is released. Should the engine stall or fail to start, the key must be turned to the P position before the starter can again be actuated. On automatic transmission cars the starter motor can be operated only when the gear selector lever is in the N or P positions.

WARNING!

Always depress the clutch pedal on manual transmission vehicles before starting the car. Failure to do so can result in vehicle movement when the starter is engaged.

Starting the engine

General

The starter motor should not be run for more than 15 seconds at a time. Wait 20-30 seconds before running the starter motor again to give the battery time to recover. Avoid racing the engine or putting a heavy load on it while it is still cold. Drive off as soon as the oil pressure warning light has been extinguished to enable the engine to reach its normal running temperature as soon as possible.

WARNING!

Do not start or let the engine run in a closed area. Exhaust gases contain carbon monoxide which may be fatal if inhaled.

Starting the engine

The engine is equipped with an automatic cold starting enrichment system.

Start as follows:

1 Apply the handbrake and put the gear lever in neutral (manual transmission) or select P or N (automatic transmission). Cars with automatic transmission can only be started when the gear selector lever is in P or N.

2 Depress the clutch pedal (manual transmission).

3 Turn the key to the start position and let it spring back as soon as the engine is started. Allow the engine to idle for about 10 seconds before touching the accelerator. Avoid full throttle acceleration until the engine has run for 2-3 minutes.

NOTE

16 valve engines have hydraulic valve lifters which require no maintenance. The clearances are preset when the engine is assembled and no adjustments are necessary. Some valve lifter noise may be heard for a few seconds after the engine has been started, and this should be considered normal. The valve noise will disappear once the engine oil has reached normal working pressure.

Cold weather tips

On cars with the manual transmission, release the clutch pedal slowly after starting to avoid stalling. For cars with automatic transmission, allow the engine idle to stabilize for a few seconds before selecting a forward or reverse gear.

If the engine should stall after a cold weather start and fail to restart, depress the accelerator fully while running the starter motor to ventilate the engine and prevent it from flooding. Avoid repeated short cranking cycles in quick succession as this can have a negative effect on starting ability. Opening the throttle slightly as the engine begins to run may help ventilate the engine and keep it running. A winter grade of engine oil (5W-30) will improve starting in extreme cold weather.

General information, turbochargers

1 Starting and driving

- Never accelerate at full throttle before the reading on the temperature gauge is normal (N).
- If the needle on the pressure gauge repeatedly enters the red zone, a loss of engine power may be experienced owing to the safety cut-out system limiting the charging pressure. Take the car to an authorized Saab dealer without delay. Under certain atmospheric conditions, the needle may briefly enter the broken red zone, but this is normal and does not indicate a malfunction.
- The engine is also equipped with a safety cut-out to prevent the engine exceeding approx. 6000 rpm.

2 Stopping the engine

- Do not rev the engine immediately before switching it off but always switch it off when it is idling. This is to ensure that the turbo compressor is not run unnecessarily without adequate oil pressure.

3 Automatic Performance Control (APC)

The APC system is designed to give optimum engine performance when 93 octane fuel (AON) is being used. When fuel of this octane rating is used, the engine will deliver maximum power. However, one of the advantages of the APC system is that the engine can be run on cheaper grades of low-

octane fuel (minimum: 87 octane AON) quite safely. The same performance as that achieved with 93 octane fuel can also be achieved for short bursts. In general, a high-octane fuel will give the best performance.

The APC system adjusts the boost supplied by the turbo to suit the knocking/pinging tendencies of the engine. Brief spells of knocking in the engine are perfectly normal. These can occur when a heavy load is put on the engine at about 3,000 r/min and the extent of the knocking will depend on the grade of fuel being used.

Isolated instances of knocking are more likely when low-octane fuel is being used. This controlled form of knocking followed by a reduction in the charging pressure merely indicates that the APC system is working normally, and is perfectly safe for the engine.

However, if constant knocking occurs every time a load is put on the engine, this indicates a malfunction in the system.

Break-in period

Pistons, cylinder walls and bearings need time to bed in, to obtain uniform, wear-resistant surfaces. If a new engine is driven too hard, this gradual process of wearing in will not be possible and the life of the car, and engine in particular, will be shortened.

During the first 1,200 miles (2,000 km) do not exceed 5,000 rpm. During the first 1,800 miles (3,000 km) never drive the car at full throttle other than momentarily.

Break-in period for new brake pads

The break-in period for new brake linings is around 90 miles (150 km) of city driving or 300 miles (500 km) of highway motoring. To extend the service life, avoid hard braking during this period.

Gear selector lever

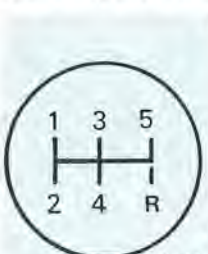
Manual Transmission

The gear positions are shown on the gear lever knob. Fifth gear is the highway gear in which best fuel economy can be achieved. To engage reverse (R), first raise the collar on the gear lever.

NOTE

Reverse gear is not synchronized. Engage reverse only when the vehicle is completely stopped and only with the clutch pedal fully depressed and the accelerator fully released. When parking, apply the hand brake after engaging reverse gear.

Gear shift pattern and reverse collar



SG 866

Gear selector lever SG1178

Automatic Transmission

The gear positions are shown on the console beside the gear selector lever.

P - Park
R - Reverse
N - Neutral

D - 1-3 forward speed
2 - 1-2 forward speed
1 - 1 only forwards speed

Certain lever positions can only be selected after the button in the center of the selector knob has been depressed, to release the catch. The lever can be shifted freely to position D or N from position R, 2 or 1.

NOTE

When parking, apply the handbrake after engaging park position.

Gear changing

Manual Transmission

When shifting gears, release the clutch pedal smoothly and carefully. There are only two proper clutch positions for driving – either out (pedal fully depressed) or in (pedal released). Slipping the clutch should only be required when starting off from rest and the release to the fully engaged position should be as rapid as possible while still permitting a smooth start. It is poor practice to drive with a foot resting on the clutch pedal, as this causes heavy wear on the clutch assembly. When the car is standing still with the engine running, the gear lever should be in neutral and the clutch pedal released. In all shifts, move the lever gently but firmly and with a slight, barely perceptible, pause in neutral.

NOTE

The gear selector must be in reverse in order to remove the ignition key.

NOTE

Reverse gear is not synchronized! Before shifting to reverse, make sure that the car is at a standstill, the clutch pedal is fully depressed, the accelerator pedal is fully released, and the collar on the gear lever is pulled upward.

Shift indicator light (U.S. models only)

The lower the gear selected, the faster the engine must run to hold the car at a given speed, and this means greater fuel consumption.

The Saab 900 with manual transmission has a light on the instrument panel to indicate excessive fuel comsumption. On a warmed up vehicle the light comes on to signal you to shift up into a higher gear. A fade-in/fade-out switch and a delay of about 1.5 seconds are used so that you will not be annoyed by continuous blinking. The light is a recommendation to shift up, but it should, of course, be ignored in certain traffic situations. Use of the system prolongs engine life also. Make a habit of shifting up before or when the upshift light goes on.

Cars with automatic transmission

The engine should be at idling speed and the car at a standstill when the gear selector lever is moved from one position to another. If you depress the accelerator at the same time as you move the lever, this will cause abnormally high wear on the transmission. Always keep your foot on the brake to prevent the car from rolling when you select a drive position.

WARNING!

After moving the selector lever to a new position, always pause a moment for the gear to engage before accelerating.

To avoid unexpected vehicle motion and possibility of personal injury, always apply the foot brake when moving the selector lever out of the park or neutral position.

Selecting gears

P

Position P (Park) is selected when the car is parked, and the lever must be in this position before the ignition key can be turned to L (Locked) and withdrawn. The selector lever is then locked and the transmission is immobilized. Do not select position P when the car is in motion. The starter can be operated with the lever in this position.

R

Position R (Reverse) must not be selected unless the car is stationary.

N

In position N (Neutral) no gear is engaged. The starter contact is operative in this position. The handbrake should be applied when the selector lever is in position N to prevent the car from moving if it is standing on a slope.

D

The D (Drive) position is for normal forward driving. Whichever of the three forward gears best matches the speed and load on the engine is automatically engaged.

2

Position 2 gives automatic changing between first and second gears but top gear will not be engaged. If the lever is moved from D to 2, this gives an immediate down shift for more engine braking power. Position 2 can only be engaged at road speeds below 55 mph (85 km/h).

1

Position 1 is used to obtain maximum engine braking on steep, downhill slopes. Position 1 should also be selected for driving up long, steep uphill slopes to avoid repeated gear changing, which can lead to overheating of the automatic transmission fluid. When driving in top gear, moving the gear selector lever to position 1 will cause an immediate down shift to second gear. The transmission will down shift to first at a speed of about 37 mph (60 km/h). The lever must not be moved to this position at speeds exceeding 55 mph (85 km/h). Upshifts to second and third gears will not occur when the lever is in position 1.

Moving off

1 Move the selector lever to the desired position (normally D for forward driving).
2 Release the brake and accelerate.

Kick-down

To obtain maximum acceleration, e.g. for overtaking, the accelerator should be pressed down hard to the kick-down position. When the car is travelling at between 34 and 65 mph (65-100 km/h) , depressing the accelerator to the kick-down position will cause an immediate down shift to second gear. When the maximum engine speed for second gear is reached, or if the accelerator is released, the transmission will automatically up shift to third gear.

Braking

Braking with anti-lock braking system (ABS)

The anti-lock braking system prevents wheel lock independent of road surface conditions. When brake forces are applied to the wheels and the wheels are about to lock up due to loss of traction, a slight pulsation will be felt in the brake pedal. This indicates that the anti-lock system is being activated and that the valving in the system is working. This pulsation also indicates to the driver that traction conditions may be less than ideal and that appropriate measures should be taken.

To achieve the shortest possible braking distance and to maintain the directional stability of the car on a dry, wet or slippery surface, always depress the brake pedal as hard as possible (emergency stop). The anti-lock system will then automatically control the braking effort at each wheel, so that the best possible braking effect will be achieved.

WARNING!

Even with ABS, the vehicle's steering and braking control are reduced on slippery roads and other adverse driving conditions. Always drive cautiously and adjust the vehicle speed to the existing road conditions.

To avoid subjecting the brakes to excessively high temperatures, e.g. when driving downhill in mountainous country with descents of thousands of feet, you should utilize the braking power of the engine by selecting a lower gear.

WARNING!

It is advisable to check the brakes occasionally when driving to make sure that they are working properly, especially if they have been subjected to heavy splashing with water or when driving through snow or salty slush, as the braking effect may be temporarlily reduced in conditions of this kind. The brake system is power assisted, but the power assist is only available when the ignition is on. It requires a considerably greater force on the pedal to brake the car when the ignition is switched off.

Brake pads

Brake pad wear is affected by many factors: driving conditions, speed, terrain, vehicle load and driver habits. It is difficult to set a mileage specification that can be considered "normal" brake pad wear. The brake pads on your Saab have been thoroughly tested and are designed to deliver the best results with respect to braking effort, useful life and minimum noise under normal driving conditions. Use only Saab recommended original asbestos-free brake pads when worn pads need replacing.

Break-in period for new brake pads

The break-in period for new brake linings is around 90 miles (150 km) of city driving or 300 miles (500 km) of highway driving. To extend the service life and reduce noise, avoid extremely hard braking during this period.

Parking

- Bring the vehicle to a complete stop.
- Position the front wheels turned towards the curb on downhill grades; position the front wheels turned away from the curb on uphill grades.
- Engage the reverse gear on a vehicle equipped with manual transmission. On vehicles with automatic transmissions, latch the gear selector in the PARK position.
- Apply the hand brake (the handbrake acts on the rear wheels) and remove the ignition key.
- Safely exit and lock the vehicle.

NOTE

In the extremely unlikely event that the foot brake systems fails to operate, the parking brake can be used to make an emergency stop although the braking distances will be much greater than normal.

Catalytic converter precautions

Use only unleaded fuel to preserve the efficiency of the three way catalytic converter. Keep the vehicle in proper operating condition by observance of the maintenance schedule outlined elsewhere in this manual. Failure to do so will not only result in a loss of fuel economy but could also damage the catalytic converter. See also the information about the importance of using the correct spark plugs on p. 78 of the Car care and Technical information section.

WARNING!

Malfunctions involving the fuel or ignition systems, resulting in an engine misfire or loss of performance, may lead to overheating of the catalytic converter and in extreme cases, fire.

Do not continue to operate your vehicle in a misfiring condition. Have it checked by your Saab dealer as soon as possible. Ignition malfunction or misfiring can lead to catalytic converter overheating by allowing large amounts of unburned fuel to flow into the converter.

Extended idling during cold weather warm-ups or at other times may produce a misfiring condition and therefore idling vehicles should not be left unattended and should be turned off if misfiring occurs. Also, do not push-start or pull-start your vehicle, or run the starter for over one minute with a misfiring condition.

Do not park, idle, or drive catalytic converter equipped cars in areas where dry grass or other combustible materials can come into contact with the hot exhaust system and be ignited.

Cruise control

An electronically governed cruise control system is standard on certain models. The cruise control system helps reduce driver fatigue on long highway trips and may improve fuel economy (depending on driver habits and driving conditions). The system is controlled by a switch integrated with the turn signal lever. The sliding switch has four positions: OFF, TIP, ON and RESUME. At the end of the lever is a SET SPEED button.

Cruise control stalk switch

SG966B

When the cruise control "ON" indicator light on the instrument panel is illuminated it indicates that the system is active and that if the RESUME portion of the switch is depressed, either intentionally or unintentionally, the car may revert to a previously set speed.

NOTE

A dealer installed accessory cruise control system is available for 900 models which are not factory equipped with this feature. Only a Saab approved system should be installed to ensure safe operation. This unit has the same operating features as discussed here.

To select the cruising speed

Move the switch to the ON position. Accelerate to the desired cruising speed (minimum speed: 25 mph/40 km/h) and then press the SET SPEED button.

WARNING!

Do not engage the cruise control in dense traffic or when driving on slippery surfaces or on steep grades. Keep the control switched off when not in use.

To reduce the selected cruising speed

Touch the brake pedal until the required speed is obtained and then press SET SPEED.

To increase the selected cruising speed

Accelerate to the new desired cruising speed and then press the SET SPEED button. An alernative procedure is to hold the SET SPEED button in until the desired speed is reached, then release it.

