

# Alfa 147 GTA

**OWNER'S MANUAL** 



Dear Client,

Thank you for choosing Alfa Romeo.

Your **Alfa 147 GTA** has been designed to guarantee the safety, comfort and driving pleasure typical of Alfa Romeo.

This booklet will help you to get to know the characteristics and operation of your vehicle.

The following pages contain all the indications necessary for you to be able to maintain the high standards of performance, quality, safety and respect for the environment which characterise this **Alfa 147 GTA**.

The Warranty Booklet also contains the regulations, the warranty certificate and a guide to the services offered by Alfa Romeo.

Services which are essential and precious because, when you purchase an Alfa Romeo you are not only acquiring a car, but the tranquillity that comes from knowing that an efficient, willing and widespread organisation is at your service for any assistance problems you may have.

What's more, every single component of the **Alfa 147 GTA** is fully recyclable. At the end of your car's useful lifespan, any Alfa Romeo dealer would be pleased to make arrangements for your car to be recycled.

Nature benefits in two ways: there's no pollution from waste disposal and the demand for raw materials is reduced.

Have a good trip.

This booklet describes all the versions of the **Alfa 147 GTA**, so you should only consider the information concerning the trim level, engine and version purchased by you.

#### VERY IMPORTANT!

#### **FUEL CAPACITY**



Ronly use unleaded petrol with no less than 95 R.O.N.

#### STARTING THE ENGINE



**Engines with mechanical transmission:** make sure the handbrake is pulled; put the gear lever into neutral; press the clutch pedal down to the floor without touching the accelerator, then turn the ignition key to **AVV** and release it as soon as the engine starts.

**Engines with Selespeed transmission:** keep the brake pedal fully depressed; turn the ignition key to **AVV** and release it as soon as the engine has started; the transmission sets to neutral automatically (the display shows position **N**).

#### **PARKING ON FLAMMABLE MATERIAL**



While working, the catalyst develops a very high temperature. Do not park the car over grass, dry leaves, pine needles or any other inflammable materials: risk of fire.

#### RESPECTING THE ENVIRONMENT



The vehicle is fitted with a system that allows continuous diagnosis of the components correlated with emissions to ensure better respect for the environment.

#### **ACCESSORY ELECTRICAL DEVICES**



If after purchasing the car you wish to install accessories that need an electrical supply (with the risk of gradually draining the battery), contact Alfa Romeo Authorised Services who will assess the overall electrical absorption and check whether the car system is able to withstand the load required.

#### CODE CARD



Keep it in a safe place, not in the car. It is advisable to always keep the electronic code on the CODE card with you in case emergency starting is necessary.

#### SCHEDULED SERVICING



Correct maintenance makes it possible to preserve vehicle performance levels and safety, respect for the environment and low running costs unaltered over the course of time.

#### THE OWNER HANDBOOK...



...you will find important information, advice and warnings for correct use, driving safety and vehicle maintenance over time. Pay particular attention to the symbols  $\triangle$  (personal safety)  $\triangle$  (protecting the environment)  $\triangle$  (vehicle safety).

Any queries concerning servicing should be forwarded to the showroom from which the vehicle was purchased, the subsidiary company or to our branch offices or any point of the Network.

#### Warranty Booklet

The Warranty Booklet is delivered together with every new vehicle and contains the regulations tied to the services given by Alfa Romeo and to the warranty conditions.

Correctly carrying out the scheduled services specified by the manufacturer is the best way to maintain the performance, safety characteristics and low running costs of your vehicle. It is also necessary to maintain warranty cover.

#### "Service" guide

This contains Alfa Romeo Authorised Services. The services can be recognised by the presence of the Alfa Romeo badge and logo.

The Alfa Romeo organisation in Italy can be found in the telephone directory under the letter "A" Alfa Romeo.

Not all of the models described in this booklet are available in all countries. Only some of the fittings described in this booklet are fitted as standard to the vehicle. The list of available accessories should be requested from the Alfa Romeo Dealers.

