

A-PDF MERGER DEMO

LANCIA



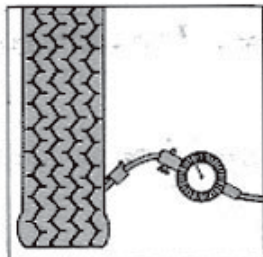
DEDRA



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icq 194565513

Owner Handbook

## QUICK REFERENCE



45290

### Tyre inflation pressures (tyres cold), expressed in bar

	Medium load				Fully laden			
	Dedra 1.6 i.e.	Dedra 1.8 i.e.	Dedra 2.0 i.e.	Dedra 2.0 turbo ds	Dedra 1.6 i.e.	Dedra 1.8 i.e.	Dedra 2.0 i.e.	Dedra 2.0 turbo ds
Front tyres .....	2	2.2	2.2	2.3 (2.2)	2.2	2.3	2.3	2.4 (2.3)
Rear tyres .....	2	2.1	2.1	2.1	2.2	2.2	2.2	2.2

N.B. The tyre pressures indicated in parentheses are for the optional tyres. If a single value is given, use it for both standard and optional tyres.

Increase the pressures by 0.1 bar if your car is equipped with an air conditioner.

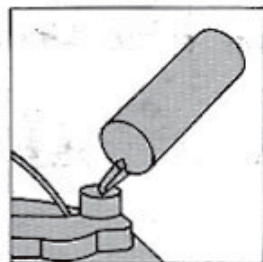
### Oil change capacities

	Dedra 1.6 i.e.	Dedra 1.8 i.e.	Dedra 2.0 i.e.	Dedra 2.0 turbo ds
Engine sump	3.35 dm <sup>3</sup> (3 kg)	4.80 dm <sup>3</sup> (4.30 kg)	4.80 dm <sup>3</sup> (4.30 kg)	4.30 dm <sup>3</sup> (3.80 kg)
Engine sump and filter	3.75 dm <sup>3</sup> (3.30 kg)	5.20 dm <sup>3</sup> (4.70 kg)	5.20 dm <sup>3</sup> (4.70 kg)	5 dm <sup>3</sup> (4.40 kg)

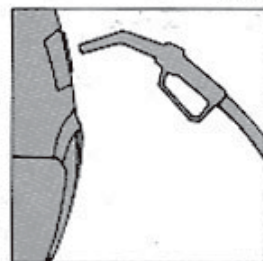
The difference between the MIN and MAX marks on the dipstick corresponds to about 1 litre of oil.

**Fuel tank capacity:** 63 litres (including a reserve of 5-8 litres)

**Use leaded or unleaded super petrol (minimum octane number: 95) in the petrol engines.**



45291



45292

Congratulations on choosing a LANCIA.

The owner handbook has been prepared to help you fully appreciate your new car.

We suggest you read it carefully before driving the car for the first time.

This handbook includes information and suggestions for the proper use of the car. We feel you will be convinced that you have made the right choice.

A service schedule maintenance coupon booklet is supplied along with this handbook.

The booklet also contains the warranty certificate and explains the terms of the warranty.

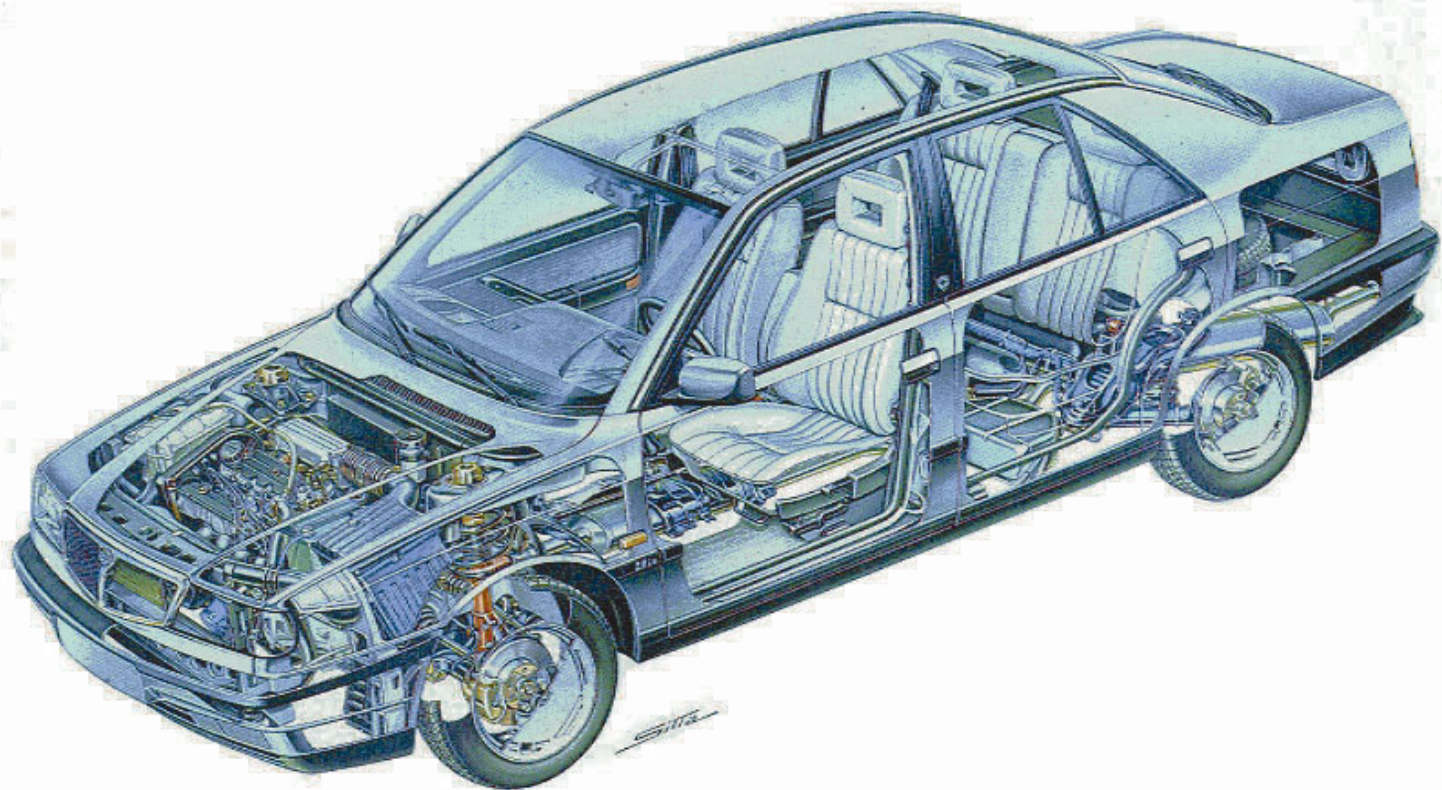
We are sure that you will enjoy your new car, and will drive it with pleasure for many years to come.

LANCIA



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# GETTING TO KNOW YOUR CAR

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Instrument panel

Speaker housing

Horn

Air vent

Air volume regulation

Direction indicator, low/high beam headlights and rear fog-guard light control stalk

Bonnet release lever

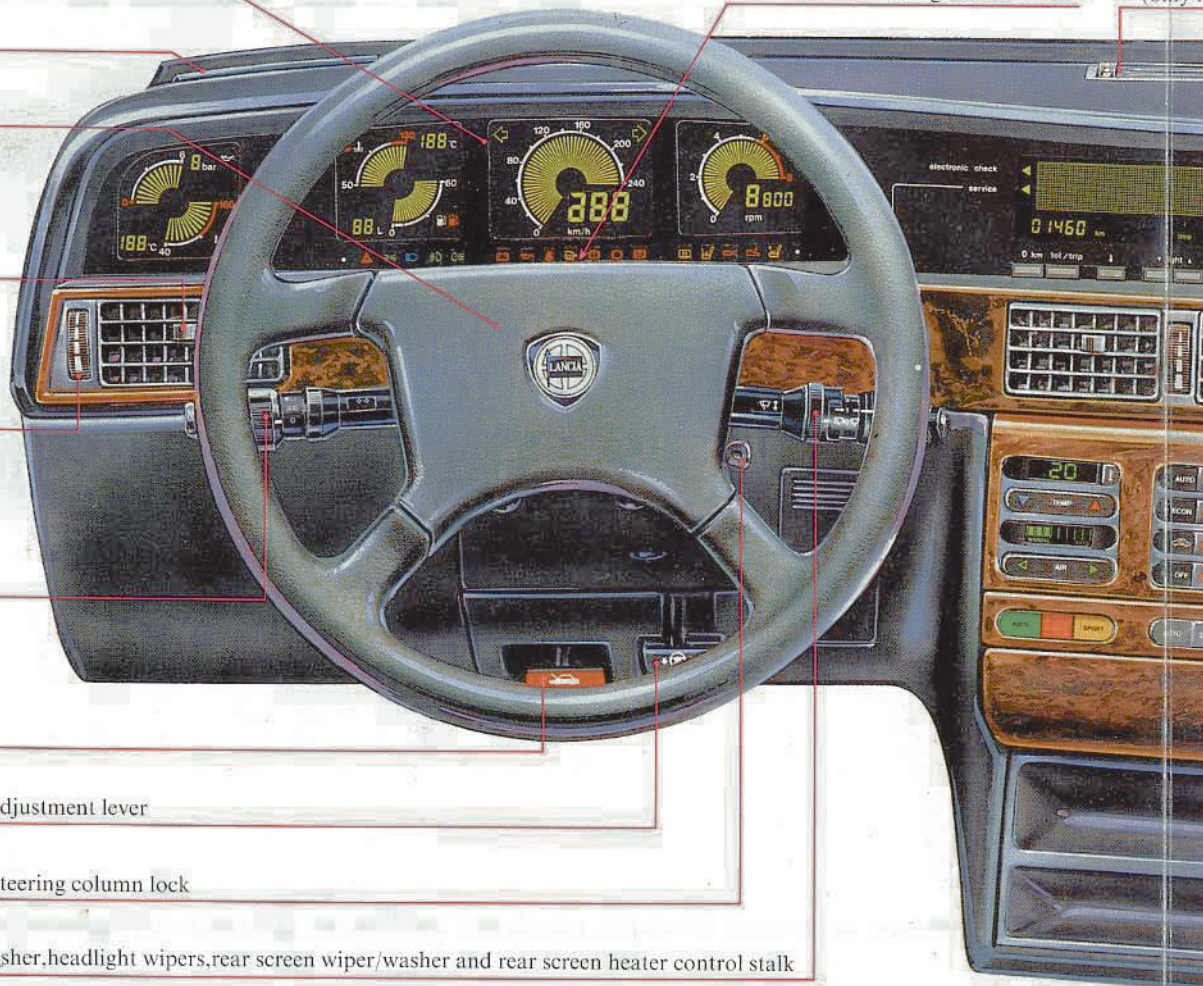
Steering wheel rake adjustment lever

Ignition switch and steering column lock

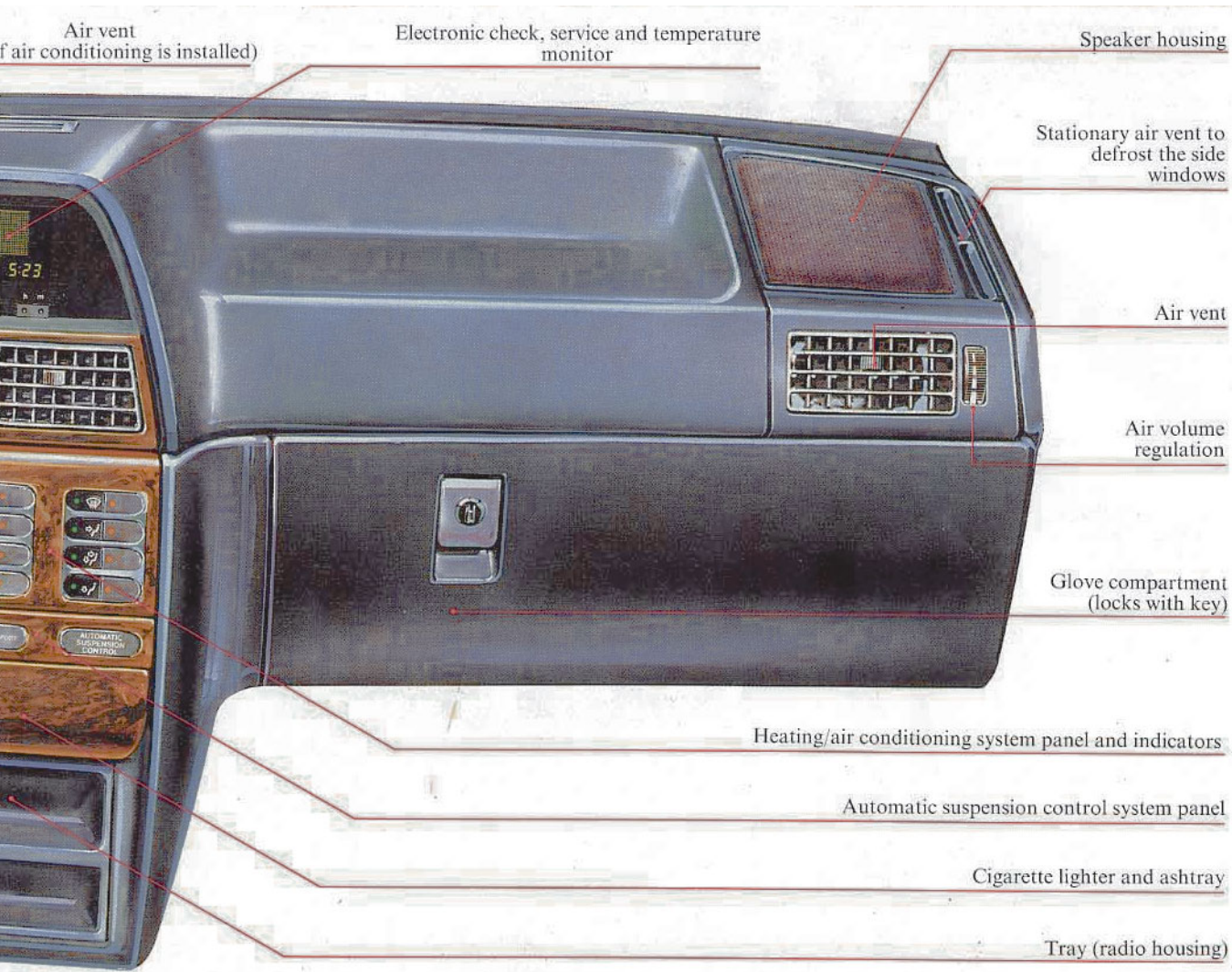
Windscreen wiper/washer, headlight wipers, rear screen wiper/washer and rear screen heater control stalk

Hazard warning flasher switch

(only i







Air vent  
(if air conditioning is installed)

Electronic check, service and temperature  
monitor

Speaker housing

Stationary air vent to  
defrost the side  
windows

Air vent

Air volume  
regulation

Glove compartment  
(locks with key)

Heating/air conditioning system panel and indicators

Automatic suspension control system panel

Cigarette lighter and ashtray

Tray (radio housing)

Instrument panel

Hazard warning flasher switch

Speaker housing

Horn

Air vent

Air volume regulation

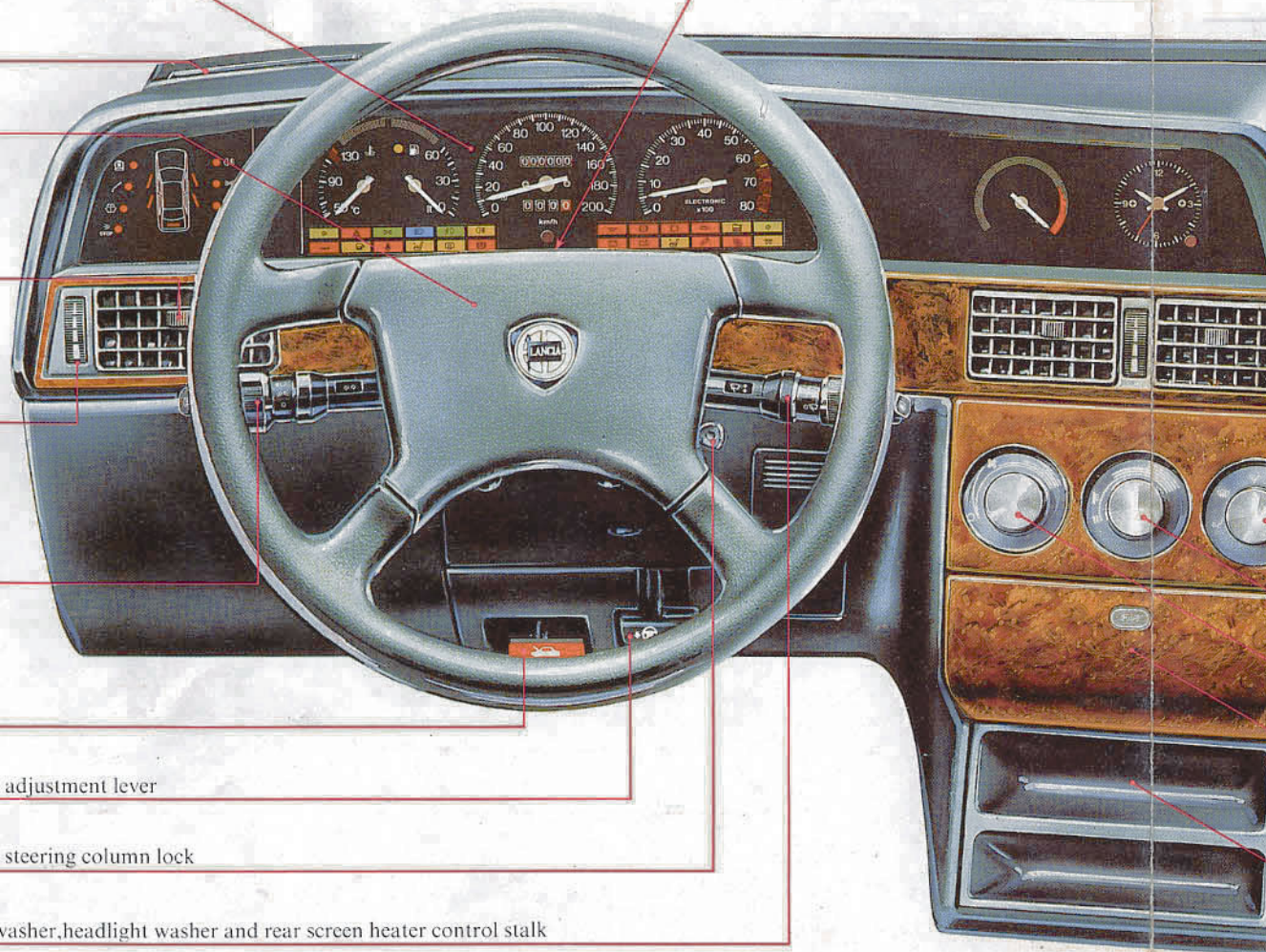
Direction indicator, low/high beam headlights and rear fog-guard light control stalk

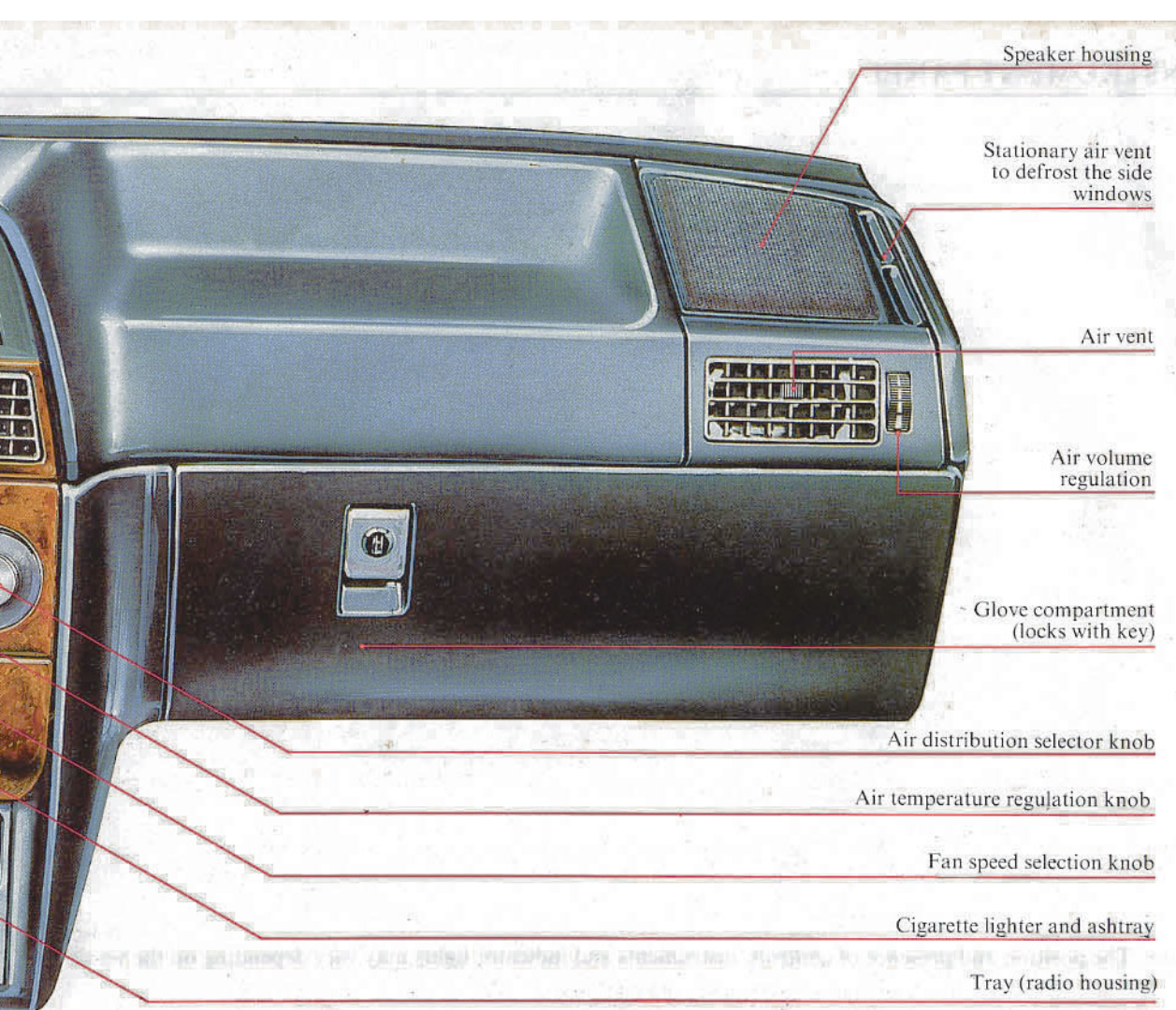
Bonnet release lever

Steering wheel rake adjustment lever

Ignition switch and steering column lock

Windscreen wiper/washer, headlight washer and rear screen heater control stalk





Speaker housing

Stationary air vent  
to defrost the side  
windows

Air vent

Air volume  
regulation

Glove compartment  
(locks with key)

Air distribution selector knob

Air temperature regulation knob

Fan speed selection knob

Cigarette lighter and ashtray

Tray (radio housing)

# KEYS, IGNITION, STEERING COLUMN LOCK

## Keys

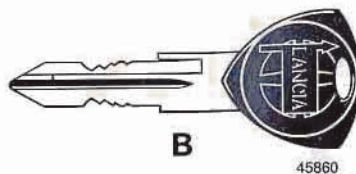
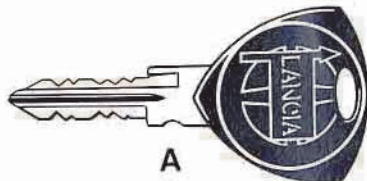
Your car comes with two different keys (and duplicates).

A - (larger grip): Key for locking and unlocking doors, boot, fuel filler cap and ignition.

B - (smaller grip): Key which operates only the ignition (may be given to garage or car park personnel).

An adhesive tag is included with the keys giving the number you need to get duplicates from your dealer.

Put this tag in a safe place (not on your key ring).



New keys cannot be issued if you do not know the key code number.

## Ignition switch

STOP - Steering column lock, key can be removed.

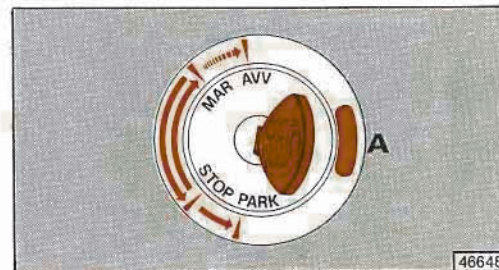
MAR - Driving position, electrical system energised.

AVV - Starting.

PARK - Side lights on, steering column locked, key can be removed.

Press button A to select the PARK position.

The ignition switch is illuminated when one of the side doors is opened. The light will turn off a couple of seconds after the door is closed.



## Steering column lock

**Locking:** when the ignition is at STOP or PARK turn the steering wheel to the left or right until you hear the lock mechanism click.

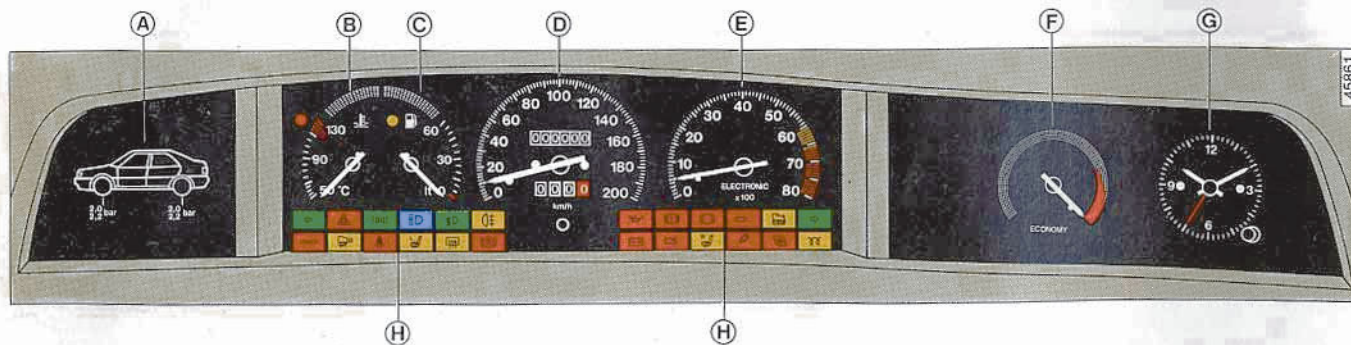
**Unlocking:** after turning the ignition key to MAR, move the wheel slightly in either direction to disengage the steering column lock.

**Never remove the ignition key when the car is moving! If you do the steering column will lock the first time you turn the wheel.**

In case the ignition switch has been tampered with (e.g., attempted theft) it is advisable to have it checked by Lancia Service personnel for proper operation.

# INSTRUMENT PANEL

Debra 1.6 i.e.



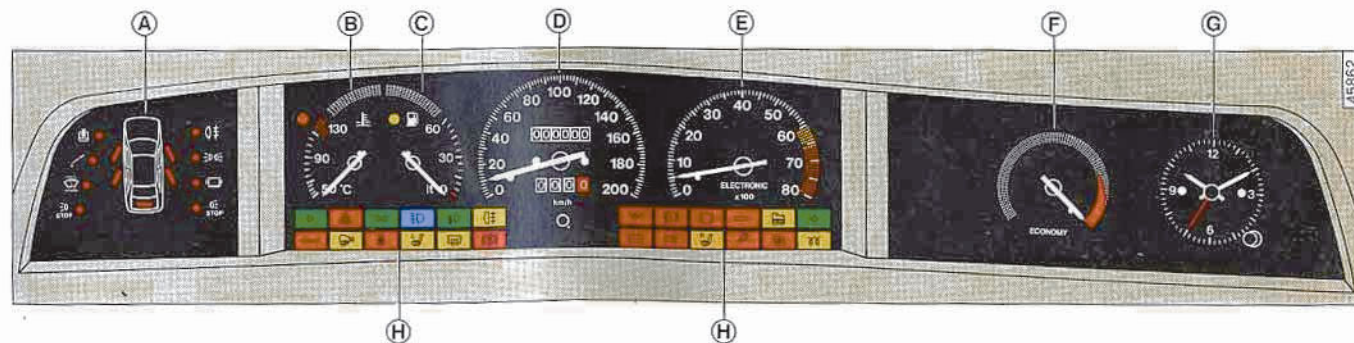
- A. Tyre inflation pressure chart
- B. Coolant temperature gauge and warning light
- C. Fuel gauge and reserve warning light
- D. Speedometer, odometer, trip odometer, trip odometer reset button

- E. Rev counter
- F. Fuel economy gauge
- G. Clock
- H. Indicator and warning lights

## INSTRUMENT PANEL

### Dedra 1.6 i.e. with Check System and Dedra 1.8 i.e.

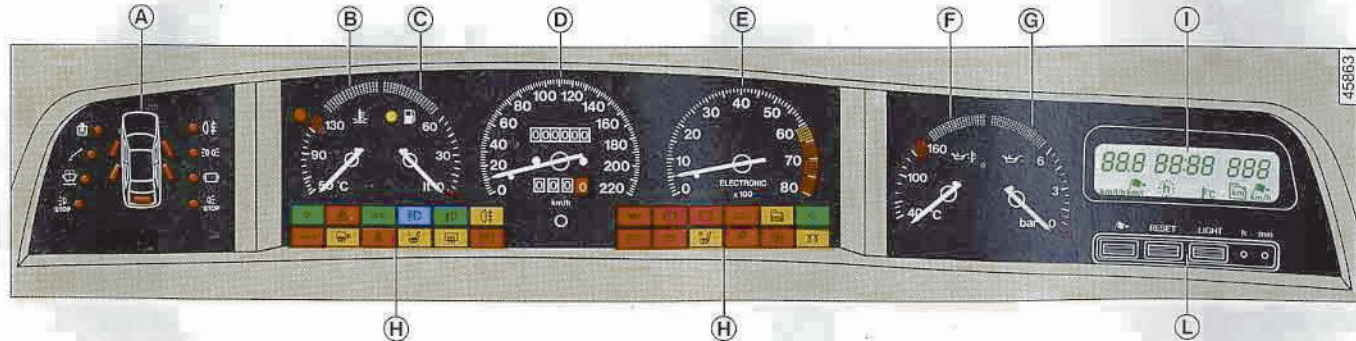
The figure below shows the instrument panel of the Dedra 1.6 i.e. with the Check System; the Dedra 1.8 i.e. panel is slightly different.



- |   |                                 |
|---|---------------------------------|
| A. Check system   | E. Rev counter                  |
| B. Coolant temperature gauge and warning light                      | F. Fuel economy gauge           |
| C. Fuel gauge and reserve warning light                             | G. Clock                        |
| D. Speedometer, odometer, trip odometer, trip odometer reset button | H. Indicator and warning lights |

# INSTRUMENT PANEL

Dedra 1.8 i.e. with Trip Computer

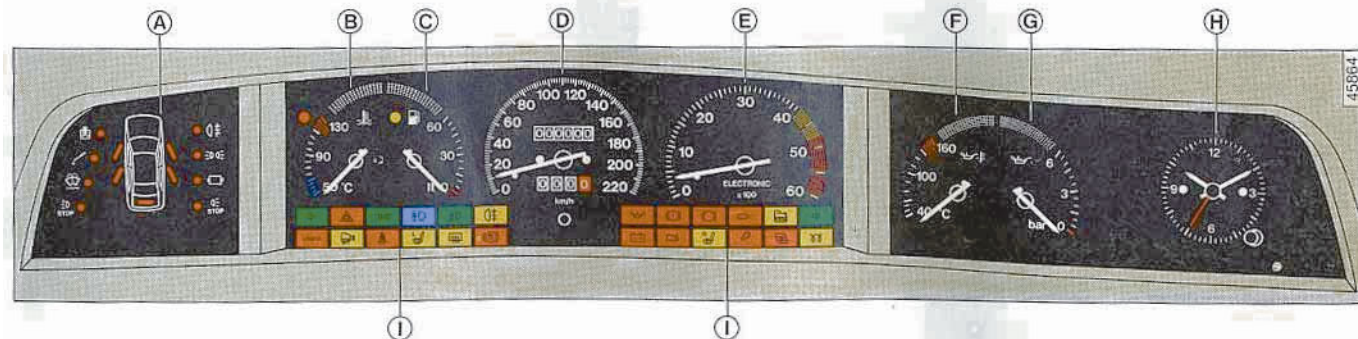


- A. Check system
- B. Coolant temperature gauge and warning light
- C. Fuel gauge and reserve warning light
- D. Speedometer, odometer, trip odometer, trip odometer reset button
- E. Rev counter

- F. Oil temperature gauge
- G. Oil pressure gauge
- H. Indicator and warning lights
- I. Trip computer display
- L. Trip computer control panel

# INSTRUMENT PANEL

Dedra 2.0 turbo ds



- A. Check system
- B. Coolant temperature gauge and warning light
- C. Fuel gauge and reserve warning light
- D. Speedometer, odometer, trip odometer, trip odometer reset button

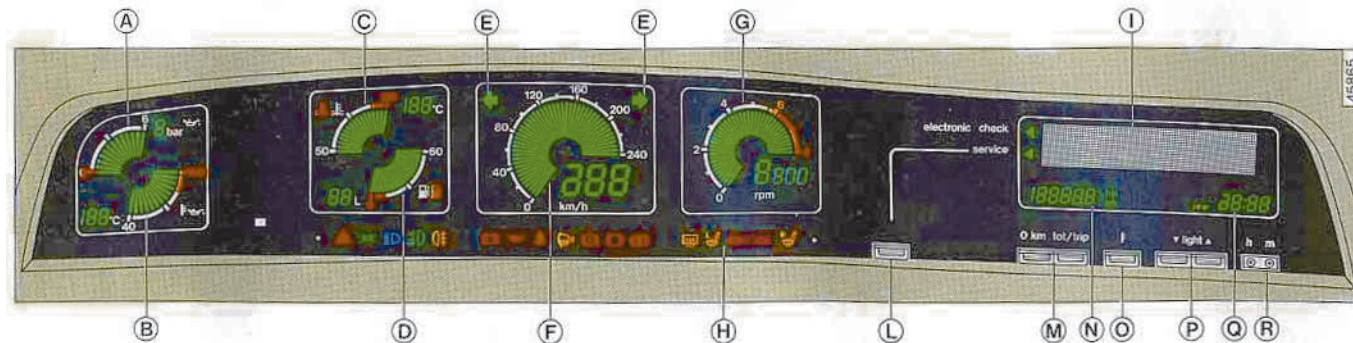
- E. Rev counter
- F. Oil temperature gauge
- G. Oil pressure gauge
- H. Clock
- I. Indicator and warning lights



## INSTRUMENT PANEL

### Dedra 2.0 i.e. and 2.0 turbo ds with opto-electronic instruments

The figure belows shows the instrument panel for the Dedra 2.0 i.e.; the Dedra 2.0 turbo ds varies slightly (some instruments and indicators are different).