Temporary acceleration

Termporary acceleration, such as for passing, can be achieved normally by depressing the accelerator. As soon as the pressure on the accelerator has been released, the car will return to the previously selected cruising speed.

Temporary deceleration

The cruise control system ceases to function automatically if the brake or clutch pedal is depressed. A smoother reduction in speed is obtained by moving the switch to position TIP. To resume the constant cruising speed, move the switch to the RESUME position momentarily.

To disengage the cruise control

The cruise control system disengages automatically:

- when either the brake pedal or clutch pedal is depressed
- when the switch is moved to the OFF or TIP position
- when the engine is switched off.

WARNING!

1 Do not use the cruise control system on winding, wet or slippery roads or in dense traffic.

2 Keep the system switched off when not in use to prevent inadvertent engagement, e.g. when signalling a turn.

3 If the gear lever is unintentionally moved to neutral while driving with the cruise control engaged, depress the brake (or clutch) pedal momentarily or move the cruise control switch to OFF. Failure to do so will cause the engine to overrev.

4 Always switch the cruise control switch to the OFF position before turning the engine off.

Failure to follow the warning points above could lead to inadvertent activation of the cruise control system with the potential for a vehicle accident causing personal injury.

Economical driving

For maximum economy, the Saab 900, like any other car, needs to be driven moderately. Avoid unnecessary full throttle acceleration and high engine speeds wherever possible.

Driving in congested areas and driving with a roof rack or trailer, all contribute to high fuel consumption. Excessive idling and "warming up" the engine also wastes gas. Use the air conditioner only when necessary. Winter temperatures and use of winter tires are other factors that may increase fuel consumption.

Maintaining your car according to the recommended maintenance schedule will help you get maximum fuel economy. Be sure the engine is tuned to specification, the battery is fully charged and wheel alignment and tire pressures are correct.

Selecting shift points to maintain engine speeds within the economy range shown on the tachometer face will also aid in obtaining maximum fuel economy. See also shift light use on page 53.

Winter driving

Before driving off in cold weather, check that the windshield and headlight wiper blades have not become frozen to the glass. Brush away any snow from the air intake for the heating system and, in extremely cold weather, apply suitable lubricant (molybdenum disulfide) to the door lock to prevent its freezing. If the lock has frozen, take care not to break the key when trying to unlock it. Heat the key first or apply some deicing agent to it.

It is particularly important when the roads are slippery that the brakes and tires are in good condition. For driving in snow and ice, we recommend that special winter tires, available through your dealer, be fitted. Winter tires provide the best grip on icy roads, especially if fitted with studs (check your state/provincial law).

If winter tires are to be used, the same type of tire must be fitted to all four wheels. Your local Saab dealer will be pleased to advise you of suitable tires.

Ordinary snow chains (avoid clamp-on types) can be used on both front and rear wheels. Drive carefully since chains may scrape against the body on large bumps or sharp turns.

NOTE

Models with wide profile tires: If wide profile winter tires are not available, four 185/65 R15 or four 175/70 R15 winter tires may be installed. Winter tires should be mounted on 5 1/2x15 inch steel or aluminum Saab rims. Be sure to purchase tires of sufficient load capacity. Your Saab dealer has Saab-approved winter tires available on Saab steel rims.

The speed rating of winter tires may not be the same as that of the original equipment tires. Do not drive the car faster than the approved speed rating of the tires (see also Tires).

Engine block heaters are available as an accessory from your Saab dealer and can assist start-up in extended frigid weather.

Driving with the compact spare wheel fitted

The compact spare tire is intended for only temporary and emergency service. When mounted, the compact tire may affect the vehicle'shandling characteristics, and extreme driving maneuvers should be avoided. The compact tire is not intended for regular use and should be replaced with the proper full-sized tire as soon as possible.

WARNING!

- The compact spare tire should be inflated to a pressure of 60 psi (420 kPa).
- Do not exceed 50 mph (80 km/h) as this may overheat the spare tire.
- Do not drive long distances on compact spare tire. Its cumulative maximum life is 2,000 miles (3,000 km).
- Do not use snow chains on the compact spare tire.
- Do not tow a trailer when the compact spare tire is mounted on the vehicle.
- Do not fit a hub cap on the compact spare tire which would cover the warning text on the tire.
- Do not attempt to repair or remove the compact spare tire from the wheel or try to mount a regular tire on the compact spare tire wheel.
- Do not drive too close to curbs or through car washes as the vehicle's ground clearance is lower when the compact spare tire is fitted.

Towing a trailer

A special towing hitch is available as an optional accessory. Bolt holes are already provided to facilitate mounting of the attachment.

We recommend you drive your new Saab beyond the "First Service" (first oil and filter change) before trailer towing.

It is inadvisable to attach a trailer with an excessively heavy load to a car, aherede to:

1 Comply with legal restrictions on towing speed, trailer weight, and trailer braking equipment. Check your local laws before towing a trailer.

2 The weight limit of the trailer is 1000 lbs. (450 kg), for a trailer without brakes and 2000 lbs. (900 kg) for a trailer with brakes. Tongue weight should be 5% to 7% of the trailer weight with a maximum permissible tongue weight of 200 lbs. (75 kg). Tongue weight is to be considered as vehicle load and should be deducted from the permissible trunk load or weight. Always hook up the safety chains provided with the trailer.

3 If the car has an automatic transmission, position 1 should be selected for climbing steep grades in order to best utilize the torque available from the engine. The same applies for down gradients so as to obtain maximum engine braking effect.

4 When towing a trailer, avoid grades of 15% or more, as in such conditions the weight on the front driving wheels is so low that they may lose traction and stop the car. When driving with a trailer on very long hills, you can help the engine cooling by turning the cabin fan to full speed with the heater on.

5 The load distribution in the trailer is most important. In a two-wheeled trailer the load should be placed low down and concentrated as much as possible over the wheels.

6 When driving with a trailer, always make allowance for altered handling characteristics and longer stopping distances. The brakes, suspension, shock absorbing equipment, and light system of the trailer are very important in towing a trailer safely.

7 If heavy trailers are to be towed, we recommend that a pneumatic spring-boosting accessory be used to assist the rear springs of the car.

8 When towing trailers, inflate tow vehicle tires to the "Cold tire pressure" for "Full load" as recommended in the specifications section of this manual.

WARNING!

- Do not connect the vehicle's hydraulic brake system to a trailer's hydraulic brake system. Failure to observe this warning may result in inadequate braking and personal injury.
- Saab advises against towing a trailer while the compact spare tire is mounted to the vehicle. Failure to observe this warning may result in the failure of the compact tire and/or a loss of steering control which may result in personal injury.

Towing a disabled vehicle

Flat towing

Do not flat tow your Saab 900 except for extremely short distances to remove it from harm's way, to winch it onto a flatbed trailer or to regain the road surface after an off-road incident.

NOTE

Use only the emergency towing lugs at the front and rear of the vehicle for any flat towing.

Front towing lug SG 901

Rear towing lug

SG 900

Towing by commercial tow truck

NOTE

Do not tow your Saab 900 with sling type tow trucks. You will sustain spoiler and possible cooler damage with these types. Only use wheel lift types or flat bed when towing becomes necessary.

Sling types will cause damage to the rear bumper and front bumper/spoiler assemblies (and fog lights if so equipped). Should it become necessary to have your vehicle towed, wheel lift or a flat bed type carrier must be used. We suggest that you specify your request when contacting a towing facility.

The 1994 Saab 900 may be towed from the front with wheel lift equipment without any

special considerations for distance. Of course a safe speed must always be used.

To tow from the rear with the front wheels on the ground a maximum distance of 30 miles (50 km) must be adhered to. If necessary to tow for greater distances the front wheels must be placed on wheel dollies. Do not tow an automatic transmission equipped car at speeds greater than 25 mph (40 km/h). Be sure all transmission fluids have been topped off before starting the tow.

NOTE

If the vehicle is towed on the rear wheels, ensure that the hand brake which operates on the rear wheels is not applied. Do not pull or restrain the vehicle by attaching anything to the front or rear axles.

Car care and technical information

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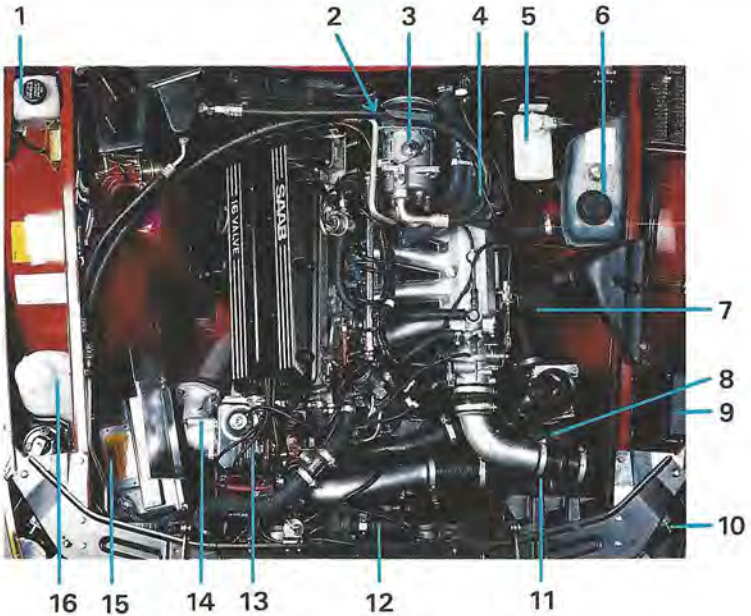


Underhood components

1 Power steering reservoir
2 Water pump
3 A/C compressor
4 Generator (alternator)
5 Brake fluid reservoir
6 Engine coolant reservoir
7 Engine oil dipstick, filler hole
8 Air cleaner
9 Ignition control module
10 Cruise control vacuum pump
11 Charge air cooler (intercooler; Turbo only)
12 Ignition coil
13 Ignition distributor
14 Turbocharger (Turbo only)
15 Battery
16 Washer fluid reservoir

Automatic transmission dipstick protrudes ahead of the engine near the upper radiator hose.

Engine

All Saab 900 models are powered by a liquid-cooled, four-cylinder, in-line engine. The engine is integrated with the clutch, gearbox and differential into a lightweight power unit that occupies a minimum of space.

Engine Families

1994 Saabs imported to the United States and Canada are divided into various engine families (naturally-aspirated and turbocharged). The engine family and appropriate tune-up specifications are identified on a label affixed to the left front inner fender.

These engine families meet applicable EPA Federal Standards, California State Standards or Canadian Federal Standards and are equipped with the systems described below.

Emission control systems

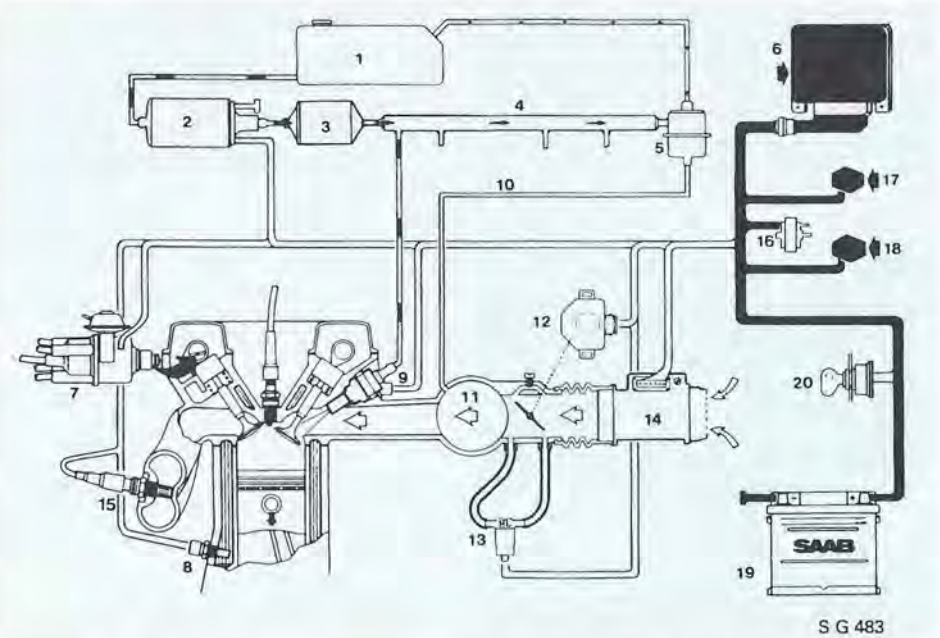
The 1994 Saab has three distinct systems for controlling emissions to the atmosphere. The sections that follow briefly describe these systems.

1 Exhaust Emission Control System
2 The Crankcase Emission Control System
3 The Evaporative Emission System

Exhaust emission control systems
Fuel injection system

The multiport fuel injection system (Bosch LH-Jetronic) measures the mass of the induction air, and takes into account the temperature and pressure of the air. The intake air flows through a mass air flow sensor which incorporates a filament, the temperature of which is maintained at a constant 212°F (100°C) above the temperature of the intake air.

The flow of air across the filament has a cooling effect on the filament and, by measuring the voltage variations in the power required to keep the filament at the constant temperature relationship, the system is able to determine the mass of the intake air. This information, together with information on engine coolant temperature, throttle position and ignition pulses, is processed by the engine control module which then emits a signal to control the opening duration of the injectors.



Multiport fuel injection system

1 Fuel tank
2 Fuel pump
3 Fuel filter
4 Fuel rail
5 Fuel pressure regulator
6 Engine control module
7 Ignition distributor
8 Engine coolant temp. sensor
9 Injectors (4)
10 Vacuum hose
11 Intake manifold
12 Throttle position sensor
13 Idle air control valve
14 Mass air flow sensor
15 Heated oxygen sensor
16 Manifold pressure switch (Turbo only)
17 System relay
18 Fuel pump relay
19 Battery
20 Ignition switch

The system is therefore able to measure very accurately the amount of oxygen supplied by the intake air to the engine and thus determine the quantity of fuel required for efficient combustion under different conditions, e.g. on cold–starting, when the engine is hot, on acceleration and at full throttle.

NOTE

In the event of the filament breaking, an emergency system in the control unit will take over, enabling the car to continue its journey with somewhat diminished performance. If this occurs, the warning light "Check engine" in the combination instrument will light up. See your Saab dealer as soon as possible.