#### THE SYMBOLS USED IN THIS BOOKLET

The symbols illustrated in these pages show the subjects which should, in particular, be closely studied.



Warning. Partially or fully ignoring these rules may lead to serious injury.



This indicates the correct procedures to be followed to prevent the vehicle from damaging the environment.



Warning. Partially or fully ignoring these rules may lead to serious damage being caused to the vehicle which, in some circumstances, may cause forfeiture of the warranty cover.

The texts, illustrations and specifications given in this booklet refer to the vehicle at the time of going to press.

As part of our ongoing striving to improve our products, Alfa Romeo may introduce technical changes during production, therefore the specifications and fittings may be altered without prior notice.

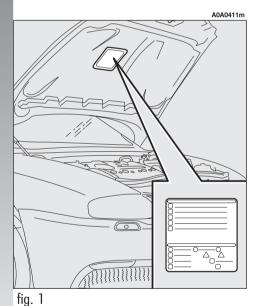
For details on this subject, please apply to the manufacturer's sales network.

### CETTING TO KNOW YOUR GAR

#### **SYMBOLS**

On some of the components making up your Alfa 147 GTA, or near to them, special coloured labels have been attached. These labels bear symbols that remind you of the precautions to be taken as regards that particular component.

A summary list of the symbols (**fig. 1**) is to be found under the bonnet.



#### THE ALFA ROMEO **CODE SYSTEM**

To increase protection against attempted theft, the car is fitted with an electronic engine lock system (Alfa Romeo CODE) which is activated automatically when the key is removed from the ignition. In fact the grip of each key contains an electronic device which modulates the radio frequency signal transmitted when the engine is started by a special aerial incorporated in the ignition switch. This modulated signal is the "password" by which the control unit recognises the key and only in this condition can the engine be started.

#### **KEYS**

Two keys are delivered together with the car, (A-fig. 2) with metal insert and remote control function.

The key remote control operates:

- Centralised door unlocking/locking
- Tailgate opening
- Electronic alarm on/off (if existing)
- Window and sunroof (if existing) unlocking/locking.

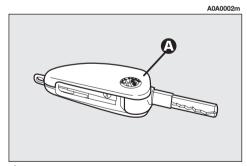


fig. 2

The key metal insert operates:

- The ignition switch
- the driver's door lock and, optional for versions/markets where applicable, the passenger's door lock
- The passenger's side air-bag deactivation
- The fuel tank plug lock.

**IMPORTANT** To guarantee the perfect efficiency of the electronic devices contained in keys, avoid letting tem directly exposed to sunravs.

Together with the keys the CODE card is provided (**fig. 3**), bearing in print the key codes (both mechanical and electronic for emergency start up).

The code numbers on the CODE card must be kept in a safe place, not in the car.

The driver should always keep the electronic code given on the CODE card with him/her in the event of having to carry out emergency starting.



If the car changes owner, the new owner must be given all the keys and the CODE card.

#### **WARNING - U.K. VEHICLES ONLY**

At the behest of the motor insurance companies the CODE card for emergency starting and remplacement of keys is not provided. If you need assistance please contact your nearest Alfa Romeo Dealer or telephone free phone 0800 717000.

#### **KEY WITH REMOTE CONTROL**

For versions/markets where applicable. the key with remote control (fig. 4) is fitted with:

- a metal insert (A) that can be enclosed in the key grip
- a button (B) for remote door unlocking and at the same time switching off the electronic alarm
- a button (**C**) for remote door locking and at the same time switching on the electronic alarm
- a button (**D**) for remote boot unlocking
- removable hook ring (E)
- a button ( $\mathbf{F}$ ) for power-assisted opening of the metal insert.

fig. 3

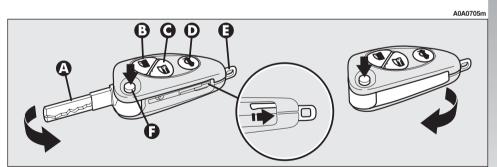


fig. 4

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The metal insert (A) of the key operates:

- the ignition switch
- the driver's door lock and, optional for versions/markets where applicable, the passenger's door lock
- the passenger's side  $\operatorname{Air}$  bag deactivating switch
- the fuel cap lock.