- A. Oil pressure gauge
- B. Oil temperature gauge
- C. Coolant temperature gauge and warning light
- D. Fuel gauge and reserve warning light
- E. Direction indicators
- F. Speedometer
- G. Rev counter
- H. Indicator and warning lights
- I. Electronic check, service and exterior temperature display
- L. Button for service functions
- M. Button for odometer functions
- N. Odometer and trip odometer
- O. Exterior temperature display button
- P. Instrument light dimmer
- Q. Clock
- R. Clock adjustment buttons

## INSTRUMENTS

### Opto-electronic instruments. Self test.

When you turn the ignition key to MAR all the LC segments of the simulated analogue instruments, digital readouts and pixels of display I will illuminate. The self-test lasts for a couple of seconds and then the instruments will indicate current values.

### Dimming the opto-electronic display

Under low-light conditions (dusk, night, while driving in a tunnel) the instrument lighting will be automatically dimmed.

Press the “light” button if you wish to change the automatic setting.

Button ▼ : decreases illumination.

Button ▲ : increases illumination.

Display luminosity will increase with respect to the light level set to call your attention to a series of important messages (e.g., fuel in reserve, coolant temperature too high, etc.).

### Information displayed

Monitor I displays the “electronic check” and service messages, as well as the outside temperature. The “electronic check” messages are displayed automatically; the service messages and outside temperature can be displayed by pressing L and O respectively.

### Language selection

Press button L (“service”) while turning the ignition key to MAR. After the self-test has been completed the following words will appear on the screen:

ITALIANO, EN FRANCAIS, ENGLISH, DEUTSCH, ESPANOL. Release and press button L to select one of these languages. When your language appears press button O (outside temperature) to store the setting in memory.



## Electronic checks



The electronic check system diagnoses and indicates when malfunctions occur that can adversely affect vehicle operation and safety.

**The car is in perfect working order when the following message appears for a few seconds after starting: CHECK OK.**

No messages are displayed even if the side and fog-guard lights are on and the brake pedal pressed down.

If malfunctions occur, a short description will appear on the screen. If one of the doors is left open the door's location will also be displayed. When a message appears the triangle next to "electronic check" will flash.

If several malfunctions occur at the same time, the messages will be displayed in a cyclical fashion.

The following information should help you to correctly interpret the messages which may appear on the "Electronic check" screen. Five additional messages regard the improper closure of the side doors and boot, and an excessively high oil temperature.

- **ENGINE OIL LEVEL LOW**

This message indicates either a low oil level or a malfunction of the oil sensor circuit (i.e., sensor failure or circuit open). When the engine is running the oil level and circuit are no longer monitored.

This message is stored in system memory. Therefore, in addition to topping up the oil level, replacing the sensor, or repairing the circuit, it is necessary to turn the key back to the STOP position to clear the memory.

**Important:** If the car is started on a grade or re-started after only 10 minutes, the low oil message may be displayed. Since the message is stored in memory, start the engine again when the car is on level ground to ensure all vehicle systems are in proper working order.

- **ENGINE COOLING LIQUID LEVEL LOW**

- **WINDSHIELD WASHER WATER LOW**


Both these messages exclusively regard the liquid levels, not

## INSTRUMENTS

circuit malfunctions. The message will disappear as soon as the level(s) are topped up. It is not necessary to turn the ignition key back to STOP.

- FRONT SIDE-LIGHT DEFECT
- REAR SIDE-LIGHT DEFECT
- REAR FOG LIGHT DEFECT
- REGISTRAT. PLATE LIGHT DEFECT

Each of the above messages indicates one or more light bulbs has burned out, a fuse has blown, or an interruption in power supply.

The “electronic check” system does not indicate when the two fuses protecting the number plate/side light circuits blow at the same time. This condition is only indicated by the fact that the side light indicator  does not illuminate.

Periodically check from outside the car that all the exterior lights are working properly.

- RIGHT STOP LIGHT DEFECT
- LEFT STOP LIGHT DEFECT

If either of these messages appear when the brake pedal is pressed down, a stop light bulb in the taillight unit has burned out.

If both bulbs burn out at the same time, the fuse blows, or a

circuit malfunction occurs, both messages will flash one after the other even if the brake pedal is not depressed.

### Service messages and outside temperature



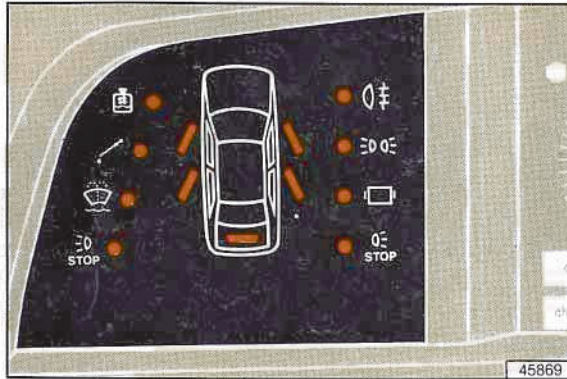
The service messages regard proper vehicle operation and maintenance. Several pages of messages appear in a cyclical fashion when button L is pressed. If you press the button within eight seconds after a page appears the next page will be displayed. Hold the button down if you wish the pages to scroll.

Electronic check malfunction messages will override service messages or the outside temperature on the display.

To display the outside temperature press button O; the temperature will continue to be displayed until you press the same button again or the service button. The temperature is displayed automatically when the weather is cold.

# INSTRUMENTS

## Check Panel

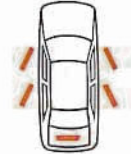


This is an electronic device that monitors and displays malfunctions which could affect vehicle operation or safety.

When all systems are operating properly (key at MAR), all the panel LEDs are off. The panel LEDs should remain off even if the side and rear-fog guard lights are on, or if the brake pedal is depressed.

Whenever one of the LEDs turns on, the general malfunction light will also illuminate.

## Doors and boot lid



If one of the doors or boot lid is open, the LED at the corresponding position on the panel will turn on.


## Fluid levels



Engine oil

This LED indicates a low oil level, circuit malfunction, or sensor failure. When the engine is running the oil level and circuit are not monitored.

This warning is stored in the panel's memory. Therefore, in addition to topping up the oil level, replacing the sensor, or repairing the circuit, it is necessary to turn the key back to the STOP position to clear the memory.

**Important:** If the car is started on a grade or re-started after only 10 minutes, the  LED may turn on. Since the warning is stored in panel memory start the engine again when the car is on level ground to ensure all vehicle systems are in proper working order.

## INSTRUMENTS



Coolant



Windscreen washer liquid

Both these LEDs indicate low liquid levels, not circuit malfunctions. The LED will turn off when the level is topped up after turning the ignition key back to STOP.

### *Exterior lights*



Side lights




Number plate lights



Rear fog-guard lights

These LEDs indicate that a light bulb has burned out, a fuse has blown, or a circuit malfunction has occurred.

The Check Panel does not indicate when the two fuses protecting the number plate/side light circuits blow at the same time. This condition is only indicated by the fact that the side light indicator  does not illuminate.

Periodically check from the outside of the car that all the exterior lights are working properly.



Left stop light



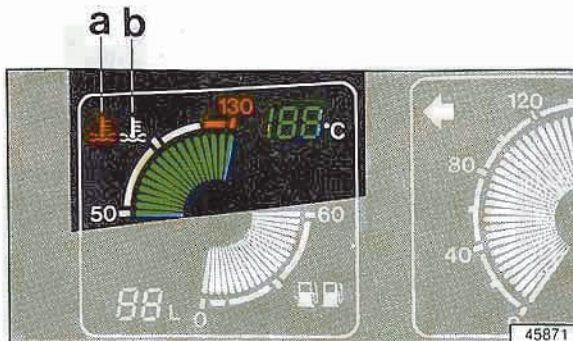
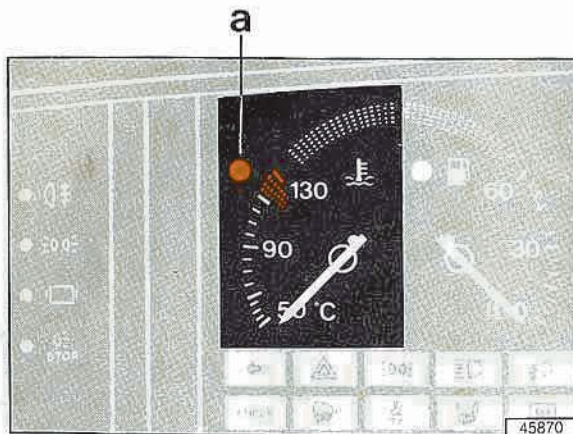
Right stop light

If one of these LEDs turns on when the brake pedal is depressed the corresponding bulb located in the taillight unit has burned out.

If both bulbs burn out at the same time, the fuse blows, or if a circuit malfunction occurs, both LEDs will turn on at the same time even if the brake pedal is not depressed.

## INSTRUMENTS

### Coolant temperature gauge and warning light



This gauge starts indicating the temperature when it exceeds 50°C.

Under normal operating conditions the needle or bars should be at the centre of the scale.

If they approach the red zone, the engine is labouring. Engine speed should be reduced. Overheating can also occur at very low speeds when the outside temperature is high. In this latter case, stop for a couple of seconds and accelerate gently.

If the coolant temperature continues to increase, stop the engine and have the car taken to a LANCIA Service Centre.

When the coolant temperature is too high warning light "a" will turn on. When it illuminates the needle will also go to the end of the scale.

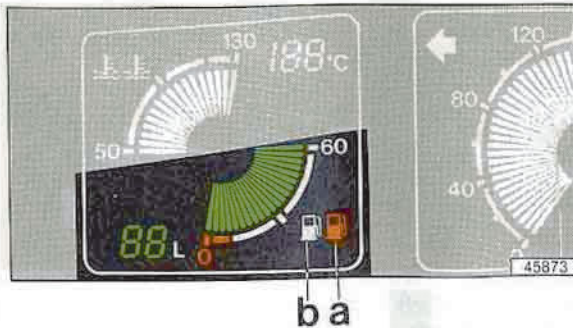
If you have opto-electronic instruments, warning light "a" flashes. The emergency condition is also indicated by white symbol "b" turning off and an increase in instrument illumination.

Each of the opto-electronic instrument segments represents 5°C.

**Note:** after driving under severe conditions, do not switch off the engine immediately. Let it idle for a couple of minutes until the gauge indicates the temperature has begun to drop. The radiator fan does not operate when the engine has been switched off.

## INSTRUMENTS

### Fuel gauge with reserve warning light



The fuel tank has a capacity of 63 litres.

When reserve warning light "a" turns on there are only 5 to 8 litres of fuel left in the tank.

Opto-electronic reserve warning light "a" flashes. When it starts flashing symbol "b" turns off and the instrument's luminosity increases.

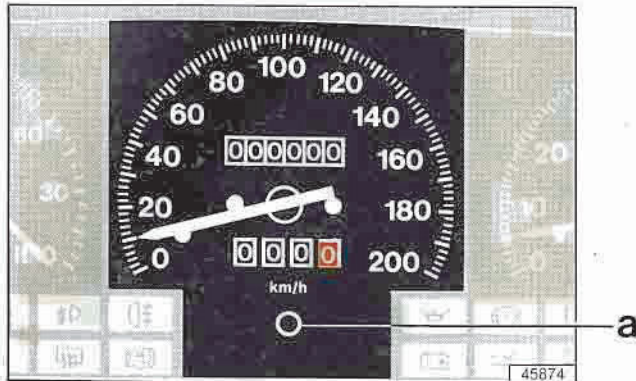
The digital fuel capacity display indicates down to a minimum of 5 litres. Below this volume two dashes appear (--).

Each instrument segment represents 3 litres.



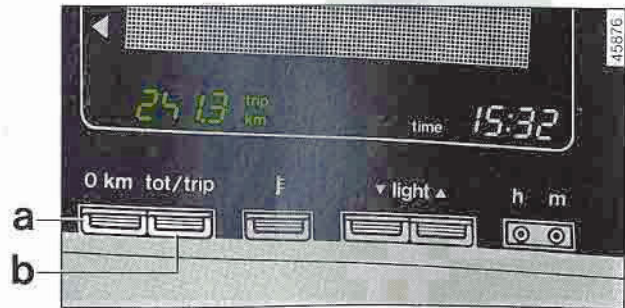
# INSTRUMENTS

## Speedometer - odometer



Depending on the engine, the speedometer end-of-scale value is 200, 220, or 240 km/h.

The digital display of the opto-electronic instrument indicates speeds lower than 5 km/h with “0”. The opto-electronic instrument segments each represent a value of 5 km/h.



Button “a” is used to reset the trip odometer.

In order to reset the trip mileage on the opto-electronic instrument, the value has to be displayed.

Button “b” is used to select the total milage or the trip mileage.

When the trip mileage is displayed, the number after the decimal point gives fractional values.

If a power interruption occurs (disconnection of battery for charging or replacement) the trip mileage is automatically reset. The total mileage may reverse up to a total of 4 km with respect to the value displayed before disconnecting the battery.

## INSTRUMENTS

### Rev counter



The rev counter's red and yellow zones are different depending on the version. The Dedra 2.0 turbo ds has an end-of-scale value of 6000 rpm.

Driving the car at yellow zone rpm's will not damage the engine, although there is no improvement in performance. The car should only be driven at red zone speeds briefly. The digital display of the opto-electronic instrument increases in increments of 100 rpm, while the bars of the analogue simulation each represent 200 rpm.

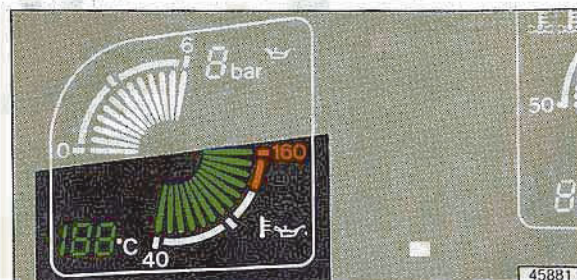
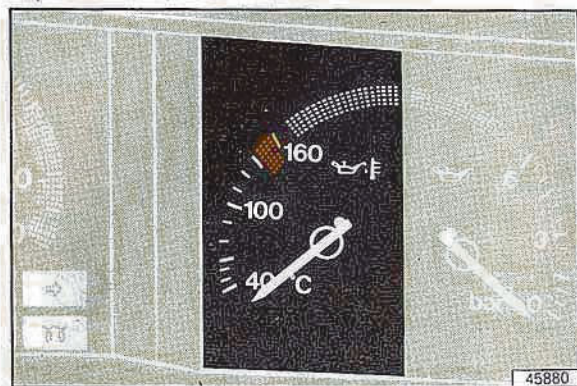
### Fuel economy gauge



This gauge indicates moderate fuel consumption when the needle is in the white zone. Consumption is moderate to high in the white/red zone. When the engine is labouring or when accelerating rapidly, the needle will go into the red zone: fuel consumption is high.

## INSTRUMENTS

### Oil temperature gauge



The temperature values should always be lower than those indicated by the red zone.

If the gauge indicates red zone values, stop the car without switching off the engine. Wait a couple of seconds at idle.

If the temperature does not appear to go down, switch off the engine and have the car taken to a LANCIA Service Centre.

When the temperature of the opto-electronic instrument exceeds 140°C, the message: ENGINE OIL TEMP. TOO HIGH appears on the “electronic check” display.

Each segment of the opto-electronic analogue display corresponds to 10°C.

### Oil pressure gauge



When the oil is very hot (temperature around 120°C) the pressure should be between 2 bar (at idle) and 5.5 bar (at high rpm's).

At lower oil temperatures pressures are higher.



When starting the engine under rigid climatic conditions, the oil pressure may exceed normal values. Do not accelerate rapidly; wait until the pressure drops to within normal limits. The following conditions indicate a malfunction:

- an oil pressure below 3.5 bar at high rpm's (> 5000 rpm) when the engine is hot;
- an oil pressure above 4.5 bar when the engine is cold or at moderate temperatures and low rpm's (< 2000 rpm).

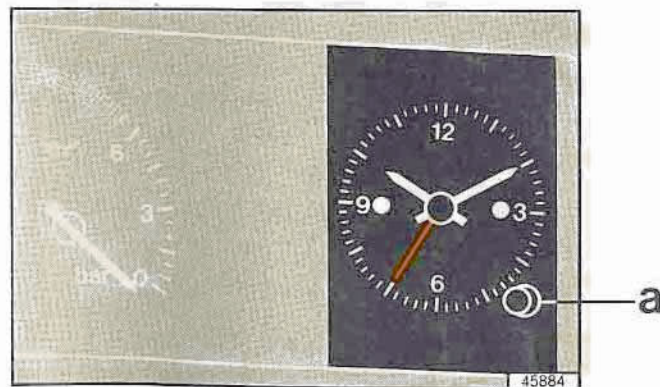
Excessively high or low oil pressures may limit engine operation to moderate speeds and loads. Take the car to a LANCIA Service Centre as soon as possible.

The opto-electronic analogue pressure gauge segments correspond to 0.5 bar.

## Clock

To set the time on the analogue clock, turn knob "a"; press in when turning.

To set the digital clock on the opto-electronic instrument panel, press "h" or "m" corresponding respectively to



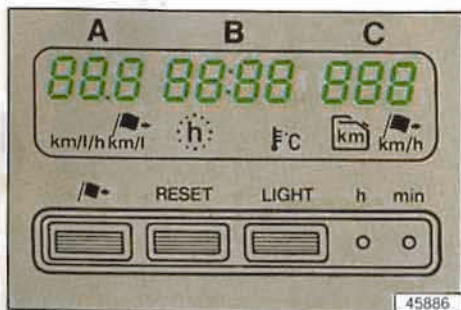
hours and minutes. The clock will advance one unit each time the button is pressed.

Hold the button down to advance the clock rapidly. Release the button when you have almost reached the correct time, then use the slow advance feature by pressing briefly and releasing the button. Use any pointed object to press the buttons.


## INSTRUMENTS

### Trip computer

This instrument supplies information related to speed, fuel consumption and range to help you achieve optimal performance.



A - B - C : Displays.


 : Button to display information at A - B - C, clock display when the panel is off, and a test of the segments of displays A - B - C.

RESET : Button to reset average values stored in memory.

LIGHT : Button to dim the trip computer panel light (maximum, off, and dimmed).

h - min : Buttons for setting the clock.

*When the key is at STOP or PARK*

The displays are off. The time can be displayed at position B by pressing button .

*When the key is at MAR, before starting the engine*

The following are displayed:

A : Symbol and fuel consumption value(km/l): kilometres per litre of fuel.

B : Symbol and outside temperature value (°C).

C : Symbol and speed (km/h).



The values displayed at A and C are averages, and regard previous vehicle use. They are calculated from the last time the instrument was reset until the engine was switched off. Press the RESET button to elaborate new, average values. If you do not reset the instrument, the old values will be averaged with those regarding current vehicle operation.

## INSTRUMENTS

*When the engine is running*

As soon as the engine starts the following values are displayed:

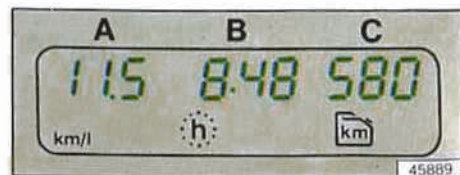
- A : Symbol and fuel consumption (l/h): litres of fuel per hour.
- B : Time (hours and minutes).
- C : Range (km).




These values are displayed when the car is moving at speeds below 6 km/h.

When the car exceeds 6 km/h the information displayed at position A changes; The three values are as follows:

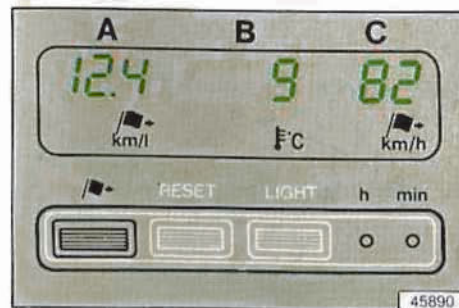
- A : Symbol and fuel consumption (km/l): kilometres per litre of fuel.
- B : Time (hours and minutes).
- C : Range (km).



*When the engine is running press* 

If you press it rapidly the following are displayed:

- A : Symbol and fuel consumption (km/l): kilometres per litre of fuel.
- B : Symbol and outside temperature (°C).
- C : Symbol and vehicle speed (km/h).



Displays A and C show average values related to the current trip. After about 15 seconds the displays resume showing instant values as well as the time.

Press the button for at least 5 seconds to check the display segments.

*Clock*

To set the clock use a pointed object (e.g., ball-point pen or pencil) in buttons "h" or "min".

## INDICATOR AND WARNING LIGHTS

---



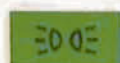
Left direction indicators



Right direction indicators



Hazard warning flasher



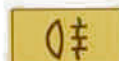
Side lights



High beam headlights



Front fog lights



Rear fog-guard lights



Oil pressure too low



Low brake fluid level or handbrake engaged



Front brake pad wear

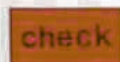


Lambda sensor malfunction (in some versions)



Condensate in diesel fuel filter

## INDICATOR AND WARNING LIGHTS



Main malfunction warning light (Check panel monitoring system)



Defogging / defrosting of side door mirrors



Seat belts not buckled



Left front seat heater



Right front seat heater



Heated rear window



ABS system malfunction



Battery not being charged



Automatic transmission fluid temperature too high



SPI injection system failure (Petrol engines)



Turbocharger pressure too high



Turbo diesel engine heater plugs

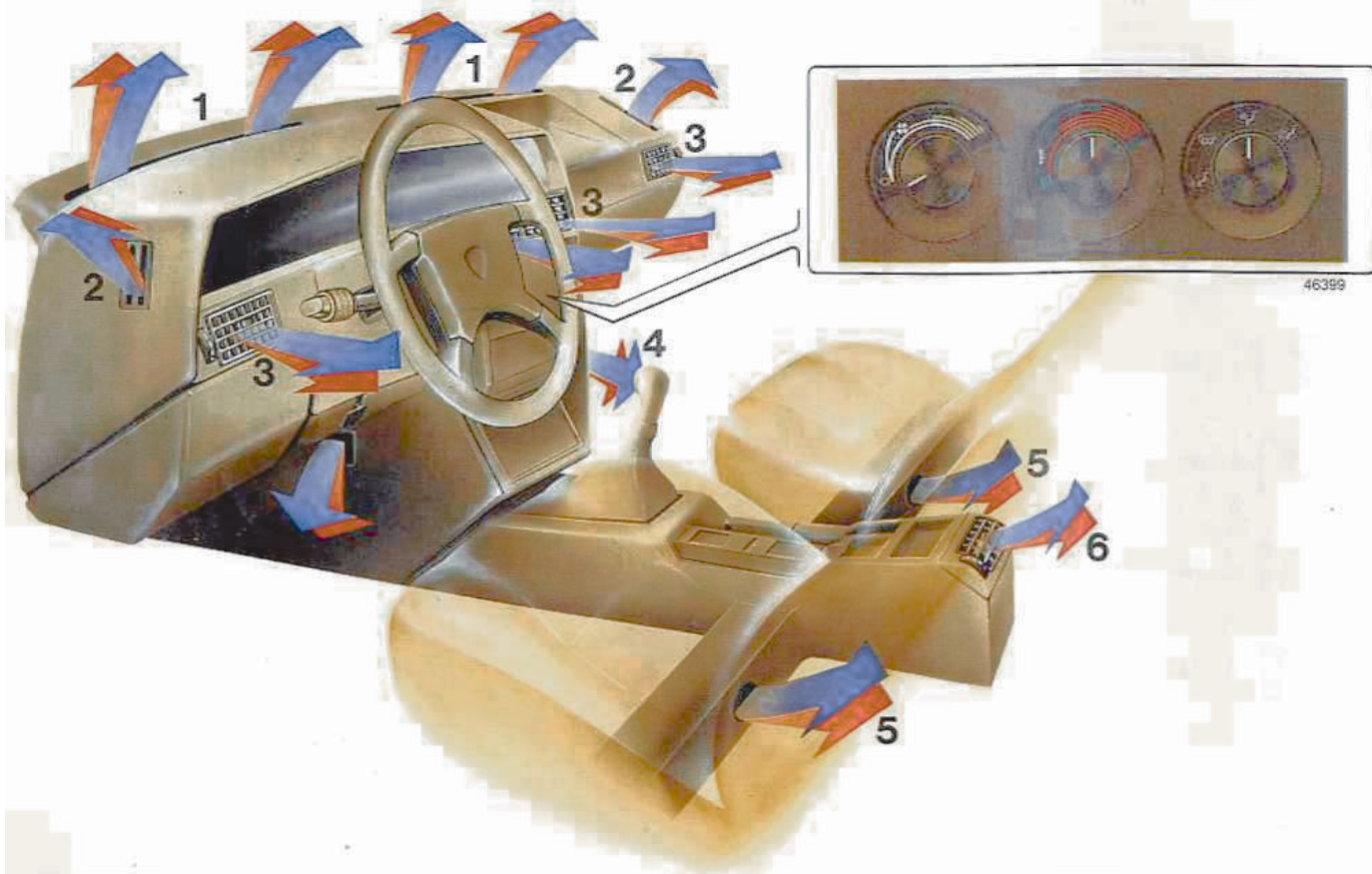


Adjustable damping system (with malfunction warning) - Dedra 2.0 i.e.



# HEATING AND VENTILATION

## Manual system



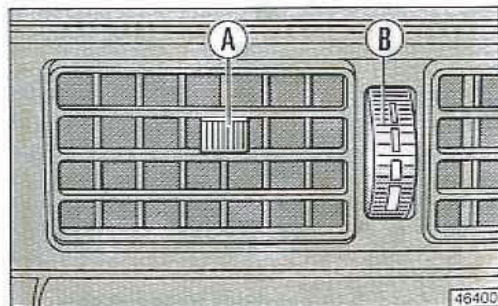
## HEATING AND VENTILATION

### Stationary air vents

- 1 - directed at the windscreen
- 2 - directed at the side windows
- 4 - front passenger footwells
- 5 - rear passenger floor vents

### Adjustable vents


- 3 - for front seat passengers
- 6 - for back seat passengers

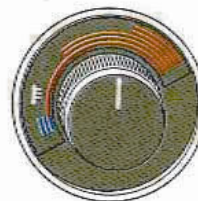


Use lever A to adjust the air flow horizontally. Turn the body of the vent for vertical adjustment.  
Use thumbwheel B to regulate the air volume.

### Controls



Air volume regulation knob. Up to the fan symbol outside air flow without the fan (only when the car is moving); turn the the knob past symbol  to turn on the fan (4 speeds).



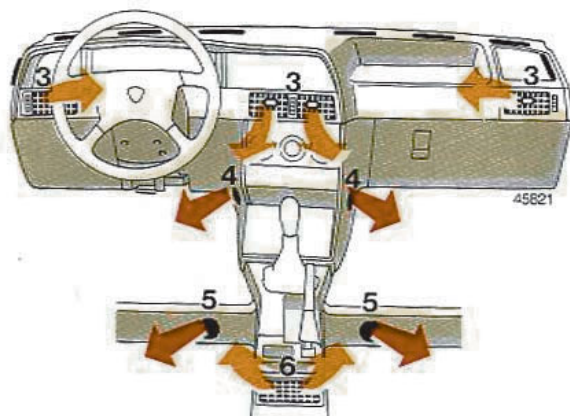
Air temperature adjustment knob.




Air distribution selection knob.


## HEATING AND VENTILATION

### Heating




- Air temperature adjustment knob towards the red zone. The farther into the red zone you turn the knob the higher the temperature.
- Air volume regulation knob turned to the right. If the car is stationary or moving very slowly use the fan.
- Air distribution selection knob:

 heating when the outside temperature is very low;

 bilevel heating when the outside temperature is moderately cold.

### *"Bilevel" heating*

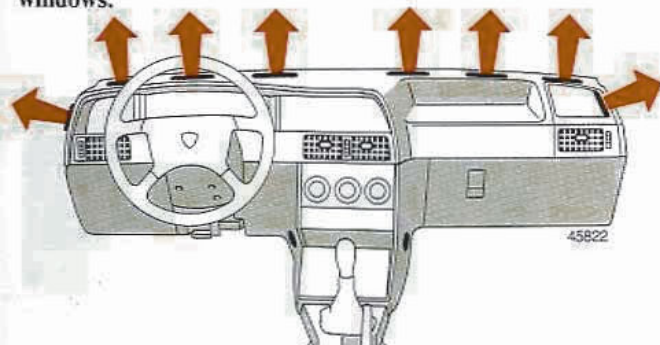
This feature is designed to give vehicle occupants maximum comfort. Turn the air distribution selection knob to .


The air flowing from adjustable vents 3 and 6 is considerable cooler than the air directed to floor vents 4 and 5. The warmer air tends to rise mixing with the cooler air from the fascia vents creating an ideal environment in the passenger compartment.

The difference in temperature between vents 4/5 and vents 3/6 is at a maximum when the temperature adjustment knob is at the centre. This difference decreases as the knob is turned in either direction.

## HEATING AND VENTILATION

Defogging and/or defrosting the windscreen and front side windows.

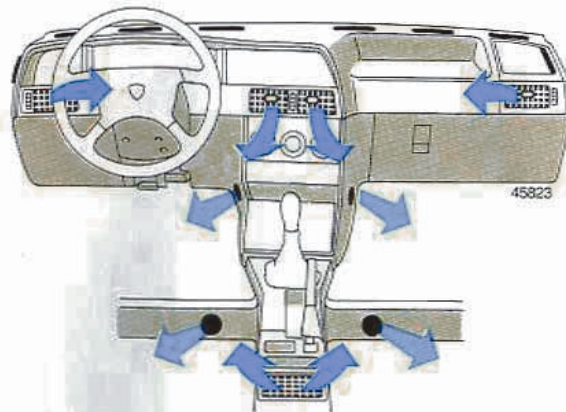



- Air temperature adjustment knob towards the red zone.
- Air volume regulation knob turned to fan speed 3 or 4.
- Air distribution selection knob turned to symbol .

Refer to p. 46 for information regarding defogging the rear window.


### Ventilation

- Air temperature adjustment knob turned fully to the left (blue zone).



- Air volume regulation knob turned fully to the right. If the car is stationary or moving very slowly it is necessary to turn on the fan as well.
- Air volume regulation knob at .

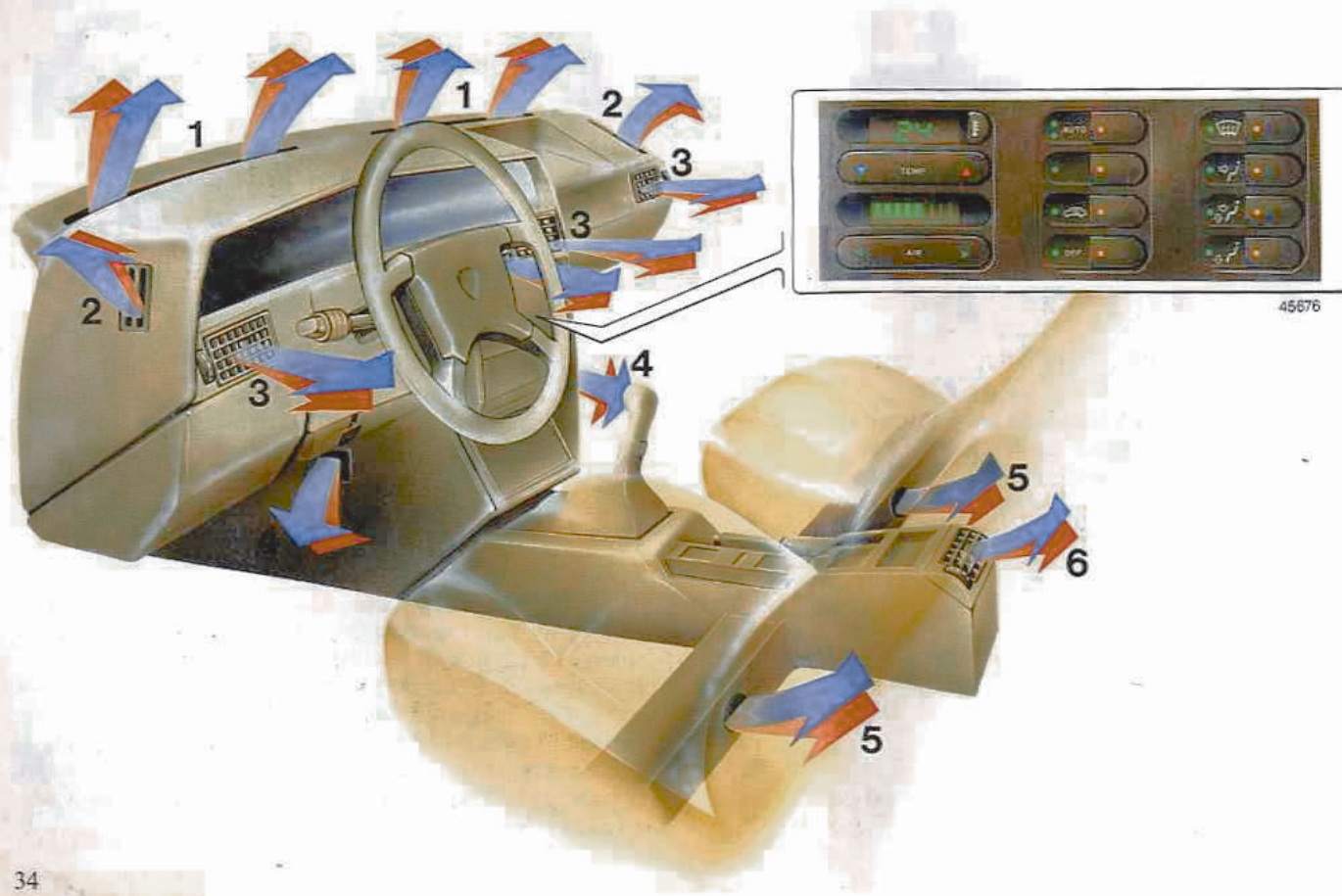
During spring or autumn you may wish to use the heater along with outside air ventilation.

If so, turn the air temperature selection knob slightly to the right. The air distribution selection knob should be positioned at .

These settings will create the “bilevel” effect: warm air to the floor vents and air at the outside temperature to the adjustable fascia vents.

# HEATING AND VENTILATION

## Automatic system



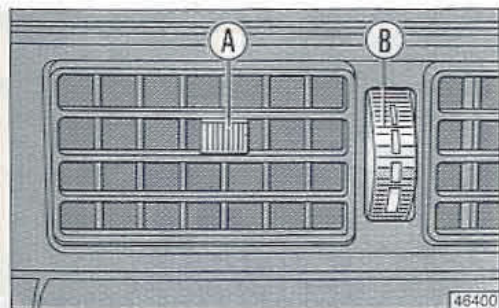
## HEATING AND VENTILATION

### Stationary air vents

- 1 - directed at the windscreen
- 2 - directed at the side windows
- 4 - front passenger footwells
- 5 - rear passenger floor vents


### Adjustable vents

- 3 - front seat passengers
- 6 - back seat passengers



Use lever **A** to adjust the air flow horizontally. Turn the body of the vent for vertical adjustment.  
Use thumbwheel **B** to regulate the air volume.