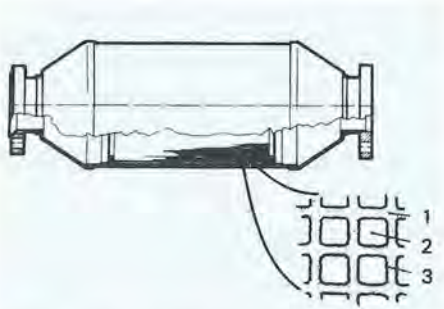
NOTE

The "Check engine" light may also indicate other types of fuel, ignition or emission control system malfunctions, including intermittent faults.

Three way catalytic converter

The three way catalytic converter contains a special platinum and rhodium coated dual segment substrate which simultaneously frees oxygen from oxides of nitrogen and oxidizes (burns) hydrocarbons and carbon monoxide.

Unleaded fuel is required to protect the conversion efficiency of the catalytic converter.

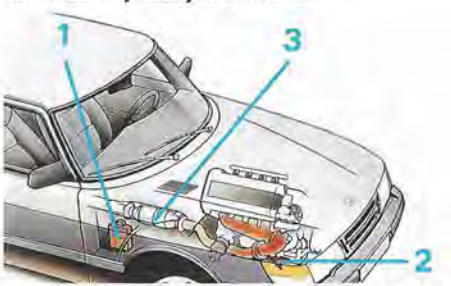


Three way catalytic converter S 5751

1 Ceramic insert
2 Channels
3 Catalytic coating

Oxygen sensor regulation

1 Engine control module
2 Heated oxygen sensor
3 Three way catalytic converter



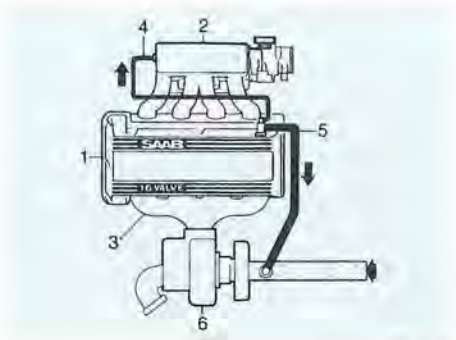
SG1002

Crankcase emission control system

A completely closed crankcase ventilation system is used. Crankcase fumes are drawn directly into the intake manifold under all operating conditions except full load and high blowby when some gases are diverted ahead of the throttle body. The oil separator in the valve cover also serves as a flame arrestor.

Crankcase ventilation system

1 Camshaft cover
2 Intake manifold
3 Exhaust manifold
4 Hose to intake manifold
5 Hose to pipe between air cleaner and Turbo inlet
6 Turbo charger



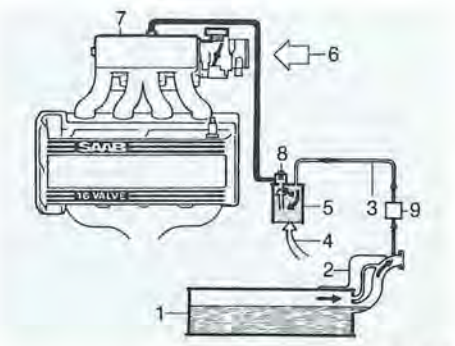
SG 572

Evaporative emission system

A sealed fuel system is used to prevent the emission into the atmosphere of vapors from the stored gasoline supply. Evaporated fuel is vented from the fuel system to the Evaporative emission (EVAP) canister which is connected to the throttle body. The evaporated fuel is purged from the charcoal canister and burned by the engine when it is running.

Sealed fuel system

1 Fuel tank
2 Fuel tank vent lines
3 Ventilation line to EVAP canister
4 Intake air
5 EVAP canister
6 Intake air and gas vapors
7 Intake manifold
8 Purge control valve
9 Rollover valve



SG 571

Turbocharger and APC system

Turbo models are equipped with a turbocharger, charge air cooler (intercooler) and a boost pressure control system known as Automatic Performance Control (APC).

Turbocharger

The turbocharger is an exhaust driven compressor that increases the flow and pressure of the air entering the cylinders. This allows induction and burning of a larger fuel charge thereby increasing power output over that of a conventional engine.

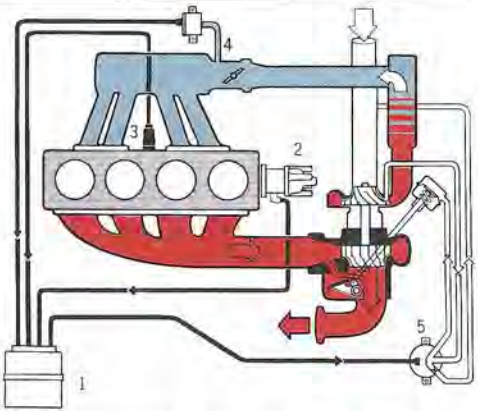
Being driven by the flow of exhaust gases, the speed of the turbocharger and, therefore, the charging pressure, are proportional to the speed and load of the engine. The boost pressure is regulated by a wastegate, which is controlled by an electrically modulated pressure signal from the APC boost pressure control system. The wastegate controls the flow of exhaust gases to the turbine.

Turbocharged engines are equipped with an engine oil cooler that is located at the lower left of the radiator. The turbo impeller shaft bearing actually floats on a thin film of engine oil circulated through the turbocharger housing by the engine oil pump. Maintaining a clean oil supply is therefore important to the service life of the unit. The turbocharger is cooled by coolant from the engine cooling system.

APC boost pressure control system

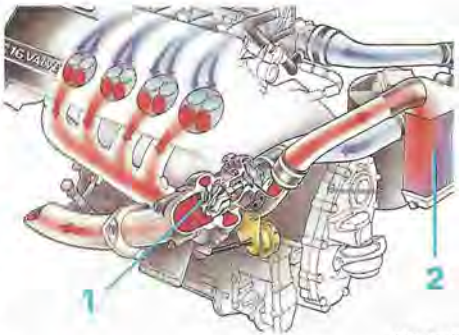
The APC boost pressure control system consists of simple electronic components. A knock sensor (3) on the engine block senses the onset and degree of engine knock and transmits an electronic signal to the control module (1) which also receives a signal from the manifold absolute pressure sensor (4) and from the ignition system (2) (engine rpm).

The data is processed by the control module (1) which transmits a signal to a boost pressure control valve (5) that modulates the control pressure to the wastegate. The control module has been optimized with a fixed sensitivity and pre-set high charge pressure limit to protect the engine. Maximum operating charge pressure under full load is electronically governed. The wastegate is mechanically adjusted to provide a safe, low charge pressure limit should the system cease to function.



Operating principle of the turbo system

1 Turbo charger
2 Charge air cooler (intercooler)



SG 863

NOTE

It is normal for "pinging" or knocking to occur in short bursts while the engine is operated under load, particularly on lower octane grades of fuel. When such knock is heard you may observe the needle of the Turbo pressure gauge oscillating slightly, an indication that the system is functioning.

Charge air cooler (intercooler)

A charge air cooler is fitted in front of the radiator on the Saab 900 Turbo. The flow of air through the cooler (ram effect) cools the intake air, enabling a greater volume of air and fuel to be admitted to the combustion chamber, thereby increasing engine power without impairing fuel economy.

Fuel

The fuel tank holds 18.0 U.S. gallons (68 liters). The fuel warning light will come on when the amount of fuel left in the tank is below approximately 2.5-3.1 U.S. gallons (10-12 liters).

Recommended fuel

Except for the special performance Turbo models, use unleaded gasoline octane rating 87 or higher.
Note! For special performance Turbo models, premium fuel, minimum octane rating 90.5 is required.

Octane rating is arrived at with the formula

$$\frac{\text{MON} + \text{RON}}{2} = \text{octane rating}$$

MON is the industry Motor Octane Number. RON is Research Octane Number. The average of these two is the number that appears on the gas pump under Federal law. This number is sometimes referred to as the "antiknock index" or Average Octane Number (AON).

To avoid deposit formation on the fuel injectors which can adversly affect performance and cause driveability problems after a cold start, use only quality gasolines which are blended with detergent/dispersant additives.

Use of gasoline-alcohol blends

Gasoline-ethanol blends (gasohol):

- have sufficient octane rating and are safe to use in Saab engines if the blend **does not** exceed 10% by volume.
- may cause warm starting problems in hot weather. Discontinue use if this occurs.
- may require fuel filter replacement soon after beginning continuous use.

Gasoline-methanol blends:

- are safe to use in Saab engines and fuel systems providing that the ratio of methanol to gasoline **does not** exceed 5% by volume and that the blend contains a co-solvent such a TBA in amounts equal to the methanol to gasoline percentage blend ratio.

Gasoline-methyl tertiary-butyl ether (MTBE) blends:

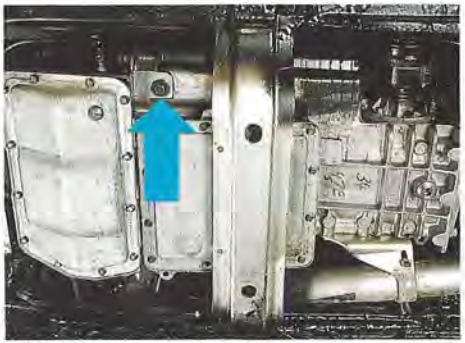
- are safe to use in Saab engines and fuel systems providing that the ratio of MTBE-to-gasoline does not exceed 15% by volume.

Oil filler cap with dipstick SG 882

Failure or damage caused by using gasolines with excessive alcohol blends (more than the above recommended blending percentages) are not covered by the warranty.

Engine oil

Check the oil level in the engine regularly. Make sure the car is on level ground and properly parked and allow the engine to cool for between two and five minutes. Remove the dipstick, wipe it on a clean rag and then check the level. The level must never be allowed to drop below the minimum mark on the dipstick but nor should the level be topped up higher than the maximum mark as this can result in excessive oil consumption. The distance between the maximum and minimum marks on the dip-



Skid plate removed to show engine oil drain plug (automatic) SG 988

the dipstick is screwed down tightly (finger-tight) after use.

Engine oils should meet the SAE viscosity ratings and API service classifications stated in the Specifications section of this manual. Extra oil additives are not recommend or necessary.

NOTE

Your new car came with a "break-in" filter. The service life of this filter is such that it MUST be replaced at the 5,000 mile (8,000 km/h) service.

Engine oil and filter

The engine oil and filter should be changed at least every 10,000 miles (16,000 km) in accordance with the maintenance schedule. More frequent oil changes may be necessary if your vehicle is operated under one of the following driving conditions:

- extensive engine idling
- stop-and-go driving
- driving in cold climates over repeated short trips without sufficient engine warm-up.

If you meet these conditions we suggest a more frequent interval of 5,000 miles (8,000 km) .

NOTE

Do not confuse the engine and transmission drain plugs. Do not operate the engine with the oil fill cap removed or loosely installed. Oil spilled over the engine creates a fire hazard.

Changing the engine oil and filter

NOTE

Be careful not to over tighten the oil drain plug. The correct torque is 25 ± 3 ft.lbs. (30 ±4 Nm).

1 Properly park the vehicle on level ground and apply the handbrake.

2 Drain the engine oil when the oil is still warm. Warm oil drains faster and more thoroughly.

WARNING!

Dispose of used oil properly. Take the used oil to a collection center or check with your local service station. Do not pour on the ground or into any water system.

Prolonged and repeated contact with used engine oil may cause serious skin disorders. Avoid contact with skin as much as possible and wash thoroughly after any contact. Keep out of the reach of children.

3 If necessary remove the air intake pipe (use special driver, Torx T25, Turbo only) and unscrew the oil filter using a special oil filter wrench. Always change the oil filter whenever the engine oil is changed.

4 Apply clean engine oil to the rubber gasket of the filter and tighten in accordance with the instructions on the label of the long life Saab oil filter (Saab part No. 93 09 576).

5 Reinstall the engine drain plug and the air intake pipe.

6 Fill the crankcase with the appropriate quantity and grade of engine oil. Start the engine and check for leaks.

NOTE

There may be some valve noise for the first few seconds of running after an oil change. This is normal and the noise will disappear once the engine oil has reached proper working pressure.

Transmission oil

The transmission and differential are located beneath the engine and assembled to form an integral unit with the engine. Part of the transmission case serves as the engine oil sump. The forward part of the transmission comprises a primary gear case which delivers power from the rear of the engine crankshaft via chains.

For suitable grades of oil, refer to the "Specifications" section.

Manual transmission

The dipstick is located on the right-hand side of the engine under the exhaust manifold. The oil level should be between the MAX and MIN marks on the dipstick.

The clutch fluid is supplied from the brake fluid reservoir.

Automatic transmission

The dipstick has different markings for hot and cold oil levels.

Check the oil level as follows:

Set the hand brake and run the engine for at least 15 seconds at idling speed with the gear selector lever in the D position. Then at least 15 seconds in the R position and 15 seconds in the P position, whereupon the check is performed with the selector lever still in the P position (engine running). Graduations are provided for cold oil (104°F/40°C) and hot oil (194°F/90°C). Note that at very low temperatures the oil level can therefore lie considerably under the level for cold oil which has been graded for oil at a temperature of 104°F (40°C). The difference between the minimum and maximum levels is 1 pint (0.5 liters).

Oil dipstick, automatic transmission

SG1113

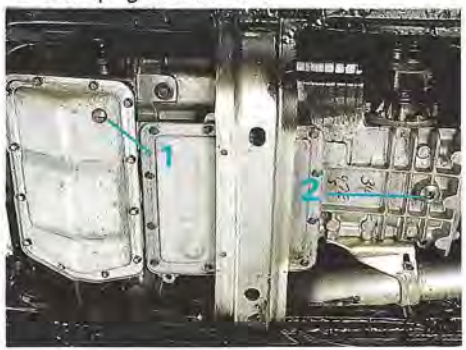
Final drive (automatic transmission)

To check the oil level, remove the filler hole plug located on the side of the transmission case at the right rear. Correct oil level is at or just below (1/4 inch/6 mm) the bottom of the filler hole.

Use 10W/30 oil for topping up.

Automatic transmission

1 Drain plug, ATF
2 Drain plug for final drive



SG 988

Engine coolant

NOTE

The radiator airflow must not be screened or blocked off.

Checking the engine coolant level

The expansion tank is transparent to facilitate checking of the coolant level. The level should be between the MAX and MIN marks on the tank.

When necessary, top up with the recommended antifreeze coolant mixture (see below). After an empty expansion tank has been filled up, the engine should be run until warm and the tank topped up again.