#### WARNING

When pressing the button (F), take care to prevent the metal insert from causing harm or damage when it comes out. The button (F) should only be pressed when the key is away from the body, in particular from the eyes, and from objects that can be spoilt (clothes for instance). Make sure the key can never be touched by others, especially children, who may inadvertently press the button (F).

To insert the metal insert in the key grip, keep the button (**F**) pressed and turn the insert in the direction shown by the arrow until hearing the click as it locks into place. Then release the button (**F**).

To unlock the doors by remote control, press button  $(\mathbf{B})$ , the doors unlock and the direction indicators flash twice. To lock the doors by remote control, press button  $(\mathbf{C})$ , the doors lock and the direction indicators flash once. Pressing button  $(\mathbf{B})$  the doors are released, if within the next 60 seconds a door or the tailgate are not opened, the system automatically locks everything again.

On cars fitted with electronic alarm system, pressing button (**B**) turns it off, pressing button (**C**) turns it on while the transmitter sends the code to the receiver. This code (rolling code) varies at each transmission.

**IMPORTANT** If when pressing button (**B**, **C** or **D**) the control is rejected or is not performed, the battery should be replaced by a new one of the same type to be found c/o normal retailers.

#### **OPENING THE TAILGATE**

The tailgate can be opened from outside by remote control pressing button (**D**), even if the electronic alarm is on. Opening of the tailgate is accompanied by the direction indicators flashing twice; closing is accompanied by a single flash.

If the electronic alarm is fitted, when the tailgate is opened the alarm system switches off volumetric protection and the tailgate control sensor, the system (with the exception of versions for certain markets) "beeps" twice.

Closing the tailgate again, the control functions are restored, the system (with the exception of versions for certain markets) "beeps" twice.

#### **OPERATION**

Each time the ignition key is turned to the **STOP** position, the Alfa Romeo CODE system deactivates the functions of the engine electronic control unit.

Each time the car is started turning the ignition key to **MAR**, the Alfa Romeo CODE control unit sends a recognition code to the engine control unit to deactivate the inhibitor. The code is crypted and variable between over four billion possible combinations, and it is sent only if the system control system has recognised the code transmitted from the key which contains an electronic transmitter, through an aerial wound around the ignition switch.

If the code has not been recognised correctly, the Alfa Romeo CODE warning light (1991) on the cluster turns on.

In this case, the key should be moved to the **STOP** position and then back to **MAR**; if the lock continues, possibly try again with the other key provided with the car. If it is still not possible to start the car, follow the instructions given in the "In an emergency" chapter and then contact Alfa Romeo Authorised Services.

**IMPORTANT** Every key has its own code, which must be memorised by the system control unit. To memorise new keys, up to a maximum of eight, apply solely to Alfa Romeo Authorised Services taking with you all the keys in your possession, the CODE card, a personal identity document and the car's ownership documents.



The codes of any keys not presented during the memorising procedure are. The reason for this is to en-

erased. The reason for this is to ensure that any lost or stolen keys cannot be used to start the engine.

**IMPORTANT** Turning on of the Alfa Romeo CODE warning light (((a)) when travelling with the ignition key at **MAR**:

1) If the warning light turns on, this means that the system is running a self-test (for example for a voltage drop). At the first stop, it will be possible to test the system: switch off the engine turning the ignition key to **STOP**; then turn the ignition key to **MAR** again: the warning light turns on and should go off in about one second. If the warning light stays on repeat the procedure described previously leaving the key at **STOP** for over 30 seconds. Should the inconvenience persist, contact Alfa Romeo Authorised Services.