### Setting the temperature

Button  is used to select the temperature of the passenger compartment. The temperature displayed will in-

crease or decrease 1 degree ( $^{\circ}\text{C}$  or  $^{\circ}\text{F}$ ) each time the button is pressed.

If the temperature set exceeds  $32^{\circ}\text{C}$  ( $90^{\circ}\text{F}$ ) or is less than  $18^{\circ}\text{C}$  ( $64^{\circ}\text{F}$ ) the following messages appear on the display: **HI** or **LO**.



After setting the temperature the system is governed by an electronic control unit. The temperature desired is rapidly achieved.

If a manual setting is made, the temperature will still be controlled automatically, and so will all the other functions not manually adjusted.


If you request a temperature lower than the outside temperature (impossible condition) the value will flash for about ten seconds and then remain "steady on". Your request will be displayed until you decide to change it. The air temperature inside the car cannot be lower than that outside.

Button **D** is used to display the outside temperature. It appears accompanied by the abbreviation **EXT**. After about 10 seconds the display will again show the setting you previously made.

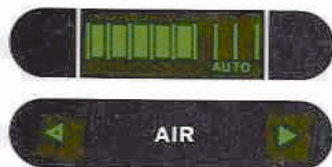
## HEATING AND VENTILATION


For maximum comfort...

### *Air volume*

Use button  to increase or decrease the air flow into the passenger compartment for heating or ventilation. Press the edges of the button.

The air volume is displayed by the number of illuminated bars.



The message **AUTO** appears if the air volume is selected by system's control unit. **MANUAL** appears when the air volume has been modified by pressing .

### *Air distribution*



Air sent to stationary air vents for defogging/defrosting the windscreen and front side windows.



Air sent to the adjustable vents for summer ventilation.



Air sent to the adjustable and floor vents. The air sent to the adjustable fascia vents is considerably cooler than that delivered to the floor vents (bilevel ventilation).



Air sent to the floor vents only for heating when the outside temperature is extremely low.

Air distribution is indicated by the illumination of the LEDs next to the symbols.

Two selections cannot be made at the same time.

The button next to each symbol allows you to make manual selections different from those made by the system's control unit. If the button is pressed a second time control of air distribution is restored to the control unit.

## HEATING AND VENTILATION

### *Air recirculation*

No outside air enters the passenger compartment in order to reach the temperature set more rapidly.

This feature can only be selected manually by pressing the button next to the symbol; the LED will turn on to indicate recirculation has been selected.




Press the button a second time to enable outside air to circulate again in the passenger compartment.

### **Automatic operation**


When both LEDs next to **AUTO** are lit the system is fully automatic. All functions for maintenance of the temperature set are governed by the system's electronic control unit.



One of the two LEDs turns off when a manual setting is made (e.g., pressing  to regulate the fan, pressing a distribution button, or selecting recirculation).

The button next to **AUTO** restores fully automatic operation overriding all of the manual selections made; both LEDs turn on after pressing this button.


### **Turning the system off**

Press the **OFF** button; the LED next to it will turn on. The other system LEDs and the temperature display will turn off. The outside temperature can only be displayed by pressing .



The temperature set and all the other functions operative when the system is turned off are stored in system memory.

The system can be turned back on by:

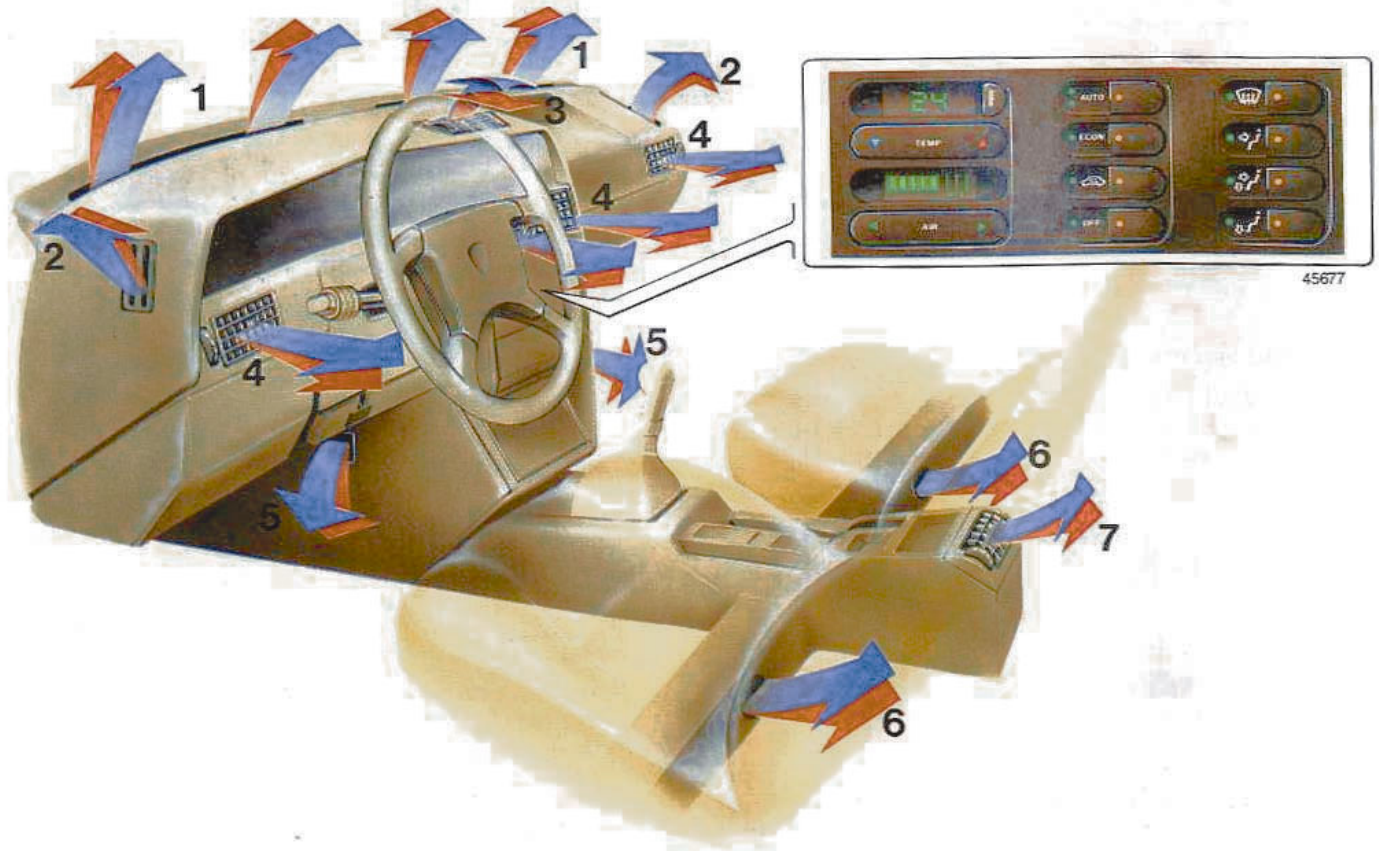
- Pressing the **OFF** button a second time (all selections restored).
- Pressing the **AUTO** button; the system turns on, but all the manual selections made before turning it off are cancelled.
- Pressing any of the system buttons (except ); the initial settings are restored along with the manual selection you have just made.

### **Notes**

- When the ignition key is turned on the same settings made before switching off the engine are restored.
- If the battery is disconnected and then reconnected for any reason, when the engine is started again the temperature display will show 24°C (76°F) and system operation will be completely automatic.



# AIR CONDITIONER



45677

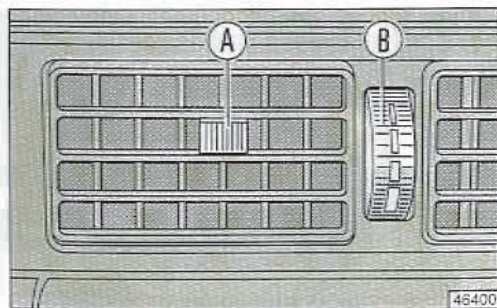
## AIR CONDITIONER

### Stationary air vents

- 1 - directed at the windscreen
- 2 - directed at the side windows
- 3 - directed at front seat occupants; the thumbwheel regulates the air flow which is also directed to vents 4 and 7
- 5 - front passenger footwells
- 6 - rear passenger floor vents

### Adjustable vents

- 4 - for front seat passengers
- 7 - for back seat passengers



Use lever **A** to adjust the air flow horizontally. Turn the body of the vent for vertical adjustment.

Use thumbwheel **B** to regulate the air volume.

### Setting the temperature

Button **F** is used to select the temperature of the passenger compartment. The temperature displayed will in-

crease or decrease 1 degree ( $^{\circ}\text{C}$  or  $^{\circ}\text{F}$ ) each time the button is pressed.

If the temperature set is above  $32^{\circ}\text{C}$  ( $90^{\circ}\text{F}$ ) or below  $18^{\circ}\text{C}$  ( $64^{\circ}\text{F}$ ) the following messages appear on the display **HI** or **LO**.



After setting the temperature the system is governed by an electronic control unit which automatically makes all the settings necessary to achieve the temperature desired.

If a manual setting is made, the temperature will still be controlled automatically, and so will all the other functions not manually adjusted.


When **ECON** is selected if you request a temperature lower than the outside temperature the value will flash for about ten seconds and then remain "steady on". Your request will be displayed until you decide to change it or turn off **ECON**, unless there is a rapid drop in the outside temperature.

Button **F** is used to display the outside temperature. It is displayed accompanied by the abbreviation **EXT**. After about 10 seconds the passenger compartment setting previously made is restored.

## AIR CONDITIONER


### For maximum comfort...

#### *Air volume*

Use button  to increase or decrease the air flow to the passenger compartment to cool, heat or ventilate. Press the edges of the button.

The air volume is displayed by the number of illuminated bars.



The message **AUTO** appears under the bars if the air volume has been selected by the system's control unit. **MANUAL** appears when the air volume has been modified by pressing .

#### *Air distribution*



Air sent to stationary vents for defogging/defrosting the windscreen and front side windows.



Air sent to the adjustable fascia and centre vents for air conditioning and summer ventilation.



Air sent to the adjustable fascia and centre vents, as well as the floor vents.

Both cool and warm air can be sent to the vents at the same time. The air delivered to the face-level vents is considerably cooler than that sent to the floor vents (bilevel).



Air sent to the floor vents only for heating when the outside temperature is extremely low.

Air distribution is indicated by the illumination of the LEDs next to the symbols.

Two selections cannot be made at the same time.

The button next to each symbol allows you to make manual selections different from those made by the system's control unit. If the button is pressed a second time control of the air distribution is restored to the control unit.

## AIR CONDITIONER

### *Air recirculation*

No outside air enters the passenger compartment in order to reach the temperature set more rapidly.



This feature can be selected automatically or manually. When on, the LED next to the symbol will illuminate.

If you have made the selection manually, press the button again to let outside air in.

If you press the recirculation button when already selected by the system's control unit, the LED will turn off indicating recirculation has been deactivated. When you press the button again automatic operation will be restored.

### **"ECON" operation**

This feature can only be selected manually by pressing the button next to ECON.




The LED will illuminate indicating the air conditioner compressor is off and recirculation now operates manually. The system can only provide heating or ventilation with outside air.

If you press the button a second time, the compressor will turn back on and the system will again be governed automatically.

### **Automatic operation**

When both LEDs next to **AUTO** are lit the system is fully automatic. All functions for operation and maintenance of the temperature set are governed by the system's electronic control unit.



One of the two LEDs will turn off when a manual setting is made (e.g., pressing  to regulate the fan, pressing a distribution button, selecting recirculation, or "ECON").

The button next to **AUTO** restores fully automatic operation overriding all of the manual selections made; both LEDs turn on after pressing this button.

### **Turning the system off**

Press the **OFF** button; the LED next to it will turn on. The other system LEDs and the temperature display will turn off.



The outside temperature can only be displayed by pressing **D**.

## AIR CONDITIONER

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The temperature setting and all the other functions operative when the system is turned off are stored in system memory.

The system can be turned back on by:

- Pressing the **OFF** button a second time (all selections restored).
- Pressing the **AUTO** button; the system turns on, but all the manual selections made before turning it off are cancelled.
- Pressing any of the system buttons (except **P**); the initial settings are restored along with the manual selection you have just made.

### Notes

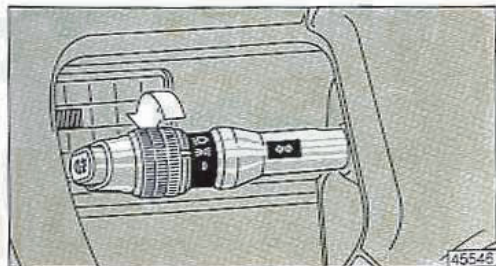
- When the ignition key is turned on the same settings made before switching off the engine are restored.
- If the battery is disconnected and then reconnected for any reason, when the engine is started again the temperature display will show 24°C (76°F) and system operation will be completely automatic, although the compressor will be off (ECON LED on).



## CONTROLS

### Exterior light, direction indicator and rear-fog guard light switch complex

The lights operate when the ignition key is at MAR.  
If the key is turned to PARK, the side and taillights are on.

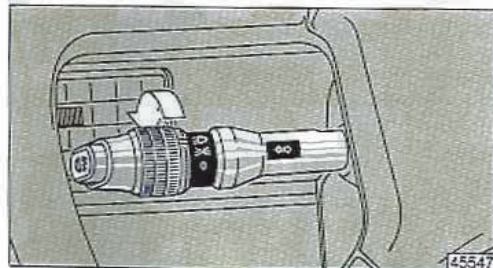
#### Side lights



Turn the knurled switch to symbol ; the instrument panel indicator  will also turn on.


When the side lights are on all the instrument panel symbols also illuminate.

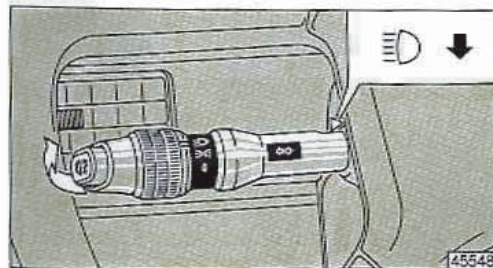
#### Low beam headlights




Turn the knurled switch to .

#### High beam headlights

When the low beam headlights are on (at symbol ), pull the stalk forward towards the steering wheel and release it.



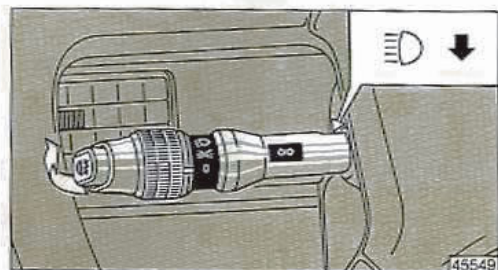
Pull and release the stalk again to turn the high beams off leaving the the low beams on.

When the high beam headlights are on the instrument panel indicator  also turns on.

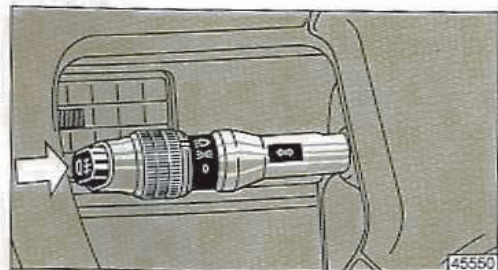
## CONTROLS


### Flashing the high beams


Pull the stalk towards the steering wheel to the first detent no matter what position the knurled switch is at.



### Rear fog-guard lights





Press the button  at the tip of the stalk when the low or high beam headlights are on.

When the fog-guard lights are on the instrument panel indicator  also turns on.

Press the button again to turn the lights off.

### Front fog lights

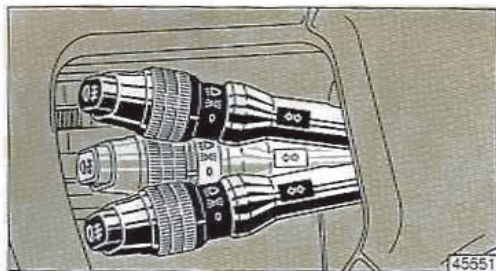
Press  located on the centre console to turn on the front fog lights (side lights must be on). The panel indicator  will illuminate when the fog lights are on.



### Direction indicators

Move the stalk fully up or down:

Up: right direction indicator

Down: left direction indicator



When the direction indicators are flashing one of the instrument panel indicators (  or  ) also blinks.

The stalk will return automatically to the centre position after completing the turn.

If you wish to indicate a lane change where only a slight movement of the steering wheel is necessary, the direction indicator stalk can be moved to the first detent (unstable position). When you release it the stalk will return to the centre position.

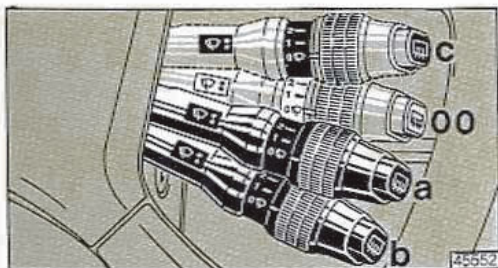
## CONTROLS

Windscreen wiper/washer, rear screen heater, rear window wiper/washer and headlight wiper/washer (if fitted) switch complex

These devices operate when the ignition key is at MAR.

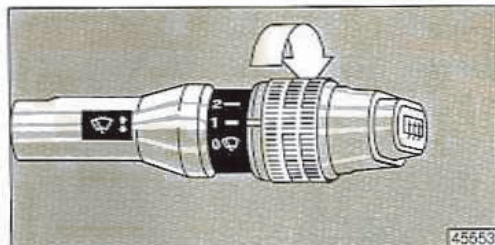
### Windscreen wiper

- 00 - Wiper off (or intermittent operation).
- a - Continuous low-speed operation.
- b - Continuous high-speed operation.
- c - Continuous high-speed operation (if held in this position).



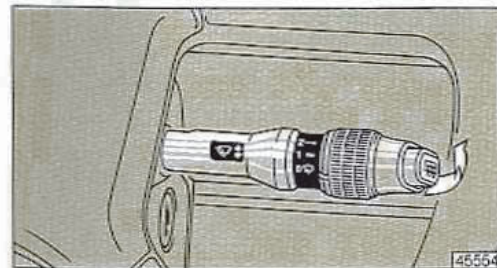
When in position c the windscreen wiper will only operate as long as you hold the stalk in that position.  
If you only need to operate the wipers for a second, push the stalk up to position c and release it immediately.

For intermittent operation, turn the knurled switch when the stalk is in position 00 (horizontal):



- 0 - Windscreen wiper off.
- 1 - Slow intermittent operation.
- 2 - Fast intermittent operation.

### Windscreen washer



Pull the stalk towards the steering wheel to actuate the washer. The wiper will also turn on and then stop after a couple of seconds.

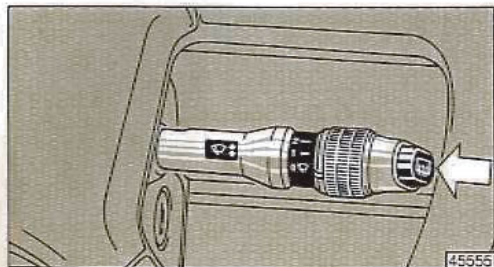
The washer stops operating when you release the stalk.  
If the windscreen wiper is already operating, select continuous wiper no matter what position the stalk (00 - a - b - c) or knurled switch (0 - 1 - 2) are in.



## CONTROLS

### Rear screen heater

Press the button  at the tip of the stalk.



This button also actuates the door mirror heaters and wind-screen wiper liquid heater (if present).

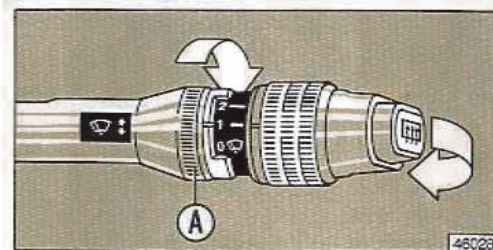
Press the button again to turn off all the above devices.

### Headlight wiper/washers (not all versions)

When you pull the windscreen wiper towards the steering wheel (see p. 45) the headlight wiper/washers also turn on. They stop operating automatically after a couple of seconds.





### Rear screen wiper/washer (if fitted)

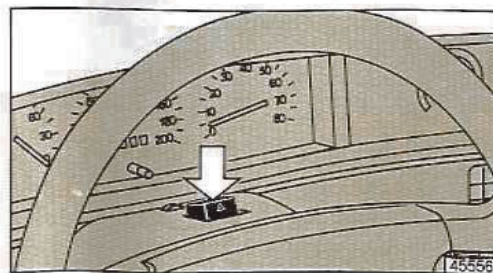
Turn knurled switch A from position 0 to position 1.



Push the stalk forward towards the dashboard to actuate the rear screen washer.

### Hazard warning lights

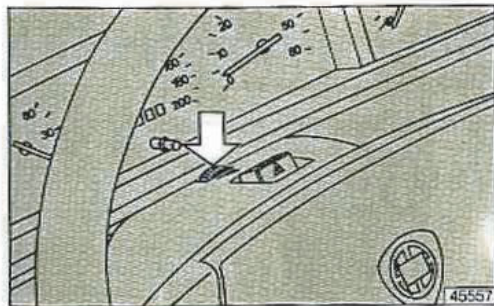
Press the button  no matter what position the ignition key is in. All the direction indicator lights and instrument panel indicators  ,  and  will turn on.



Press again to turn the hazard warning lights off.

## INDIVIDUAL SETTINGS

### Instrument panel dimmer



- *Analogue panel:* the panel lighting turns on when the exterior lights are switched on. Dim the lights by turning the knurled wheel located in the steering column moulding.

If your car has a trip computer with a "LIGHT" button, use it to regulate the intensity of the panel. The button operates in a cyclical fashion: fully on - off - dimmed.

- *Opto-electronic panel:* see p. 15.

### Steering wheel

The steering wheel rake can be adjusted when the column lever is in position 2.



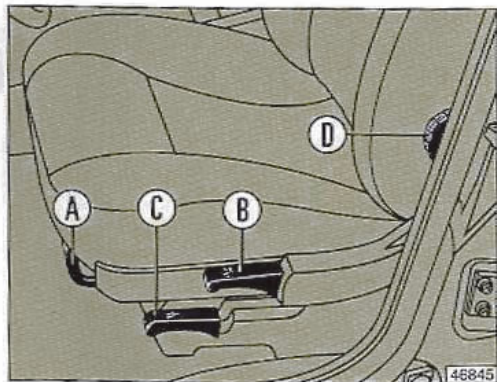
When you have set the wheel to the height which suits you best press the lever back to position 1.

**Never attempt to adjust the steering wheel while driving.**

## INDIVIDUAL SETTINGS

### Front seats

The seats can be moved forward or rearward by pulling up lever A and exerting body pressure in the direction desired. Ensure the seat is locked in position after releasing the lever.



Lift up lever B to adjust the seat backrest angle.

If you hold up lever B it is possible to fully recline the seat backrest.

The driver's seat is equipped with height and lumbar support adjustment.

Lift lever C to have the seat slide on inclined guides:

- move forward to raise the seat;
- move backwards to lower the seat.

After reaching the height which best suits you, lift lever A for fore-and-aft adjustment.

Use knob D to adjust the seat's lumbar support feature:


- turn forward to increase lumbar support;
- turn rearward to decrease lumbar support.


The knob should be adjusted correctly so your spine is given proper anatomic support.


## INDIVIDUAL SETTINGS

If the seats are equipped with the power adjustment option, the key must be in the MAR position to regulate their position.

The symbol in front of each button indicates its function.

 Fore-and-aft adjustment button

 Height adjustment button

 Backrest angle adjustment button

The power seats are also equipped with a heating elements between the seat padding and upholstery. Manually adjustable seats may have, if requested, the seat heating option.



Seat heater instrument panel indicators.



Press this button to turn off the automatic seat heaters.

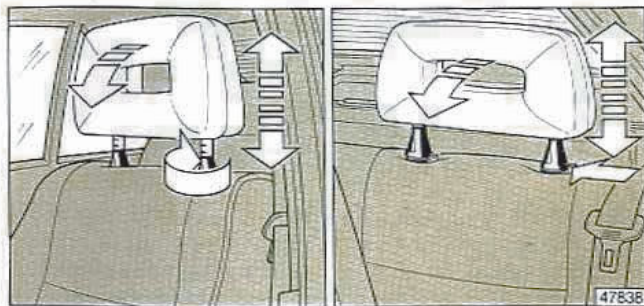
### Headrests

Headrests are adjustable both in height and forward tilt. Their position is correct when they support the back of the head, not the neck.

They can be removed by pulling them off their sockets in the seat squabs:

*Front:* Pull the headrest to its maximum height; then rotate both support rods by half a turn (so that the notches on each support rod face each other) and pull off.

*Rear:* The back seat headrests can be removed by pulling them upwards and simultaneously pressing the buttons at the sides of the support rods.



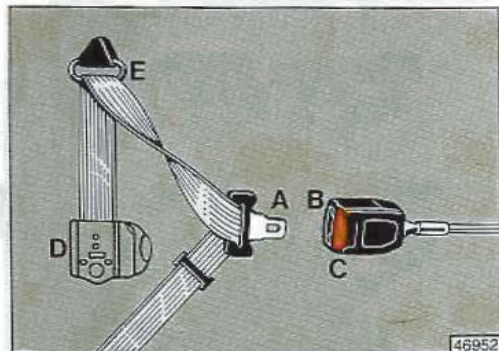
For safety reasons it is important that the headrests be re-fitted correctly. Their slightly curved shape is designed to support the head and must face forward. When properly fitted the headrests may only be tilted forward.

## INDIVIDUAL SETTINGS

### Seat Belts

*Using the automatic seat belts (front seats and rear outer positions)*

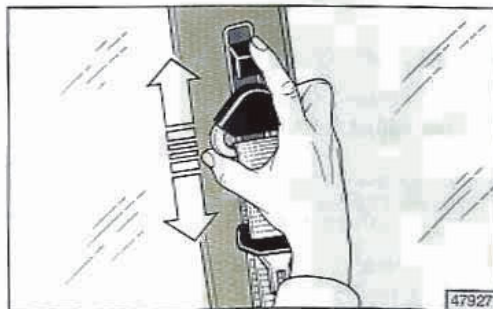
Insert tongue A into buckle B until you hear a distinct click. Press button C to release the belt.



These belts need no manual adjustment. The webbing unwinds automatically from retractor mechanism D located inside the door jamb panel and passes through loop E. The belts adjust to the occupants allowing them to move freely. However, any brusque movement will cause the belts to lock.

The belts also lock when accelerating or braking rapidly, driving on steep grades, and when cornering at high speeds.

The front seat belt loop height is adjustable to best suit the stature of the driver and front seat occupant.



To adjust the loop height grab the locking mechanism with one hand so that you may press the unlocking lever with a finger of the same hand. Move it up or down; it must lock into one of the four positions. Check the loop is properly locked by pushing it up or down. If not previously locked, it will lock after travelling upwards or downwards a short distance.

Using the seat belts with the locking mechanism not properly locked may create safety problems.

A panel indicator will flash for about 30 seconds if the front seat belts have not been buckled.

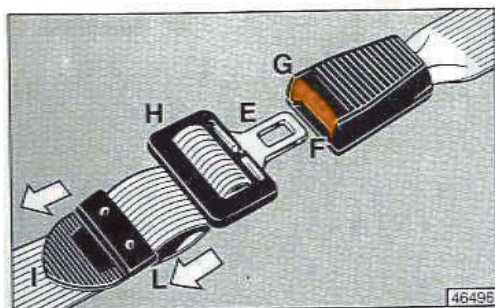
## INDIVIDUAL SETTINGS

### *Using the lap belt (centre rear position)*

The passenger should sit in a normal position against the seat backrest.

To fasten the belt insert tongue E into buckle F until a click is heard.

Press button G to release the belt.

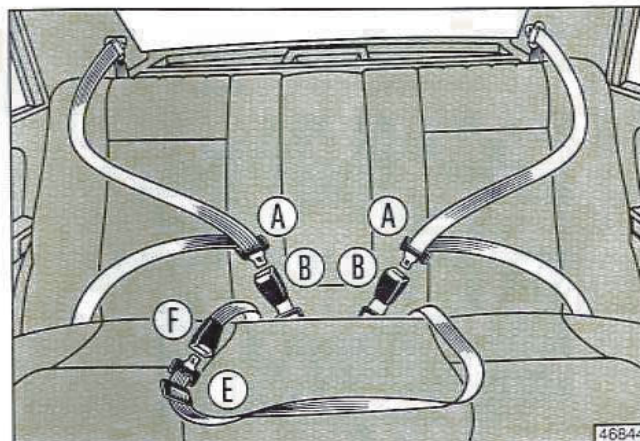


To adjust the belt pull the webbing through H. Pull edge I to tighten or L to loosen the belt.

**The belt is properly adjusted when a closed fist can be placed between the wearer and the webbing.**

### *Rear seat belt use*

Use the belts as shown in the figure.



To ensure the correct buckle is used, tongue A will not lock if you try to use it with buckle F, nor will you be able to insert tongue E into buckle B.

*When the back seats are not occupied, place the belts and buckles in the housings provided in the seat backrests.*

## INDIVIDUAL SETTINGS

### Information regarding seat belts and child restraints

All vehicle occupants are required to respect the Motor Vehicle Code regulations regarding seat belt use in the country where the car is driven.

Although it may not be required by law, it is highly recommended that all occupants exempted from using seat belts sit on the back seat or use child restraint systems.

All minors whose physical features (age, height, weight) are below the required limits set in the country where the car is driven must be protected by approved *universal* restraints (carriers, child seats, booster cushions) that comply with ECE/UN regulation 44.

Local legislation should be respected in those countries which have not adopted regulation 44.

The use of *semi-universal* or *specific* restraint systems requiring supplementary anchorage points is only permitted if the manufacturer's approval is given. The vehicle registration form must be updated by the appropriate government agency after testing the supplementary anchorage points.

Carefully follow the manufacturer's installation and use instructions supplied with the restraints.

Never carry a child on your lap with the belt around the child.

Avoid wearing the belt when twisted. The belt should be worn across the hips and not the abdomen to prevent the driver or passenger from sliding forward.

Occasionally check that the mounting bolts are tight and that the belt webbing is not cut or fraying.

After a severe collision it is recommended that the seat belts be replaced even if there is no apparent damage.

To clean the belts, wash with warm soapy water, rinse and then let them dry out of direct sunlight.

Do not use strong detergents, bleach, dyes or any other chemical which might damage the belt webbing.

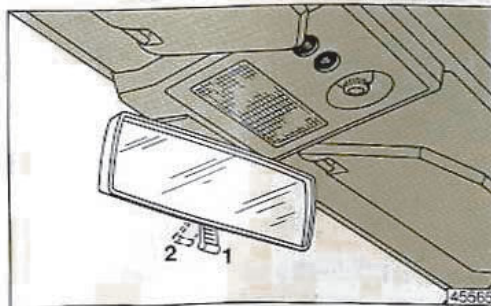
### **Rearview Mirrors**

After adjusting the seat position and steering wheel, adjust the mirrors.

#### *Interior rearview mirror*

The rearview mirror is adjustable, and has an anti-glare position that can be selected using the tab.

- 1 - Normal position.
- 2 - Anti-glare position.

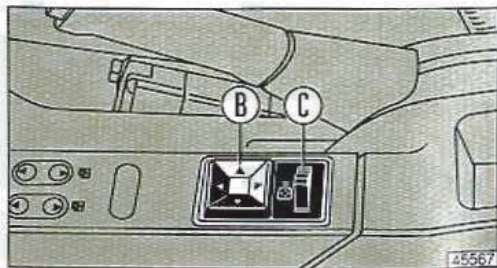
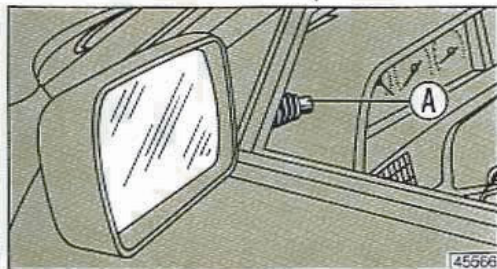


## INDIVIDUAL SETTINGS

The mirror can be adjusted in either position. A safety device ensures the mirror will release if an impact occurs. Press forcefully at the base to replace it.

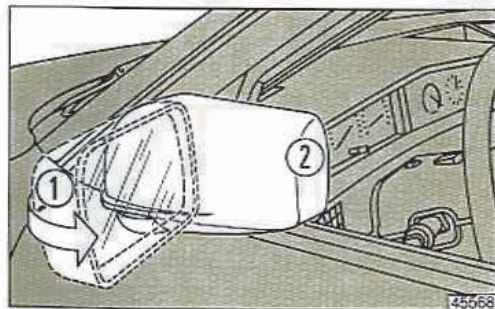
### *Door mirrors*

The mirror may have manual or power adjustment.  
Manual adjustment: Use lever A.



Power adjustment: Press one of the edges of button B. Switch C selects the mirror to be adjusted. Moving it to the left will allow you to adjust the left mirror, or to the right for the right mirror.

Adjust the mirrors (manual or power) only when they are in position 1.



The mirrors can be folded flush against the car for driving in narrow roads, car washes, etc. (position 2).

An optional power mirror folding feature is available. If fitted, the switch is located in front of the adjustment controls.

The power mirrors also have defogging heating elements which operate whenever you turn the rear screen heater on.



## ADJUSTABLE DAMPING SYSTEM

Versions equipped with this system have automatic damper control. If desired, you may select a harder ride for “sportier” driving.



Press this button for automatic control of the damper system. When in this mode the system selects the setting best suited for comfort and safety at all speeds, independent of driving conditions.

The green AUTO light will illuminate when automatic control has been selected.



Press this button for a harder ride useful in sportier driving at all speeds.

The orange SPORT light will illuminate when this feature has been selected.

### Important

If a system malfunction occurs, the harder setting is automatically selected (as if the SPORT button were pressed) and the red warning light turns on.



### System operation

An electronic control unit receives information from sensors regarding vertical acceleration, steering angle, speed of steering input, braking force and vehicle speed. These signals are elaborated and sent to the solenoids on the dampers.

See p. 156 of the Appendix for a schematic of the system.

## ANTILOCK BRAKING SYSTEM

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If requested, all versions can be equipped with an antilock braking system.

This system, combined with the car's conventional braking system, prevents the wheels from locking up when braking rapidly, or when braking on uneven or icy roads.

Depending on the engine mounted, a 2- or 4-channel ABS system is installed. Both systems conform to the highest approval class for these devices.

The antilock braking system has the following advantages:

- maintenance of driving stability and steerability when braking;
- a reduction in stopping distance through optimal utilization of the adhesion between the tyres and the road;
- rapid matching of the braking force to different adhesion coefficients.