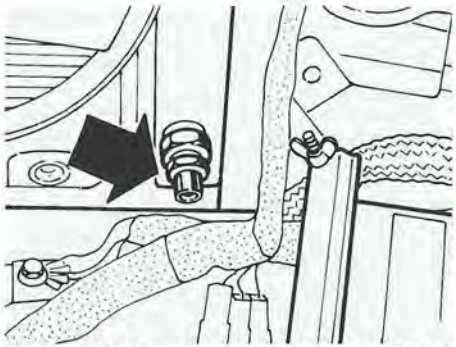
NOTE

Keep the engine coolant at the recommended level. Correct any leaks immediately. Operating the engine with low coolant level may cause damage to the cylinder head.

Draining

1 Set the heater control to maximum heat.

2 Loosen the pressure cap on the expansion tank.



Radiator drain cock SG 269

Engine coolant expansion tank

SG 891

WARNING!

The cooling system is a pressurized system. Always open the filler cap on the expansion tank carefully, releasing any vapour before removing the cap.

Changing coolant

3 Open radiator drain cock which is located towards the bottom of the radiator on the right hand side.

Filling

1 Close the drain cock and ensure that the heater control is set to maximum heat.

2 Fill the system with coolant until the expansion tank is filled.

3 Open the bleeder nipple on the thermostat housing, allow the coolant to flow out of the nipple until free from air bubbles.

4 Close the bleeder nipple, top up the expansion tank if necessary and replace cap.

Antifreeze coolant mixtures

The cooling system is factory filled with a mixture of ethylene glycol and water (50-50 mix). For maximum security against freezing and corrosion the glycol should be between 50% and 70% of the mixture. Always

use Saab brand antifreeze, which is suitable for engines with aluminum alloy cylinder heads. Mix the antifreeze with clean fresh water (see below).

To prevent freezing in the cold season and reduce the risk of boiling over in hot weather, never use pure water in the cooling system. Pure water is also undesirable as it affords no corrosion protection.

The factory fill coolant must be changed and the system flushed according to the maintenance schedule because the important corrosion inhibitors and other coolant additives lose their effectiveness with time and use. Without adequate corrosion protection, serious damage may occur to the cylinder head and other components in contact with the coolant.

Corrosion protection may be depleted even though the coolant gives adequate antifreeze protection and has an acceptable (alkaline) pH level of 7.5-11. When preparing a new coolant solution, mix the recommended antifreeze with water low in corrosive irons such as chlorides and sulfates. Avoid hard water which can cause clogging in the radiator. Do not use coolant booster additives. Keep the cooling system full and free of air pockets and foaming.

Saab brand coolant (BASF G-48) meets Factory recommendations and is available at Saab dealers.

Thermostat

A special 3-way thermostat is used in all engines. If it becomes necessary to replace a thermostat, a genuine Saab thermostat should be used. Not all brands have the 3-way feature nor do they have the special locating tabs or bleed holes necessary for some engines. Opening specifications are given below:

Naturally-aspirated engines
- Standard, 88°C
- Hot weather alternate, 82°C
- Extreme cold weather, 92°C (Do not use in Turbo engines)

Turbocharged engines
- Standard, 82°C
- Extreme cold weather, 88°C

NOTE

When topping up the system, premix the antifreeze with a suitable quantity of water. As full circulation cannot take place until the thermostat opens, there is still a risk of the engine being damaged by ice if the antifreeze and water were added separately and did not mix quickly enough.

Steering

All models have rack and pinion type steering with power assist.

The power steering fluid reservoir is located on the right inner fender, just behind the wheelhouse. Check the fluid regularly.

Hot fluid levels should be between the (HOT) and (COLD) marks. If the fluid is checked when the car is cold, the level should be between the mark for (COLD) level and the mark for topping up (ADD). Top up with fluid labeled "GM Power Steering Fluid" only. Do not use automatic transmission fluid.

Power steering reservoir

SG1239

Brake system including ABS

The standard anti-lock braking system on the Saab 900 is a triple circuit system, with split circuits and individual monitoring and control for each front wheel and for the two rear wheels together.

Signals from the four wheel sensors are sent to the ABS control module, which computes at a given instant the wheel speed, acceleration and deceleration, the road speed and tire slip. If a wheel is about to lock, the control module will send signals to the solenoid valves for the wheel concerned, whereupon the pressure in the brake circuit for the wheel will be modulated to ensure that the optimum braking effect, and thus the maximum coefficient of adhesion, is achieved.

In addition to the electronically controlled features of the Saab Anti-lock Brake System, two other functions set it apart from conventional brake systems:

- A triple split-circuit system with individual circuits for the left front wheel, the right front wheel and the two rear wheels together.
- The brake servo unit is hydraulically operated instead of being operated by the vacuum in the inlet manifold.

The brakes are power assisted but it should be remembered that the servo unit operates only when the ignition is on. Much greater pressure will need to be applied to the brake pedal to apply the brakes when the engine is switched off, e.g. if the car is being towed, or if a failure occurs in the hydraulic pump.

Three brake warning lights are incorporated into the instrument cluster. A light comes on when the handbrake is applied, one comes on to indicate a failure in the ABS and one indicates a loss of brake fluid (or a drop in the servo pressure in the ABS unit).

WARNING!

1 If the BRAKE FLUID and ANTI LOCK warning lights are illuminated at the same time, the car must not be driven. After several pedal applications, the brake pedal effort will increase unexpectedly and the braking effect will be greatly reduced. Note, however, that the operation of the handbrake will be unaffected. Failure to heed this warning may result in inadequate braking and possibly personal injury.

2 The ANTI LOCK warning light will illuminate when a fault occurs in the anti-lock braking system. When the ANTI LOCK warning light illuminates and the BRAKE FLUID warning light does not, the anti-lock braking system will deactivate and the vehicle will revert to a standard braking system without the benefit of the anti-lock features. The car should be checked and corrected immediately by an authorized Saab dealer.

NOTE

If the brake pedal continues to move down under constant pressure or the car pulls to one side during braking or an abnormally loud or metallic noise is heard during braking see an authorized Saab dealer immediately to have the braking system inspected.

Checking the brake pads

Both the footbrake and the handbrake are self-adjusting. It is therefore impossible to tell by the length of the pedal stroke whether the brake linings are worn out and need to be replaced. Check the thickness of the brake linings regularly as specified in the maintenance schedule. Use only original asbestos–free Saab replacement pad sets.

NOTE

Brake pads should always be changed by an authorized Saab dealer. A special procedure and brake adjustment are necessary when changing the rear pads.

Brake/clutch fluid reservoir

SG 859

Break–in period for new brake pads

The break–in period for new brake pads is approximately 90 miles (150 km) of city driving or 300 miles (500 km) of highway driving. To extend the service life, avoid hard braking during this period.

Checking the brake fluid

The brake fluid reservoir (container) is transparent to facilitate checking of the fluid level. Note that the level must be checked with the ignition switched on. The level should be between the MAX and MIN marks. Use only recommended brake fluid. Over a period of time in use, the brake fluid will deteriorate, since it gradually absorbs water and oxidizes. It is therefore important that the fluid be changed as specified in the maintenance schedule. This work should be carried out by an authorized Saab dealer.

Removing the seat cushion to gain access to Convertible top fluid reservoir

SG1121

Checking the level of the Convertible top hydraulic fluid

The reservoir is located underneath the rear seat. To remove the seat cushion, grip the front of the seat and lift it up.The reservoir is transparent to facilitate checking of the fluid level. The level should be above the mark when the top is down, and below the mark when the top is up. If the level is low, do not add any fluid yourself. Contact an authorized Saab dealer, who will check the system for leaks and top it up with the special fluid required.

Convertible top hydraulic fluid reservoir

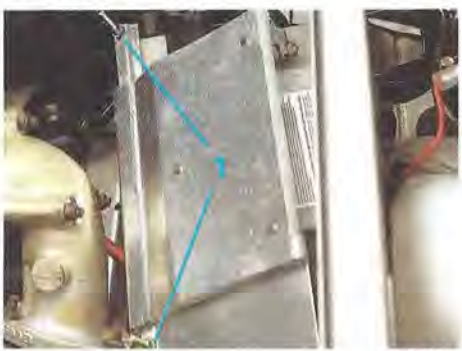
SG1131

Battery

The battery is one of the most important components in the car and must, therefore, be carefully maintained. The electrolyte should be level with the lower edge of the filler pipes. Top up as necessary using distilled water only. In the case of cars that are equipped with a maintenance-free battery, the electrolyte level does not need checking.

Heat shield above battery (Turbo)

1 Wing nuts



SG 895

The battery charge should be checked at regular intervals. This is especially important during the winter when the capacity drops due to low temperatures. Never connect the battery cables to the wrong terminals.

Long term storage

If your car will not be driven for a period of one month or more, you should disconnect the (–) negative lead of the battery.

WARNING!

The battery contains diluted sulphuric acid which is highly corrosive. Should the liquid come into contact with the eyes, skin or clothes, wash immediately with plenty of water. In the event of contact with the eye, or if a large quantity of liquid comes into contact with the skin, after washing contact a doctor immediately. Batteries that are being charged or are fully charged give off flammable hydrogen gas.

Do not smoke near a battery that is being recharged.

Booster cable connections

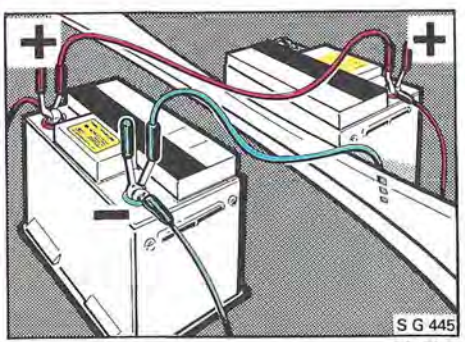
NOTE

Use of booster batteries or booster generators producing more than 15 volts may cause immediate and irreparable damage to the electronic components in the automobile.

To start a vehicle with a discharged battery using a booster battery or another vehicle connect booster cables as follows:

1 Connect one booster cable from the positive (+) terminal of one battery to the positive (+) terminal of the other battery.

Booster cable connections



SG 445

2 Connect one end of the second cable to the negative (–) terminal of the charged battery.

3 Connect the other end of the second cable to a solid, stationary metallic point on the engine of the car with the discharged battery, as far as possible from the battery (such as lifting ring on cylinder head). Do not allow the vehicles to touch.

4 Start engine of vehicle with discharged battery.

5 Remove booster cables by reversing the above procedure. Remove last negative (–) connection first.

WARNING!

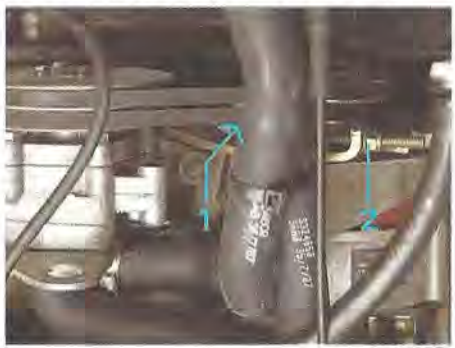
Do not reverse the battery connections. If the cables are reversed, even momentarily, the generator (alternator) will be damaged. The insulated positive cable must be connected to the positive (+) post of the battery and the ground cable to the negative (-) post. The battery must not be disconnected from the electrical system of the car while the engine is running.

Failure to follow the proper jump starting instructions could result in an explosion which may cause personal injury. Always wear eye protection when working near a battery.

Generator (alternator)

The generator (alternator) is located near the firewall on the left-hand side of the engine. It is driven by two V-belts from the crankshaft pulley. It is important that the correct tension of the V-belts be maintained. To tighten slack belts, slacken nut (1) and pull the generator outwards by means of tensioning nut (2). When correctly tensioned, there will be approximately 0.2 in. (5 mm) movement in either direction at the mid-point of the belts.

Generator (alternator) tensioner bracket



SG 894

Ignition systems

The 900 and 900S are equipped with the EZK breakerless ignition system which automatically adjusts the timing to suit the grade of fuel being used. An ignition control module receives signals from a knock detector on the engine block, from a crankshaft position sensor on the crankshaft pulley and from the fuel injection system. The control module compares the signals with those received earlier and adjusts the ignition timing to suit.

Ignition control for Turbo models is regulated by intake manifold pressures.

Spark plugs

If the engine is to run smoothly and deliver maximum power and torque, the recommended spark plugs must always be used. If the spark plug gap (electrode gap) needs to be adjusted, make the adjustment to the side electrode only (for correct gap, refer to the "Specifications" section).

WARNING!

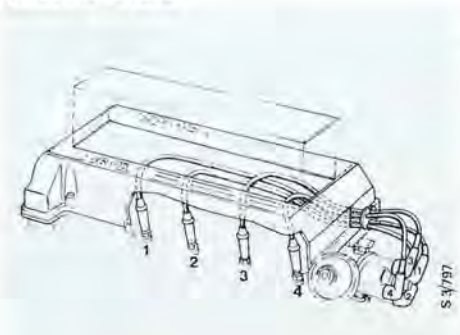
The high energy ignition system used on Saabs develops very high primary and secondary voltages. See your Saab dealer if the ignition system requires service.

NOTE

In conditions other than normal driving, Turbo models may require a different spark plug than is fitted as standard equipment. Extensive idling, stop-and-go driving and operation in cold climates over repeated short trips without sufficient engine warmup may cause Turbos to require the spark plug listed for City Driving in the Specification section of this book. Discuss this with your dealer.

If the spark plugs are removed, take care that no dirt enters the cylinders. Use only the recommended spark plug heat range. Gap the spark plug to specification. Resistor-type plugs should not be used.

Ignition lead runs



S3797

Resistive wire leads are used for radio interference suppression.

To remove the plugs you must first remove the two screws holding the spark plug cover in place and remove the cover. On all engines remove the plug wires by gripping the protective boot with special boot removal pliers to prevent damage to the wire. Never pull directly on the wire. Install spark plugs carefully to avoid damage to the threads in the aluminum cylinder head. The firing order is 1-3-4-2 (cylinder number 1 is closest to the firewall).

Wipers

Inspect and clean the rubber blades of the windshield at regular intervals. Methyl alcohol is recommended for cleaning. If the blades show signs of wear, they should be replaced. For best windshield wiper performance the glass must be free of wax and oily road grime.