2) Should the warning light not be on at the same time as the display of "IMMOBI-LIZ. NOT PROGRAMMED" on the re-configurable multifunction display, this means that the car is not protected by the engine block device. Contact immediately the Alfa Romeo Authorized Service to have all the keys stored.

Should the warning light

turn on at the same time as

the display of the message

"IMMOBILIZ. NOT PROGRAMMED"

on the re-configurable multifunc-

tion display, 2 seconds after the ig-

nition key has been set to the po-

sition MAR, this means that the

key codes have not been stored, and hence the car is not protected against possible theft by the Alfa

Romeo CODE system. In this case contact the Alfa Romeo Authorized Service for storing the key codes.

## KEY BATTERY REPLACEMENT

If when pressing button (**B**, **C** or **D-fig. 4**) the control is rejected or is not performed, the battery should be replaced by a new one of the same type to be found c/o normal retailers.

Used batteries are harmful to the environment. They should be disposed of as specified by law in the special containers provided. Avoid exposure to naked flames and high temperatures. Keep out of reach of children.

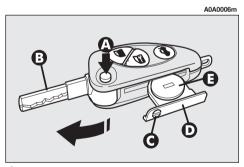


fig. 5

Battery replacement:

- press button (**A-fig. 5**) and move the metal insert (**B**) to the open position;
- using a finely-tipped screwdriver, turn the opening device (C) and pull out the battery holder (D);
- replace the battery (**E**) making sure that the bias is correct;
- re-insert the battery holder in the key and lock it, turning the device  $(\mathbf{C})$ .

#### **ELECTRONIC ALARM**

(optional for versions/markets where applicable)

#### **DESCRIPTION**

The system comprises: a transmitter, receiver, control unit with siren and volumetric sensors. The electronic alarm is controlled by the receiver incorporated in the instrument cluster and it is turned on and off by the remote control in the key which sends the crypted and variable code. The electronic alarm controls: the unlawful opening of doors, bonnet and boot (perimetral protection), operation of the ignition key, battery cable cutting, the presence of moving bodies in the passenger compartment (volumetric protection) any abnormal raising/ sloping of the car (for versions/markets where applicable) and central door locking. It also makes it possible to cut off the volumetric protection.

**IMPORTANT** The engine inhibitor function is guaranteed by the Alfa Romeo CODE system which is activated automatically when the ignition key is removed.

## REQUEST FOR ADDITIONAL KEYS WITH REMOTE CONTROL

The receiver can recognise up to 5 keys with incorporated remote control. Should a new key with remote control be necessary for any reason during the life of the car, contact directly Alfa Romeo Authorised Services, taking with you the CODE card, a personal identity document and the car's ownership documents.

#### **HOW TO ACTIVATE THE ALARM**

With the doors, bonnet and boot shut and the ignition key in the **STOP** or **PARK** position (key removed), point the key with remote control in the direction of the car, then press and release the button (**C-fig. 6**).

With the exception of certain markets, the system sounds a "beep" and the doors are locked.

Engagement of the alarm is preceded by a self-diagnostic test indicated by a different flashing frequency of the deterrent led (**A-fig. 7**) on the dashboard. If a fault is detected the system sounds a further warning "beep".

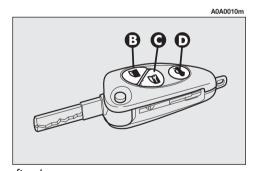


fig. 6

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#### **Surveillance**

After switching on, the flashing of the deterrent led (**A-fig. 7**) on the dashboard, indicates the system surveillance mode. The led flashes throughout this period.

**IMPORTANT** Operation of the electronic alarm is adapted at the origin to the rules of the different countries.

## Self-diagnostic functions and door, bonnet, boot control

If, after engaging the alarm, a second "beep" is sounded, switch off the system pressing the button (**B-fig. 6**), check that the doors, bonnet and tailgate are properly shut, then switch the system on again pressing the button (**C**).