An electronic control unit receives information from wheel sensors (front and rear, or only front) about which wheel is about to lock. It signals an electronic hydraulic modulator to lower, maintain, or increase the fluid pressure delivered to the slave cylinder preventing wheel lock-up.

When braking under normal driving conditions the ABS is not actuated; only the conventional system operates.

When the brakes are fully applied the antilock system is actuated. You can tell the system is operative when you feel slight pulses on the brake pedal.

**These systems do not compensate for careless driving. Be particularly careful when driving on icy, wet or snow-covered roads. If the antilock system is not operating perfectly, it is automatically deactivated. Of course, the car's conventional braking system always operates. If a system malfunction occurs the red ABS warning light on the instrument panel will turn on.**

The parameters monitored by the electronic control unit are influenced by vehicle assemblies. Therefore, cars equipped with antilock braking systems **must only use manufacturer-approved rims / tyres and brake pads.**

Versions with antilock braking systems all have rear disc brakes with special caliper assemblies.

See pp. 148-9 of the Appendix for schematics of the antilock braking systems.

## DOORS

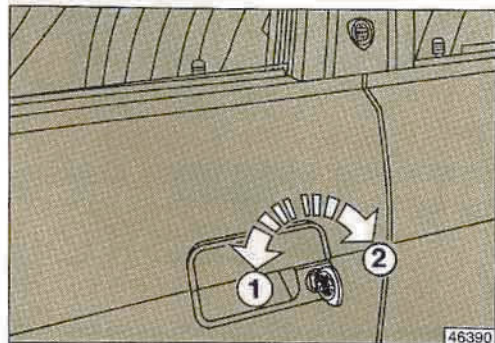
### Power locking and unlocking

This system electrically controls all the lock mechanisms of the front doors whenever one of the front doors is locked or unlocked.

To lock the doors, both the front doors must be properly closed. If you attempt to lock the doors when a front door is open, the sill buttons will go down and then pop up again. If a power failure occurs (fuse blows or battery is disconnected) the four doors operate independently.

#### *From the outside*

- To open: turn the key to position 1 and pull the handle.

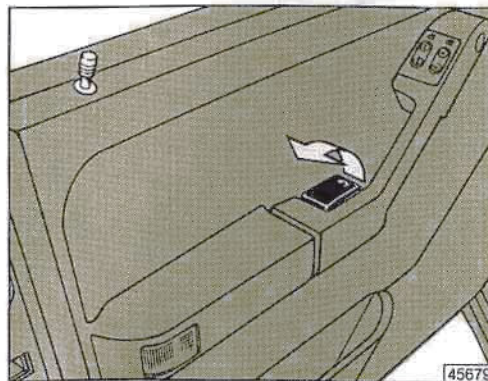


- To close: turn the key to position 2 when the front doors are properly closed; the rear doors will also be

locked even if they are open. All you have to do is close them.

#### *From the inside*

- To open: lift the lever of either front door no matter what position the sill button is in. If the sill button is down, all the doors will be automatically unlocked. To open the rear doors from the inside (childproof locks not engaged) pull up the lever when the sill button is in the up position.



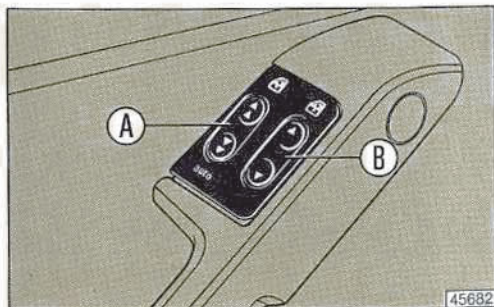
- To close: push down the sill button of either front door when both front doors are properly closed. The rear doors can be locked independently of the power locking system by pressing their sill buttons down (door may be open).

## DOORS

### Power windows

When the ignition key is at the MAR position press the rocker switches to raise or lower the windows.

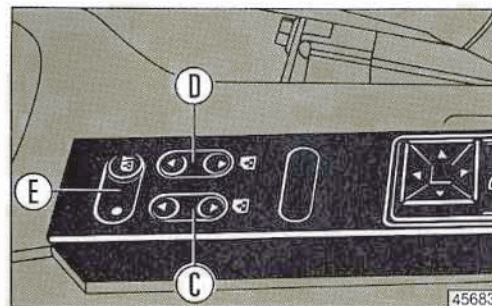
Switch A controls the driver's side window. The switch has two detents. Press it fully down for rapid, automatic opening. The window will open completely even if you release the switch.



Button B allows the driver to operate the passenger's side window. If the driver and the passenger press these switches at the same time, the lowering command overrides raising.

When the key is removed, the front door windows may be operated using button A (first detent) if the door is open.

Buttons C and D allow the driver to operate the rear power windows (if present).



Button E locks the rear power window switches. Press the lock symbol. The LED incorporated in the switch will turn on. Press again to allow use of the rear power windows by the back seat occupants.

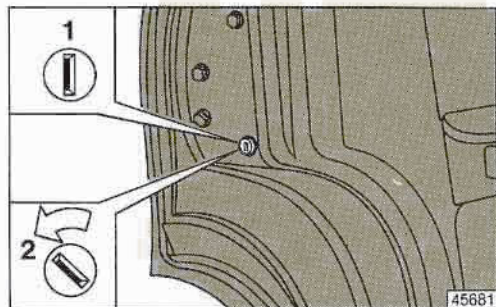
**Always remove the key when you get out of the car to prevent children from getting hurt accidentally by playing with the power windows.**

## DOORS

### Childproof locks

These locks prevent the rear doors from being opened from the inside.

Open the door and place the key in the slot as shown in the figure.



- 1 - Childproof lock not engaged.
- 2 - Childproof lock engaged (right rear door lock should be turned in the opposite direction).

### Remote door locking/unlocking (if fitted)

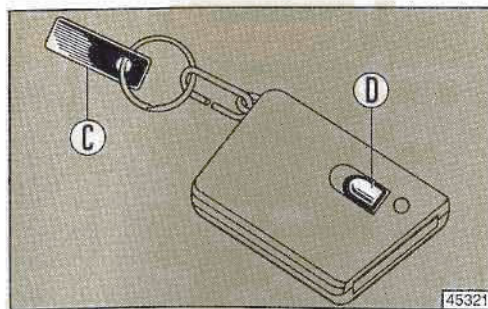
This device comprises remote control transmitting units (maximum 6) and a receiving unit located at the back of the roof. The device will operate without the ignition key and has a range of about 4 metres.

Point the remote control slightly upwards in the direction of the receiving unit when pressing the button. The remote con-

rol may not work properly if you point it directly at the door jamb instead of the roof panel.

The receiving unit can store the codes of up to 6 remote control units.

Tag C with a code number stamped on it is supplied with each remote control. Keep it in a safe place (not on your key ring).



Follow these instructions to store the code of your remote control unit:

- Press button A and hold it down with a pointed object (e.g., a ball-point pen). Red LED B will turn on indicating the receiving unit is ready to receive the remote control code.
- Press button D on the remote control unit until red LED B turns off. This indicates the receiving unit has stored the code.
- Release button A. Red LED B will flash for about 8 seconds when the code is stored.

## DOORS

If you press button A, within 8 seconds again, red LED B turns on again indicating the receiving unit is ready to store the code of another remote control unit. Repeat the procedure.



If you lose a remote control unit there are two ways to store a new code:

- Using another remote control unit whose code has already been stored.
- Manual operation using the number given on tag C.

### Using a remote control unit whose code has been stored

- Press and hold down button A; after about 2 seconds red LED B will flash once.
- Press button D on the old remote control unit. Red LED B will be "steady on".
- Press button D on the new remote control unit; red LED B will turn off.
- Release button A; red LED B flashes for about 8 seconds indicating the new code has been stored.

### Manual operation

It is necessary to have tag C supplied with the control unit you have lost.

Use the four numbers stamped on the tag for the following procedure:

- Press button A twice. Red LED B will flash three times and then turn off for about 2 seconds.
- When red LED B turns on again, press button A the number of times indicated by the first code number (if 0 do not press the button). Two seconds after pressing button A LED B will turn off for 2 seconds. Repeat the above procedure 3 more times until the complete code number has been entered. If the code has been given correctly, red LED B will start flashing.
- Press and hold down button A.
- Press button D on the new remote control unit. Red LED B will turn off.
- Release button A. Red LED B flashes for about 8 seconds indicating the new remote control unit's code has been stored.

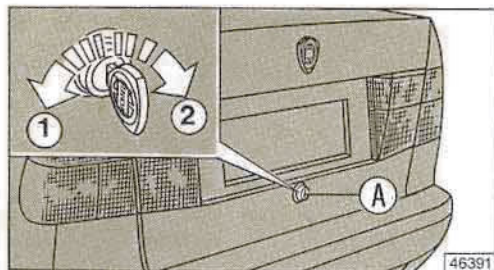
**It is recommended you ask your LANCIA dealer for help in performing this procedure. Remember to take tag C with you.**

**Important** - Check the remote control unit's battery by pressing D (the LED should turn on). If the battery is dead, open the remote control housing by placing a coin in the slot. Ensure the battery used is the same as the original one. Remember to check battery polarity is correct.

## LUGGAGE COMPARTMENT

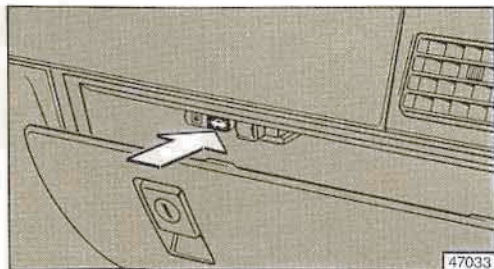
### Opening and closing

After unlocking the boot open it by pressing lock button A.



Turn the key to position 1 and then release it to open the boot. Turn the key to position 2 to lock the boot. The key can only be removed when in a vertical position.

The boot lock can also be opened from the passenger compartment using the button in the glove compartment. The

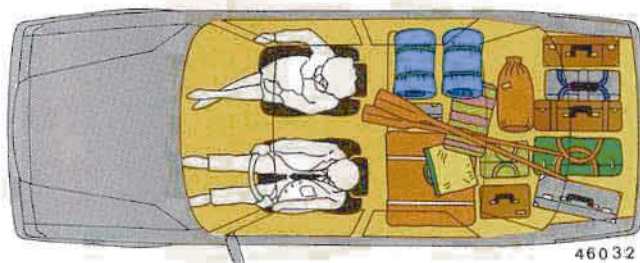


boot can then be locked automatically by the power lock system.

The gas-filled struts which assist opening of the boot lid are designed to operate at the current lid weight. If weight is increased (e.g., installation of a spoiler) the lid may no longer open and close properly.

### Increasing the stowage area

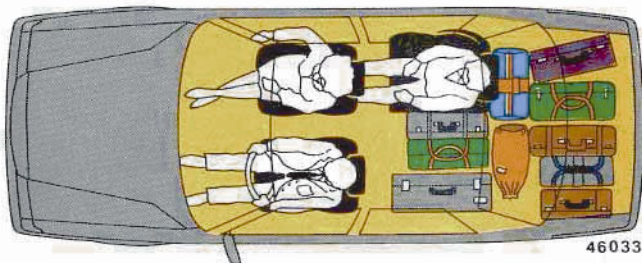
If your car is equipped with split rear seats, the stowage area can be increased by folding down one or both of the rear seat backrests.



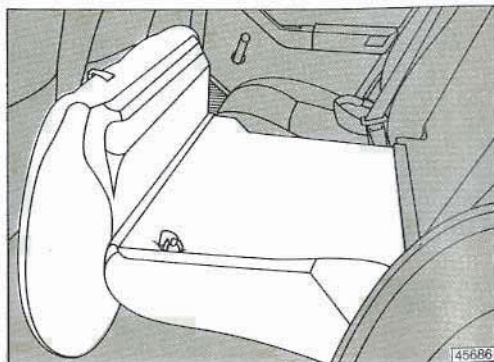
A series of seat configurations are possible depending on the number of occupants and the items you wish to transport.

- Both seat backrests folded down (see figure above).
- Left seat backrest folded down to carry 1 passenger and baggage (see figure on the next page).
- Right seat backrest folded down to carry 2 passengers and baggage.

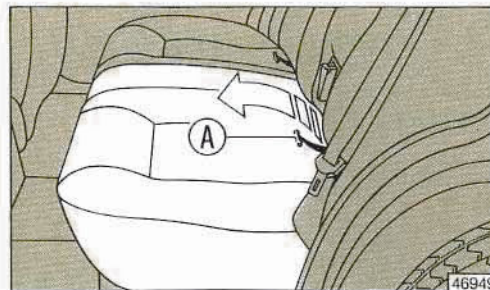
## LUGGAGE COMPARTMENT



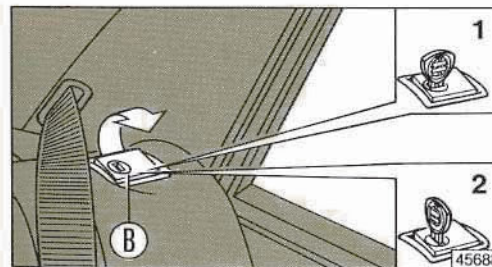
Follow the instructions for folding down the rear seats and replacing them in their original position. The illustration refer to the left side of the rear seat. The procedure is the same for folding down the right part. Fit the safety belt buckles into the special recesses in the backrest. Similarly fit the centre webbing properly rolled up.



- Pull handle **A** and swing up the seat cushion.



- Lift lever **B**, then fold down the seat backrest. Pull the seat belt shoulder strap to the side. The headrests have to be removed before folding down the backrest. Lever **B** can be used after unlocking it with the key.



- 1 - Locked position
- 2 - Unlocked position



## LUGGAGE COMPARTMENT

To replace the rear seat in its original position:

- Lift the backrest pushing it rearwards until you hear it lock; use the key to lock the lever making the luggage compartment inaccessible from the passenger compartment.
- Pull the seat belt shoulder straps forward.
- Fold the seat cushion down to the original horizontal position. Ensure the belt webbing under the cushion and behind the seat is not twisted.

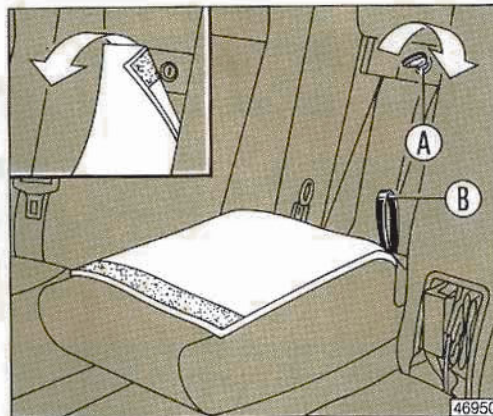
### Ski door

If you do not have split rear seats, the car may be equipped with a small door which can be opened to accommodate long loads (e.g., skis) which ordinarily would not fit in the boot.

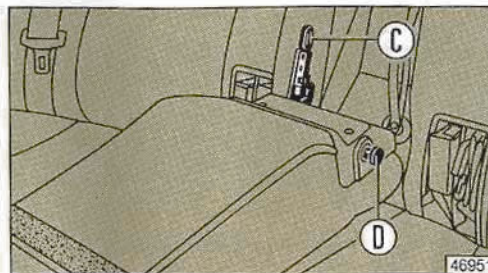
Lower the centre arm rest and lay the vertical arm rest housing cover over it.

Unlock the ski door by inserting the door key **A** and turning it clockwise 90°. Push the door back towards the boot. Turn the key so the grip is in a vertical position and then remove it.

The ski door is equipped with ribbon **B** so you can easily



pull it back up into its original position. The lock will engage automatically when you close the door.



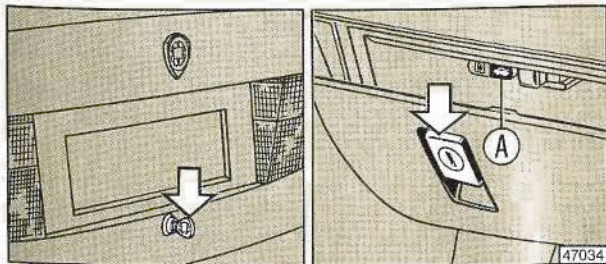
If necessary, the ski port can be enlarged by removing the armrest. Put your fingers in elliptically shaped eyelets **C** located in the sides of the backrest and pull upwards to release the armrest from pins **D**.

## LUGGAGE COMPARTMENT

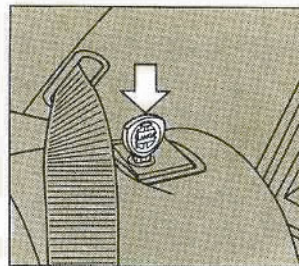
### Leaving the car in a garage

If you wish leave valuables or other objects in the boot, give the key with the smaller grip to garage or car park personnel. This key will only operate the ignition switch. Leave the doors unlocked. Using the key with the larger grip lock the following:

- boot lid lock;
- glove compartment (preventing access to button A).



- rear seat backrest release levers (versions with split rear seats);

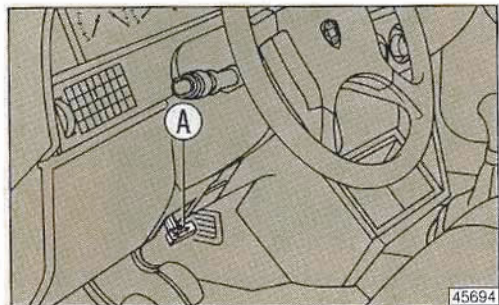


Ensure the ski port door is properly closed before locking it.

## BONNET

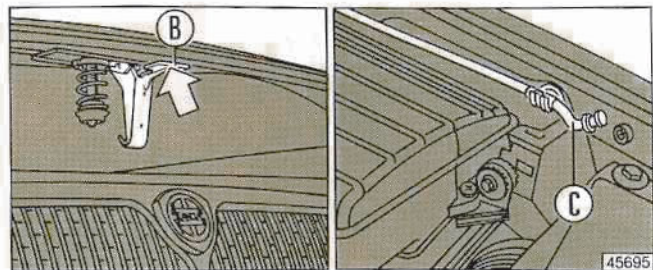
### Opening and closing

Pull out red lever **A** located to the left of the steering column to open the bonnet.



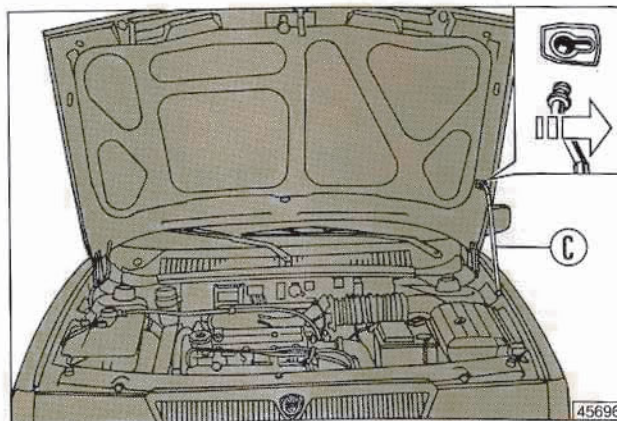
Press up lever **B** from the front of the car to fully release the bonnet.

Lift the bonnet and disengage support rod **C** from its holder.



When the bonnet has been lifted up insert the tip of rod

**C** into the notch located in the bonnet. Push it slightly to the right to prevent it from coming free. Do this carefully. If the support rod is not positioned properly the bonnet can fall.



Before closing the bonnet, replace the support rod in its holder.

Let the bonnet lid drop from a height of about 20 cm instead of pressing it down.

## HEADLIGHTS

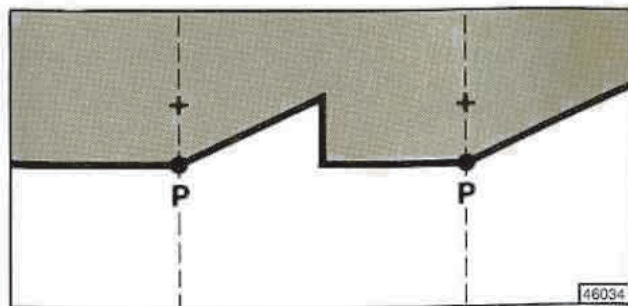
### Aligning the headlights

Proper headlight alignment is fundamental for safe vehicle operation and the safety of other drivers. Be careful not to violate headlight alignment regulations.

The car should be parked **unladen** with the tyres at the recommended pressures (see table on the inside front cover) on level ground in front of a light coloured wall in the shade.

Ensure the levers comprising screws A of both headlights are turned to **position 1**.

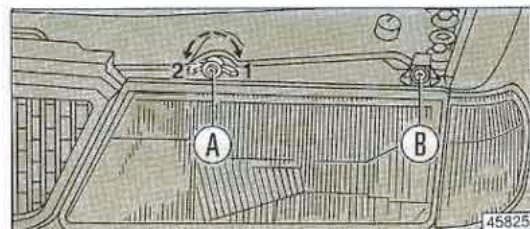
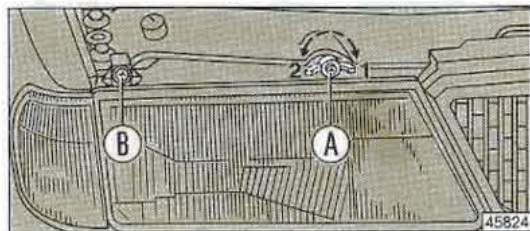
Draw two crosses on the wall corresponding to the centres of the beams.



Back up the car 10 metres from the wall. The dipped beams should lie at points P-P, which must correspond to 1/10 the distance of the crosses from the ground.

Use screw A incorporated in the lever to make vertical (up/down) adjustments. Use screw B to make horizontal (right/left) adjustments.

Headlight alignment as described here complies with the Italian Motor Vehicle Code. Ensure the headlight pattern you use complies with local regulations.



The levers incorporating screws A are used to select the proper headlight position depending on the load the car is carrying.

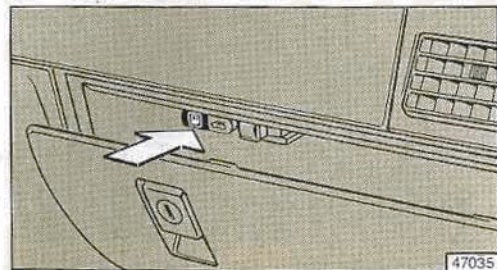
- 1 - Position for light loads.
- 2 - Position when the car is fully laden.

**Both headlight load compensation levers should always be in the same position: 1-1 or 2-2.**

## FILLING THE FUEL TANK

### Fuel filler cap

The filler cap is behind a small door that locks automatically when the car doors are locked. To open the small door it is necessary to press the relevant button in the glove compartment.



When filling the tank the tip of the cap can be placed in hole in the door.

### Note

The fuel tank is pressurized to prevent the evaporation of fuel. The sound of air escaping when opening the cap is normal.

### Fuels

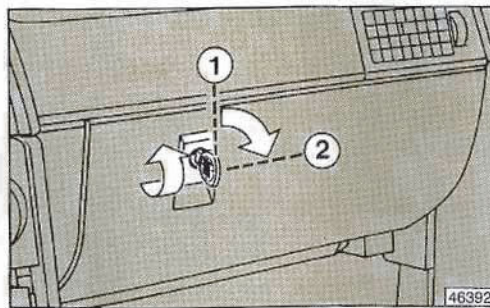
Either leaded or unleaded fuel can be used in petrol engines. The petrol should have a minimum octane number of 95. See p. 75 for driving cars with diesel engines in very cold climates.

## ACCESSORIES

### Glove compartment

Lift the latch after unlocking the glove compartment (key in position 1).

When you open the door a light will turn on.



The boot unlocking button is located inside the glove compartment.

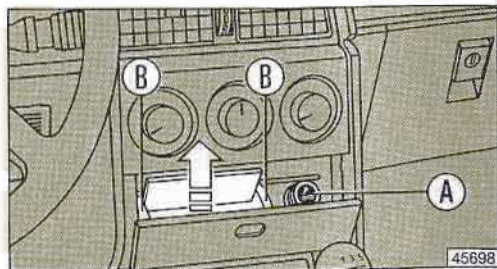
Lock the glove compartment by turning the key to position 2. Remember to lock the glove compartment when you want to give access to the passenger compartment, but not the boot (refer to p. 63).

## ACCESSORIES

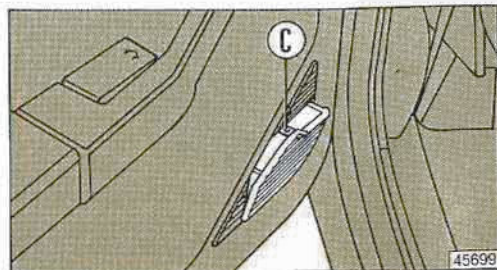
### Cigarette lighter and ashtray

The cigarette lighter and ashtray are located under a single door above the radio housing. Press and release the edge of the door to gain access to the lighter and ashtray.

Press cigarette light button A fully in; after about 15 seconds the button automatically pops out; the lighter is ready to use. To remove the ashtray for cleaning, pull it up on sides B.



Both of the rear doors have ashtrays in the lower part of the trim panel. These ashtrays can be removed by pressing spring

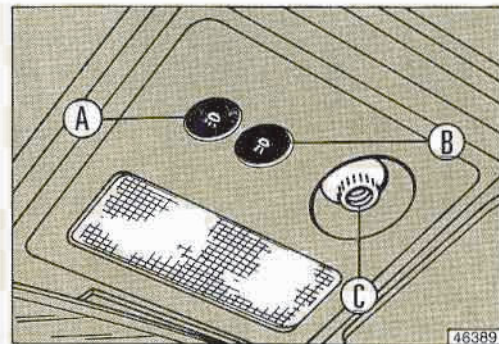


C down and pulling outwards.

### Interior lights

#### Front courtesy light

This fixture provides diffused light whenever one of the front doors is opened. To turn on when the doors are closed press button A.



Use button B to turn on adjustable map light C (the doors may be open or closed).

Both the courtesy and map lights can be turned off by pressing the buttons a second time.

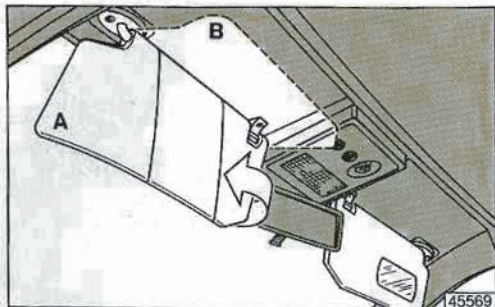
#### Rear courtesy light

Turn on and off by pressing the lens at the circular recess. If your car has the remote locking feature, press the lens on the side nearest the receiving unit's red LED.

## ACCESSORIES

### Sun visors

The visors can be swung down or up (positions A or B). The visors can also be swung around to the side windows.



A vanity mirror is located on the back of the passenger's sun visor. A document pocket is fitted on the back of the driver's visor.

### Luggage/ski rack

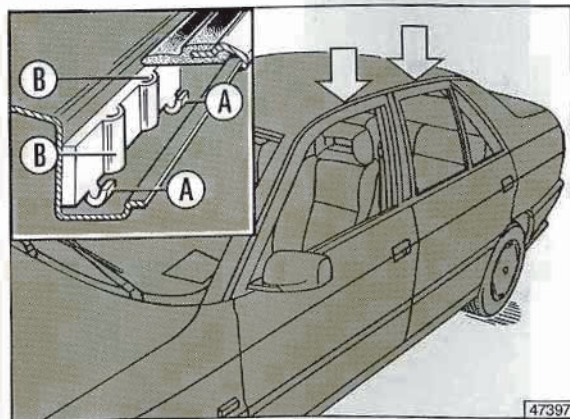
Your car is designed to have a luggage/ski rack bolted on. Attach the rack fasteners to the four brackets welded to the car's roof panel drip channels (see figure).

The luggage brackets are not visible because the channel is covered by a strip with a central stainless steel band. Lift the rubber lip of the weatherstripping pointing towards the car's centreline.

Place the metal plate representing the fixed section of each support over the two bent wings A; hook the end of the tie bracket into the bottom edges of the two cylindrical lobes B; tension the tie bracket with the screws provided.

Once the rack is fitted, the weatherstrip should lie by the side of the rack supports, not crushed at the bottom of the drip channel.

The roof rack bolts should be checked after driving a few miles for safety reasons.



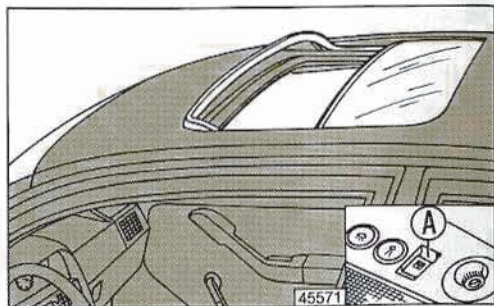
### Storing skis in the boot

Refer to p. 62.

## SUN ROOF

### Opening and closing

Press rocker switch A at the front or back edge depending on whether you wish to open or close the sun roof.



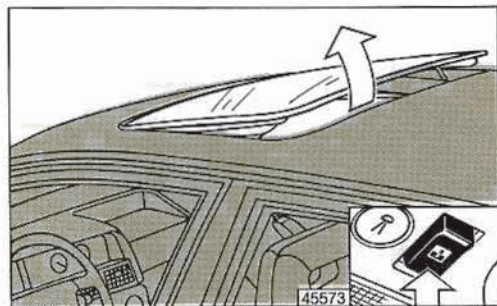
When the sun roof is closed or partially open, you can manually position the louver below it to shade the passenger compartment from direct sunlight.

The louver is pulled completely back into the roof panel when the sun roof opens fully. When the sun roof is closing the louver will close partially. Slot B can be used to position it as desired.

### Raising the back of the sun roof

When the sun roof is completely closed press the front of the rocker switch.

If the roof is open and you wish to raise the back, press the switch to close it. Release the switch and press it again.



To return to the horizontal position press the back of the switch.

### Emergency operation

If power is not supplied to the roof, it can be operated manually using the the "T" tool supplied. Behind the sun roof switches there is a bushing covered by a black plastic cap. Place the tool in the bushing and rotate it until the roof moves to the position desired. You **must** rotate the tool in the opposite direction about half a turn until you hear a click.

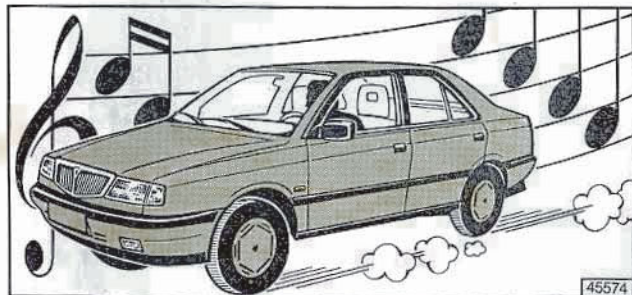
The black plastic cover should be pried off at one of its sides using a screwdriver.



## RADIO

### Factory-installed wiring and housings

You may easily put a stereo system in the car thanks to the factory-installation of all the wiring, as well as the radio and speaker housings.



Wiring is present for installation of a stereo or quadriphonic system.

### Installation

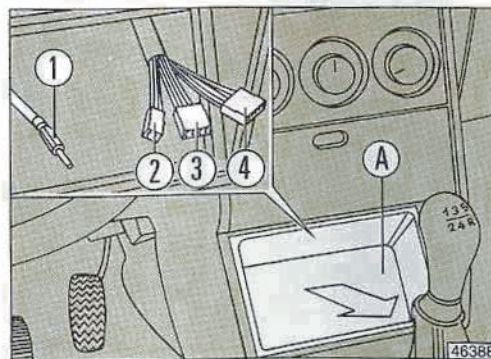
Installation schematics can be found in the Appendix of this handbook.

The radio should be put in the housing presently occupied by oddment tray A.

Remove the tray and replace it with the housing supplied.

Both the tray and housing are fastened with two screws located in the top inner wall.

Once you remove the tray the following will be visible:



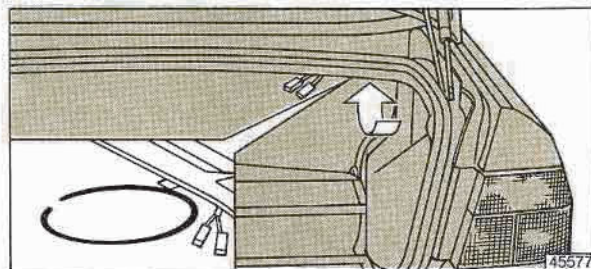
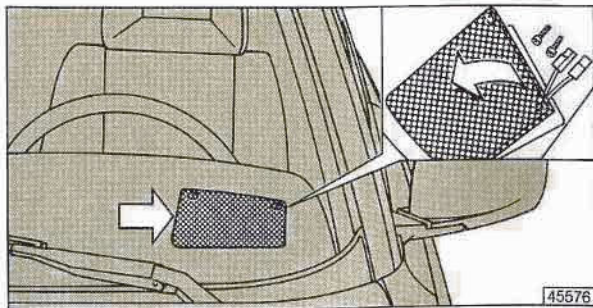
- 1 - Coaxial cable for the antenna.
- 2 - Three-wire terminal (insert a two blade connector):  
red power supply cable;  
two black ground cables connected together.
- 3 - Four-wire terminal:  
white-black and red-black leads for the front left channel;  
pink-black and violet-black leads for the front right channel.
- 4 - Five-wire terminal:  
orange and orange-white leads for the rear left channel;  
light blue and light blue-black leads for the rear right channel;  
red-green leads for power antenna (if fitted).

## RADIO

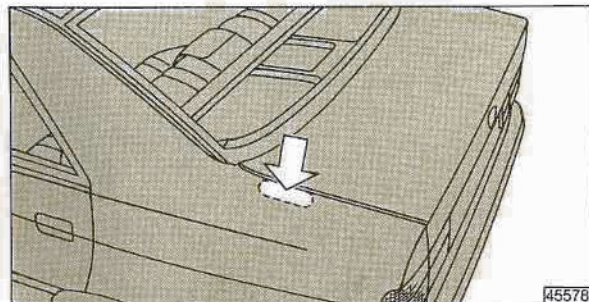
We recommend you to use the special connectors available as "original spare parts" which ensure a proper fit with the factory-equipped terminals.

The front speakers should be placed in the housings at the sides of the instrument panel.

Remove the grille fastened by two screws and two tabs. After removing the hex-head screws (use an Allen wrench), lift the grille using a screwdriver placed under the same side you removed the screws from.

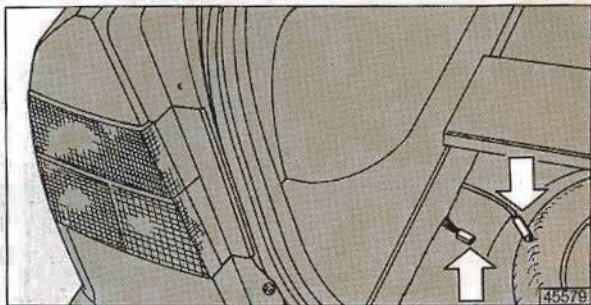


The rear speakers should be installed under the rear shelf. The cabling can be reached from the boot. Drill a hole in the upper surface of the rear side panel to install the antenna.