Changing the windshield wiper blades

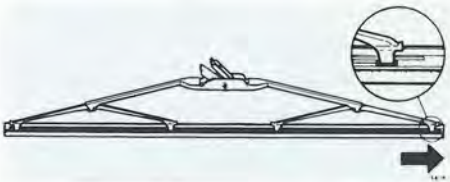
Lift the wiper arm away from the windshield. Depress the plastic clip (1) and slide the complete wiper blade assembly out of the loop at the end of the wiper arm (2).

Free the blade rubber from the retainer (see illustration) by pressing together the two shiny metal pieces and twisting the rubber to disengage the retainer from the recess in the blade. The rubber can now be withdrawn through the other retainers. To fit the rubber, slide it through the four retainers and then tighten it so that the retainer at one end engages the recess in the blade rubber.

Complete replacement blade assemblies are also available from your Saab dealer.

Changing a windshield wiper blade

SG 907



Changing the headlight wiper blade

Lift the wiper arm away from the glass and detach the blade by holding the middle and pulling it away from the arm. To fit the new blade, slide the blade into the clip and press it firmly home.

SG 915

Washers

The reservoir holds 4.9 U.S. quarts (4.7 liters). Fill up with suitable antifreeze washer fluid. Plain water will freeze in the winter. The spray nozzles consist of rotatable balls. To adjust the direction of the jet, insert a needle in the hole of the nozzle and direct the jet to the desired location on the windshield. Aim the jets to spray high on the windshield at a standstill. When the car is moving the air will move the fluid down toward the center of the windshield.

SG 898

Headlights, bulbs

Headlights

Adjustment of the headlights is made by means of two knobs at the back of each headlight unit. Both are accessible from the engine compartment. The higher knob is for vertical adjustment and the lower one for horizontal adjustment.

It is extremely important that the headlights be correctly adjusted to achieve the best possible lighting effect without any risk of blinding oncoming drivers. All adjustments should be done by an authorized Saab dealer, according to specifications and/or applicable state/provincial laws. Special headlight aiming equipment is required to do the job properly.

Replacing headlight bulb

Turn the black bayonet ring counter-clockwise to release the holder. Change the bulb. Carefully insert the new bulb, taking care not to touch the glass with your fingers.

Insert and turn the holder until the grooves fit the three corresponding edges in the reflector. Lock the holder by turning the bayonet ring clockwise.

Replacing fog light bulbs

Use only H-3 bulbs as replacements. Do not touch the bulbs. The fog light circuit is protected by a 15 amp fuse in the main fusebox.

Headlight

1 Bulb holder
2 Headlight adjustment knob (vertical)
3 Headlight adjustment knob (horizontal)

SG1008

SG 860

Front combination lamp

1 Direction indicators/side position light
2 Parking light/corner light
3 Side reversing light

SG 876

Side direction indicator SG1117

Changing exterior lamp bulbs

The bulbs in the front light clusters are accessible from the engine compartment.

The bulb holder has a bayonet fitting. Grip the two plastic tongues and twist the bulb holder counter-clockwise. Pull the bulb holder out of the fitting and change the bulb. Make sure that the new bulb is securely fitted and making good contact.

To change side direction indicators, push the light assembly forward to release the rear end of the assembly housing. Pull the assembly away from the body and change the bulb. When replacing the light, make sure that the groove in the metal tongue engages the fender.

On sedans and convertibles the rear lamp cluster bulbs are accessible from inside the trunk compartment. Remove the trim panel beneath the trunk sill and pull back the trunk lining to uncover the lamp housing. Press in the retaining clips at each end of the housing and remove the rear of the unit to gain access to the bulbs.

For all other exterior lamps, loosen the retaining screws and remove the lens, making sure the new bulb is securely in place and makes good contact. Wipe off the lamp assembly and replace the lens, fitting it to the gasket evenly and securely.

Rear combination lamp, Sedan

1 Direction indicator
2 Reversing light
3 Side marker light/brake light
4 Tail light/reflector
5 Brake light

SG 909

Rear combination lamp, Hatchback

1 Direction indicator
2 Reversing light
3 Tail light/brake lights
4 Brake lights
5 Tail light

SG 867

Instrument illumination, control illumination and indicator warning lights

All the bulbs in the instrument assembly are mounted in bayonet fittings and are accessible from the back of the panel. The bulb for headlight switch illumination is located within the switch.

Rear reading light (900 Convertible)

Disengage the trim to gain access to the lamp. Pull out the bulb holder and replace the bulb.

High-mounted brake light

The bulb is accessible behind the cover at the back of the light unit. Squeeze the cover at the two ribbed markings, lift it off and change the bulb.

Convertible: undo the two screws, remove the glass and change the bulb.

Fuses

NOTE

Before removing or replacing any fuses, make sure the ignition switch is in the lock position. If fuse 7 is removed when the ignition switch is in the accessory or drive position, a fault will register with the SRS and cause the instrument SRS warning light to illuminate. If this happens, only an authorized Saab dealership can erase the fault and extinguish the light.

Most fuses are housed in the fuse block, located on the left-hand side of the engine compartment.

Fuses for the ABS system are housed in the fuse and relay panel on the right-hand side of the engine compartment. There is also a fuse panel on the left-hand side underneath the rear seat. This panel is accessible after the seat cushion has been folded forward. On Convertible models the rear seat cushion must be removed. To do this, grip the front of the seat and lift it up.

Fuse box

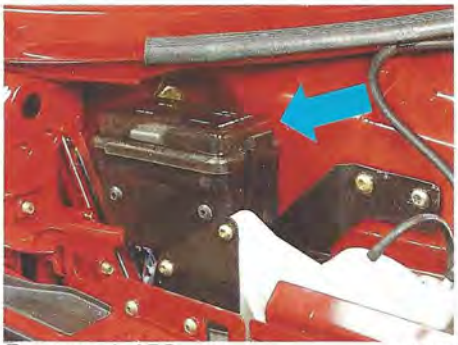
SG1035

A special in-line fuse (SA ceramic), located on the right-hand side of the engine compartment, protects the oxygen sensor preheater wire.

Spare fuses are held in the front end of the fuse box. A defective ("blown") fuse is identifiable by the fact that the wire will have melted. To check a fuse, the fuse must first be removed from the fuse box. The table identifies the fuses for the different electrical systems. To facilitate the removal of fuses from the fuse box, a special tool is provided in the fuse box. It is located immediately adjacent to the three fuse rows. Push the tool onto the fuse and pull it straight up.

When changing fuses, make sure that the new fuse has the same rating as the old one (see Specifications). Fuses of the same rating have a common color. The rating is also marked on the fuse.

If the same fuse blows repeatedly, take the car to an authorized Saab dealer and have the wiring and other electrical equipment checked.



Fuse panel, ABS SG1034

Fuses under rear seat SG1122

Good fuse *Blown fuse* SG 439

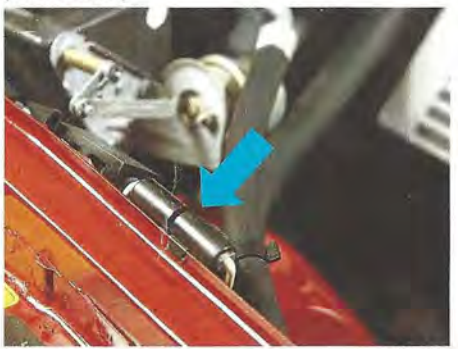
NOTE

Consult your Saab dealer before adding any additional wiring or electrical accessories. Improper electrical connections can cause damage to other vehicle systems.

Removing the Convertible rear seat cushion

SG1121

Operating voltage fuse for hydraulic pump (Convertible)



SG 922

Tire wear

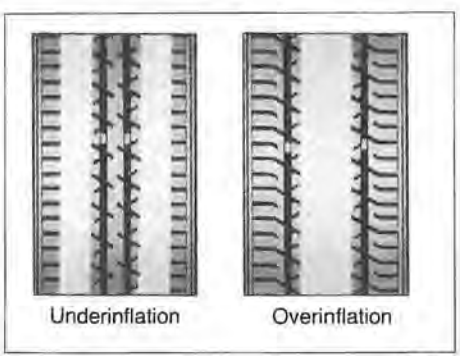
A car's tires and wheels are components vital to motoring safety. The tubeless radial tires and wheels supplied with the Saab 900 have been specially selected for the different models and are major factors contributing to its exceptional roadholding and stability. Consult your Saab dealer before fitting nonstandard wheels or tires. See tire and wheel applications chart, "Specifications" section.

Tire pressure

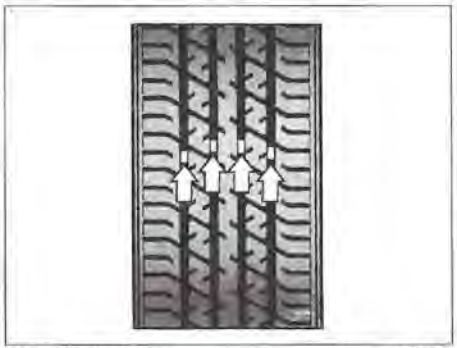
Check tire pressures regularly. Adjust tire pressures to suit the load and speed normal for the car. See the tire pressure table in the "Specifications" section. The recommended pressures are for tires when cold. Never reduce the pressure when the tire is warm. If tire pressures are checked when the tires are warm then the pressure should only be increased.

Wear indicators

The tires are fitted with wear indicators. The indicator is a transverse strip, one half inch (12 mm) wide, without a pattern which appears when 1/16 inch (1.6 mm) of the tread remains. When this strip is visible the tire should be replaced.



SG 839



Wear indicators SG 840

Winter tires

Winter (snow) tires are recommended for winter climates where the majority of your driving will be done on snow and ice. Winter tires should be fitted to all four wheels to maintain a proper balance. Your Saab dealer can advise you as to the correct size tire for your car (if different from the original size) and also supply Saab approved winter tires pre-mounted on steel rims.

Replacement tires

Use only tires of the original size specification load capacity and speed ratings. Speed rating codes:

S = 110 mph (180 km/h), max.

T = 118 mph (190 km/h), max.

H = 130 mph (220 km/h) , max.

V = 149 mph (240 km/h)

Z = 149 + mph (240 km/h+)

Tire rotation

The front-wheel drive causes the front and rear tires to wear differently. In order to maximize the overall tire tread life of wide profile tires, such as those fitted as Saab original equipment, the tires should be rotated front to rear every 10,000 miles (16,000 km).

Make sure that the tires maintain the same direction of rotation as before - i.e. the left front wheel should only change place with the left rear wheel and the right front wheel should only change place with the right rear wheel. After rotation, reset the front/rear tire pressures according to the pressure table in the Specifications section. Do not change radial tires from side to side on the car.

NOTE

Saab asymetric design three-spoke wheels are a directional type and are marked as to which side of the car they should be mounted on.

Tire quality grading (cars sold in U.S)

New tires must be graded and labeled in accordance with new Federal regulations. Standard tests are conducted to measure performance in the areas of traction and temperature resistance. Refer to the tire sidewall for the specific quality grades of the tires provided on your new Saab. Compact spare tires are exempt.

DOT QUALITY GRADES

- Treadwear
- Traction A, B, C
- Temperature A, B, C

All passenger car tires must conform to Federal safety requirements in addition to these grades.

Treadwear

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one half (1 1/2) times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

Traction

The traction grades, from highest to lowest, are A, B, C, and they represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

WARNING!

The traction grade assigned to a tire is based on braking (straightahead) traction tests and does not include cornering (turning) traction.

Temperature

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 109.

Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

WARNING!

The temperature grade for a tire is established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

Spare tire and tools

The tool kit, jack and a compact type spare wheel are stored under a cover in the floor of the rear part of the luggage compartment.

The tool kit is comprised of the following:

Combination pliers

Phillips screwdrivers

Torx driver

Socket wrench for wheel nuts

Socket wrench for spark plugs

Allen wrench for removing and installing front passenger seat

Tire bag for storage of removed road wheel/tire

Child tether anchor kit (Canada only)

WARNING!

The compact spare tire should be kept inflated to 60 psi (420 kPa) at all times. When the compact spare is mounted, the car's handling characteristics will be affected slightly, and extreme driving maneuvers should be avoided. Do not exceed 50 mph (80 km/h). If the compact spare tire must be replaced it should be replaced with the same type designed for the narrow rim. Under no circumstances should mounting of conventional type tire be attempted on the rim intended for the compact spare tire.

Crank for jack SG 857

Wheel changing

To jack up the car, install the jack in one of the jacking points (front or rear) located underneath the sill beams (see illustration).

If a garage jack is used, the lifting heads must be located under the reinforced parts of the underbody.

WARNING!

Never crawl under the car when it is jacked up.

1 Properly park the vehicle. Place blocks on both sides of the three tires furthest away from the correct jacking point.

2 Apply the handbrake. Slide the jack into the attachment points and crank it down until it touches the ground.

SG 989

SG 441

SG 442

NOTE

Handbrake operates the rear wheel brakes.

3 To remove the hub cap, insert a screwdriver behind the cap and pry it off.

4 Back off the wheel bolts half a turn. Check that the jack is placed properly against the flange on the sill beam and the base is placed firmly on the ground.

5 Jack up the car until the wheel is clear of the ground, then remove the wheel bolts and the wheel.

6 Mount the wheel and tighten the wheel bolts loosely. Check that the wheel and bolts are correctly positioned.

7 Lower the car. Tighten the wheel bolts in the order shown in the illustration. Tighten to 80-90 ft. lbs. (105-125 Nm). Never use an impact wrench for final tightening of wheel bolts. Carefully observe the torque limit to avoid wheel damage.

The three-spoke asymmetric wheels fitted to certain models are marked "L" for left and "R" for right. These markings indicate the side of the car the wheels should be mounted on in order to maintain a consistent appearance. There is no risk for reduced brake cooling or wheel balance if the wheels are mounted contrary to the markings.

Air conditioning

Fault diagnosis

If the air conditioning system is malfunctioning, check the following items yourself. If these checks fail to reveal the cause of the problem, contact an authorized Saab dealer.

NOTE

When the air conditioning system is running, condensation will form on the evaporator. When the car is parked, this condensation may drain off and form a small pool of water under the car.

Inadequate cooling

1 Check that the temperature control and the air distribution control are correctly set.

2 Check that the condenser (located in front of the radiator) has not become clogged by dirt or insects.

3 Check that the drive belt for the compressor is not loose, damaged or worn.

4 Check the temperature of the engine. If the pointer on the temperature gauge has entered the red zone, the A/C system will have been switched off automatically.