Otherwise, the door, bonnet or tailgate that is not shut properly will be excluded from the alarm system control.

If the doors, bonnet and boot are shut correctly and the control signal is repeated, the system self-diagnostics has detected a system operating fault. It is therefore necessary to contact Authorised Alfa Romeo Services.

## HOW TO DEACTIVATE THE ALARM

To deactivate the alarm press the button (**B-fig. 6**) of the key with remote control. The system will react as follows (with the exception of certain markets):

- two brief flashes of the direction indicators
- two brief "beeps" of the siren
- door unlocking.

**IMPORTANT** If when the system is turned off the deterrent led (**A-fig. 7**) on the dashboard stays on (maximum 2 minutes or until the ignition key is set to **MAR**) the following should be borne in mind:

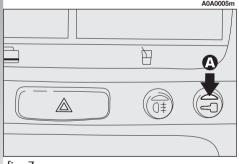


fig. 7

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— if the led continues flashing, but at different intervals than normal, this means that different attempts to break in have occurred. Through the number of flashes it is possible to identify the type of attempt:

**1 flash:** one or more doors

2 flashes: tailgate
3 flashes: bonnet
4 flashes: ultrasounds

**5 flashes:** abnormal vehicle lifting/sloping (for ver-

sions/markets where ap-

plicable)

**6 flashes:** tampering with car starting

cables

**7 flashes:** tampering with battery ca-

bles or cutting emergency

key cables

**8 flashes:** connection line to sensors

and siren

**9 flashes:** at least three causes of

alarm.

## WHEN THE ALARM IS TRIGGERED

When the system is on, the alarm comes into action in the following cases:

- opening of one of the doors, bonnet or tailgate;
- disconnection of the battery or sectioning of electric cables;
- intrusion in the passenger compartment, for example breakage of windows (volumetric protection);
- attempt to start the engine (key in MAR position);
- abnormal car lifting/sloping (for versions/markets where applicable).

Depending on the markets, the cutting in of the alarm causes operation of the siren and hazard warning lights (for about 26 seconds). The ways of operating and the number of cycles may vary depending on the markets.

A maximum number of cycles is however envisaged.

Once the alarm cycle has ended, the system resumes its normal control function.

#### **VOLUMETRIC PROTECTION**

To make sure that the protection system works correctly the side windows and sunroof (if fitted) must be properly shut.

The function can be cut off (if, for example, leaving animals in the car) carrying out the following operations in rapid succession: starting from the condition with the ignition key at **MAR**, move the key to **STOP**, then immediately back to **MAR** and then to **STOP** again, then remove the ignition key.

The deterrent led (**A-fig. 7**) on the dashboard lights up for about 2 seconds to confirm that the function has been cut off.

To restore volumetric protection, move and keep the ignition key at **MAR** for over 30 seconds.

If, with the volumetric protection function deactivated, an electric control controlled by the ignition key at **MAR** is required (e.g. power windows) turn the key to **MAR**, operate the control and move the key to **STOP** in a maximum time of 30 seconds. This way volumetric protection is not restored.

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## HOW TO CUT OFF THE ALARM SYSTEM

To deactivate the alarm system completely (for instance during prolonged inactivity of the vehicle) simply lock the car turning the key in the lock.

#### MINISTERIAL CERTIFICATION

In accordance with the law in force in each country, on the subject of radio frequency, we wish to point out that for the markets in which the transmitter needs to be marked, the certification number is given on the component.

Depending on the versions/markets, the code may also be given on the transmitter and/or on the receiver.

#### **IGNITION DEVICE**

#### SWITCH (fig. 8)

The key can be turned to one of four positions:

- **STOP**: engine switched off, key can be removed, engine inhibitor engaged, steering lock engaged, services excluded apart from those supplied directly (e.g. hazard warning lights).
- MAR: drive position. The engine lock is deactivated and all electrical devices are powered.