## RADIO

The coaxial cable connector and three wires (insert a two blade connector) for power antenna operation are under the left wheel arch. Lift up the spare wheel housing cover and rug lining the floor of the boot.



# DRIVING YOUR CAR

	<b>Page</b>
<b>Starting the engine</b>	<b>74</b>
<b>Gearshift lever</b>	<b>76</b>
<b>Safety and comfort</b>	<b>76</b>
<b>Fuel econom</b>	<b>77</b>
<b>Tow hitch</b>	<b>78</b>

## STARTING THE ENGINE

---

Place the gearshift lever in neutral and fully depress the clutch pedal – especially during cold weather – to prevent the starter motor from turning the transmission shaft.

Power accessories (air conditioner, rear screen heater, wind-screen wipers, etc.) automatically turn off when the car is being started.

The ignition switch has a non-repeating safety feature. If the engine does not start immediately, the key must be turned back to STOP before repeating the starting procedure.

When the engine is not running do not leave the ignition key in the MAR position.

**Never run the engine in an unventilated area. Exhaust fumes are toxic.**

### *To warm up the engine properly after starting*

- Do not race or rev the engine immediately after starting. During the first few miles the engine cannot give maximum performance.
- Do not warm up the engine for a long time at idle. The car should be driven immediately under low load conditions at moderate rpm's to warm the engine up properly.

### **Petrol engines**



Under all temperature conditions, the injection system control unit automatically meters the optimal fuel mixture so the engine starts rapidly.

- Turn the key to AVV without pressing down the accelerator pedal.

### **Turbo diesel engine**

(Bosch injection system)

### *Cold starting*

- Turn the key to MAR; the heater plug indicator  will turn on.
- Leave the key at MAR until the indicator  turns off. The hotter the engine the sooner this will happen.
- Start the engine while pressing the accelerator pedal fully down immediately after the heater plug indicator light turns off. If you wait before starting the precombustion chamber temperature will drop making starting more difficult.

When the engine is still cold the idle speed is automatically kept at a higher speed to improve engine operation.

## STARTING THE ENGINE

---

### *Hot starting*

Wait until the indicator  turns off and then start the engine without pressing down the accelerator pedal.

### *When the outside temperature is very low*

When the outside temperature is around  $-10^{\circ}\text{C}$  the paraffins present in diesel fuel may separate increasing fuel viscosity. This causes a reduced rate of flow leading to fuel supply problems when starting and shortly thereafter.

To prevent these problems we recommend mixing **Tutela "Diesel Mix"** with the diesel fuel (or other similar products) according to the instructions given on the can. This product ensures optimal fuel supply to the engine with affecting performance, even at temperatures below  $-20^{\circ}\text{C}$ .

**Tutela "Diesel Mix"** must be added to the fuel before paraffin separation phenomena begin otherwise it will have no effect.

Add **Tutela "Diesel Mix"** to your fuel tank before refilling it.

If you are planning on travelling between areas having a considerable difference in temperature (e.g., from the seaside to the mountains), it is a good idea to fill the fuel tank where the temperature is lowest.

### **Emergency starting** (petrol and diesel engines)

If the engine does not start (battery is dead or temperature is extremely low), use another battery with the same amperage rating or slightly higher than your car's battery to start the engine (see p. 139).

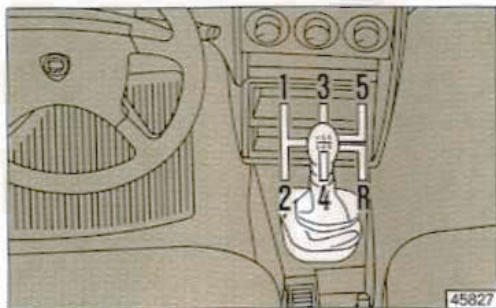
Connect the two batteries as illustrated on p. 95.

It is inadvisable to start the car by pushing or bump-starting. However, if it is absolutely necessary to use these methods follow this procedure:

- Engage 3rd or 4th gear;
- Do not exceed 40 km/h (25 mph) even when coasting downhill.
- Release the clutch pedal gradually.

The gears can be engaged by moving the lever according to the pattern shown in the figure (gear positions are also shown on the lever handle).

The car must be stationary to engage reverse (R) gear. From the neutral position move the gearshift lever to the right and down.



Move the gearshift lever only when the clutch pedal is pressed down. The area under the pedals should be kept clear of any object that could obstruct pedal travel. Always ensure the carpets lay flat on the floor and do not interfere with the pedals.

### Suggestions

- Adjust the seat, steering wheel angle and mirrors to suit your stature. Buckle your seat belts.
- Long trips should be taken at times when traffic is at a minimum, especially during the summer. Never drive for too many hours in a row. Take frequent rest stops, during which you should try to get a little exercise. Eat light meals when travelling for better concentration and quicker reflexes.
- Use the heating and ventilation system (or air conditioner) to provide a constant exchange of air.
- When driving at night ensure the headlights are properly aligned. If adjusted too low, visibility is poor and eye fatigue can occur. Headlights aligned too high will disturb those driving in front of you or coming the opposite direction. The latter is usually a violation of local motor vehicle regulations.
- Do not coast with the engine switched off. In addition to a lack of engine braking, the servo does not operate requiring considerably more foot pressure on the brake pedal.
- After driving which heavily taxes the engine, let the car idle for a few minutes until the coolant temperature starts to drop before switching off the engine.

## FUEL ECONOMY

You can save fuel without sacrificing performance if you adopt the following recommendations when driving:

- Do not race the engine when waiting at traffic lights, or accelerating too rapidly when moving off.
- Double-clutching and pressing the accelerator pedal before stopping the engine are unnecessary, and can damage turbocharged engines.
- Do not drive with the accelerator pedal "floored". Never exceed two-thirds of the maximum speed for each gear to keep fuel consumption low.



- Whenever possible shift to a higher gear.

- Do not leave the engine idling for longer than necessary.



- Fuel consumption increases when the tyres are underinflated and the windows are left open. Underinflating the tyres will cause them to wear irregularly and prematurely.
- Remove the roof rack when you are not using it.
- When driving slowly in traffic use accessories that have high power requirements (rear screen heater, fog lights, maximum fan speed, etc.) for as short a time as possible. This is to prevent an excessive drain on the battery when the alternator is recharging at a lower rate.
- Take care of your car – especially the engine – by performing the operations described in the "Service Schedule Maintenance Program".



## TOW HITCH

### General information

Your car must be fitted with an approved type of tow hitch, and the electrical system has to be appropriately modified (see instructions in the following paragraphs).

It is also necessary to fit rearview mirrors on the front wheel arches.

Remember that gradeability will drop when towing a trailer.

When driving downhill use a low gear instead of braking constantly.

Remember that the load on the tow hitch reduces the car's payload.

Maximum towable weight means the weight of a fully laden trailer including accessories and luggage.

Ensure the trailer's weight is under the maximum permissible weight indicated on the vehicle registration papers.

### Installing a tow hitch

The tow hitch must be bolted to the body according to the drawing provided on p. 80.

Use one of the following couplings:

- Ball coupling "CUNA 501" (CUNA NC 138-30 standard).
- Socket coupling "CUNA 501" (CUNA NC 438-15 standard).

Electrical connections should be made using a 12V 7-pin plug and socket (CUNA NC 165-30 standard).

The electrical connectors can be attached to a bracket fitted next to the tow hitch.

The cabling from this connector must be connected to the car's fuse box at the terminal block identified by the letter "K" stamped in relief.

The direction indicator flasher unit in the fuse box should be replaced with a unit able to handle twice the load (appropriate for three 21 W bulbs).

An indicator light monitoring the operation of the trailer's lights can be connected to power supply terminal 7 of the terminal block marked "H".

# TOW HITCH

In addition to the additional wiring illustrated in the schematic to the right, you may also connect the power supply cable for an electric braking system and an interior trailer light under 15 W.

The electric braking system must be directly connected to the car's battery with cables having a cross section not less than 2.5 mm<sup>2</sup>.

Schematics for tow hitch installation are given on pp. 152-3 of the Appendix.

## Brakes

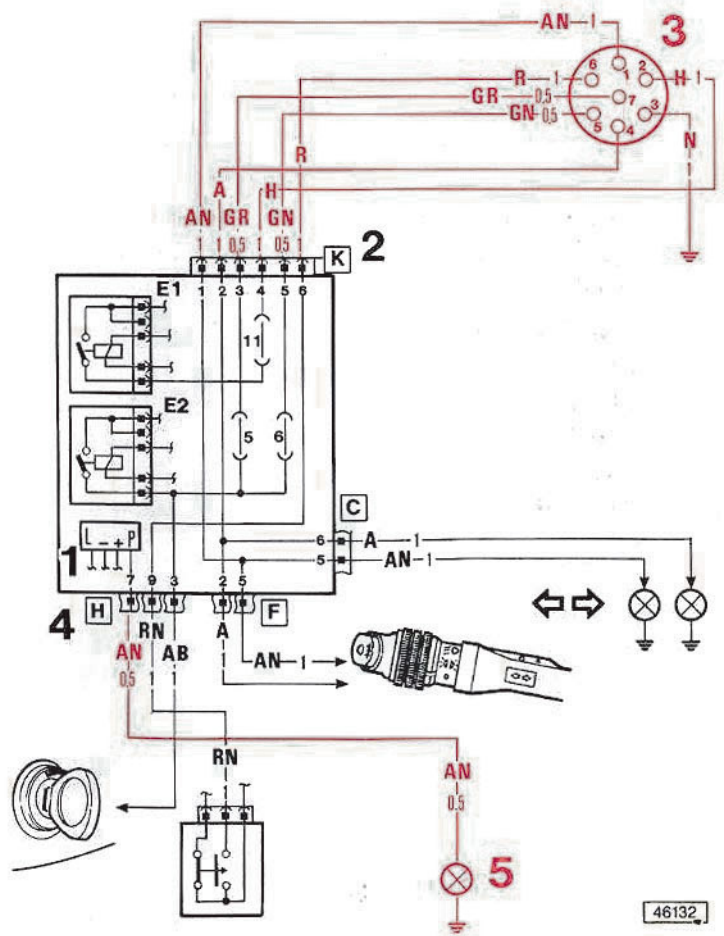
Under no circumstances may the car's braking system be modified to control the trailer's brakes. The trailer's braking system must be entirely independent of the car's hydraulic system.

## Legend for schematic

- 1 - Double-load direction indicator flasher unit.
- 2 - Fuse box terminal block "K".
- 3 - 7-pin connector.
- 4 - Fuse box terminal block "H".
- 5 - Trailer light operation indicator.

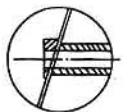
Black lines : factory wiring.

Red lines : additional tow hitch wiring to be performed by the installer.

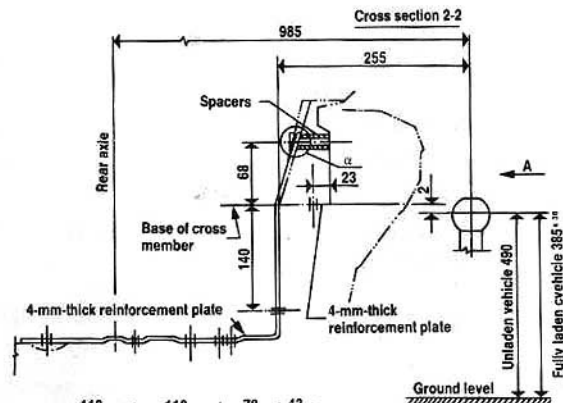
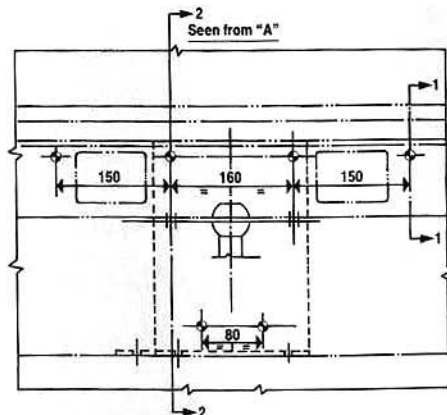
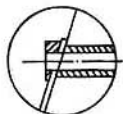



# TOW HITCH

Part of cross section 1-1



Detail of  $\alpha$

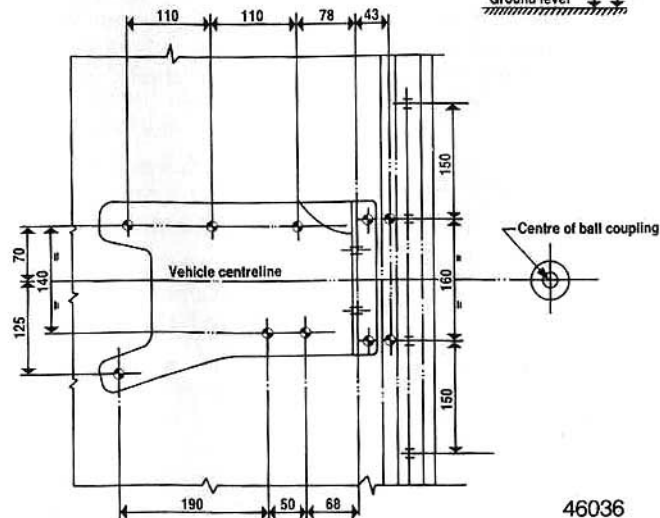


Bolt the tow hitch to the car's body at the points indicated  with 16 M 10 x 1.25 bolts.

NB: The tow hitch installer is required to attach a clearly legible plate at the same height as the hitch. The plate should be made of an appropriate material with the following stamped on it:

**MAXIMUM LOAD AT THE COUPLING 84 kg** (for vehicles with a maximum permissible trailer weight of 1200 kg).

**MAXIMUM LOAD AT THE COUPLING 90 kg** (for vehicles with a maximum permissible trailer weight of 1300 kg).



## WHAT TO DO IF...

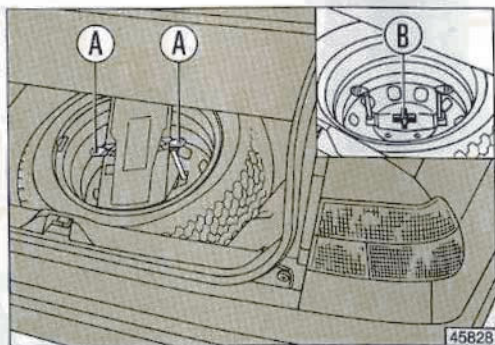
	Page
...a tyre is punctured	82
...an exterior light burns out	85
...an interior light burns out	90
...a fuse blows	92
...the battery is dead	95
...the car has to be jacked up	96
...the car has to be towed	97

## ...A TYRE IS PUNCTURED

### Wheel changing

Park the car on firm level ground. Engage 1st gear or reverse, then pull up the handbrake to lock the rear wheels. Use wedges or rocks to keep the car from moving, especially when changing a wheel on a grade.

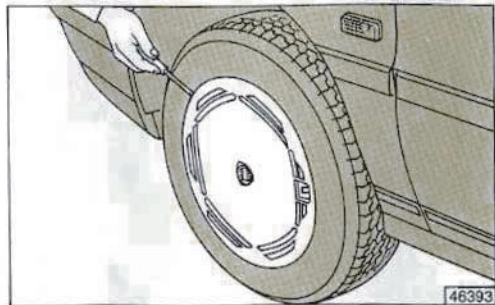
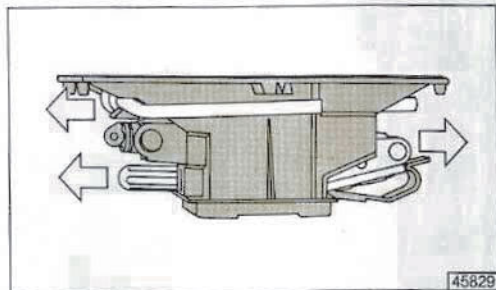
The spare is located in a recess under the floor of the boot. Lift the cover and remove the tool kit held inside the rim by two elastic bands A.



Unscrew fastener B and then remove the wheel.

Pull the twin-blade screwdriver, wheel spanner and jack out of the tool kit.

For cars equipped with alloy wheel rims the tools are contained in a bag.

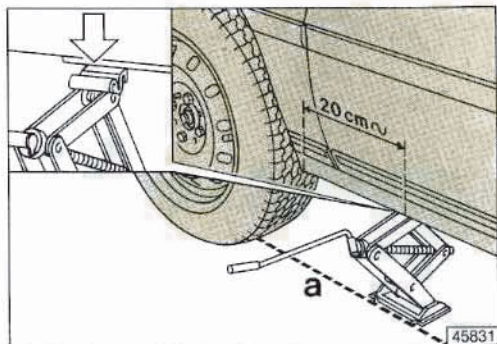


Remove the wheel cover by prying it off using the screwdriver placed under the flat edge.

## ...A TYRE IS PUNCTURED

Loosen the wheel bolts by about one turn.

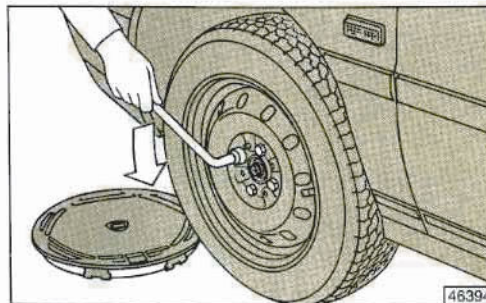
Turn the jack handle to partially raise the jack. Position it so its grooved support fits under the car's side member near the wheel needing replacement (about 20 cm from the wheel arch).



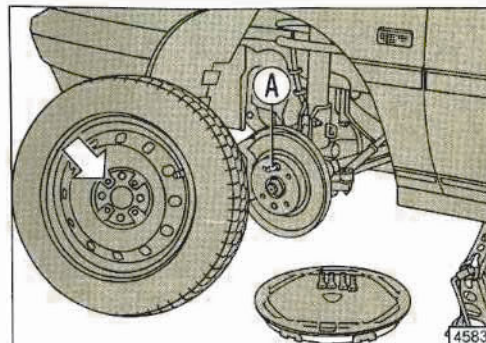
The jack is correctly positioned when the outer edge of its base lies along an imaginary line "a" joining the centreline of the front and rear tyres.

Raise the car until the wheel is a couple of centimetres off the ground.

Unscrew the four wheel bolts previously loosened and then remove the wheel.



Place the spare on the hub ensuring centring peg A fits into one of the symmetrically arranged reference holes in the rim.

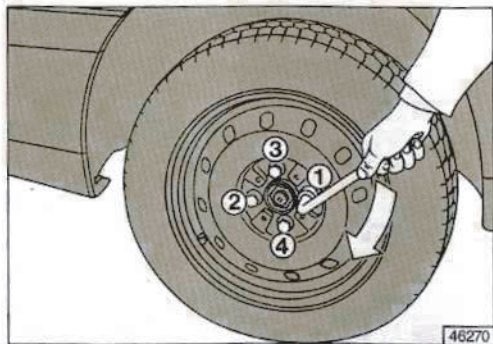


## ...A TYRE IS PUNCTURED

Place the four bolts in the spare and then tighten them.\*

Lower the car and remove the jack.

Fully tighten the bolts evenly proceeding in a criss-cross fashion as illustrated in the figure.



Replace the wheel cover ensuring it is correctly positioned with respect to the inflation valve.

After driving about 100 km recheck the wheel bolts to make sure they are properly tightened.

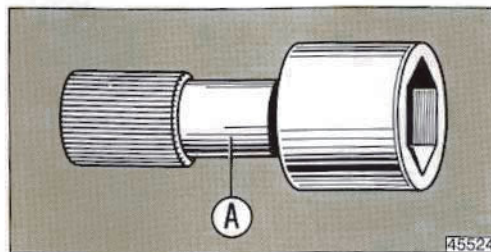
Before replacing the jack, turn the handle until it is completely lowered.

### Important

Use the jack for wheel changing only. Under no circumstances should it be used to raise the car for underbody repairs.

If you wish to install rims that are different from the factory-mounted rims, ask your dealer first. Only authorized spare parts are guaranteed to fit and operate properly.

Whenever you check the tyre inflation pressures, check the spare too. It should always be inflated to the same pressure as the front tyres.



\* If your car has been factory-equipped with light alloy wheels, extension A is provided in the tool kit to facilitate removal of the wheel bolts.

## ...AN EXTERIOR LIGHT BURNS OUT

### General information

- If a light does not illuminate, check the fuse protecting the circuit before replacing the bulb.
- Replace bulbs that have burned out with others of the same type and wattage.

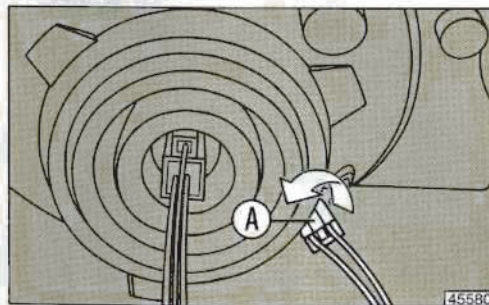
- **Always handle halogen bulbs by the metal base. If you touch the glass portion the bulb's life will be considerably shortened.**

If accidental contact does occur, clean the bulb with a rag moistened with alcohol and let it dry completely. The headlights and front fog lights use halogen bulbs, so be particularly careful when replacing them.

- On some versions it may be necessary to partially disconnect or remove other vehicle components (e.g., the air cleaner intake hoses) to facilitate bulb removal and replacement. All these operations are extremely simple to carry out.

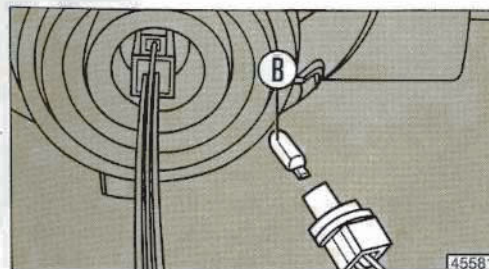
### Replacing the front side light bulbs

Turn bulb holder **A** and then remove it from the main headlight parabolic reflector.



Capless bulb **B** is pressed in. Pull it to remove it.

Insert the new 12V/5W bulb.



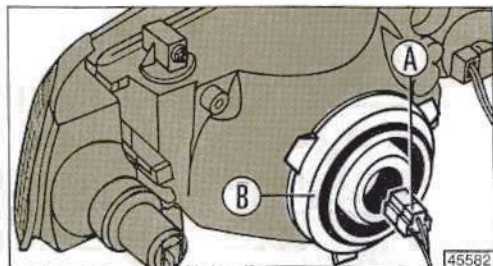
To refit the bulb holder, turn it clockwise holding against its housing.



## ...AN EXTERIOR LIGHT BURNS OUT

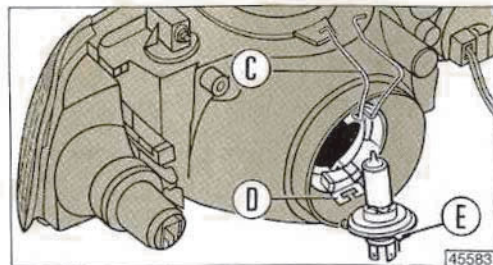
### Replacing the main headlight bulbs

Disconnect connector A and remove rubber boot B.



Pull back bulb holder retention clip C from slot D.

Remove the bulb needing replacement.

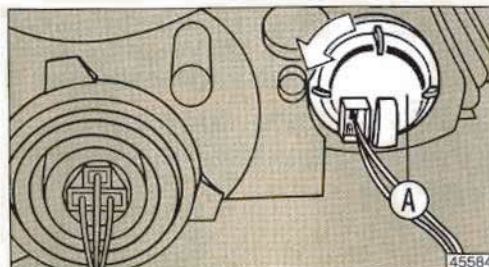


Insert the new bulb which is automatically positioned when tabs E of the metal base fit into the recesses present in the parabolic reflector.

**Careful: halogen bulb** (H4, 12 V - 60/55 W).

### Replacing the high beam headlight bulbs

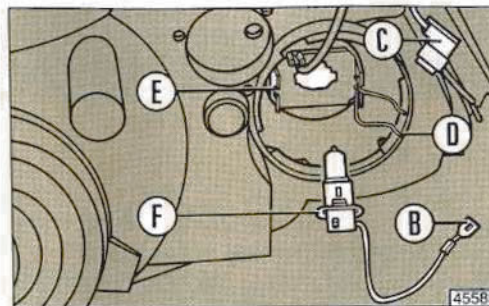
Turn cover A counterclockwise. It is not necessary to remove the external connector.



Remove power supply blade connector B from socket C.

Release the edges of spring clip D from the slots in plate E and swing back the clip.

Remove the bulb.



Insert the new bulb. The slots in circular metal base F en-

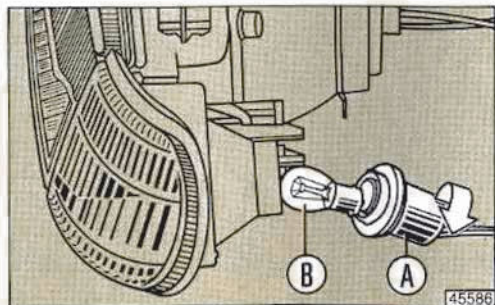
## ...AN EXTERIOR LIGHT BURNS OUT

sure the bulb is correctly positioned.

**Careful: halogen bulb (H3, 12 V - 55 W).**

### Replacing the front direction indicator bulbs

Turn bulb holder A counterclockwise.



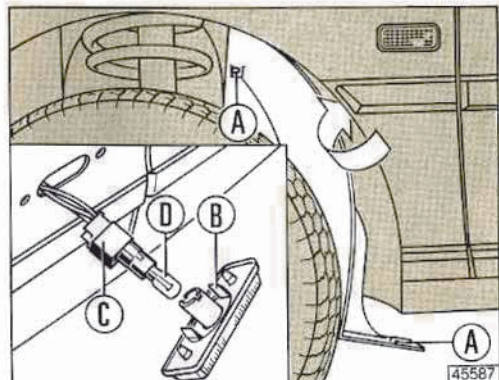
Bulb B has a bayonet base. It can be removed by rotating partially and then pulling it out.

Insert the new 12V/21W bulb.

### Replacing the direction indicator repeater bulbs

Unscrew the two fasteners holding the wheel arch liner in place located in holes A.

Pull back the liner. From inside the wheel arch, press tabs B together and pull the repeater lamp unit out.



Pull out bulb holder C which is press-fitted in the unit. Capless bulb D can be easily pulled out of its holder.

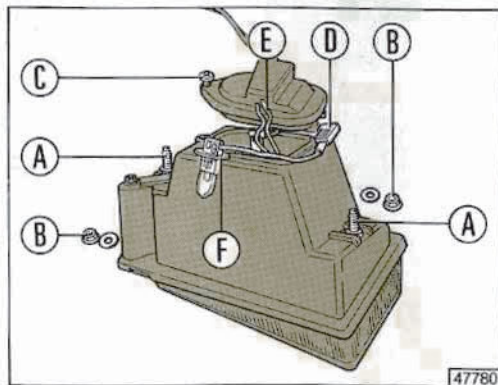
Press in a new 12V/5W bulb.

## ...AN EXTERIOR LIGHT BURNS OUT

### Replacing the front fog light bulbs

To have access to the bulb remove the entire light unit from the housing. Working from inside the engine compartment, identify the two studs A and unscrew the two nuts B with an 8 mm box wrench; then push the light unit forwards. Remove screw C to take off the bulb cover. Disconnect the blade terminal wire from connector D. Release the ends of bulb retention clips E and remove the bulb.

Release the ends of bulb retention clips E and remove the bulb.



Insert the new bulb. The slots on circular metal base F ensure the bulb is correctly positioned.

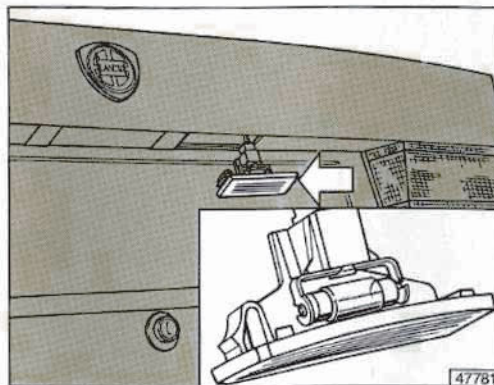
**Careful: halogen bulb (H3, 12 V - 55 W).**

### Replacing the number plate bulbs

Remove the lens which contains the bulb holders by placing a screwdriver at the points indicated by the arrows in the figure.

#### Important:

To avoid damaging the lens while removing it, it should be pushed to the left, never to the right, for both light units.

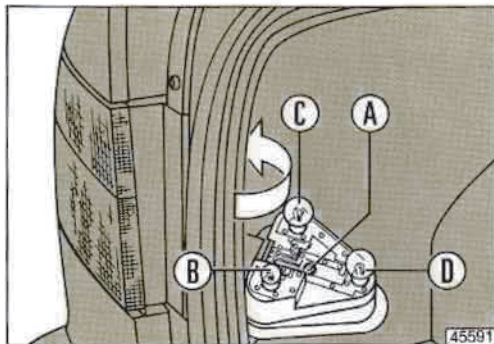


Replace the 12V/5W tubular bulb.

## ...AN EXTERIOR LIGHT BURNS OUT

### Replacing the taillight, rear direction indicator and stop light bulbs

From the inside of the boot, pull out the entire unit after removing the screw located at hole A.

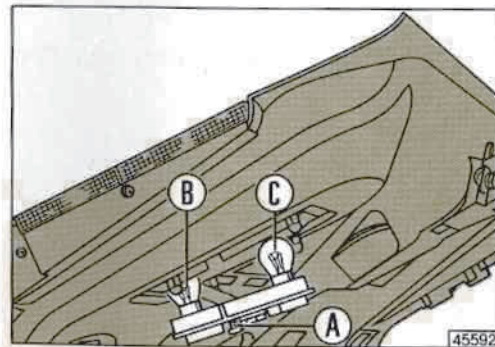


The bulbs are all spherical with a bayonet base.

- B. 12V/5W taillight bulb.
- C. 12V/21W stop light bulb.
- D. 12V/21W direction indicator bulb.

### Replacing the reverse and rear fog-guard light bulbs

From the inside of the boot, remove the unit's protective cover by unscrewing the two nuts. Unscrew screw A and remove the entire unit.



Both bulbs are spherical with a bayonet base.

- B. 12V/21W reverse bulb.
- C. 12V/21W rear fog-guard light bulb.

## ...AN INTERIOR LIGHT BURNS OUT

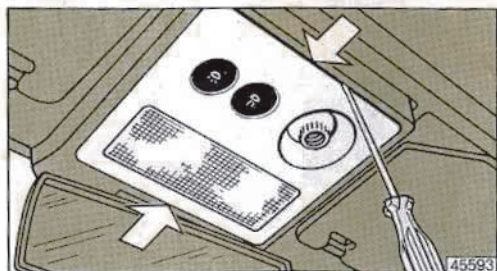
### General information

Refer to the left column of p. 85.

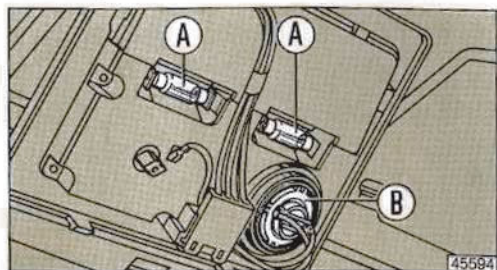
### Replacing the front courtesy light bulbs

#### *Versions without sun roof*

Remove the entire courtesy light unit by placing a screwdriver exclusively at the points indicated in the figure (never try to pry it out from the sides).



Turn the unit upside down.



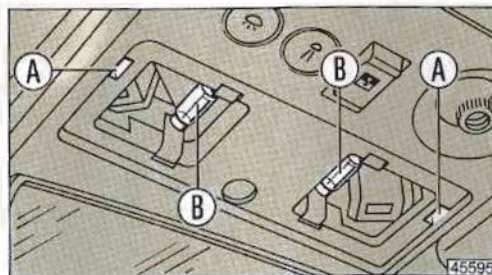
- A. 12V/5W tubular bulbs.
- B. Spot light bulb holder (snaps in). Pull it out. The 12V/5W

capless bulb can be pressed into the holder.

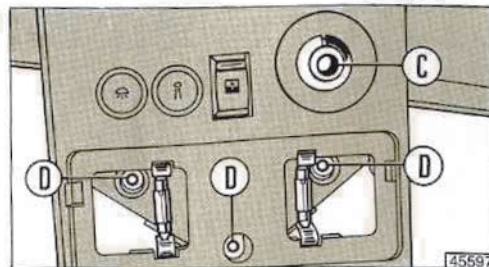
#### *Versions with sun roof*

Remove the lens by placing a screwdriver in slots A located on the sides.

B. 12V/5W tubular bulbs.



To replace the bulb of adjustable spot light C, remove the entire courtesy light unit and turn it upside down. The screw fasteners are located in holes D.



The spot light bulb holder snaps in place. Pull to remove it.

## ...AN INTERIOR LIGHT BURNS OUT

The 12V/5W capless bulb should be pressed into the holder.

### Replacing the rear courtesy light bulb

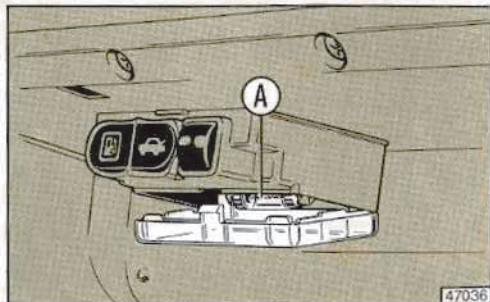
Remove the entire unit prying it out with the screwdriver supplied in the tool kit.

Replace the 12V/5W tubular bulb.

*Important:* Place the screwdriver under the frame, not the lens, to prevent breakage.

### Replacing the glove compartment light bulb

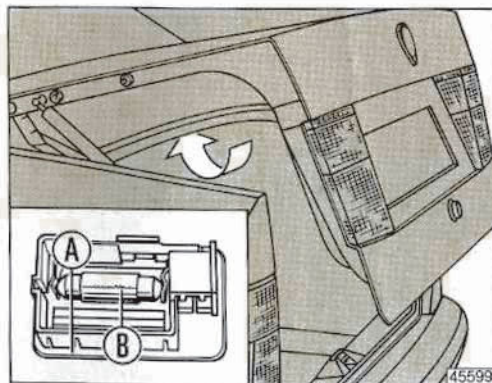
Remove the lens which also contains the bulb holder by pulling downwards while pressing slightly on the same side as the switch es.



A. 12V/5W tubular bulb.

### Replacing the boot light bulb

Remove the lens comprising the bulb holder by placing a screwdriver under edge A (longer side).