5 Check the fuses for the fans and compressor.

Maintenance and servicing

Each time the car is serviced, the compressor drive belt and mounting bolts and the electromagnetic clutch should be checked.

- Keep the condenser and radiator free from insects or other dirt to avoid clogging. When washing the car, use a hose to thoroughly flush the surfaces of the radiator and condenser (located in front of the radiator), both through the grille and from inside the engine compartment. Never fit wire mesh or any other form of screening in front of the radiator as this will substantially reduce the cooling effect.
- During the winter, the air conditioning system should be switched on once or twice a month and run for between 5 and 10 minutes to prevent deterioration of the gaskets and seals in the compressor. This should be done with the engine at normal running temperature and with the car cruising at moderate speed. (The compressor is lubricated by a special oil which circulates with the refrigerant.)

NOTE

The air conditioning will not cycle on below 38°F (3°C).

If repairs or adjustments to the A/C system are required they should be performed at an authorized Saab workshop.

WARNING!

The A/C system contains freon gas under pressure. Do not loosen or undo the A/C system hoses. Escaping gas may cause blindness or injury.

Appearance care

Care of paintwork

To keep its gloss and finish, the paintwork needs proper care. If the paintwork is damaged, for example by a flying stone, the spot can be cleaned and covered with air-drying touch-up paint. Touch-up paint in the standard Saab colors can be purchased from your Saab dealer.

Washing

The car should be washed frequently. When it is new, it should be washed by hand using only cold water and a clean, soft brush attached to a hose. Automatic car washes should be avoided during the first few months. After five to six months the paintwork will have hardened and to make washing easier, a car shampoo or mild washing-up liquid may be added to the water, which may be warm but not hot. Even the underbody should be washed regularly and special attention should be given to the wheel housings. This is particularly necessary when automatic car washes are used

as these do not generally include washing of the underbody. Never wash the car in strong sunlight, and always wipe it dry with a clean chamois leather if streaks on the paintwork are to be avoided.

The painted finish of the alloy or steel wheel should also be washed when the car is washed. Use a mild automotive car wash mixture and a wash rag to get into the hard to reach places of the rim. Cleaning the wheels properly and regularly will prevent brake dust damage to the painted surface. Use a different rag than the one used to wash the rest of the car.

Petroleum solvents should not be used to clean tar from the front and rear plastic light cluster lenses, since they may cause cracking of the lenses.

Clean the antenna with a soft cloth and then lubricate lightly by means of an oily rag.

Convertible top appearance care

NOTE

Do not use harsh or abrasive type cleaners or bleaching agents on the top material or damage may result. Cleaning solvents can damage the water retention properties of the top.

Do not use an automatic car wash to clean the 900 Convertible. Many types of automatic car wash machinery can damage the top fabric.

Backlight: Clean the same way you clean all automobile glass. Use water or a mild glass cleaner solution. When cleaning the inside of the backlight, be careful not to scratch or damage the defogger wires.

Cloth top: Wash using mild soap suds, lukewarm water and a sponge. Rinse the top with enough clean water to remove all traces of soap. You must be careful to rinse any cleaner off the body paint as it may cause streaks if allowed to dry on the painted surfaces.

If further cleaning is required after using soap and water, a mild foaming cleaner can be used. First, rinse the top. Then use a mild foaming cleaner on the entire top. Scrub with a small, soft bristle handbrush. Add water as needed until the cleaner gets soapy. Use a cloth or sponge to remove dirt so it won't be ground into the top. Be careful to keep any cleaner from drying on the body paint as it may cause streaks.

After the top has been cleaned, rinse vehicle with clean water to remove all traces of cleaner. After cleaning, always be sure the top is completely dry before it is lowered. Lowering the top while wet or damp may cause interior water damage, water stains or mildew of the top material.

NOTE

Do not store the car with the top lowered for a prolonged period of time, as this may cause mold on the cloth top.

Polishing/waxing

The general rule is that synthetic enamel should not be polished until it is absolutely necessary. In any event, it should not be polished until it has aged properly, which takes five or six months. Most polishes or cleaner waxes contain abrasives which clean off the outer layer of old paint finishes. Never use a polish containing abrasive substances on a new car. Instead use a high quality wax to protect the finish. The paintwork must be thoroughly washed before being polished or waxed as otherwise it may by scratched.

Frequent washing and a good application of wax will prevent paint damage from acid rain and other airborne contaminants such as tree sap and bird droppings.

Engine compartment cleaning

The engine compartment should be cleaned with an engine detergent and then hosed with hot water. Cover the distributor and brake master cylinder reservoir and air inlet opening before washing the engine.

NOTE

If you use a high-pressure hose, cover the distributor, alternator, starter motor, voltage regulator, throttle cable and brake master cylinder reservoir and air inlet.

Care of carpets, cleaning

Textile carpets should be cleaned with a brush or sponge using carpet shampoo and then rinsed thoroughly with water. Stubborn grease or oil stains can be removed with a commercial solvent formulated for this purpose. Should the trunk carpet become soiled or stained it may be more easily cleaned if removed from the car. The carpet is fastened to two plywood panels that make up the forward floor section and the tool compartment cover. To remove, unscrew the two Torx fasteners from the forward floor section, unlatch and lift up the tool compartment cover and pull straight back. This disengages the floor from the engaging clips. Lift the floor out of the trunk.

Seat belts

Clean the seat belts with mild soap and lukewarm water.

Care of velour upholstery

The fabric upholstery may be effectively cleaned with a cloth moistened in soap solution. Use lukewarm water. Grease and oil stains can be removed with a commercial solvent formulated for this purpose. Wet stains such as oil or softdrinks should be dried up immediately with an absorbing paper or similar material. Then apply a stain remover. Plastic surfaces can be easily cleaned with lukewarm water and a synthetic detergent. A brush may be used.

Care of leather upholstery

The finish of the leather upholstery is designed to enhance as well as protect the natural beauty of the grain of the hide. Especially in lighter colors, the surface of the leather will discolor from handling and atmospheric dust. While this does not affect its wearing qualities, and, in fact a "well-worn" patina is often a desirable feature of leather, a surface that is too dirty will detract from the quality appearance.

The leather upholstery should be cleaned and reconditioned twice a year, for example when the car is inspected in the spring and autumn.

Moisten a soft cloth in a mild soap solution. Carefully apply this damp (not wet) cloth to the leather with light, circular movements until the leather is clean. Repeat this procedure using clean water. Let the leather dry completely. Then apply Saab Leather Cleaner (P/N 02 02 523, in Canada P/N 30534902), a leather conditioner which can be purchased from authorized Saab dealers.

Apply the leather conditioner with the same circular movements as described above. Use a soft cloth. Let the leather conditioner dry and polish the leather with a soft, dry cloth. Follow the instructions given above. Do not use hot water, unknown abrasive polishes, solvents, sprays or soaps that may scratch the leather. This treatment will keep the leather upholstery clean and attractive for many years.

Rust prevention

What causes rust?

Steel body panels of automobiles are subject to rusting whenever air and moisture manage to penetrate the protective finish, and body panels may rust through if the process is unchecked. Rusting can occur wherever water is trapped or where the car's panels are continuously damp. Damage to paint and undercoating by stones, gravel and minor accidents immediately exposes metal to air and moisture. Road salts used for de-icing will collect on the bottom of the car and promote rusting. Areas of the country with high humidity have great potential for rust problems, especially where salt is used on roads or there is moist sea air. Industrial pollution (fallout) may also damage paint and promote rusting.

Preventive maintenance

The following procedures are necessary to help protect against rusting. Refer also to the terms and conditions of the Perforation Warranty described in the warranty booklet.

1 **Wash the car frequently, and wax at least twice a year.** Under adverse conditions, where there is a rapid buildup of dirt, sand or road salt, wash your car at least once a week. After extreme exposure to salted snow or slush, evidenced by a white film on the car, wash the car immediately.
Frequent washing will prevent paint damage from acid rain and other airborne contaminants such as tree sap and bird droppings. If any of these contaminants are noticed on the car the finish should be washed immediately.

a. Begin washing by rinsing the entire car with water to loosen and flush off heavy concentrations of dirt (include the underbody).
b. Sponge the car with a solution of either a good quality car soap or mild general purpose (dish washing) detergent and water.
c. Rinse car thoroughly with clean water.
d. After washing, check and clear all drains in doors and body panels.
e. Wipe the car dry, preferably using a chamois.

2 **Clean the underside of the car during the winter.** Use high pressure water to clean the car's underside (floor panels, wheel wells) at least at midwinter and in the spring.

3 **Inspect the car frequently for leaks or damage, and arrange for needed repairs promptly.** After washing or after heavy rain, check for leaks. When washing the car inspect body surfaces for paint damage.
While checking for leaks, lift the floor mats and check beneath them. Water can collect in these areas and remain for prolonged periods. Dry any wet areas including the floor mats. Have leaks repaired as soon as possible.
Use touchup paint to repair small scratches or minor finish damage. Areas where metal is exposed will rust quickly and MUST be repaired immediately by touch-up or professional repainting. Rust must be removed, the bare metal primed and painted. Major body damage should be repaired immediately and new panels or exposed areas should be undercoated with anticorrosion meterial.
Repairs of this type are the owner's responsibility and are not covered under warranty.

4 **Inspect the undercoating and touch up if necessary.** Pay particular attention to the fenders and wheel housings, which are exposed to abrasion by flying gravel, etc. If the composition has worn or flaked off, the steel must be thoroughly cleaned and dried before a fresh coat is applied. The cleaning is best done with a scraper and a steel wire brush, followed by washing with solvent. Apply the new coating thinly, as otherwise it may run off or fall off when dry.

Maintenance and owner assistance

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Maintenance schedule

The Maintenance Schedule prescribes a service program to the purchaser/operator of a 1994 Saab that is reasonable and necessary to ensure the proper emission control systems function, safety and reliability of the Saab automobile in normal use. Additional maintenance is recommended for specific components when the car is operated under certain severe conditions. Proper maintenance is always good advice!

Authorized Saab dealer are equipped and trained to meet your Saab's service needs. They regularly receive up-to-date Saab service manuals and parts and technical service bulletins from Saab and are able, through their franchise agreement, to attend Saab service schools, obtain Saab special tools and technical assistance and purchase original equipment service and replacement parts. Today's complex automobiles should only be entrusted to the most knowledgeable service professionals. A Saab dealer is your best choise.

Service intervals

The maintenance schedule is comprised of a "First Service" at 5,000 miles (8,000 km), followed by services at every 10,000 miles (16,000 km) thereafter (e.g. at 15,000, 25,000, 35,000 miles/ 24,000, 40,000, 56,000 km, etc.)

NOTE

The "First Service" will be done by your Saab dealer at no charge and should be done as close as possible to the scheduled mileage (5,000 miles/8,000 km). The special break-in oil filter must be changed at this service.

Engine oil and filter changes

Changing the engine oil and filter is required at every service point. Use only a Saab approved long-life oil filter and engine oils meeting the SAE viscosity ratings and API service classifications stated in the Specification section of this Owner's Manual. The use of extra additives in the oil is not necessary and is not recommended, and may be harmful to turbochargers.

More frequent oil changes are recommended if your vehicle is operated under the following conditions:

- extensive idling
- stop-and-go driving
- driving in cold climates over repeated short trips without sufficient engine warm-up

If your driving habits match this description, have the engine oil and filter changed inbetween normal services at 5,000 mile (8,000 km) intervals. The Warranties & Service Record Booklet has provisions to record extra oil changes.

Break-in service

Service record retention

Service instruction coupons and record stubs are provided in the Saab Warranties & Service Record Booklet which accompanies this Owner's Manual. The coupons are arranged in the order that normal service should be performed. The edge of each coupon is shaded to correspond to the type of service point:

- Striped - "First Service"
- Blue - Oil change/safety inspection service
- Black - Major service

When scheduled services are performed, your dealer will tear out the applicable coupon and use it to check off the operations performed and enter it into the service file at the dealership. The servicing dealer's stamp, along with the date and mileage at which the service was done, should be entered on the corresponding stub which remains in your booklet. The booklet is your permanent record of the services performed. It also includes a log sheet for unscheduled repairs.

It is advisable to retain receipts and, if possible, copies of shop work orders for all service and repair work, wherever performed.

Service costs

Dealer pricing practices and labor for service work vary. Saab's recommended service times for each service point do not include the labor required to replace wear items, such as wiper blades, brake pads or tires. Nor is labor to perform other service or repairs found to be necessary as a result of the safety inspections included in these times. Additional labor and parts will be charged for such work when necessary, except as covered under an applicable Saab warranty or optional extended service contract. Transmission fluid changes or suspension alignment, when necessary, are also additional.

Dealer charges for general shop material, regulated hazardous waste removal, recycling expenses or other operation costs may also be applied to service and repair invoices and are apt to vary by dealer and locality.

Owner assistance

Warranties and Service problem assistance

For complete information about all applicable warranties, including the New Car Warranty, Perforation Warranty, Vehicle Emission Warranty and Emission Perforation Warranty, consult the Warranties & Service Record Booklet which accompanies this Owner's Manual. It also contains owner assistance information including Saab Roadside Assistance. If the booklet is lost or misplaced, a new one may be ordered through a Saab dealer or by contacting the importer.

In the U.S. there is a national Customer Assistance Center at Saab Cars USA, Inc. The toll-free number to call from all 50 states is 1-800-955-9007. (Puerto Rico is handled by an independent importer). See your Warranties & Service Record Booklet for additional information on owner assistance.

In Canada, please call the Saab Customer Assistance Centre at 1-800-263-1999.

A list of authorized Saab sales and service dealers is available for those planning to travel in the United States and Canada.

Change of Address Notification

Two change of address cards are provided at the end of the Warranties & Service Record Booklet. Knowing your current address allows Saab to contact you in the event of a recall or service campaign. Please help us keep our record up to date for your own peace of mind.

Service information

Factory Service Manuals for the Saab 900 and 9000 car lines can be ordered through the dealer. These are comprehensive manuals comprised of several sections in multiple ring-type binders, geared to use by professional technicians. Sections may be ordered individually. Consult your Saab dealer for prices and for a listing of available sections to your model.

Reporting safety defects (U.S.A.)

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Saab Cars USA, Inc.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Saab Cars USA, Inc.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 366-0123 in Washington D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590. You can also obtain other information about motor vehicle safety from the Hotline.

Reporting Safety Defects to the Canadian government

If you live in Canada, and believe that your vehicle has a safety defect, you should immediately notify Transport Canada, in addition to notifying General Motors of Canada Ltd.