**IMPORTANT** Do not leave the key in this position when the engine is stopped.

 $\boldsymbol{-}$   $\boldsymbol{\mathsf{AVV}}$  : instable position for starting the engine.

**IMPORTANT** If the engine fails to start move the key back to **STOP** and repeat.

The ignition switch has a safety device which prevents passage to **AVV** when the engine is running.

— **PARK**: engine switched off, key can be removed, engine lock engaged, steering lock engaged, sidelights switched on automatically.

**IMPORTANT** To turn the key to the **PARK** position, button (**A**) on the switch must be pressed first.

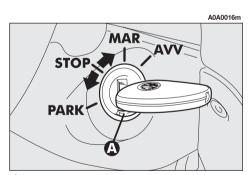


fig. 8

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#### WARNING

When leaving the vehicle always remove the key from the ignition to prevent any occupants of the vehicle from accidentally activating the controls. Never leave children in the vehicle unaccompanied. Remember to engage the handbrake, and, if the vehicle is parked on an uphill slope, to engage first gear. If the vehicle is facing downhill, engage reverse gear.

If the ignition device is tampered with (for example an attempted theft) have it checked over by Alfa Romeo Authorised Services before travelling again.

#### STEERING LOCK

#### **Engaging:**

- move the key to **STOP** or **PARK**, then remove the key and turn the steering wheel slightly to facilitate the locking action.

#### Disengaging:

- turn the key to **MAR** gently rocking the steering wheel from side to side.

#### WARNING

Never remove the ignition kev with the car on the move. The steering wheel would lock automatically the first time the steering wheel is turned. This also occurs if the car is towed.



#### WARNING

It is absolutely forbidden to carry out whatever after-

market operation involving steering system or steering column modifications (e.g.: installation of antitheft device) that could badly affect performance and safety, cause the lapse of warranty and also result in non-compliance of the car with homologation requirements.

#### **DOORS**



#### WARNING

Before opening a door, always make sure that it can be done safely.

#### **OPENING/CLOSING FROM** OUTSIDE

To open the driver's door turn the key clockwise and to open the passengers' door, optional for versions/markets where applicable, turn the key anti-clockwise, then remove the key and press the button (Afig. 9).

To close the door, turn the key in the lock in the opposite direction to the one for opening.

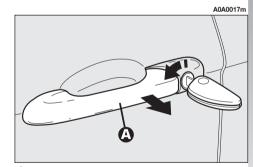


fig. 9

## OPENING/CLOSING FROM INSIDE

To open the door, pull the handle (**A-fig. 10**).

To close the door, pull it; then to prevent opening from outside, press the button (**A-fig. 11**) on the dashboard, the deterrent led (**B**) on the actual button lights up with a yellow light to confirm that locking has taken place.

#### **CENTRAL LOCKING**

This allows central locking of the door locks.

To engage central locking, the doors must be perfectly shut, otherwise, locking is denied.

**IMPORTANT** With central locking engaged, pulling the inside lever for opening one of the doors causes the unlocking also of the other door.

In the event of a power cut off (blown fuse, battery disconnected, etc.) it is still possible to work the lock by hand.

#### FRONT SEATS



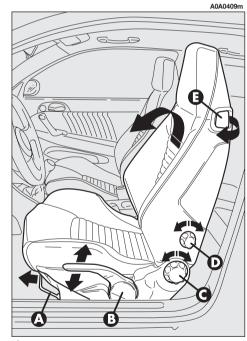


fig. 12

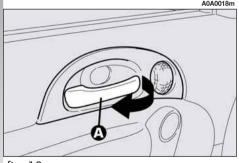


fig. 10

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fig. 11

## **LENGTHWISE ADJUSTMENT** (fig. 12)

Raise the lever (**A**) and push the seat backwards or forwards; in the driving position the arms should be slightly flexed and the hands should rest on the rim of the steering wheel.