B. 12V/5W tubular bulb.

## ...A FUSE BLOWS

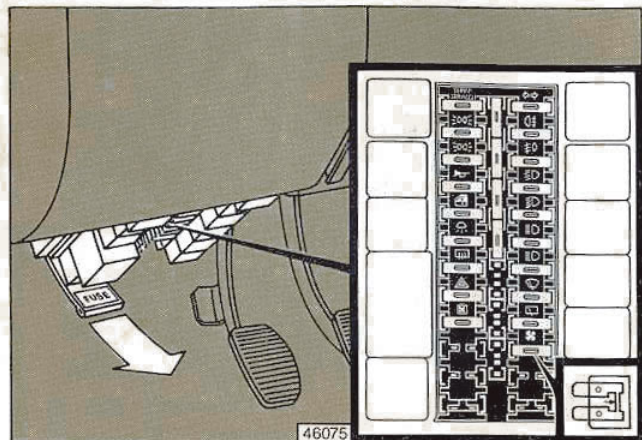
If any device fails to operate, check the fuse that protects its circuit (the conductor should not be melted). Replacement fuses should always have the same amperage rating as the fuse which has blown.

**Before replacing a fuse try to identify and rectify the cause of the failure.**

The amperage of each fuse is stamped on it.

### Fuses (in main fuse box)









The fuses protecting most of the circuits are located in a fuse box under the dashboard to the left of the steering column. Pull the lever marked "FUSE" to gain easy access to the fusebox.












A symbol indicating the main circuit protected by each fuse is stamped above it.

Four spare fuses of different amperage are located at the top centre of the fuse box.

### SERVIZI SERVICES

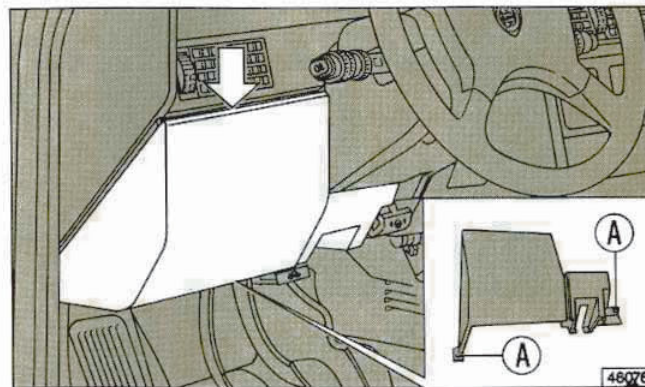
- |  |  |
|--|--|
|   | 10 A Check panel power supply, windscreen washer pump, rear screen washer pump, reverse lights, steering column switch complex lighting. |
|   | 10 A Check panel illumination, left taillight, right number plate light, right front side light, left taillight for trailer.             |
|   | 10 A Illumination of controls, right taillight, left number plate light, left front side light, right taillight for trailer.             |
|   | 20 A Horns, cigarette lighter, stop lights.  |
|   | 20 A Power locks.  |
|   | 7.5 A Interior lighting.   |
|   | 20 A Rear screen heater and indicator, door mirror defogging elements (if fitted).   |
|  | 10 A Hazard warning lights.  |

## ...A FUSE BLOWS

-  25 A Radiator fan.
-  7.5 A Direction indicators, right power door mirror (if fitted).
-  7.5 A Rear fog-guard lights and indicator.
-  20 A Front fog lights and indicator (if fitted).
-  10 A Right low beam headlight.
-  10 A Left low beam headlight.
-  10 A Left high beam headlight and indicator.
-  10 A Right high beam headlight.
-  20 A Windscreen wiper.
-  20 A Rear screen wiper, power sun roof (if fitted).
-  20 A Heater fan.

### Fuses located on the auxiliary panel

The fuses for special devices (options or part of special versions) are located on an auxiliary panel to the left of the main fuse box. This panel also contains the relays for a number of devices; some fuses are incorporated in the relays.

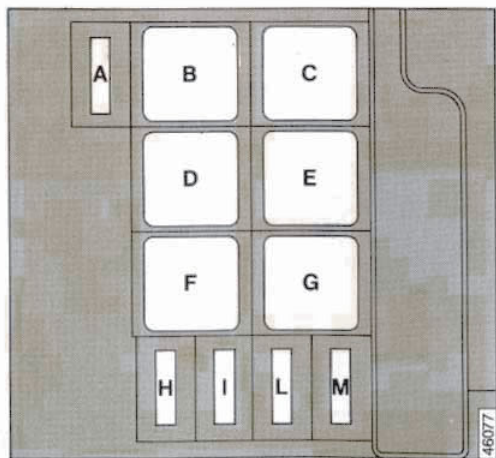


Remove the cover fastened at points A with two Phillips-head screws to reach the panel.



## ...A FUSE BLOWS

The diagram below illustrates the arrangement of the fuses and relays as seen from the driver's seat.

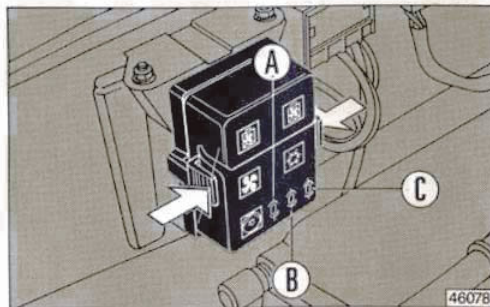


- A. 7.5 A fuse for low beam headlamp dimmer (for countries where headlights must be permanently on).
- B. Relay for low beam headlamp dimmer or diesel fuel filter heater.
- C. Radiator fan relay (1st speed only for versions equipped with air conditioning).
- D. Relay with 20 A fuse for the adjustable damping system.
- E. Relay with 30 A fuse for power sun roof.
- F. Headlamp wiper relay switch.
- G. Remote control power locking system relay.

- H. 30 A fuse for power seat adjustment.
- I. 25 A fuse for rear power windows.
- L. 10 A fuse for ABS (2.0 i.e./2.0 turbo ds versions) or 5 A for ABS (1.6 i.e./1.8 i.e. versions).
- M. 25 A fuse for front power windows.

### Fuses located in the engine compartment

If the car is equipped with air conditioning, the fuses and relays for the system components are housed in a container fastened against the engine compartment bulkhead. Press the two tabs on the sides of the container at the same time to pull off the cover.



These fuses protect:

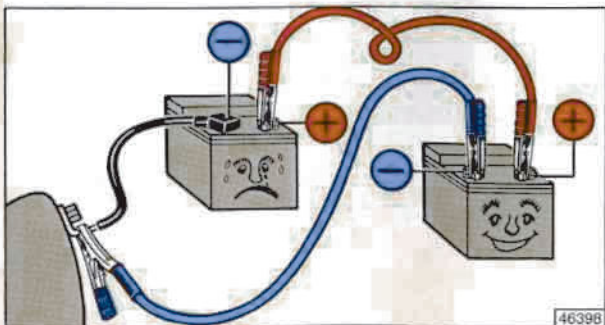
- A. 30 A (blade fuse): Ventilator fan.
- B. 40 A (blade fuse). Radiator fan.
- C. 15 A: Electromagnetic compressor clutch.

## ...THE BATTERY IS DEAD

### Jump starting

If your car's battery has lost its charge, the engine can be started using another battery having an equal or slightly higher rating than the car's battery (refer to p. 139). Use the following procedure:

- Connect the two positive posts with a jumper cable.
- Connect the second jumper cable to the negative terminal post of the battery you will use to start the car to your car's earth cable bracket.



- Start your car. Remove the jumper cables starting with the negative cable clamped to the earth terminal.

Never use a battery charger to start the car.

### Recharging the battery

Follow this procedure:

- Disconnect both cables from the battery.
- Connect the battery charger to the car battery terminal posts, and then turn the charger on.
- When charging is completed, turn the charger off before removing the charger's cables.
- Apply petroleum jelly or other suitable products to the terminal post before reconnecting the cables.

See the chapter regarding the battery in the MAINTENANCE section to prevent discharging the battery and ensuring it operates efficiently for a long time.

**Important:** The battery electrolyte is toxic and corrosive. Avoid contact with skin or eyes.

Recharging must be done in a ventilated area. Never expose the battery to an open flame or sparks.

It is best to use a trickle charger (low amperage for at least 24 hours).

Always remember to disconnect the battery's negative cable before servicing the electrical system.

## ...THE CAR HAS TO BE JACKED UP

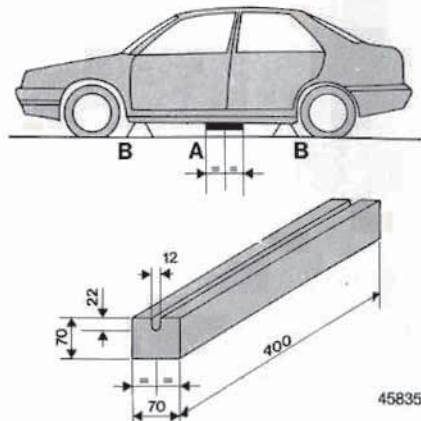
### Using the jack supplied with the car

Refer to the wheel changing procedure on p. 83.

**Under no circumstances should the jack ever be used for under-body repairs. Use it only to change a wheel.**

### Using a hydraulic floor jack

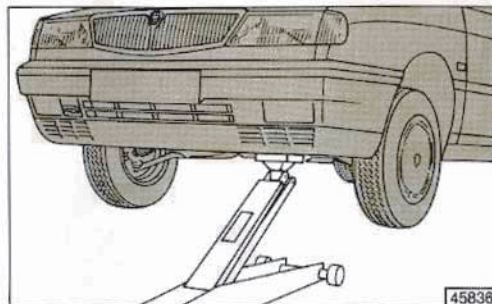
Place a hardwood block (see figure for dimensions) between the jack and the car's body.



Dimensions expressed in millimetres.

The block should be placed at zone A, located under the side member. The groove should be pointing upwards and must be fitted in the longitudinal convexity present in the side member.

After lifting the car, place jack stands under points B.



Versions with petrol engines can be raised from the front. The jack should be placed under the transmission case. Do not use the block previously described, but an appropriately dimensioned board.

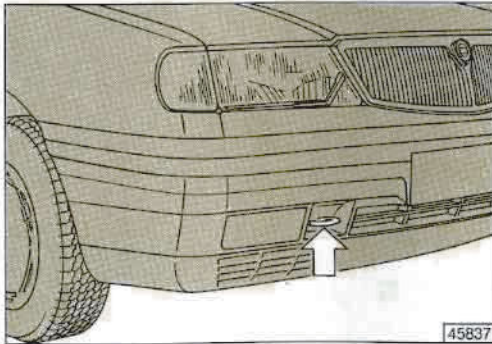
### Using a shop hoist

Ensure the arms of the hoist are positioned in zone B.

## ...THE CAR HAS TO BE TOWED

### Tow eyes

The car is equipped with two eyes to which tow cables can be attached.



The rear eye (similar to the one shown in the figure) can be used to tow another car.

### *Important*

- Respect all the vehicle code regulations regarding towing.
- When towing always leave the ignition key in the MAR position. This will prevent the steering column from locking. Additionally, the brake lights will operate if the electrical system has not been damaged.
- When braking with the engine off greater pressure on the brake pedal is necessary as the servo unit is inoperative.

## WARNING

---

**WARNING** - Some components fitted to your vehicle such as gaskets may contain asbestos minerals.

Breathing asbestos dust is dangerous to your health and you are therefore advised to have any maintenance or service operations on these components carried out by a LANCIA dealer. If, however, work is to be undertaken on parts containing asbestos the following precautions should be observed:



- Work out of doors or in a well ventilated area.
- Asbestos dust found on the vehicle or produced during work on the vehicle should be removed by extraction methods, not by blowing or brushing.
- Dust waste should be thoroughly dampened, placed in a sealed container and marked to ensure its safe disposal.
- If any components containing asbestos need cutting, drilling or grinding the item should be dampened first and only hand-tools or slow-speed power tools must be used.

# MAINTENANCE

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## MAINTENANCE

### Free service coupon

Every new car comes with a free service coupon, which must be used when the vehicle has been driven 1000-1500 km (600-900 miles). The service operations necessary for compliance with the warranty are described in the "Warranty and Service Book" are listed below.

### Checks

#### Check

- tyre wear

#### Check and regulate if necessary

- engine idle speed

#### Check and adjust/lubricate if necessary

- door and boot handles/locks
- closure of doors and boot

#### Check and adjust/align if necessary

- lines and hoses/exhaust silencer

#### Check seals/gaskets, lines and couplings; elimination of leaks and levels topped up if necessary

- engine lubrication
- engine cooling system
- fuel metering system
- brakes
- power steering

#### Check seals, gaskets and boots

- transmission
- differential
- steering system
- drive line
- dampers

### Engine oil replaced

**NB** If the car is equipped with an air conditioner the following are checked:

- compressor belt
- pulley and compressor bolts
- system operation

### Service schedule

Regular maintenance ensures your car will remain in excellent condition for many years to come. LANCIA has elaborated a service schedule listed on the four coupons (charged to owner) in the Warranty Book. Service operations are also described in the "Service schedule operations" tables. If any repairs are found necessary when service schedule maintenance is being performed, the owner's approval is required.

Service schedule maintenance can be carried out by any member of the LANCIA Service Organisation.

**Minor problems such as fluid leaks should be immediately reported to a member of the Service Network. Do not wait until the next service coupon. Maintenance should be carried out at least once a year even if the prescribed mileage has not been driven.**

## MAINTENANCE

### Service schedule operations

Petrol and diesel versions	'000s km			
	20	40	60	80
Check toothed timing belt condition .....		+		+
Check tyre wear and pressures .....	+	+	+	+
Check brake pad wear .....	+	+	+	+
Check condition of rear brake linings .....		+		+
Check condition of pipes (exhaust, fuel, brakes) .....	+	+	+	+
Check condition of rubber parts (boots, gaiters, hoses) .....	+	+	+	+
Check drive belt condition/tension, adjust if necessary .....	+	+	+	+
Check/adjust clutch pedal height .....	+	+	+	+
Check/adjust handbrake lever travel .....	+	+	+	+
Check/adjust headlight alignment .....	+	+	+	+
Replace fuel filter .....	+	+	+	+
Replace air cleaner element .....	+	+	+	+
Check crankcase ventilation system .....				+
Check/adjust valve clearances .....	+		+	
Check radiator fan operation, adjust idle speed .....	+	+	+	+
Check electrical system devices (lights, indicators, warning lights) .....	+	+	+	+
Top up fluids (coolant, brake fluid, transaxle oil, power steering fluid, windscreen washer liquid, etc.)	+	+	+	+
Lubricate door and boot hinges and locks .....	+	+	+	+
Change automatic transmission fluid .....		+		+
Check exhaust emissions .....	+	+	+	+



## MAINTENANCE

Petrol engines only	'000s km			
	20	40	60	80
Replace spark plugs - check plug cables and ignition distributor .....	+	+	+	+
Check condition of balancing shaft toothed belt .....	+	+	+	+
Check electronic ignition/injection systems using the diagnostic plug .....		+		+

### Lubrication servicing

Recommended oils and change intervals are given in the table on p. 143. Follow these suggestions to ensure optimal engine operation.

### Driving under adverse conditions

Adverse driving conditions include driving mainly in urban areas, areas with high dust levels, on mountain roads, in severe climates, at high speeds on motorways, and when towing a trailer.

Under these conditions the "Lubrication servicing" program should be performed at shorter mileage intervals than indicated. The following components subject to wear should also be checked frequently:

- Spark plugs and air cleaner element.
- Front disc brake pads.
- Tyre condition and wear.

## MAINTENANCE

### Additional checks

In addition to carrying out the “Service schedule”, check the following:

*Every 500 km or before long trips*

- Engine oil level
- Coolant level
- Brake fluid level
- Tyre inflation pressures

The following should be changed or replaced:

*Every 60,000 km or 2 years*

- Coolant

*Every 100,000 km*

- Toothed timing belt
- Toothed balancing shaft belt

*Every 2 years*

- Brake fluid

*At 120,000 km*

- Manual transmission oil

The use of “ORIGINAL LANCIA SPARE PARTS” is highly recommended as they are the only components offering the same quality guarantee as factory-installed parts.

Use FIAT oil – it’s been used in your car’s engine since assembly.

## CHECKING FLUID LEVELS

### Engine oil

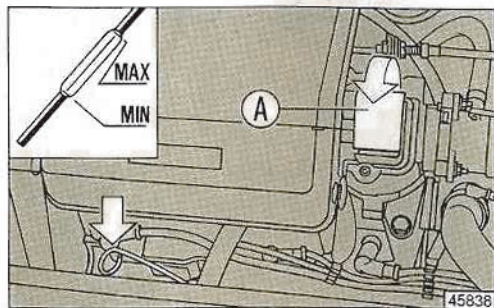
Check the oil when the car is on level ground about 10 minutes after stopping the engine.

Keep the oil level between the MIN and MAX marks on the dipstick.

When the level is near or under the MIN mark, top up until reaching MAX. Fill through the oil filler hole after removing cap A.

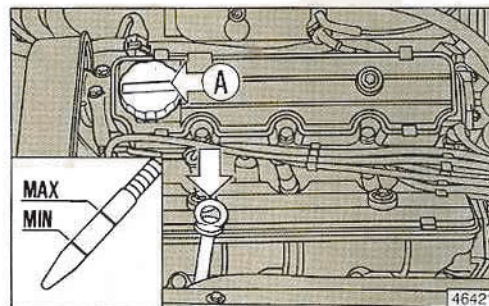
The difference between the MIN and MAX marks corresponds to about a litre of oil.

Never fill above the MAX mark.

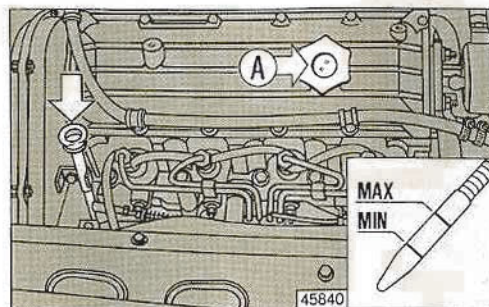


Dedra 1.6 i.e.

Remove cap A on the Dedra 1.6 i.e. by pulling from the top.



Dedra 1.8 i.e. - Dedra 2.0 i.e.



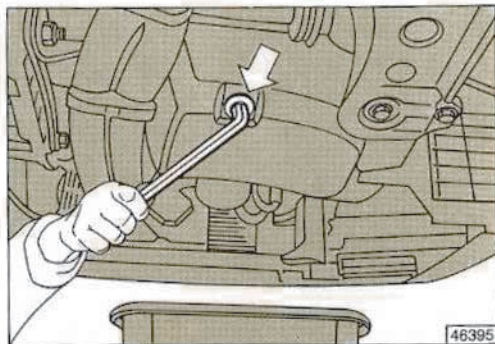
Dedra 2.0 turbo ds

Whenever you top up or change the oil, run the engine for a couple of seconds, wait a couple of minutes and check the level again.

## CHECKING FLUID LEVELS

The oil can be drained by removing the sump plug. Let the oil drain for about 10 minutes.

Oil draining will be facilitated if you remove the filler cap and dipstick.



**The oil should be drained when the engine is hot.**

In the Dedra 2.0 turbo ds, remove the sump guard to reach the plug.

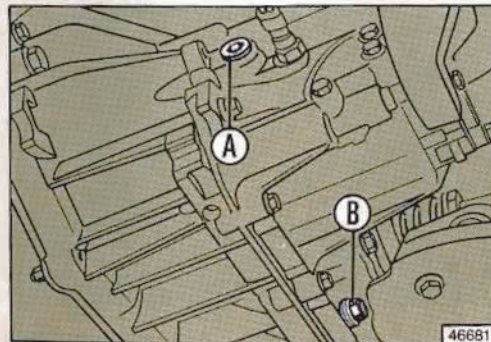
When the car is mainly used in dusty areas or for city driving the engine oil and cartridge filter should be replaced more frequently than recommended in this handbook.

Never change the oil of a new engine before driving 1000-1500 km (600-900 miles).

### Transaxle oil

The transaxle oil should reach the lower edge of filler hole A when the car is parked on level ground.

The transaxle case of the Dedra 2.0 turbo ds can be reached after removing the sump guard.



To change the transaxle oil, unscrew plug B; let the oil drain for about 10 minutes and then replace the plug.

### Disposing of used oil

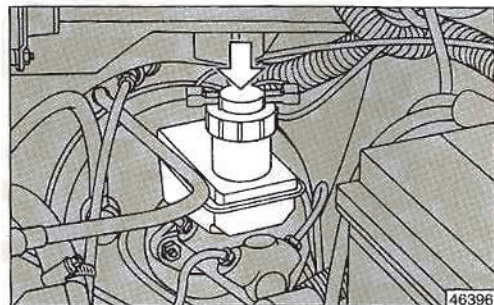
Dispose of used oil in accordance with local regulations.


## CHECKING FLUID LEVELS

### Brake fluid

Check the fluid every week to ensure it is at the maximum level.

The fluid level can be checked visually without removing the reservoir cap.



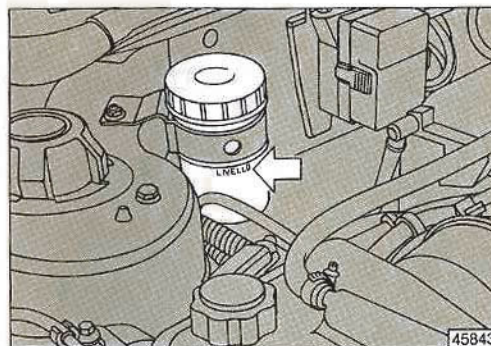
Periodically check the operation of the fluid level warning light  on the instrument panel. Press the reservoir cap after turning the ignition key to MAR; the panel warning light should turn on.

Use only DOT 3 class brake fluid for topping up. We recommend the use of Tutela DOT 3 hydraulic brake fluid, which was used when the car was manufactured.

Never use fluids with different specifications as it might cause permanent damage to the rubber seals of the brake system. Never let brake fluid come in contact with the body paint; wash immediately with water if fluid gets on the paint.

### Power steering fluid

Visually check that the power steering fluid level does not drop below the “LIVELLO” mark on the reservoir.



Top up using fluid having the same specifications as the power steering fluid present in the system. When the fluid is hot it may rise above the maximum level reference mark.

The reservoir may have different engine compartment locations depending on the version.

## CHECKING FLUID LEVELS

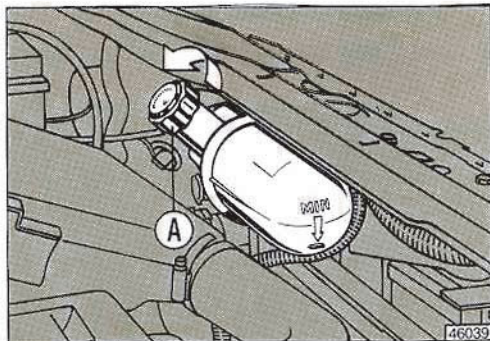
### Coolant

The coolant level should be checked only when the engine is cold.

If your version has a check panel or opto-electronic instruments, these system will alert the driver to the fact that the coolant level is low (refer to pp. 16 and 19).

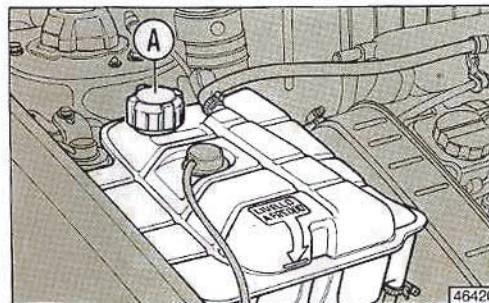
If the expansion tank coolant level is near or below the MIN mark or "LIVELLO A FREDDO", add coolant.

The shape and location of the expansion tank may vary depending on which version you have.



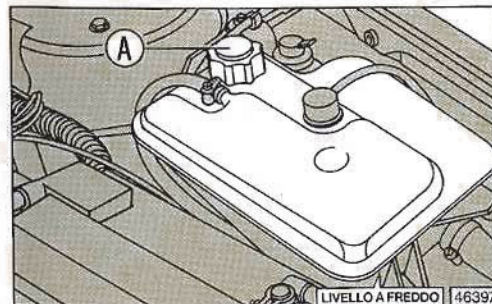
Dedra 1.6 i.e.

Slowly pour a mixture of distilled water and antifreeze through expansion tank filler hole A.



Dedra 1.8 i.e. - Dedra 2.0 i.e.

When the engine is hot never remove the expansion tank cap to prevent getting scalded.

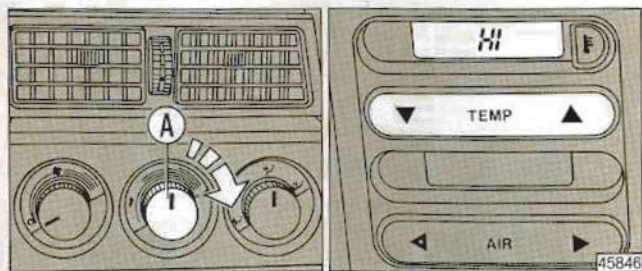


Dedra 2.0 turbo ds

## CHECKING FLUID LEVELS

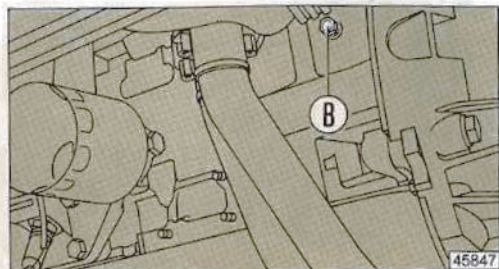
### Draining the coolant

Open the heater radiator valve:



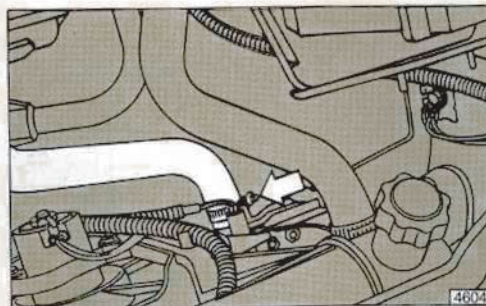
- Turn knob A completely to the right (manual heating systems).
- Press the right side of the TEMP rocker switch until the letters “HI” appear on the temperature display (automatic heating systems or equipped with air conditioning).

Remove plug B on the cylinder block. The plug of turbo diesel engines is located at the rear of the block.



Remove the expansion tank filler hole cap.

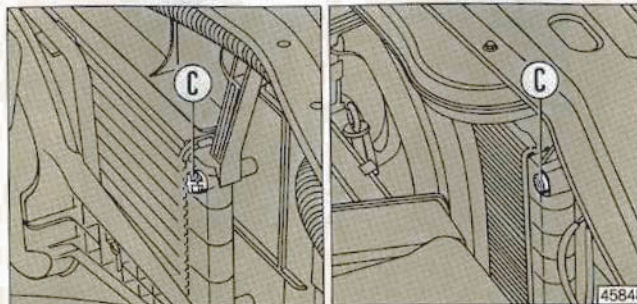
Loosen the lower radiator hose clamp.



### Refilling the cooling system

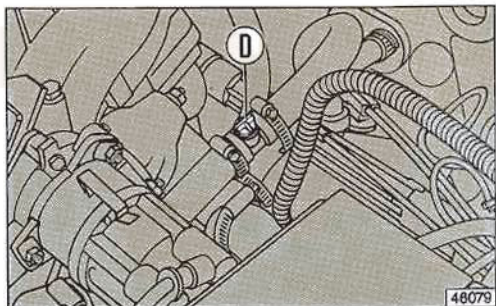
Reconnect the hose at the bottom of the radiator.

Fully unscrew bleed plug C located at the top of the radiator.



## CHECKING FLUID LEVELS

Unscrew bleed plug **D** located on the coolant delivery hose of the heater.



Slowly pour the distilled water/antifreeze mixture in through the expansion tank filler hole until coolant begins to flow out from the hole where you removed plug **C**.

Screw plug **C** back on and continue filling the system until coolant starts to flow out through the hole where plug **D** was removed.

Replace plug **D** and pour in coolant until the expansion tank level is about 3 centimetres from the edge of the filler hole.

Replace the expansion tank filler hole cap.

Start the engine; let it run until the radiator fan turns on.

Let the engine cool and then top up the coolant level.

Always use a 50-50 mixture of distilled water and antifreeze when topping up or changing the coolant.



We recommend the use of FIAT **Paraflu<sup>II</sup>** antifreeze.

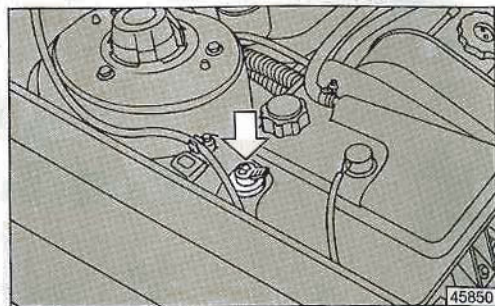
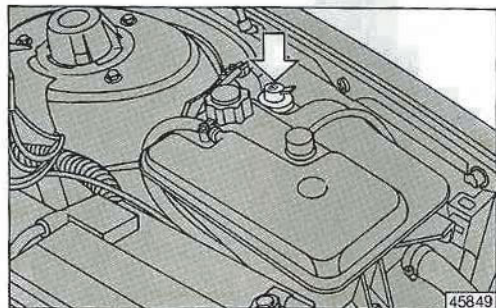
Should you decide, for commercial reasons, to top up with «Paraflu Formula Europa», just keep in mind that this type of antifreeze, added to the original Fiat **Paraflu<sup>II</sup>** in the cooling system does not allow the antifreeze efficiency to be measured using the standard equipment available at the Service Workshops.



## CHECKING FLUID LEVELS

### Windscreen/headlight washer

Check the washer reservoir level frequently.

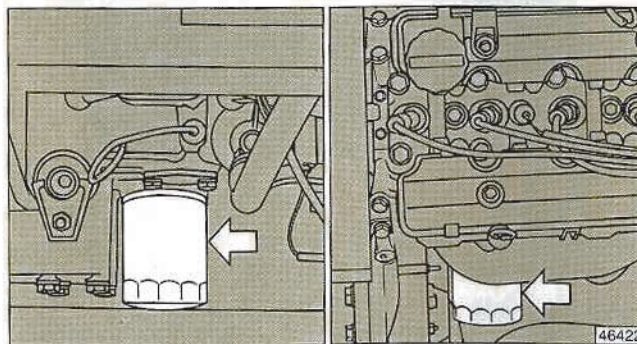


Top up using a mixture of water and Autofã n. 9 DP1 (refer to p. 143 for mixing instructions).

## OIL FILTER

### Replacing the filter

Every time the oil of a petrol engine (or every second change for turbo diesel engines) is changed the oil filter should be replaced.



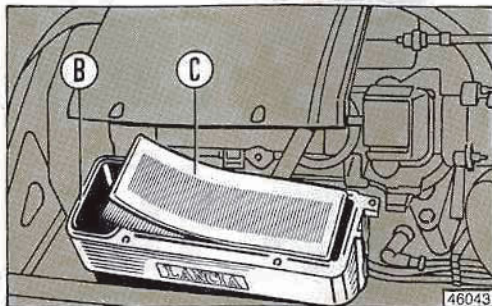
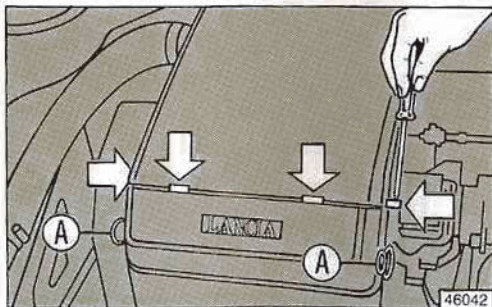
Lubricate the filter seal with motor oil before screwing it on.

## AIR CLEANER

### Cleaning or replacing the filter element

*Dedra 1.6 i.e.*

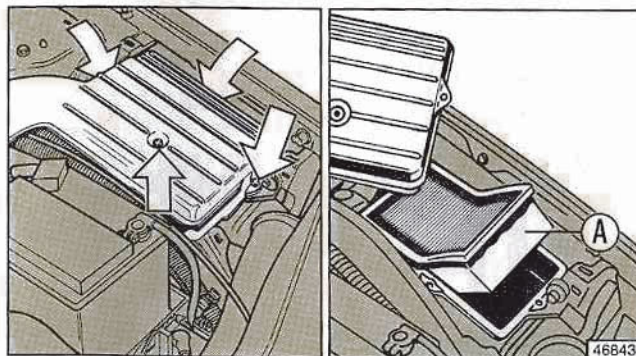
Unscrew the four screws indicated by the arrows in the figure and release spring clips A.



Remove cover B and pull out filter element C.

*Dedra 1.8 i.e. - Dedra 2.0 i.e. - Dedra turbo ds*

The figure refers to an engine with the filter located on the side near the battery. The replacement procedure is the same even if the filter housing is on the opposite side of the engine compartment.



Unscrew the three screws located in the holes indicated by the arrows.

Lift off the cover and remove filter element A.

**Note:** If the filter element is not cleaned or replaced when necessary, exhaust emissions and smoke opacity will increase and engine performance will drop.

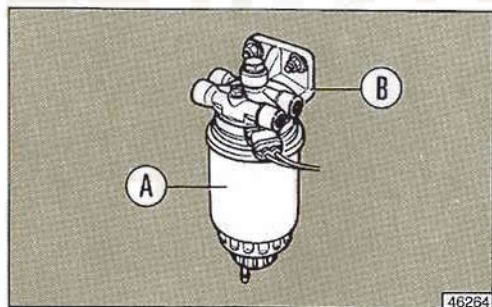
**High emission levels and opaque exhaust fumes may be in violation of clean air standards.**

## FUEL FILTER

### Replacing the filter

The fuel filter should be replaced every 20,000 km as part of service schedule maintenance.

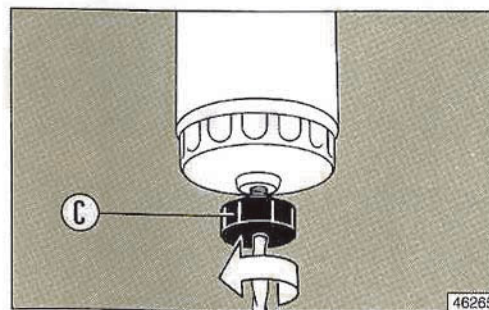
If sediment is present in the diesel fuel, the filter may need to be replaced more often than indicated (turbo ds engine). It is probably necessary to change the fuel filter if the engine starts misfiring.



If you wish to replace the filter yourself, you will need a tool to unscrew cartridge A from housing B. Fill the new filter with diesel fuel before replacing it.

Whenever fuel filter cartridge A is replaced or the fuel lines are drained (e.g., when running out of fuel), it is unnecessary to bleed the air from the system. This will occur automatically when starting the engine.

### Draining condensed water (*Dedra turbo ds engine*)



Knob C should be used to drain water that may have condensed in the fuel filter. Unscrew it a couple of turns and then retighten it when water-free fuel flows out.

Condensed water should be drained when the instrument panel warning light turns on.