You may write to Transport Canada at Box 8880, Ottawa, Ontario, K1G 3J2.

In addition to notifying Transport Canada in a situation like this, we certainly hope you will notify us. In Canada, please call our customer assistance centre at 1-800-263-1999.

Or write:

General Motors of Canada Limited

Customer Assistance Centre,

1908 Colonel Sam Drive,

Oshawa, Ontario, L1H 8P7.

Saab Recommended Maintenance Program, 900 Models (U.S. & Canada)

	Service Interval ** Miles = U.S. Cars Kilometers = Canadian Cars	5,000 (8,000 km)	15,000 (24,000 km)	25,000 (40,000 km)	35,000 (56,000 km)	45,000 (72,000 km)	55,000 (88,000 km)	65,000 (104,000 km)	75,000 (120,000 km)	85,000 (136,000 km)	95,000 (152,000 km)	105,000 (168,000 km)
	Service #	1	2	3	4	5	6	7	8	9	10	11
Engine and engine compartment												
E	Engine oil and filter (a.)	■	■	■	■	■	■	■	■	■	■	■
R	Engine coolant freezing point and level	○	○	○		○	○		○	○	○	○
R	Engine coolant flush and replace (max 3-year intervals)				■			■			■	
R	Engine cooling system, hoses and cap	○			○			○			○	
R	Drive belts; tension and condition	○	○	○	○	○	○	■	○	○	○	○
E	Distributor cap and rotor							○				
E	Spark plug wires; condition and resistance							○			○	
E	Spark plugs				■*			■			■	

* For vehicles certified for sale and registered in California, these are the minimum required Emission Control System maintenance steps. Saab urges that all recommended maintenance procedures be performed according to this program.

(a.) Engine oil and filter should be changed at least once a year. Intermediate oil and filter changes (halfway between indicated intervals) suggested for cars primarily used for driving in dense city traffic or for repeated short trip operation without sufficient warm up.

** **Service intervals:** Refer to the Warranties & Service Record Book for service intervals beyond 105,000 miles.

Application/type of service (col.1)
E = emission service
R = regular maintenance

Service Procedure
○ = check/adjust
■ = replace
▲ = clean/lubricate

	Service Interval ** Miles = U.S. Cars Kilometers = Canadian Cars	5,000 (8,000 km)	15,000 (24,000 km)	25,000 (40,000 km)	35,000 (56,000 km)	45,000 (72,000 km)	55,000 (88,000 km)	65,000 (104,000 km)	75,000 (120,000 km)	85,000 (136,000 km)	95,000 (152,000 km)	105,000 (168,000 km)
	Service #	1	2	3	4	5	6	7	8	9	10	11
Engine and engine compartment (continued)												
E	Crankcase ventilation and vacuum lines							○			○	
E	Evaporative emission system including filler cap, vapor lines, EVAP canister and canister purge valve							○			○	
R	Fuel lines; leaks and condition				○			○			○	
E	Fuel filter							■				
E	Air cleaner element				■*			■			■	
R	Exhaust system and mountings; leaks and condition	○	○	○	○	○	○	○	○	○	○	○
Electrical system												
R	Battery; check electrolyte level, clean and grease terminals	○	○	○	○	○	○	○	○	○	○	○
R	Headlamp and fog lamp alignment				○			○			○	
R	Head, fog, brake, tail, turn signal, backup and marker lamps	○	○	○	○	○	○	○	○	○	○	○
Transmission												
R	Automatic transmission, change fluid and clean filter (b.)	■			■			■			■	
R	Gearbox oil level (manual and automatic)	○	○	○	○	○	○	○	○	○	○	○
R	Final drive oil level (automatic transmission)	○	○	○	○	○	○	○	○	○	○	○
R	Outer and inner drive joint boots	○	○	○	○	○	○	○	○	○	○	○

(b.) Change automatic transmission fluid and filter at more frequent intervals (20,000, 50,000, 80,000 miles, etc.) if car is driven in dense city traffic where the outside temperature regularly reaches 90° F or higher, or if the car is used for trailer towing.

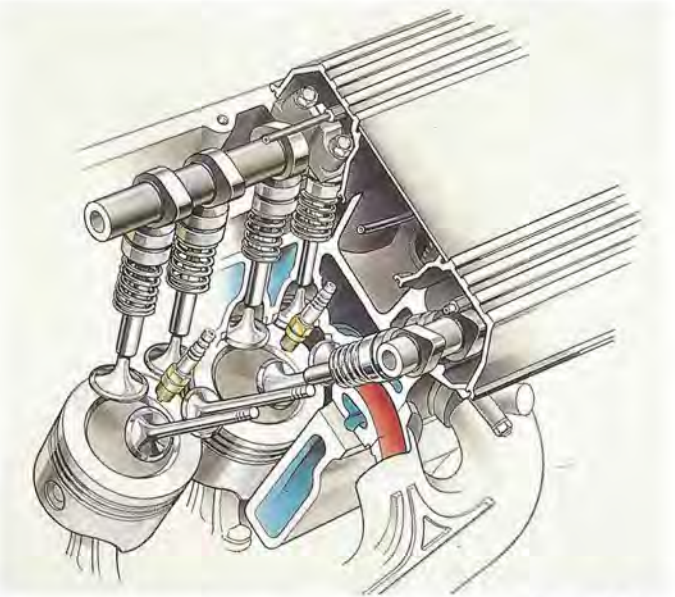
Service Interval ** Miles = U.S. Cars Kilometers = Canadian Cars	5,000 (8,000 km)	15,000 (24,000 km)	25,000 (40,000 km)	35,000 (56,000 km)	45,000 (72,000 km)	55,000 (88,000 km)	65,000 (104,000 km)	75,000 (120,000 km)	85,000 (136,000 km)	95,000 (152,000 km)	105,000 (168,000 km)
Service #	1	2	3	4	5	6	7	8	9	10	11

Chassis

R	Hand brake cable adjustment	○										
R	Ball joint clearance, outer and inner steering joints and rubber boots			○			○			○		
R	Front suspension, rear axle mountings; retighten	○										
R	Shock absorbers and bushes; tightness and condition			○			○			○		
R	Tire pressure; tread depth and wear (c.)	○	○	○	○	○	○	○	○	○	○	○
R	Rotate tires front to rear	○	○	○	○	○	○	○	○	○	○	○
R	Brake pads and discs; wear and condition	○	○	○	○	○	○	○	○	○	○	○
R	Brake lines and hoses	○	○	○	○	○	○	○	○	○	○	○
R	Brake fluid level and renewal (max. 2–year intervals)	○	○	○	■	○	○	■	○	○	■	○
R	Power steering fluid level	○	○	○	○	○	○	○	○	○	○	○
R	Front wheel alignment: camber, caster and toe-in				○			○			○	

(c.) Check wheel alignment if irregular or premature tire wear is apparent.

	Service Interval ** Miles = U.S. Cars Kilometers = Canadian Cars	5,000 (8,000 km)	15,000 (24,000 km)	25,000 (40,000 km)	35,000 (56,000 km)	45,000 (72,000 km)	55,000 (88,000 km)	65,000 (104,000 km)	75,000 (120,000 km)	85,000 (136,000 km)	95,000 (152,000 km)	105,000 (168,000 km)
	Service #	1	2	3	4	5	6	7	8	9	10	11
Body												
R	Door hinges, stops and locks				▲			▲			▲	
R	Latches for the top (Convertible); grease as necessary				▲			▲			▲	
R	Airbag system (check after 10 years)											
Road test												
R	Check performance of drive train, steering and brakes and verify tire balance. Check function of instruments and controls, including horn, windshield wipers, cruise control and climate system. Note any noises or problems for correction.	○	○	○	○	○	○	○	○	○	○	○



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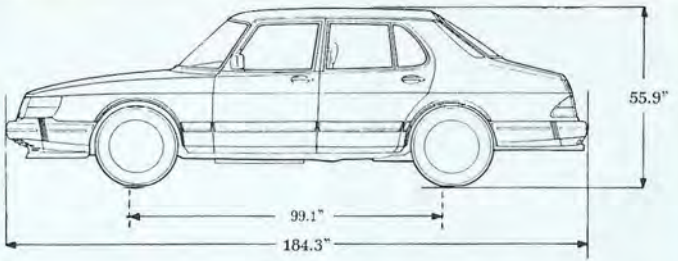


SG 681

General

Overall length incl. bumpers (Sedan, Conv.)	184.3" (4680 mm)
Overall length incl. bumpers(Hatchback)	184.5" (4687 mm)
Overall width	66.5" (1690 mm)
Overall height (at curb weight)	56.1" (1420 mm)
Overall height (when the Convertible top is operated at its highest point)	87.8"(2250 mm)
Road clearance (full load):	5.4" (135 mm)
Track, front wheels:	
Alloy wheels	56.4" (1430 mm)
Steel wheels	56.6" (1432 mm)
Track, rear wheels	56.7" (1440 mm)
Wheelbase	99.1" (2517 mm)
Turning radius	220.5" (5.6m)
Curb weight	
U.S models	2727-3108 lb.*
Canadian models	1280-1420 kg *
Gross vehicle weight rating	
U.S models	3660-3890 lb.*
Canadian models	1650-1775 kg*
Weight distribution:	
At curb weight, front/rear	60/40 %
At gross vehicle weight rating, front/rear	50/50 %
Trunk volume (SAE):	
Hatchback	14.9 cu.ft. (421 l)
Sedan	14.4 cu.ft. (408 l)
Convertible	10.7 cu.ft. (302 l)
Vehicle capacity weight, five persons and 180 lb. luggage (except Conv.)	930 lb.(422 kg)
Max. roof rack load (except Conv.)	220 lb.(100 kg)
Max. trailer weight:	
With trailer brakes	2.000 lb.(900 kg)
Without trailer brakes	1.000 lb.(450 kg)
Max. trailer tongue weight	165 lb. (75 kg)

*Weight variation depends on model, configuration and options.

Engine oil

Quality:	API Service SG and CCMC G4/G5
Viscosity	SAE 10W/30, 10W/40, 5W/30, 5W/40; if these viscosities are not available, 15W/40 may be used, except in cold weather
Oil capacity (including filter)	4.0 US qts (4 l)
Oil filter	Saab Long-life

Engine

16 valve engine (Naturally-aspirated)

Type	4 cyl. 4 stroke inline DOHC
Cylinder bore	3.66″ (93 mm)
Stroke	3.071″ (78 mm)
Displacement	129.3 cu.in. (2119 cc)
Aspiration	Naturally-aspirated
Fuel metering system	Bosch LH-Jetronic multiport fuel injection
Power rating, SAE Net HP at RPM	140 at 6000
Max. torque at RPM	133 ft.lb (180 Nm) at 2900 RPM
Compression ratio	10.1:1
Order of firing (cylinder 1 nearest fire wall)	1–3–4–2
Ignition system	Bosch EZK Distributor Ignition (with knock sensor)
Ignition advance	14° BTDC at 850 RPM
Spark plug gap	0.024-0.028″ (0.6-0.7 mm)
Engine idling speed in neutral (A.C. off)	850 ± 50 RPM
Valve lifter type	Hydraulic (self-adjusting)
Recommended gasoline fuel	Unleaded 87-93 AON

16 valve engine (Turbocharged)

Type	4 cyl. 4 stroke inline DOHC
Cylinder bore	3.543″ (90 mm)
Stroke	3.071″ (78 mm)
Displacement	121 cu.in. (1985 cc)
Aspiration	Turbocharged with charge air cooler
Fuel metering system	Bosch LH–Jetronic multiport fuel injection
Max. power rating, SAE Net HP at RPM:	160 at 5500
Max. torque at RPM:	188 Ft. lbs. (255 Nm) at 3000
Compression ratio	9.0:1
Order of firing (cylinder 1 nearest firewall)	1-3-4-2
Ignition system	Bosch Distributor Ignition

Spark plug gap	0.024-0.028″ (0.6-0.7 mm)
Engine idling speed in neutral (A/C off)	850 ± 50 RPM
Valve lifter type	Hydraulic (Selfadjusting)
Recommended gasoline:	
900 Turbo	Unleaded 87-93 AON
Charge pressure settings**	
basic level	0.35 ± 0.03 Bar
max. level	0.75 ± 0.05 Bar
** 3000 RPM, engine under full load with special test equipment.	
Exceptions for special performance Turbo models :	
Max. power rating, SAE Net HP at RPM:	185 at 5500
Max. torque at RPM:	201 Ft. lbs. (273 Nm) at 2800
Recommended gasoline:	Premium fuel

Fuel supply system

Fuel tank:	
Capacity	18.0 U.S. gallons (68 l)
Material	HDPE (High density polyethylene)
Fuel pump	Electric, in fuel tank
Fuel filter:	
Type	Bosch High Pressure/ Long Life
Location	Under floor (ahead of fuel tank)

Engine cooling system

Engine coolant volume including heating system	10.5 U.S.qts (10 liters)
Thermostat opens at	180° F (82° C)
Antifreeze	Saab P/N 02 08 991 (BASF G-48) Canada P/N 993088
Coolant blend	
Minimum antifreeze/water	50% - 50%
Maximum antifreeze/water	70% - 30%
Drive belts	
Generator/water pump (2)	

	U.S	Canada
Saab	7511728	30505527
Gates	7380	–
Dayco	15380	–
Power steering		
Saab	8339921	30511969
Gates	8321	–
Dayco	15325	
A/C compressor		
Saab	9367020	30523849
Gates	9463	–
Dayco	17460	–

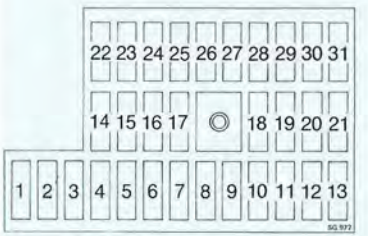
Electrical system

Voltage	12 V
Battery capacity	62 AH
Starter capacity	1.9 HP
Generator (alternator), max. charging current/voltage	80 Amps/14 V

Spark plugs:

	Part No U.S	Part No Canada
Naturally-aspirated, 16 valve		
NGK BCP5EV	02 45 647	30542156
Turbo 16 valve normal driving		
NGK BCP7EV	02 72 336	30517676
Turbo 16 valve city driving		
NGK BCP6EV		30517677
	02 72 286	
Thread	M14	
Thread length	0.7″ (18 mm)	
Electrode gap	0.024″-0.028″ (0.6 mm - 0.7 mm)	