#### WARNING

After releasing the adjustment lever, always check that the seat is locked on the runners, trying to move it to and from. The lack of this clamping action could cause the seat to move unexpectedly and cause loss of vehicle control.

#### DRIVER'S SEAT HEIGHT ADJUSTMENT (fig. 12)

To raise the seat, pull the lever (**B**) upwards, then work the lever (up and down) until reaching the required height, then release it. To lower the seat, push the lever (**B**) downwards then work the lever (up and down) until reaching the required height.

**IMPORTANT** Adjustment must be carried out only seated in the driver's seat.

#### BACK REST ANGLE ADJUSTMENT (fig. 12)

Turn the knob (**C**) until reaching the position required.

## **TILTING THE BACK REST** (fig. 12)

To gain access to the rear seats, pull the handle (**E**), the back rest folds and the seat is free to run forwards.

A recovery mechanism with memory makes it possible to take the seat back to its previous position.

Once the seat back has been returned to the travelling condition, make sure that it is correctly clamped, checking that the "red band" on the upper part of the handle (**E**) is concealed. In fact, this "red band" indicates that the seat back is not camped.

Also check that the seat is firmly locked on the runners, trying to move it to and from.

#### DRIVER'S SEAT LUMBAR ADJUSTMENT (fig. 12)

Turn the knob  $(\mathbf{D})$  until obtaining the most comfortable position.

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#### **CENTRAL ARMREST** (fig. 13)

The armrest is adjustable and can be raised or lowered to the required position.

To adjust, slightly raise the armrest, then press the release device  $(\mathbf{A})$ .

Inside the armrest there is an oddments compartment, to use it, raise the cover, pressing the device  $(\mathbf{B})$ .

# **SEAT WARMING** (fig. 14) (optional for versions/markets where applicable)

The seat warming pad can be switched on and off using switch  $(\mathbf{A})$  on the outer side of the seat.

Switching on is shown by the lighting up of the led (**B**) on the switch itself.

# **REAR POCKETS** (fig. 15) (for versions/markets where applicable)

The front seats are fitted with a pocket in the rear of the back rest.

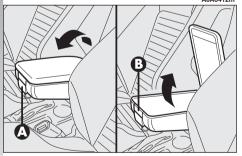


fig. 13

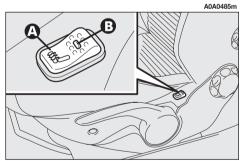


fig. 14

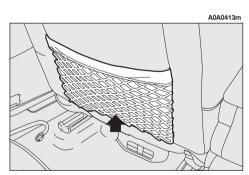


fig. 15

#### **REAR SEATS**

## EXTENDING THE LUGGAGE COMPARTMENT

The split rear seat makes it possible to extend the luggage compartment totally or partially, acting separately on one of the two parts, thereby offering different possibilities of load depending on the number of rear passengers.

WARNING

If a particularly heavy load is placed in the boot, when travelling at night, it is wise to check the height of the high beams (see "Headlamps" paragraph).

#### Removing the rear parcel shelf

Proceed as follows:

- free the ends of the two rods (**A-fig.** 16) supporting the parcel shelf (**B**) pulling the eyelets (**C**) off the pins (**D**);
- release the pins (**A-fig. 17**) at the outside of the shelf from their housings (**B**) obtained in the side supports, then remove the shelf pulling it outwards.

After removal the shelf can be placed in two ways:

- crossways in the luggage compartment as shown in **fig. 18**;
- crossways between the front seat back reats and the tilted cushions of the rear seats if the boot is extended totally (see **fig. 22**).