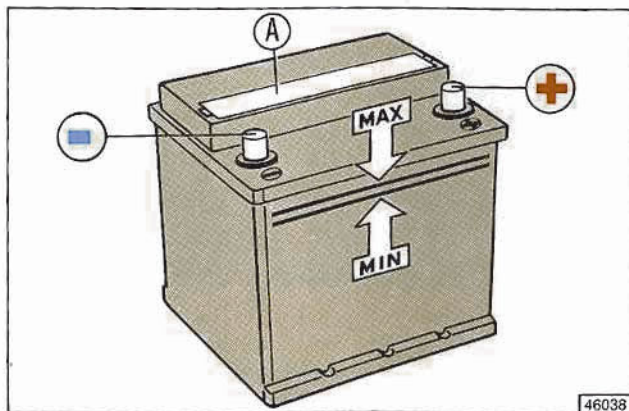
## ELECTRICAL AND ELECTRONIC DEVICES

### Battery

#### General information

The battery installed is maintenance-free. It does not need to be topped up with distilled water.

The electrolyte, when the car is on level ground, should be between the two reference marks on the case (MIN - MAX).



If absolutely necessary, the battery can be topped up with distilled water by removing cap A. Insert a screwdriver in the slot at the edge of the rectangular cap. Add distilled water to the MAX level without ever exceeding it.

**Important:** The battery electrolyte is toxic and corrosive. Avoid contact with your skin or eyes.

**Lead batteries should be disposed of according to local regulations.**

#### Recommendations

The car's battery will last much longer if you carefully follow these recommendations:

- If possible, do not leave power accessories on for a long time when the engine is not running (e.g., radio, hazard warning lights, side lights).
- When you leave the car parked in a garage ensure the doors, boot and glove compartment are properly closed to prevent the interior lights from remaining on. Remember to turn off the spot light.
- If you plan on installing other accessories (remote power locks, vehicle alarm systems, radio with memory features) ask your LANCIA dealer for advice regarding devices which will not cause the battery to lose its charge. Power absorption of any «aftermarket» installed accessories with the equipment turned off should not exceed 20 mA (with the engine off).

If the battery accidentally loses its charge, see the chapter on the battery in the "What to do if..." section.

### Electronic control units

Under normal operating conditions no particular attention need be paid to the car's electronic ignition and injection control units.

However, the recommendations listed below should be carefully followed during diagnostic procedures, servicing, repairs or emergency starting.

- Never disconnect the battery when the engine is running.
- Disconnect the battery from the car's electrical system when charging it.
- Do not use a battery charger to start the engine. Use another battery with the same amperage rating.
- Ensure the battery cables are firmly fastened to the terminal posts and polarity is correct.
- Do not connect or disconnect control unit connectors when the ignition is on (key at MAR).
- Never check battery polarity by sparking.
- Disconnect the control units when arc welding body panels. Remove the units when temperatures could exceed 80 °C (body repairs, painting, etc.).

### Important

**Driving safety can be compromised if you connect devices or modify the car's electrical system – especially systems such as the ignition, fuel injection or ABS.**

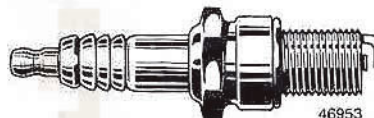
**Improper installation of a radio or vehicle alarm system may create interference hampering the operation of the electronic control units.**

### Spark plugs

The condition of the spark plugs is extremely important for engine life, performance and limiting exhaust emissions. Other vehicle malfunctions (e.g. incorrect fuel/air mixture) can affect plug life.

If the engine is not operating properly, have spark plug operation verified at a LANCIA Service Center or by skilled mechanic.

The spark plugs are often an accurate indicator of the malfunction.



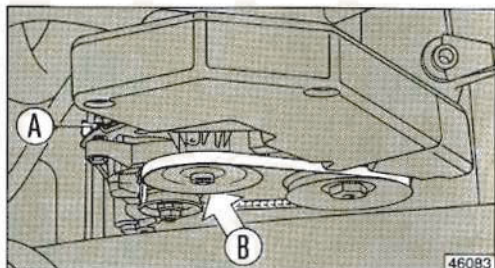
Use only recommended types of spark plugs. Plugs with an improper heat ratio could hamper engine operation.

## ALTERNATOR BELT

### Checking and adjusting belt tension

The alternator belt should never show signs of wear (cracking or fraying), and should be properly tensioned to prevent slippage.

Tension should be checked at a LANCIA Service Centre. In an emergency belt tension can be adjusted using the procedure below:



- Loosen belt tensioning nut A.
- Loosen articulation pin nut B.
- Pull the alternator outwards and tighten the nuts.

Do not overtighten the belt to prevent premature bearing wear. A simple method of determining correct belt tension is

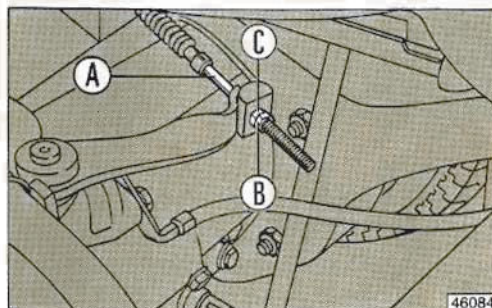
## CLUTCH

to press the belt down with your thumb. Its downward travel should be about 1 cm.

**Note:** Depending on the version you have the alternator and nuts described and illustrated in the figure may be have different positions, but the adjustment procedure is the same.

### Clutch pedal height

The clutch is self-adjusting and has no pedal free travel; it is mechanically controlled for left-hand drive cars, hydraulically controlled for right-hand drive cars.



With the mechanical control clutch, the pedal position (not depressed) is adjustable and determined by the length of cable A.

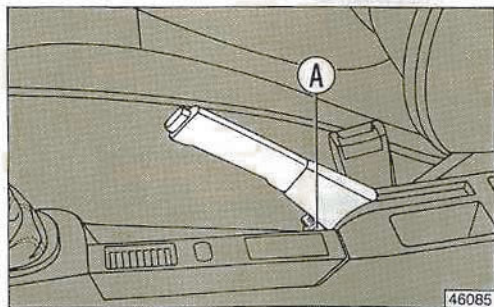
To adjust pedal height, loosen locknut B and turn nut C.

- Tighten it to raise the pedal.
- Loosen it to lower the pedal.

When properly adjusted, tighten locknut B.

### Adjusting lever travel

Use this procedure to adjust the travel of the handbrake lever:



- Pull the lever upwards a single detent starting from the fully released (down) position.
- Turn nut A until the cable is taut.
- Ensure the car does not move after pulling up the handbrake one or two more detents.

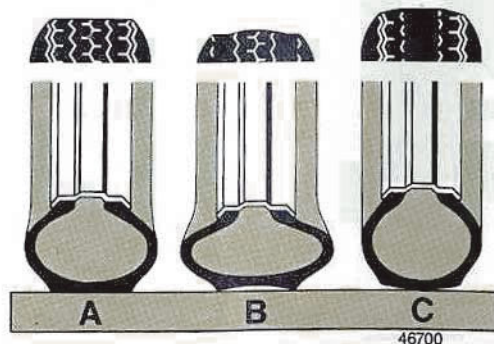
### Pressure and tyre wear

Ensure the tyres are always properly inflated. This will increase their life, improve handling and your security. Verify the pressure of all tyres fortnightly and before taking a long trip.

Use a pressure gauge to check the tyres are inflated to the pressure values indicated on the inside front cover of this handbook.

Incorrect tyre pressure can lead to irregular wear.

- A - Correct pressure: tyre wears evenly.
- B - Underinflated tyre: excessive shoulder tread wear.
- C - Overinflated tyre: excessive centre tread wear.



### Notes

Always check the tyres when they are cold. Because tyre pressure increases when driving, add 0,3 bar to the values if you have to verify the pressure when the tyres are hot.

## TYRES

---

Driving with underinflated tyres causes them to overheat, which can cause permanent damage. The tread depth should not be less than 1 mm\*. The less tread present, the less road traction. In any case, always drive carefully on wet roads.

Tread wear indicators are moulded into some tyres. Replace them as soon as they are visible.

Inspect the tyres for irregular wear or cuts on the sidewalls. If they are not wearing evenly, take your car to a LANCIA Service Centre to determine the cause.

### **Important**

Impact against the kerb, potholes or other objects, as well as driving frequently on poorly surfaced roads may damage the tyres.

If a blowout occurs, stop as soon as possible to change the tyre. Driving on a flat tyre will damage it.

Always remove the tyre from the wheel to inspect for damage.

Tyres can "age" even when they are not used.

Cracking of the tread or sidewalls and distention are signs of ageing. Have these tyres checked by an expert. If the tyres have been on the car for over 6 years they should also be checked.

---

\* After 1 January 1992 minimum tread depth is 1.6 mm (ECE directive 89/459).

Inspect the spare tire carefully to ensure it is in good condition. If not, replace it as soon as possible.

Never use cheap, recapped tyres. Inner tubes should never be used in tubeless tyres.

When changing a tyre, it is a good idea to replace the inflation valve. Rotate the tyres (exchange the front with rear on the same side of the car) every 10,000-15,000 km to ensure even wear.

**Never rotate the tyres in a criss-cross fashion.**

### **Snow chains**

The use of snow chains is subject to the regulations of the country where the car is being driven.

Snow chains should be used on the front wheels (for front-wheel drive cars).

After driving for about 30 m (100 yards), stop and retighten the chains.

Drive at moderate speeds when using chains to avoid damaging the tyres. Do not drive on snowfree roads with chains.

Use only low-profile chains (max. chain height = 12 mm).



## WINDSCREEN WIPERS AND REAR SCREEN WIPER

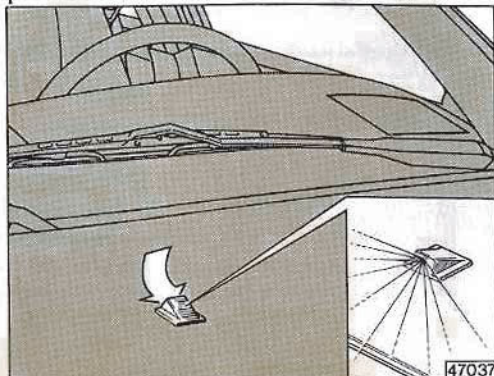
### Blades and spray nozzles

Periodically clean the wiper blades using proprietary detergents (**Autofã n. 9 DP1** liquid recommended) or alcohol. Make sure they are not damaged, or they will not clean properly. If the rubber edge of the blade is permanently deformed or worn down, replace the blade.

The following simple recommendations are useful to prevent damaging the wiper blades:

- When temperature is very low (below 0°C) make sure the wiper blades are not stuck to the glass by ice; if they are, use an anti-ice product to get them loose. Remove any ice or snow from the windscreen; this will help to save the blades and to prevent putting an overload on the wiper motor.
- Never attempt to remove any dirt from the windscreen or back window by operating the wiper blades while the glass is dry.

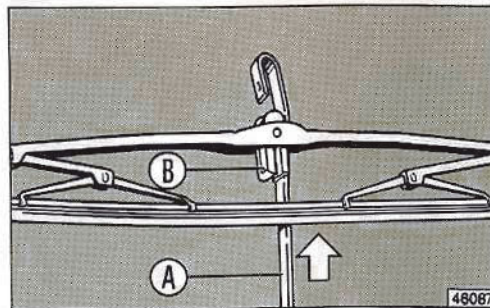
Failure to observe these precautions will result in early wear of the wiper blades.



If the washer spray nozzles are not operating properly check the tubing between the reservoir and the nozzles to ensure it is not clogged. If necessary, the spray nozzles can be cleaned with a pin.

### Replacing the wiper blades

Lift the wiper blade arm so it is perpendicular to the windscreen and position the blade at a 90° angle with respect to the arm.

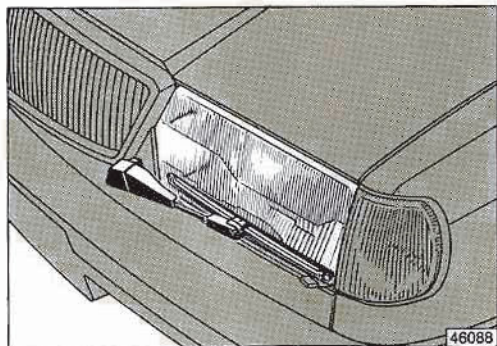


Press tab B and then press the blade downwards towards the base of arm A.

When the blade is released from the curved tip of the arm, press it down and remove it.

## HEADLIGHT WIPERS

### Blades and spray nozzles



If your car is equipped with headlight wiper / washers, check the operation of the wiper blades and spray nozzles frequently.

### Important

After washing the car – especially in a car wash – ensure the blades are correctly positioned above the lower stops.

## AIR CONDITIONER

### Verifying system efficiency

Use the air conditioner – even if only for a few minutes – all year round to maintain the system in excellent condition.

If you often use the ECON feature, make sure it is off because the compressor needs to operate from time to time.

During spring and autumn, use the system occasionally with ECON off. And remember to press the TEMP button until LO appears on the display.

During winter the compressor will not operate when the system is fully automatic.

Every time the system is serviced, ask to have the compressor oil level verified and topped up if necessary.

# BODY MAINTENANCE AND CARE

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- Body	123
- Underbody	124
- Interior	124
- Windows	125
- Engine compartment	125
- Cleaning plastic parts	125
<b>Vehicle storage</b>	126

## BODY MAINTENANCE

---

### Protecting the car

LANCIA has taken action to improve the corrosion resistance of the car's body caused by chemical agents including:

- air pollution (cities and industrial areas);
- humidity and airborne salt (marine or hot, humid areas);
- seasonal conditions (e.g., use of road salt during winter).

Dust, dirt, sand, mud and gravel kicked up by other cars are all abrasive and can damage the paint and underbody.

The following high-tech solutions have been utilized:

- the use of corrosion and abrasion-resistant paints and painting methods;
- the widespread use of galvanised body panels which are extremely resistant to corrosion;
- spraying of the underbody, engine compartment, wheel arches and other box-construction components with highly protective wax-base sealants which have a particular affinity for metal;

- protective spraying of door sills, rocker panels and bumpers with resins;
- use of pollution-resistant enamels;
- use of open box cross and side member chassis construction to prevent the build-up of water and the formation of rust.

The factors described act in different ways depending on the environmental conditions in which the car is used. If you take care of your car it will last much longer.

The following pages provide suggestions for the proper maintenance of the car's body and interior.

---

## BODY MAINTENANCE

---

### Paint - Body

The body paint not only makes your car beautiful, but protects the sheet steel used in body construction.

Chips or deep scratches should be immediately touched up before rusting begins.

Always use original touch-up paint (see "Specifications - Paint identification plate").

Wash your car regularly. Washing should be done more frequently in areas with high levels of air pollution or when parking often under trees (sap or other debris may fall on the car).

Immediately remove bird droppings from the body because uric acid is particularly damaging to the paintwork. Thoroughly wash the car as soon as possible.

Wash the car with a low-pressure hose. Sponge gently with a 2-4% detergent solution rinsing the sponge often. Rinse well and then dry using an air jet or chamois-leather.

Dry the car carefully including less visible areas such as the door frames, bonnet and the headlamp housings – those areas where water can stagnate. Do not park the car in a closed garage immediately after washing so that air can circulate allowing the remaining water to evaporate.

Do not wash the car after it has been parked in the sun or if the bonnet is still hot to prevent damage to the high-gloss paint finish.

The occasional use of wax or silicone polish will protect the car's paint and retain the original lustre. If the paint becomes dull due to smog or other factors, use a slightly abrasive wax polish.

## BODY MAINTENANCE

---

### Underbody

The less visible body parts and box-type members have been treated by LANCIA using state-of-the-art techniques.

However, this area of the body should be regularly checked especially if the car is driven in adverse climatic conditions.

Underbody inspections should be performed to ensure the body metal and mechanical assemblies are in proper condition. Repair any damage observed immediately.

Some box sections are closed by plugs. These should be removed to check for rust when carrying out an underbody inspection.

In particularly severe climates the box sections and door frames should be sprayed periodically with protective compounds.

These protective materials should be applied by specialised body shops. Spraying needs to be done at least **every two years** (annually under very severe conditions) at the beginning of winter.

### Interior

It is also extremely important to take care of the car's interior.

Check to make sure that there is no standing water under the mats (from shoes, umbrellas, etc.) which could cause the floorpan to rust.

Dust can be removed from **seats and cloth upholstery** (velvet, Alcantara, etc.) with a soft brush.

Remove grease stains using an appropriate product. Follow the manufacturer's instructions carefully.

If the seats need thorough cleaning, use a sponge dampened in a soapy water (2-4 grams of detergent per litre of water).

Dirt or dried matter can be removed from **leather seats** by gently rubbing with a chamois-leather or slightly dampened soft cloth.

Liquid or grease stains can often be removed by using a dry, absorbent rag without rubbing. After soaking up the stain, rub lightly with a soft cloth or chamois-leather moistened with soapy water.

If the stain remains, use an appropriate remover. Follow the manufacturer's instructions carefully.

## BODY MAINTENANCE

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### Windows

The windows should be cleaned with a good quality glass cleaner. Wipe dry with a clean cloth to avoid streaking which could hinder visibility.

Clean the inside of the rear window carefully to avoid damaging the defroster wires. Rub lightly and in a horizontal direction only.

In addition, refer to the recommendations concerning the cleaning and maintenance of the wiper blades (page 118).

---

### Engine compartment

The engine compartment should be thoroughly washed at the end of every winter to remove road salt.

Before starting to clean the engine compartment make sure the ignition key is off and the engine is cold.

After cleaning check that the various protections (e.g., high and low voltage cable caps and various covers) are in place and undamaged.

---

### Cleaning plastic parts

Clean the exterior plastic parts in the same way as you would wash the car's body.

If still dirty, use an appropriate plastic cleaner following the manufacturer's instructions carefully. Never use paint cleaning compounds on plastic.

Do not use alcohol to clean the instrument panel.

For the interior plastic parts, avoid using products that shine the plastic – especially those containing silicone – as they will alter the appearance of those parts with a “matte” finish. Use soapy water, a very dilute alcohol solution (not for the instrument panel), or detergents appropriate for plastics.

---

## VEHICLE STORAGE

---

### Recommendations

If you are not planning on using your car for several months follow these recommendations:

- Clean and protect the paint with silicone wax; clean the chrome using ordinary chrome cleaning compounds.
- Store the car in a dry, covered ventilated place.
- Fully release the handbrake.
- Disconnect the cables from the battery terminal posts.
- Remove all the wiper blades and coat the rubber parts with talc.
- Leave the door windows slightly open.
- Cover the car with a tarpaulin that is NOT waterproof (made of cloth or perforated plastic). NEVER use a sheet of plastic to cover the car as it will trap the moisture present on the surface of the vehicle.
- Inflate the tyres to 2.5 bar; check the pressure periodically.
- Check the battery charge every 1 ½ months. When necessary charge the battery slowly (over a 24-hour period) using a trickle charger.
- Do not drain the coolant from the engine.



# SPECIFICATIONS

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## VEHICLE IDENTIFICATION

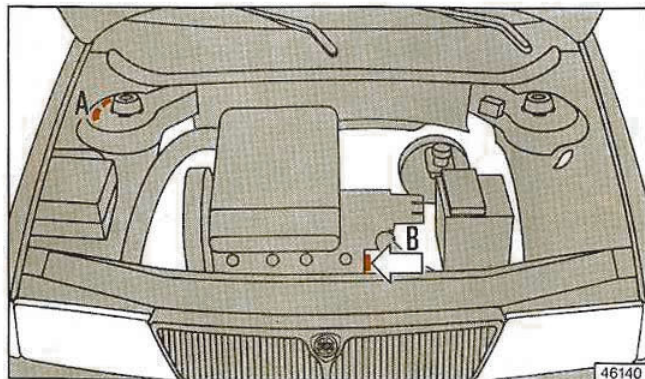
### Chassis marking

Chassis marking A is located in the engine compartment at the top of the right damper. The following information is given on the plate:

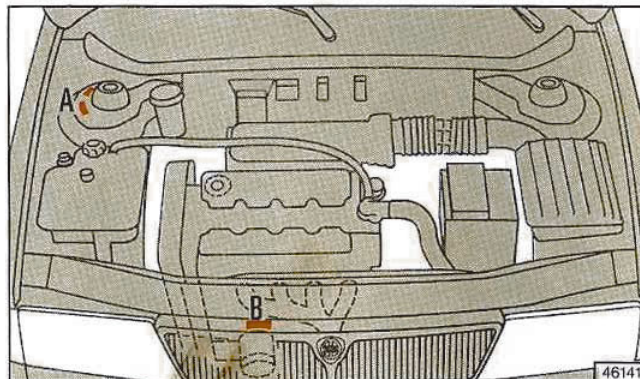
- Type of vehicle: ..... ZLA 835 000
- Chassis serial number.

### Engine marking

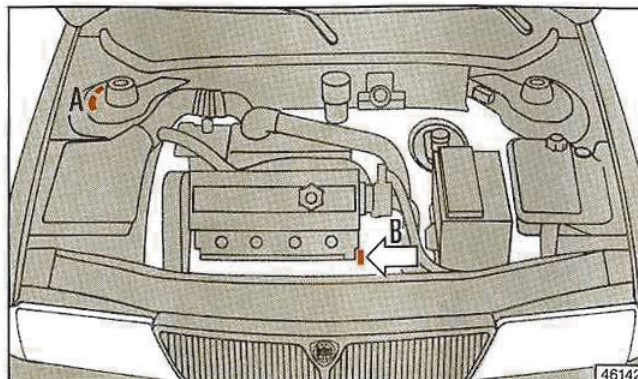
The engine type and serial number are located at point B, which has different positions depending on the engine mounted.



Dedra 1.6 i.e.



Dedra 1.8 i.e. - Dedra 2.0 i.e.



Dedra 2.0 turbo ds

## VEHICLE IDENTIFICATION

The engine type is given on the model plate at point I.

Dedra 1.6 i.e. ....	835 A1.000
Dedra 1.8 i.e. ....	835 A2.000
Dedra 2.0 i.e. ....	835 A5.000
Dedra 2.0 turbo ds ....	835 A4.000

### Model plate

Located in the engine compartment.

The following identification data is stamped on the plate:

LANCIA	A	
	B	
	C	D
	E	Kg
	F	Kg
	1- G	Kg
2- H	Kg	
N	MOTORE - ENGINE	I
	VERSIONE - VERSION	L
	N° PER RICAMBI N° FOR SPARES	M

45438

- A. Manufacturer
- B. Homologation number
- C. Vehicle identification code
- D. Chassis serial number
- E. Maximum gross vehicle weight
- F. Maximum gross vehicle weight including trailer
- G. Maximum gross weight at front axle
- H. Maximum gross weight at rear axle
- I. Engine type
- L. Body type code
- M. Number for spares
- N. Smoke opacity index (diesel and turbo ds engines)

## VEHICLE IDENTIFICATION

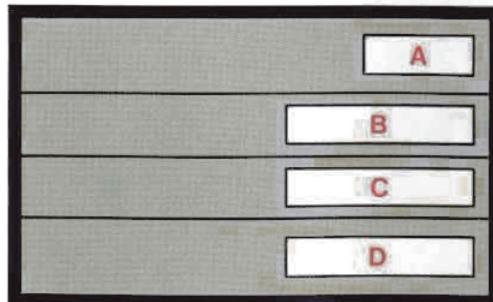
### Body type code

Stamped on the model plate at point L.

Dedra 1.6 i.e. ....	835 BA54A
Dedra 1.8 i.e. ....	835 AC54A
Dedra 2.0 i.e. ....	835 AI54A
Dedra 2.0 turbo ds .....	835 AG54A

### Paint identification plate

Located in the inside of the boot.



45437

- A. Paint manufacturer
- B. Colour name
- C. Colour code
- D. Respray and touch-up colour code

# ENGINE

	Dedra 1.6 i.e.	Dedra 1.8 i.e.	
Type .....	835 A1.000	835 A2.000	
Cycles .....	4-cycle	4-cycle	
Number of cylinders .....	4, in line	4, in line	
Bore x stroke .....	86.4 × 67.4	84 × 79.2	
Engine capacity .....	1581	1756	
Compression ratio .....	9.2	9.5	
Maximum power {	kW(CEE) .....	65	80
	CV(DIN) .....	90	110
at .....	5800	6000	
Maximum torque {	Nm(CEE) .....	128	142
	kgm(DIN) .....	13.2	14.7
at .....	3500	3000	

	Dedra 2.0 i.e.	Dedra 2.0 turbo ds	
Type .....	835 A5.000	835 A4.000	
Cycles .....	4-cycle	Supercharged diesel	
Number of cylinders .....	4, in line	4, in line	
Bore x stroke .....	84 × 90	82.6 × 90	
Engine capacity .....	1995	1929	
Compression ratio .....	9.5	19.2	
Maximum power {	kW(CEE) .....	86	66
	CV(DIN) .....	120	92
at .....	5750	4100	
Maximum torque {	Nm(CEE) .....	162	186
	kgm(DIN) .....	16.8	19.4
at .....	3300	2400	

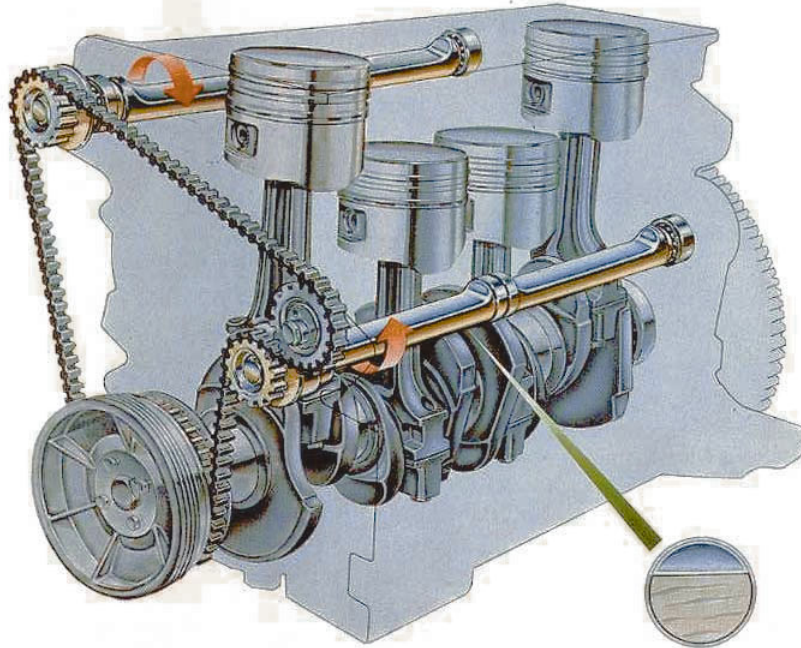
## ENGINE

### Balancing shafts

The engines of the Dedra 1.8 i.e. and 2.0 i.e. are equipped with counterrotating balancing shafts. They rotate at a speed

twice that of the crankshaft, and serve to absorb and equilibrate dynamic stress not absorbable by the crankshaft itself.

As a result, these engines operate very smoothly at all speeds.



## ENGINE

### Timing

	Dedra 1.6 i.e.	Dedra 1.8 i.e.	Dedra 2.0 i.e.	Dedra 2.0 turbo ds
Overhead cam(s); no. of camshafts .....	1	2	2	1
Camshaft drive .....	Toothed belt	Toothed belt	Toothed belt	Toothed belt
Inlet { opens (BTDC) .....	6°	5°	7°	6°
{ closes (ABDC) .....	46°	53°	52°	26°
Exhaust { opens (BBDC) .....	47°	53°	53°	26°
{ closes (ATDC) .....	7°	5°	6°	6°
Valve clearances for timing check (inlet and exhaust) ..... mm	0.80	0.80	0.80	0.50
Valve clearances, cold operation:				
– inlet ..... mm	0.40 <sup>+0.05</sup> <sub>-0.07</sub> *	0.43 ± 0.04	0.40 ± 0.04	0.30 ± 0.05
– exhaust ..... mm	0.50 <sup>+0.05</sup> <sub>-0.07</sub> *	0.48 ± 0.04	0.48 ± 0.04	0.35 ± 0.05

\* Tolerance values determined for new engines manufactured utilizing automated systems. When servicing, the valve clearances should be set to within ±0.05 mm of nominal values.

## ENGINE

### Fuel metering - ignition

Integrated electronic injection/ignition system. A single electronic control unit governs both functions elaborating the injection time (petrol metering) and the ignition advance.

Method used to determine the aspirated air volume for fuel metering ..... Speed-density\*

Air cleaner: dry, with paper filter element.

Fuel pump: in-tank pump.

Firing order ..... 1-3-4-2

	Dedra 1.6 i.e.	Dedra 1.8 i.e.	Dedra 2.0 i.e.
Electronic injection system .....	"Centrajert" single-point	"I.A.W." multi-point	"I.A.W." multi-point
Injection pressure ..... bar	1	3	3
Idle speed ..... rpm	850 ± 50 **	820 ± 50	820 ± 50
CO at idle ..... %	1 <sub>0</sub> <sup>±0.5</sup>	1.5 ± 0.5	1.5 ± 0.5
Reference ignition advance at idle .....	12° ± 2°	15° ± 2°	15° ± 2°
Maximum digital advance .....	40° ± 2°	43° ± 2°	43° ± 2°
Spark plugs:			
Fiat .....	V4LSR	V45LSR	V45SLR
Magneti Marelli .....	F7LCR	F8LCR	F8LCR
Bosch .....	WR7DC	WR6DC	WR6DC
Champion .....	RN9YC	RN7YC	RN7YC
Plug gap .....	0.7 mm	0.7 mm	0.7 mm

\* Analytical method for determining air flow. The information from the engine speed, air temperature and absolute intake manifold air pressure sensors are elaborated by the electronic control unit.

\*\* Automatically regulated by a stepper motor.



## ENGINE

---

### Fuel metering (Dedra 2.0 turbo ds)

System ..... Indirect injection, super-charged

Turbocharger - main components ..... Dry air cleaner element - Turbocharger with wastegate valve - Intercooler.

Turbocharger pressure ..... 0.8 bar

Injector calibration pressure .....  $150 \pm 8$  bar

Injection pump ..... rotary

- MIN/MAX speed governor
- Thermostatically-controlled automatic advance for cold starting
- Fast idle for warm-up operation
- Silent low-speed operation

Injection order ..... 1-3-4-2

Idle speed .....  $900 \pm 20$  rpm

### Lubrication

Forced-feed gear pump with pressure relief valve.

Full-flow cartridge oil filter.

Dedra 2.0 turbo ds: oil radiator.

Normal lubrication pressure with oil at 100°C ..... 3.4-4.9 bar (3.5-5 kg/cm<sup>2</sup>)

### Cooling system

The engine cooling system comprises a radiator, centrifugal pump and expansion tank.

Bypass thermostat on the secondary recirculation circuit delivers the coolant to the radiator from the engine.

Thermostatically-controlled radiator fan.

## TRANSMISSION

### Clutch

Self-adjusting; no pedal free travel.

Mechanically controlled for left-hand drive cars; hydraulically controlled for right-hand drive cars. Pedal height position (not depressed) adjustable only for mechanical control clutch.

Clutch disc friction facing is asbestos-free.

### Transaxle

Five forward gears and reverse; forward gears fully synchronised.

Single longitudinal transmission linkage shaft with three transverse connecting rods (engagement, selection, reaction).

Pinion and spur gears and differential incorporated in the transmission case.

Gear ratios:

	Dedra 1.6 i.e.	Dedra 1.8 i.e.	Dedra 2.0 i.e.	Dedra 2.0 turbo ds
1st gear .....	3.909	3.545	3.545	3.909
2nd gear .....	2.267	2.267	2.267	2.267
3rd gear .....	1.469	1.541	1.541	1.440
4th gear .....	1.043	1.156	1.156	1.029
5th gear .....	0.891	0.875	0.891 or 0.875	0.823
Reverse .....	3.909	3.909	3.909	3.909
Final drive ratio .....	17/64	15/58	17/57 or 16/57	19/58

Power transmitted to the front wheels by axle halfshafts linked to the transaxle and wheels with constant-velocity joints.

### Service brakes

Diagonally split hydraulic brake circuits.

8" brake servo unit.

Asbestos-free brake linings.

*Front:* disc brakes.

*Rear:*

- Dedra 1.6 i.e.: Drum brakes with "thermoclip" controlled self-adjusting incremental micrometre system.
- Dedra 1.8 i.e. - 2.0 i.e. - 2.0 turbo ds: disc brakes.
- Dedra 1.6 i.e. with ABS (option): disc brakes.

*Optional:* Antilock braking system (ABS):

- Four-channel for Dedra 2.0 i.e. and 2.0 turbo ds
- Two-channel for Dedra 1.6 i.e. and 1.8 i.e.

### Parking brake

Mechanical, lever-type, acting on rear brakes. Handbrake lever travel can be adjusted from the passenger compartment.

### Suspension

*Front*

Independent, McPherson suspension with negative reaction rod.

Antiroll bar linked to control arms with rods.

Offset coil springs and conical-dome dampers.

Double-acting, telescoping, gas-filled dampers.

Suspension components with differential action: coil spring retention plate and rubber bushing countering damper shaft motion.

*Rear*

Independent, with longitudinal control arms and antiroll bar.

Coil springs.

Double-acting, telescoping, gas-filled dampers.

*Optional (Dedra 2.0 i.e.)*

Electronic ASC (Automatic Suspension Control) system.

### Rims and tyres

#### Standard equipment

Rims ..... pressed steel.

Tyres ..... tubeless radials.

#### Dimensions

	Rims	Tyres
1.6 i.e. 2.0 turbo ds	5½J-14"H*	175/65 R14-82T
1.8 i.e. 2.0 i.e.	5½J-14"H**	185/60 R14-82H

#### Optional equipment

Rims ..... aluminium alloy.

Tyres ..... tubeless radials.

#### Dimensions (all versions)

- Rims ..... 5½J-14" AH2-43\*

- Tyres ..... 185/60 R14-82H

### Important

Never use inner tubes in tubeless tyres.

\* Rims with 43-mm camber.

\*\* Rims with 47.5-mm camber, mounted with a 4.5-mm spacer plate. Remove this plate when mounting light alloy wheels (43-mm camber).

### Snow chains

Maximum permissible height ..... 12 mm

Refer to p. 117 for information on using snow chains.

### Steering

Permanently lubricated rack-and-pinion steering.

Hydraulic power steering (optional for Dedra 1.6 i.e.); fluid reservoir in engine compartment.

Shock absorbing steering column with rake adjustment.

Turning circle diameter ..... 10.3 m

Number of turns lock-to-lock ..... ~3

### Wheel alignment values

The values given are for an unladen car in running order.

Front wheel toe-in ..... 0 ± 1 mm

Rear wheel toe-in ..... 0 ± 2 mm

## ELECTRICAL SYSTEM

---

**System voltage:** 12 volts

### Battery

Negative earth

	Dedra 1.6 i.e.	Dedra 1.8 i.e.	Dedra 2.0 i.e.	Dedra 2.0 turbo ds
Capacity, 20-h discharge rate	40 Ah 45 Ah *	40 Ah 45 Ah *	45 Ah 60 Ah *	70 Ah
Cold cranking power (-18 °C)	200 A 225 A *	200 A 225 A *	225 A 320 A *	400 A

\* Batteries for versions with air conditioning.