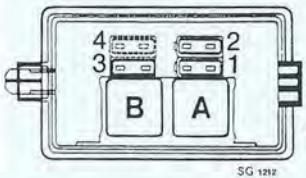
Fuses and relays



Fuse box in engine compartment

Fuse No	*Fuse Function*	*Amperage*
1	*Heated oxygen sensor*	*10*
2	*Spare*	
3	*Ignition system*	*15*
4	*Spare*	
5	*Windshield wipers/washers, seat belt warning light*	*15*
6	*A/C system*	*30*
7	*Turn signals, rev counter, charge warning light, oil pressure light, shift-up light (U.S), CHECK ENGINE light, SRS light*	*15*
8	*Electrically adjusted rear-view mirrors, cruise control, headlight wipers*	*10*
9	*Ventilation fan*	*30*

Fuse No	Fuse Function	Amperage
10	APC boost pressure control system	10
11	Spare	
12	Spare	
13	Reversing lights; cigarette lighter	10
14	High beam, RH	15
15	High beam, LH; high beam warning light	15
16	Low beam, RH	15
17	Low beam, LH	15
18	Parking lights, RH; tail light, RH;number plate illumination	10
19	Parking light, LH; tail light LH	10
20	Spare	
21	Fog lights	15
22	Fuel system, fuel gauge, temperature gauge, brake warning lights, ABS indicator light, fuel reserve warning light	10
23	Instrument panel lighting, light for glove compartment and ashtray	10
24	Spare	
25	Radiator cooling fan	30
26	Horn	25
27	Hazard warning lights	15
28	Clock	15
29	Spare	
30	Fuel pump	20
31	Brake lights	15
-	Heated oxygen sensor wire	5



ABS fuse panel

Fuse No	Fuse Function	Amperage
1	ABS	10
2	ABS	30
3	Pump	30

Position	Relay function
A	System relay
B	Pump relay

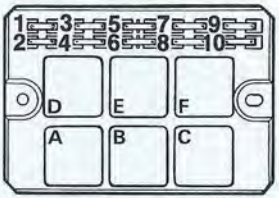
The following relays may be found in the main fuse box:

Position	Relay function
A-B	Headlight relay
C	-
D	Extra fog lights
E	Ignition Lock Relay
F	-
G	Radiator cooling fan
H	A/C compressor
J	Cooling fan (A/C) relay
K	Horn relay

Convertible hydraulic pump, operating voltage fuse:

20 A blade fuse (2 used)

Location: Right front inner wheel housing



SG 1120

Fuses and relays (under back seat)

Fuse No	*Fuse Function*	*Amperage*
1	*Convertible top, operating*	*20*
2	*Seat heaters, interior lighting, belt and key warning*	*20*
3	*Heated rear window, heated rear-view mirrors*	*20*
4	*Interior lighting (on Convertibles a 15 A fuse protecting the central locking)*	*10*
5	*Radio*	*20*
6	*Electric antenna*	*20*
7	*Power windows, front*	*30*
8	*Power windows, rear, sunroof*	*30*
9	*El. adj. driver seat*	*30*
10	*El. adj. pass. seat*	*30*

Position	*Relay function*
A	*Belt/Key warning*
B	*Heated rear window*
C	*Convertible top, operating*
D	*Convertible top, operating*
E	*Interior lighting*
F	*Ignition lock*

Replacement bulbs

	SAE Power	Trade No	Quantity
Light bulbs:			
Interior lighting:			
Dome	10W	*	1
Rear-view mirror	5W	-	1
Glove compartment	5W	-	1
Luggage compartment	10W	*	1
Switch lighting:			
Light switch	1.2W	**	1
Hazard warning flashers	1.2W	**	1
Electrically heated rear window	1.2W	**	1
Indicator lights:			
Charging	2.0W	**	1
Oil pressure	1.2W	**	1
Brakes	1.4W	**	1
Direction indicators	1.2W	**	2
Electrically heated rear window	1.2W	**	1
Shift up (U.S only)	1.4W	**	1
Check engine	1.2W	**	1
High beam	1.2W	**	1
Handbrake	1.4W	**	1
Seat belt reminder	2.0W	**	1
Low fuel	1.2W	**	1
Other lighting:			
Instruments	3W	161	2
Ignition switch	1.2W	53	1
Heating and ventilation control	1.2W	**	1

	SAE Power	Trade No	Quantity
Light bulbs:			
Cigarette lighter	1.2W	**	1
Ashtray	1.2W	**	1
Push switches	1.2W	**	1
Exterior lighting:			
Headlamps (Sylvania 9004 DOT)	70/ 50W	9004	2
Front turn signals/Side markers	21/ 5W	1157	2
Side turn signals	5W	-	2
Front parking lights/Cornering lights	21/ 5W	1157	2
Side guidance reversing lights	21W	1156	2
Rear turn signal lights	21W	1156	2
Back-up lights	21W	1156	2
Brake, tail, side marker	21/ 5W	1157	2
Tail lights	5W	67	2
Brake lights	21W	1156	3

*) Cartridge bulb
**) Glass fitting

Manual transmission

Type	5 speed, all synchromesh with final drive and differential
Oil capacity	3 U.S. qts. (2.5 liters)
Oil specifications (mineral-based oils only)	SAE 10W30 or 10W40 engine oil (Alt: SAE EP75 API GL-4 or 5.)
Hydraulic clutch	Single dry plate with spring-loaded hub

Automatic transmission

Type	3-speed with torque converter, final drive and differential
Selector positions	P-R-N-D-2-1
Oil volume, automatic transmission	8.5 U.S. qts.(8.0 liters)
Grade of oil for automatic transmission fluid	Ford spec. M2C-33F/G
Oil volume, final drive	1.3 U.S. qts. (1.25 liters)
Grade of oil for final drive	SAE 10W/30

Brake system

Footbrake	Anti-lock (ABS) hydraulic disc brakes with hydraulic servo unit, triple circuit system; ventilated discs on front wheels

Brake and clutch fluid	DOT 4 Brake fluid
Disc diameter:	
Front	11.02″ (280 mm)
Rear	10.15″ (258 mm)
Brake pads, total area of friction material:	
Front	21.7 in^2 (140 cm^2)
Rear	11.1 in^2 (72 cm^2)
Brake pad material: Front/Rear	Asbestos free
Handbrake	Mechanical, acting on rear discs

Suspension

Suspension elements, front and rear	Coil springs
Total spring compression/elongation:	
Front	7.1″ (180 mm)
Rear	6.7″ (170 mm)
Shock absorbers:	
Type	High pressure, gas
Maximum working stroke, fitted to car:	
Front	3.8″ (96 mm)
Rear	6.2″ (158 mm)
Stabilizer bars	19 mm front 27 mm rear

Power steering

Steering gear	Rack and pinion
Wheel turns, lock to lock	3.7
Oil specification	GM Power steering fluid (GM Specification 9985010, Texaco TL 4634)

Wheel alignment

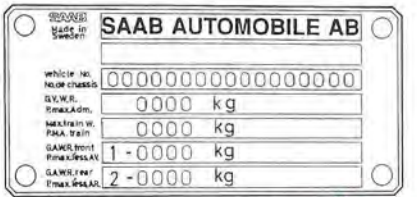
Front wheel toe-in (measured at rims)	0.08 ± 0.04 in. (2 ± 1 mm)
Front wheel camber	0.5° ± 0.5°
Front wheel caster	2.0° ± 0.5°
Rear wheel toe-in (measured at rims)	0.16 ± 0.04 in. (4 ± 1 mm)

Wheels and tires

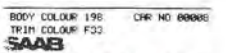
Wheel sizes:	
Saab 900S	5 1/2 J x 15 FHA (steel)
Saab 900S (optional) and Turbo:	5 1/2 J x 15 H2 (aluminum alloy)
Spare wheel (All):	4 J H1 x 15″
Tire dimensions:	
900 and 900S	185/65 R15 87T
900 Turbo	195/60 R15 88V
Compact Spare	T 115/70 D15
Recommended tire pressures front/rear (cold tires):	
• 1-3 occupants, 0–100 mph (0–160 km/h)	30 psi (210 kPa)
• Max load, 0–100 mph (0–160 km/h)	33 psi (230 kPa)
• Max load, 100–130 mph (160–210 km/h)	36 psi (250 kPa)
Compact spare (All)	60 psi (420 kPa)
Wheel bolt tightening torque	80-90 ft.lb. (105-125 Nm)

Identification numbers

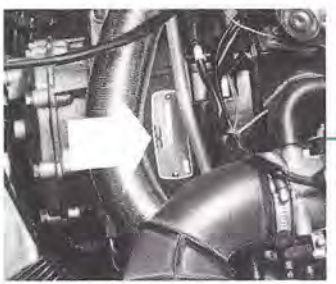
Please quote the vehicle identification numbers (V.I.N.) in all correspondance concerning your vehicle.



Campaign Modification Plate Vehicle Identification Number (V.I.N.)

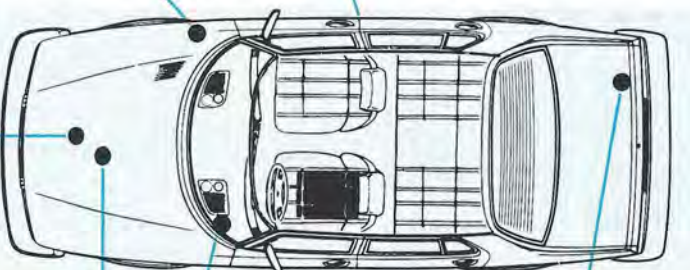


Color and trim code



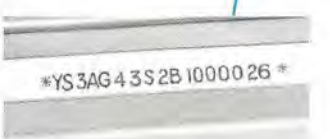
Transmission number, automatic transmission

Transmisson number, manual transmission



Engine number

Vehicle Identification Number (V.I.N.)



V.I.N. punched in car body

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Troubleshooting and Service Station Information

Before troubleshooting, remember to check that all fuses are intact.

1 Engine will not start - starter cranks engine in normal manner.

a. No fuel in tank

b. Fuel pump not running - blown fuse, corroded connection, faulty relays or disconnected lead wire.

c. No spark at spark plugs.
- Loose electrical connections.
- Moisture or cracks in distributor cap.

d. Engine flooded - spark plugs fouled with gasoline.

e. Check fuses.

2 Engine starts - runs rough, misfires, low power.

NOTE

Misfiring should be corrected immediately to prevent overheating of the catalytic converter.

a. Spark plugs fouled, worn or in need of adjustment.

b. Spark plug cables not properly plugged into distributor cap or onto spark plugs.

c. Loose or corroded connections - low voltage leads to coil.

d. Engine oil filler cap or dipstick not seated admitting excess air through crankcase vent system.

e. Multiport fuel injection system in need of adjustment.

3 Stalling at idle, rough operation during engine warm-up and hesitation or lack of power on acceleration.

The throttle switch may be out of adjustment. If so, this should be performed by a Saab dealer.

4 Improper idle speed - too fast or too slow.

a. Electrical connections to the automatic idle control valve may be loose or disconnected.

b. Throttle stop screw incorrectly set.

c. Idle speed is affected by large changes in altitude (idle decreases as elevation increases due to reduced ambient pressure and vice versa).

5 Charge indicator lamp fails to light when ignition is switched on.

a. Bulb burned out.

b. Discharged battery or loose battery cable.

c. Improper wiring to voltage regulator causing an open circuit.

d. Check fuses.

6 Charge indicator lamp lights up with engine running.

a. Broken or slack generator (alternator) drive belts.

b. Malfunction in voltage regulator.

c. Malfunction in generator (alternator).

d. Check fuses.

7 Discharged battery

a. Interior light or other electrical device left on.

b. Slipping generator (alternator) drive belts.

c. Defective or worn out battery.

d. Frequent use of high drain equipment, such as headlights, combined with short trips.

e. Malfunction in voltage regulator or generator (alternator).

f. Electrical short circuit.

8 Oil pressure indicator lamp lights up with engine running.

a. Malfunction in engine lubrication system causing low oil pressure.

b. Oil level in sump low. Top up to max. level on dipstick.

Service station information

To open hood:

Pull hood release lever (located under left side of instrument panel). Press the front edge of hood down slightly and release safety catch. Allow front of hood to rise and move forward, then tilt entire hood forwa rd.

To close hood tilt rearward and reverse the above procedure. (Close slowly until safety catch engages, then push firmly to latch.)

To remove ignition key:

Engage Reverse (manual) or Park (automatic) and turn key to "L" (lock). Key switch is located on center console.

Recommended fuel:

Except for special performance Turbo models, unleaded, minimum octane rating 87 or higher.
Special performance Turbo models use Premium fuel only.

Engine Oil :

The level of oil in the engine must be kept between the MAX and MIN marks on the dipstick. Top up, as necessary, with oil meeting the following SAE viscosity and API service classes:

Service SG and CCMC G4/G5. Viscosity:
SAE 10W/30, 10W/40, 5W/30, 5W/40.

Gearbox Oil:

Manual - SAE 10W-30, SAE 10W-40 or SAE EP 75, API GL-4 or GL-5

Automatic - Ford spec M2C-33F/G

Final Drive (Automatic): SAE EP 80, API GL-4 or GL-5 or SAE 10W-30

Engine coolant:

Saab brand coolant (BASF G-48) mixed with clean fresh water (minimum 50% glycol in mix year round).

Power Steering:

Use only "GM Specification Power Steering Fluid" (GM 9985919, Texaco TL 4634 or equivalent.) Do not use ATF.

Tires:
Pressures: See page 110.

Do not tighten wheel nuts with an impact wrench.

Tune-up information:

See Vehicle Emission Control Information label, left front inner fender.

Towing disabled vehicle:

See recommendations on page 61.

CAUTION:The multiport fuel injection system should be adjusted or serviced only with the proper tools and according to prescribed procedures and only by qualified persons skilled in Saab Fuel Injection servicing.

Fuel lines must never be cut or spliced and all connections must be properly torqued on reassembly. Tampering with the multiport fuel injection system or Turbocharger (if equipped) may void warranty coverage of affected components.

When welding on vehicle, disconnect the generator (alternator), the battery and the control module for the SRS if so equipped. Avoid the plastic fuel tank and lines and all flammable materials.

SAAB

Saab Automobile AB
Trollhättan, Sweden

Ordering No 40 55 71, (USA)