### Alternator

Nine-diode rectifier with integral voltage regulator.

Battery starts charging as soon as engine starts.

	Dedra 1.6 i.e.	Dedra 1.8 i.e.	Dedra 2.0 i.e.	Dedra 2.0 turbo ds
Maximum nominal output	65 A 90 A *	65 A 90 A *	70 A 90 A *	70 A 90 A *

\* Maximum nominal output values for alternators in cars with air conditioning.

## PERFORMANCE - WEIGHTS

### Performance

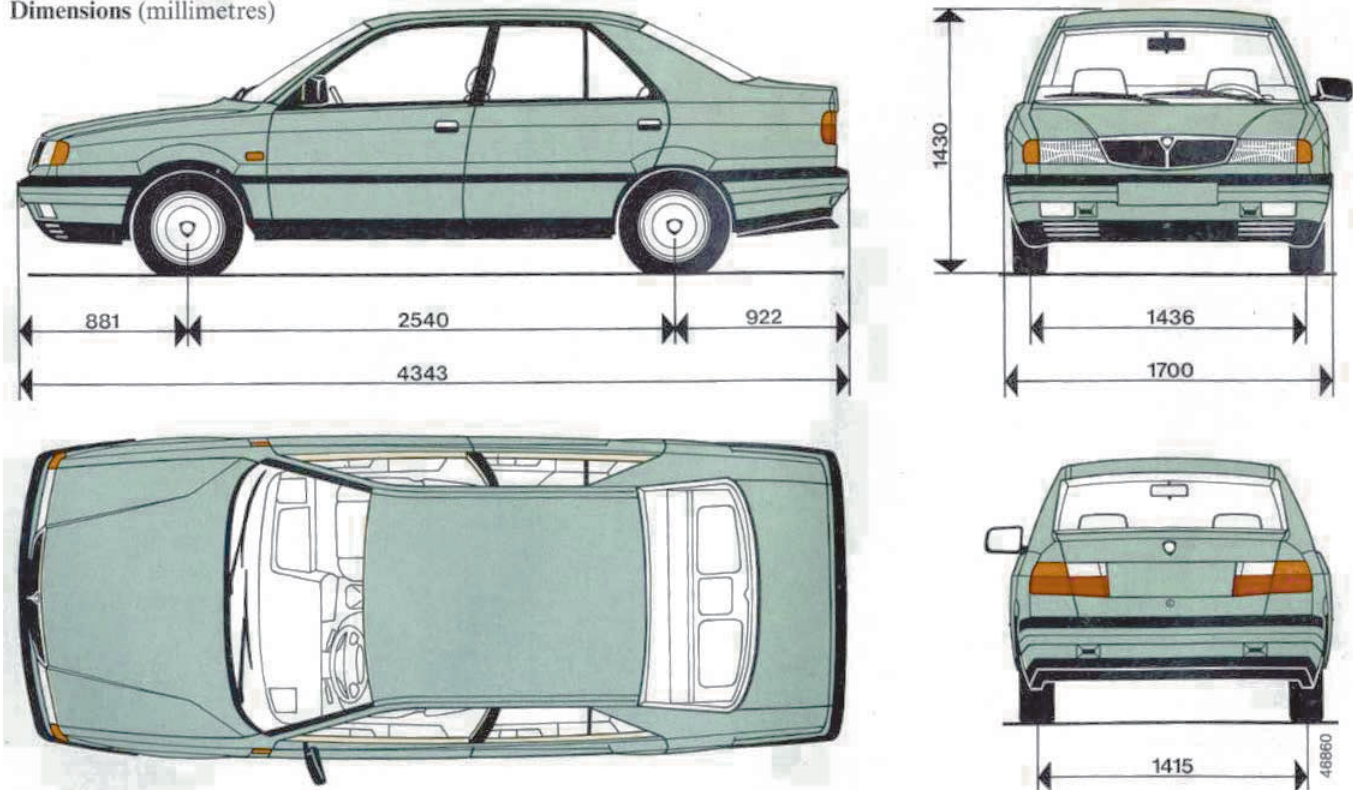
	Dedra 1.6 i.e.	Dedra 1.8 i.e.	Dedra 2.0 i.e.	Dedra 2.0 turbo ds
<b>Maximum speeds - after running in (km/h)</b>				
1st gear .....	45	55	55	40
2nd gear .....	80	85	85	65
3rd gear .....	120	125	125	105
4th gear .....	170	170	165	150
5th gear .....	180	192	200	180
<b>Maximum gradeability - fully laden vehicle (expressed in %)</b>				
1st gear .....	36	36	36	39
2nd gear .....	21	21	21	24
3rd gear .....	12	13	13	14
4th gear .....	8	9	9	9
5th gear .....	6	6	6	6
Reverse .....	40	40	41	43

### Weights (kg)

	Dedra 1.6 i.e.	Dedra 1.8 i.e.	Dedra 2.0 i.e.	Dedra 2.0 turbo ds
Kerb weight (including fuel, spare, tools and accessories) .....	1090	1180	1200	1230
Payload (5 adults + 50 kg of luggage + 100 kg equally distributed over the two axles) ....	500	500	500	500
Maximum gross vehicle weight .....	1590	1680	1700	1730

## DIMENSIONS

Dimensions (millimetres)



The height illustrated is for an unladen car.

Luggage compartment volume (VDA standards): 480 dm<sup>3</sup>.

# CAPACITIES

Capacities	Dedra 1.6 i.e.		Dedra 1.8 i.e.		Dedra 2.0 i.e.		Dedra 2.0 turbo ds		Recommended fuels and products *
	dm <sup>3</sup> (Imp. units)	kg	dm <sup>3</sup> (Imp. units)	kg	dm <sup>3</sup> (Imp. units)	kg	dm <sup>3</sup> (Imp. units)	kg	
Fuel tank .....	63 (13.2 gal.)	-	63 (13.2 gal.)	-	63 (13.2 gal.)	-	-	-	} Premium petrol *
including a reserve of .....	5-8 (1.1-1.8 gal.)	-	5-8 (1.1-1.8 gal.)	-	5-8 (1.1-1.8 gal.)	-	-	-	
Fuel tank .....	-	-	-	-	-	-	63 (13.2 gal.)	-	} Diesel fuel (see p. 75)
including a reserve of .....	-	-	-	-	-	-	5-8 (1.1-1.8 gal.)	-	
Cooling system .....	4.90 (4.3 qt.)	-	6.90 (6.1 qt.)	-	6.90 (6.1 qt.)	-	8.90 (7.8 qt.)	-	} 50-50 mixture of distilled water and Fiat Parafflu <sup>ii</sup> ***
Engine sump .....	3.35 (2.9 qt.)	3.00 (6.6 lb.)	4.80 (4.2 qt.)	4.30 (9.5 lb.)	4.80 (4.2 qt.)	4.30 (9.5 lb.)	4.30 (3.8 qt.)	3.30 (7.3 lb.)	
Engine sump and filter .....	3.75 (3.3 qt.)	3.30 (7.3 lb.)	5.20 (4.6 qt.)	4.70 (10.4 lb.)	5.20 (4.6 qt.)	4.70 (10.4 lb.)	5.00 (4.4 qt.)	4.40 (9.7 lb.)	} See facing page
Engine sump, filter and lines 1st in-factory filling .....	4.25 (3.7 qt.)	3.75 (8.3 lb.)	5.75 (5.1 qt.)	5.20 (11.5 lb.)	5.75 (5.1 qt.)	5.20 (11.5 lb.)	6.00 (5.3 qt.)	5.30 (11.7 lb.)	
Transaxle .....	1.40 (2.8 qt.)	1.25 (2.8 lb.)	1.40 (2.8 qt.)	1.25 (2.8 lb.)	1.40 (2.8 qt.)	1.25 (2.8 lb.)	1.40 (2.8 qt.)	1.25 (2.8 lb.)	Tutela ZC 80/S
Steering gear .....	-	0.08 (2.8 oz.)	-	0.08 (2.8 oz.)	-	0.08 (2.8 oz.)	-	0.08 (2.8 oz.)	Tutela K 854
Hydraulic power steering .....	0.75 (1.3 pt.)	1.3 pt.)	0.75 (1.3 pt.)	-	0.75 (1.3 pt.)	-	0.75 (1.3 pt.)	-	Tutela GI/A
CV-joint cavities and boots (each) .....	-	0.095 (3.3 oz.)	-	0.095 (3.3 oz.)	-	0.095 (3.3 oz.)	-	0.095 (3.3 oz.)	Tutela MRM2
Front/rear brake circuits .....	0.405 (0.71 pt.)	-	0.43 (0.76 pt.)	-	0.43 (0.76 pt.)	-	0.43 (0.76 pt.)	-	} Tutela DOT 3
Brake circuits with antilock braking system (ABS) .....	0.46 (0.81 qt.)	-	0.525 (0.92 pt.)	-	0.525 (0.92 pt.)	-	0.525 (0.92 pt.)	-	
Windscreen, rear screen and headlight washer reservoir .....	4.80 (4.2 qt.)	-	4.80 (4.2 qt.)	-	4.80 (4.2 qt.)	-	4.80 (4.2 qt.)	-	Mixture of water and Autofà DP1 ***

\* Product specifications are given on pp. 144-5.

\*\* Petrol engines are designed to operate with leaded or unleaded premium petrol (minimum octane no. 95).

\*\*\* See *A note about some fluids* on the next page.



## Oil change and filter replacement after free service coupon

	Recommended oil	Change interval	
		Oil	Filter
Dedra 1.6 i.e.	SELENIA	20,000 km or 12 months	20,000 km
Dedra 1.8 i.e. Dedra 2.0 i.e.	SELENIA	15,000 km or 12 months	15,000 km
Dedra 2.0 turbo ds	SELENIA Turbo Diesel	7,500 km or 12 months	15,000 km

It is recommended you do not top up with oils having different specifications.

**Oil consumption**

The average oil consumption (grams/100 km) values are:

Dedra 1.6 i.e. ....	50
Dedra 1.8 i.e. ....	90
Dedra 2.0 i.e. ....	<u>90-100</u>
Dedra 2.0 turbo ds .....	100

**A note about some fluids**

- A 50-50 mixture of FIAT **Parafiu<sup>11</sup>** coolant and distilled water gives freeze protection down to  $-35^{\circ}\text{C}$ .
- Mix thirty centilitres of **Autofà n. 9 DP1** liquid with a litre of water for summer use; in cold climates where temperatures can go down to  $-20^{\circ}\text{C}$  mix equal amounts of water and **Autofà n. 9 DP1**. When temperatures may go lower than  $-20^{\circ}\text{C}$  use **Autofà n. 9 DP1** undiluted.

## LUBRICANT AND FLUID SPECIFICATIONS

### Product characteristics

USE	CHARACTERISTICS	RECOMMENDED LUBRICANTS AND FLUIDS	SPECIFIC APPLICATION
Petrol engine lubricants	SAE 15W/40 semisynthetic multigrade oil; exceeds API, SG and CCMC-G4 specifications, CUNA NC 610-01 CL-G2.	<b>SELENIA</b>	Operating range – 15°C-40°C*
Diesel engine lubricants	SAE 15W/40 semisynthetic multigrade oil; exceeds API-CD and CCMC PD2 specifications, CUNA NC 610-01 CL-PD1.	<b>SELENIA Turbo diesel</b>	Operating range – 15°C-40°C*
Lubricants and greases for power transmission components	SAE 80 W/90, non-EP anti-wear oil.	<b>TUTELA ZC 90</b>	Transaxles without hypoid gears
	SAE 80 W EP oil; meets API-GL-4 and MIL-L-2105 specifications.	<b>TUTELA ZC 80/S</b>	Manual transmissions and differentials
	SAE 80 W/90 EP oil for standard and limited-slip differentials; meets API-GL-4 and MIL-L-2105 specifications.	<b>TUTELA W 90/MDA</b>	Hypoid differentials Limited-slip differentials Steering gear
	Molybdenum disulphide, lithium-soap base grease; NLGI consistency no. 2	<b>TUTELA MRM 2</b>	Constant-velocity joints
	Lithium-soap grease; NLGI consistency no. 3	<b>TUTELA MR 3</b>	Wheel bearings Steering tie rods
Steering gear lubricant	Lithium-soap grease; NLGI consistency no. 000; contains molybdenum sulphide.	<b>K 854</b>	

\* For temperatures below – 15°C use SAE 10 W/30 oils (Selenia 10 W/30 or Selenia Turbo diesel 10 W/30 are recommended).

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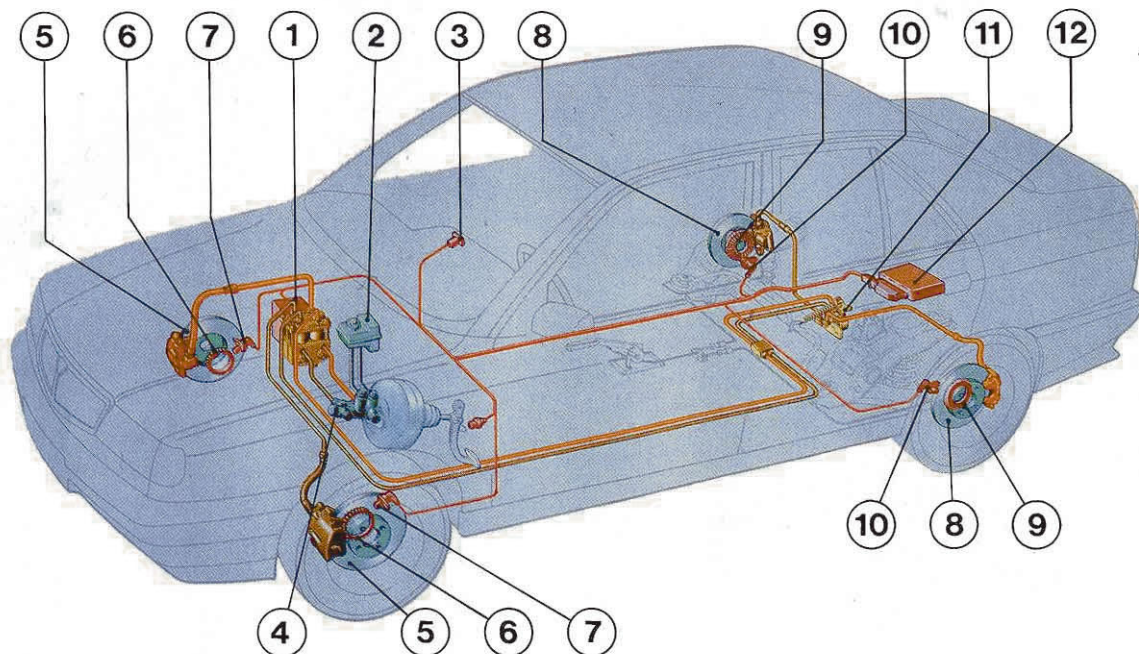
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# APPENDIX

	Page
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<b>Dedra 2.0 i.e. and 2.0 turbo ds</b>	<b>148</b>
<b>Antilock braking system (ABS)</b>	
<b>Dedra 1.6 i.e. and 1.8 i.e.</b>	<b>149</b>
<b>Installing a radio</b>	<b>150</b>
<b>Installing a tow hitch</b>	<b>152</b>
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**If any accessories not described in this handbook are to be installed, the relevant electrical connections to the vehicle's system must be made via a relay connected to the ignition switch.**

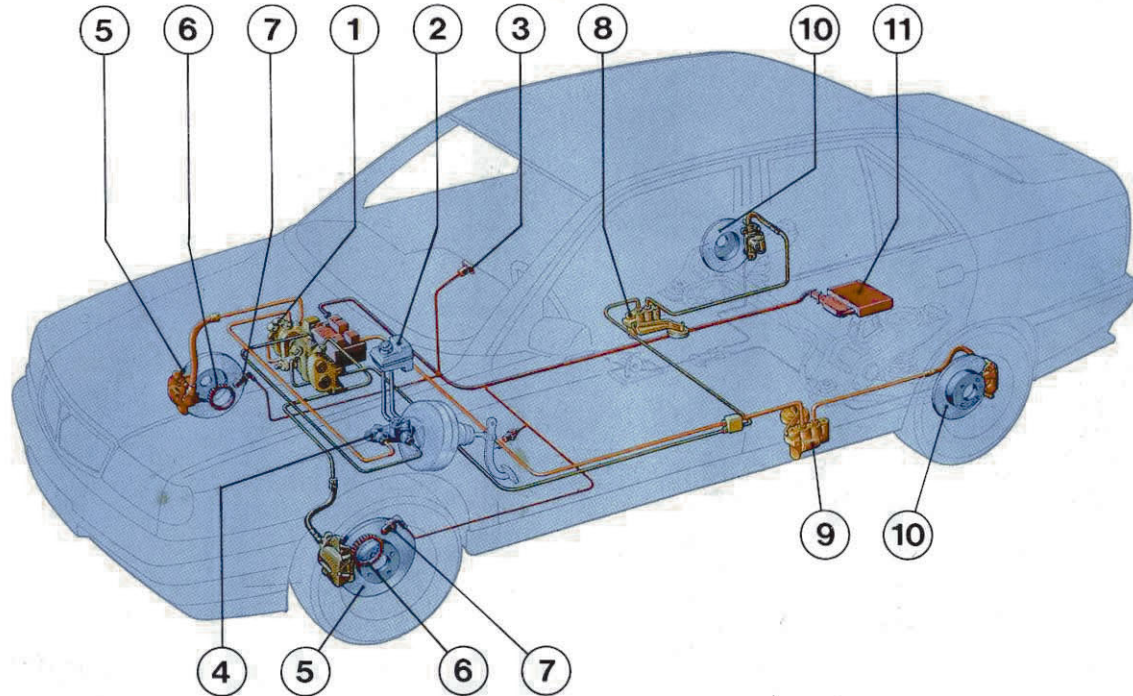
## ANTILOCK BRAKING SYSTEM (ABS) - Dedra 2.0 i.e. and 2.0 turbo ds



1. Hydraulic modulator.
2. Brake fluid reservoir.
3. Warning light.
4. Master cylinder.
5. Front wheel discs.
6. Front pulse rings.

7. Front wheel speed sensors.
8. Rear wheel discs.
9. Rear pulse wheels.
10. Rear wheel speed sensors.
11. Rear wheel pressure proportioning valve.
12. Electronic control unit.

## ANTILOCK BRAKING SYSTEM (ABS) - Dedra 1.6 i.e. and 1.8 i.e.



1. Hydraulic modulator.
2. Brake fluid reservoir.
3. Warning light.
4. Master cylinder.
5. Front wheel discs.
6. Front pulse rings.

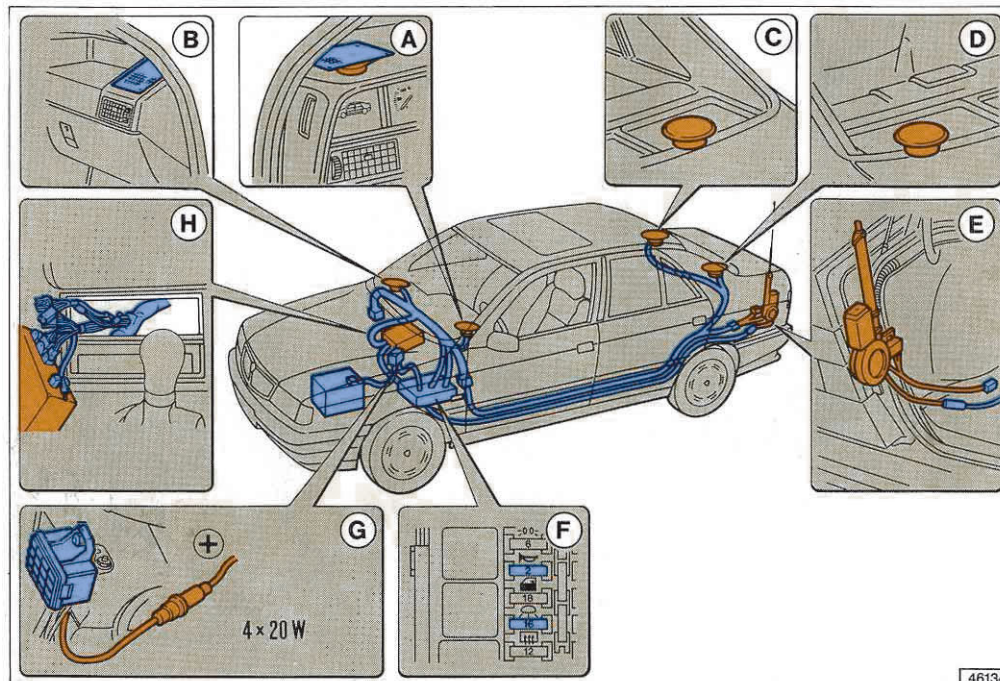
7. Front wheel speed sensors.
8. Right rear wheel pressure proportioning valve.
9. Left rear wheel pressure proportioning valve.
10. Rear wheel discs.
11. Electronic control unit.





# RADIO INSTALLATION

## Location of components



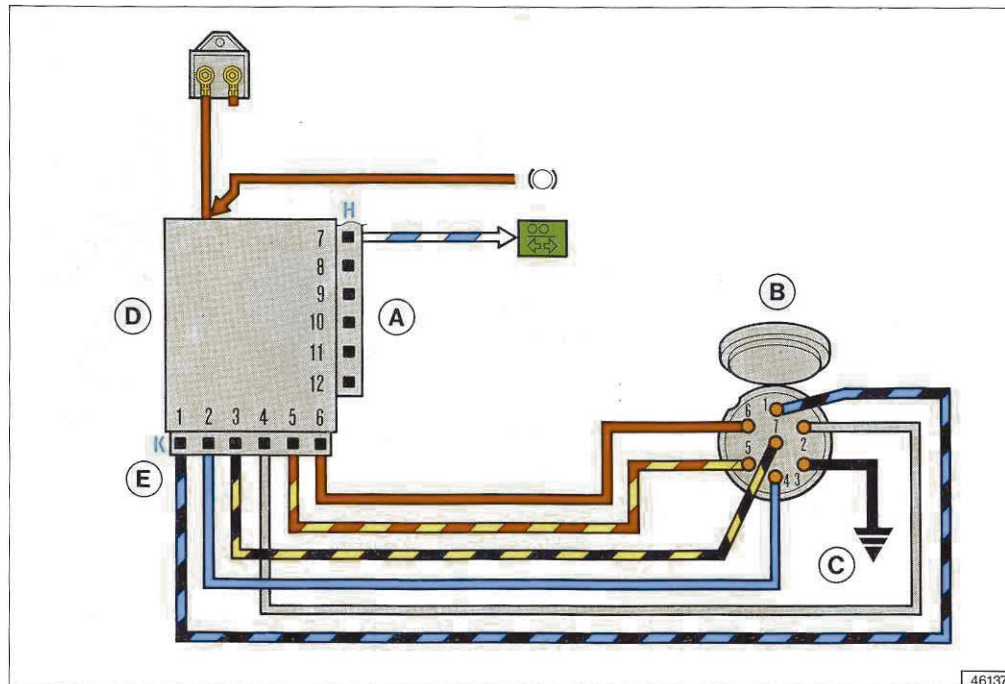
- A. Left front speaker housing.
- B. Right front speaker housing.
- C. Right rear speaker housing.
- D. Left rear speaker housing.
- E. Power antenna housing.
- F. Position of fuses in box protecting radio circuit.
- G. Supplementary fuse cutout (only if amplifier power is greater than  $4 \times 20$  W).
- H. Radio housing.

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# INSTALLING A TOW HITCH

## Wiring schematic

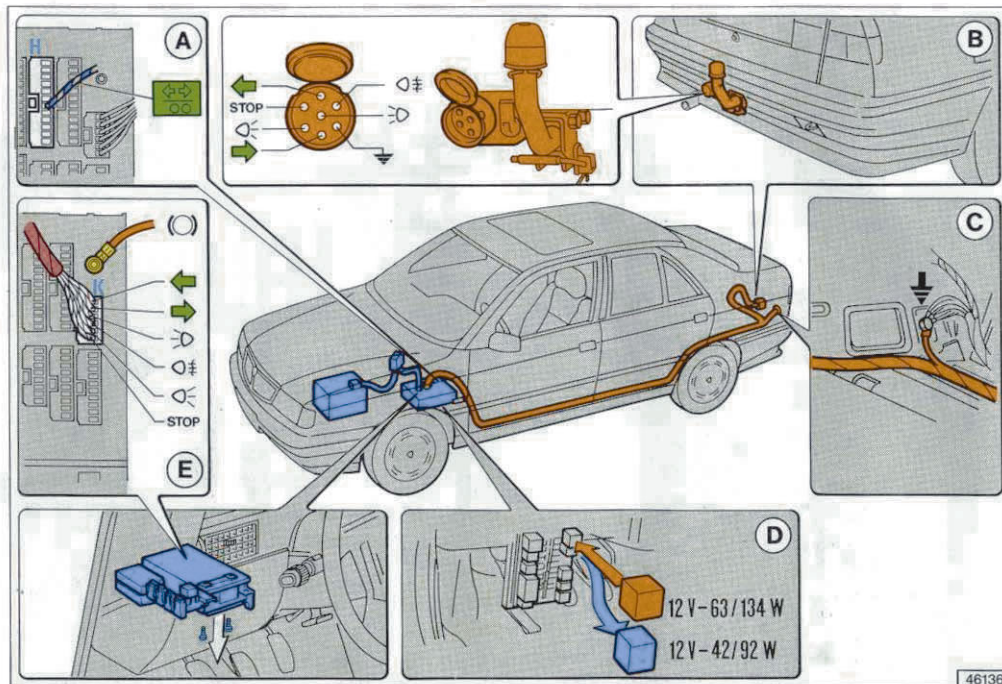
- A. Terminal "H" in the fuse box for trailer direction indicators.
- B. 7-pin socket.
- C. Ground cable from 7-pin socket.
- D. Fuse box.
- E. Terminal "K" from the fuse box to 7-pin socket.



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# INSTALLING A TOW HITCH

## Location of connections and hitch



- A. Cable connection of the trailer direction indicators (terminal "H" in fuse box).
- B. Installation of coupling and 7-pin socket.
- C. Ground cable from 7-pin socket.
- D. Replacement of the direction indicator flasher unit.
- E. Cable connection from 7-pin socket to terminal "K" in the fuse box. The trailer's electric braking system must be connected to a branch which is directly connected to the battery.

NB - The tow hitch installer is required to attach a clearly legible plate next to the coupling made of an appropriate material with the following stamped on it:

MAXIMUM LOAD AT THE COUPLING 84 kg

MAXIMUM LOAD AT THE COUPLING 90 kg

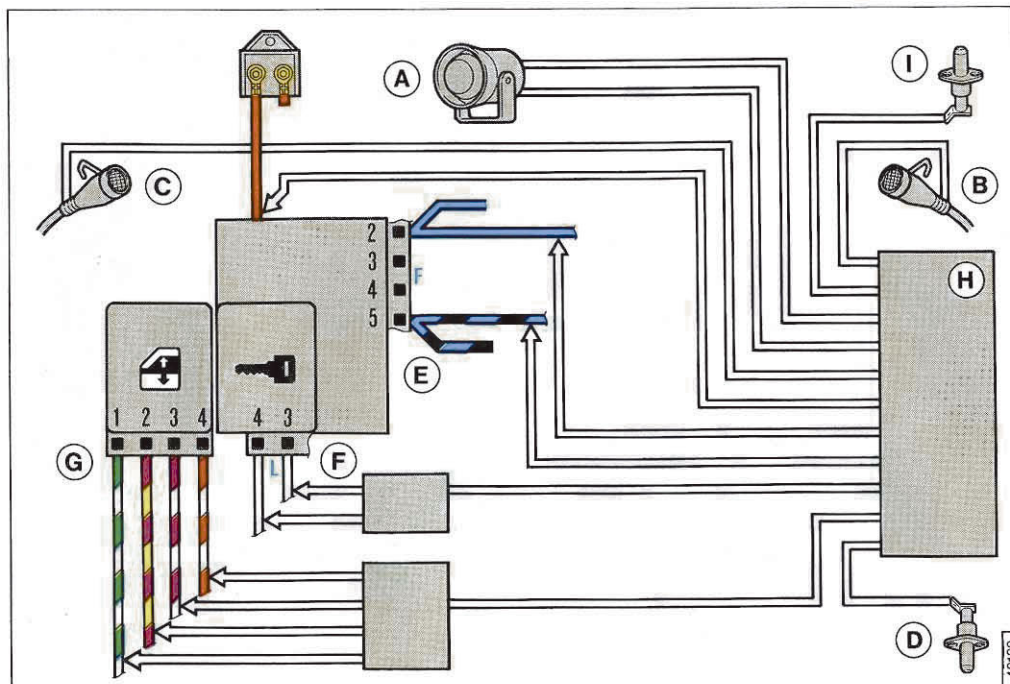
(for vehicles with a maximum permissible trailer weight of 1200 kg).

(for vehicles with a maximum permissible trailer weight of 1300 kg).

# INSTALLING AN ALARM SYSTEM

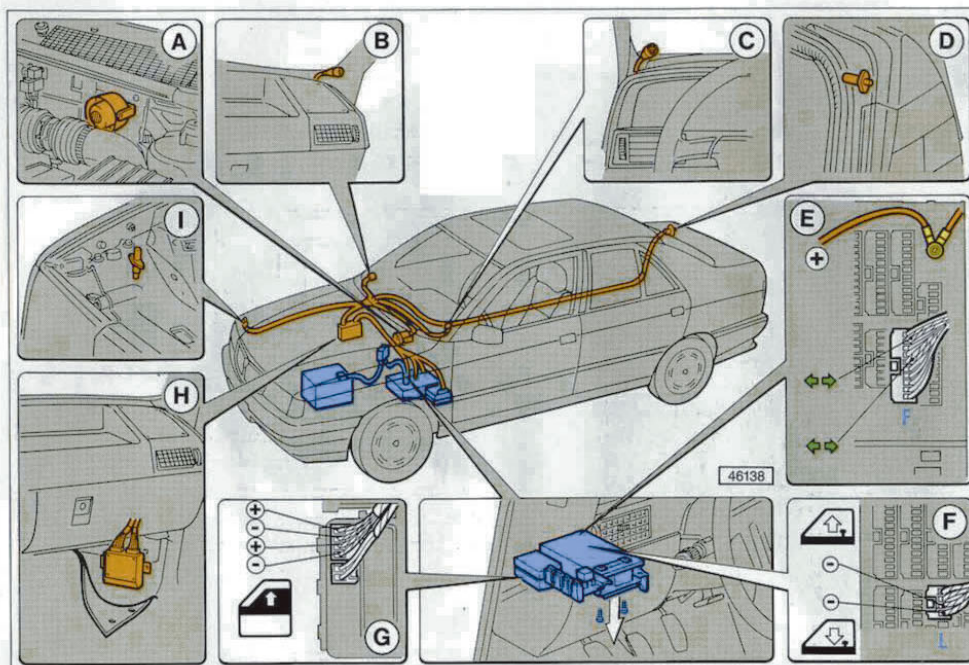
## Installation schematic

- A. Siren.
- B. Ultrasonic detector.
- C. Ultrasonic detector.
- D. Boot opening detector.
- E. Fuse box terminal "F" for wiring connections enabling the alarm system to flash the car's direction indicators.
- F. Fuse box terminal "L" for connections enabling the alarm system to directly control the car's power locks.
- G. Power window control unit connections for direct control by the alarm system.
- H. Alarm system control unit.
- I. Bonnet opening detector.



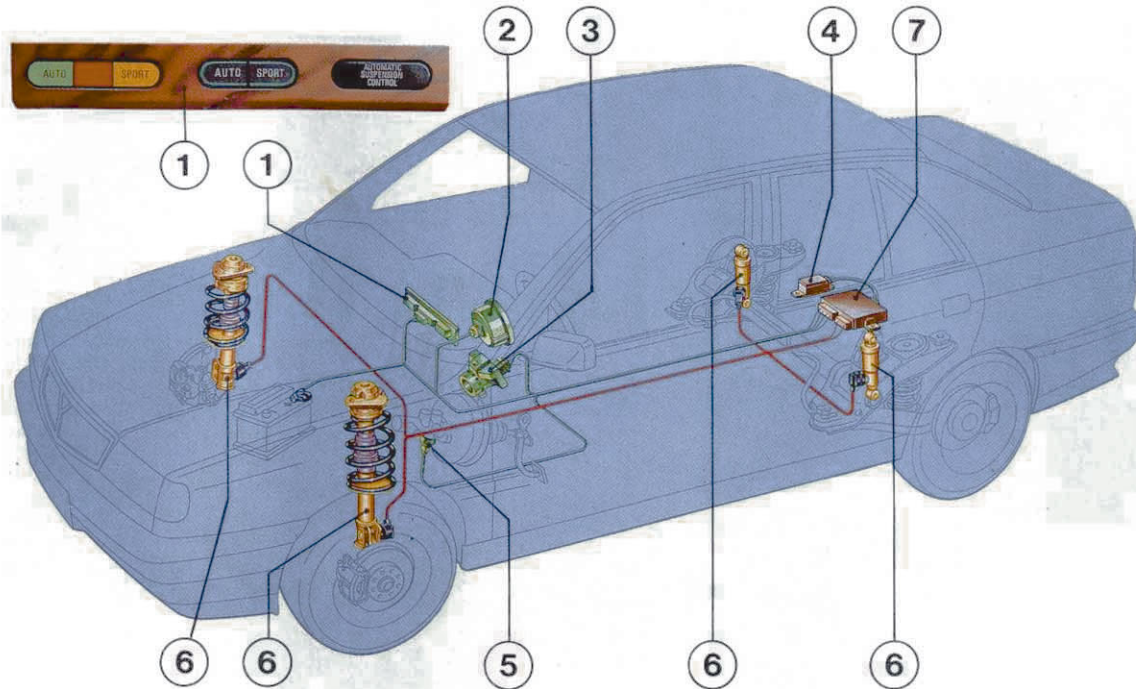
# INSTALLING AN ALARM SYSTEM

## Location of connections



- A. Siren installation (in engine compartment).
- B. Installation of right ultrasonic detector.
- C. Installation of left ultrasonic detector.
- D. Installation of boot opening detector.
- E. Connection to give alarm system control of the direction indicators (fuse box terminal "F"). Connect the alarm system power supply cable to a branch which is directly connected to the battery.
- F. Connection to give alarm system control of the power locks (fuse box terminal "L").
- G. Connection to give alarm system control of the power windows.
- H. Alarm system control unit installation.
- I. Installation of bonnet opening sensor.

# AUTOMATIC SUSPENSION CONTROL SYSTEM



1. Dashboard control panel.

2. Vehicle speed sensor.

3. Steering wheel position and rotational speed sensor.

4. Vertical acceleration sensor.

5. Brake system sensor.

6. Damper with solenoid.

7. Electronic control unit.

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