#### **Total extension**

Proceed as follows:

- position the seat belt buckles (**A-fig.**19) in their housings in the cushion;
- pull the handles in the centre of the cushions, then tilt them forwards;

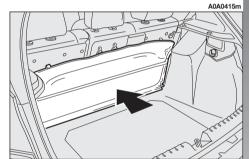


fig. 18

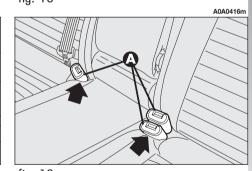


fig. 19



fig. 16

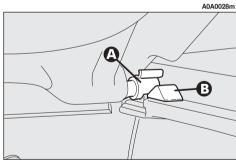


fig. 17

- raise the headrests to the highest position, press both buttons (**A-fig. 20**) at the side of the two supports, then remove the headrests pulling them upwards.
- move the seat belts to the side extending them correctly without twisting;
- raise the levers (**A-fig. 21**) retaining the back rests and tilt them forwards to obtain a single loading surface (**fig. 22**).

**IMPORTANT** For versions/markets where applicable, the retainer levers are replaced by buttons (one for each side). To release the back rests and tilt them, use the buttons themselves.

#### **Partial extension**

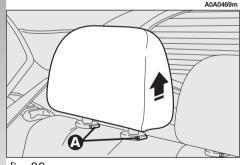
For partial extension, proceed as follows:

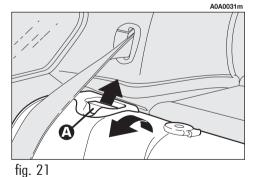
- tilt the cushion required pulling the handle at the centre of the cushion, then tilting the actual cushion;
- raise the headrests of the seat to be tilted to the highest position, press both buttons at the side of the two supports and remove the headrests pulling them upwards;
- move the seat belt to one side extending it correctly without twisting;
- raise the lever retaining the back rest and tilt it forwards.

## To bring the seat back to its normal position

Proceed as follows:

- move the seat belts to the side extending them correctly without twisting;
- raise the seat backs, pushing them backwards until hearing both clamping devices click into place, checking that the "red band" can no longer be seen on the upper part of the levers (**A-fig. 21**). In fact, this "red band" indicates that the seat back is not clamped;
- set the cushions to the horizontal position keeping the centre seat belt raised;
  - refit the headrests.





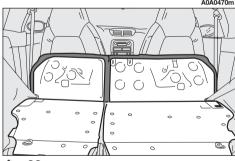


fig. 22

fig. 20

#### **HEADREST ADJUSTMENT** (fig. 23)

The car may be fitted with two headrests for the side seats and, depending on the trim level, it may also have a third headrest in the centre.

The headrests have 2 positions (up/down) depending on the height of the passenger.

In the case of need, it is possible to remove the headrests as described previously (see "Luggage compartment extension").

#### WARNING

Remember that headrests should be adjusted so that the nape, and not the neck, rests on them. Only in this position do they exert their protective action in the event of a crash from behind.

#### **CENTRAL ARMREST** (fig. 24)

To use the armrest (A), lower it as illustrated.

#### LUGGAGE RETAINER NET

Present only on certain versions, the interior fittings are completed by the luggage retainer net, which is helpful in correctly arranging the load and/or suitable for transporting light materials.

Fig. 25, 26, 27 below show the various clamping solutions for the net in the boot.

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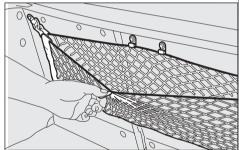


fig. 25

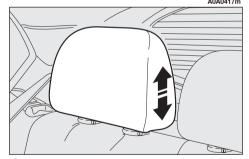


fig. 23

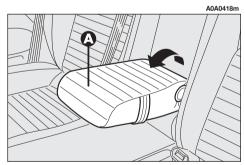


fig. 24

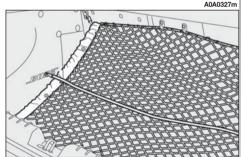


fig. 26

#### STEERING WHEEL **ADJUSTMENTS**

The driver can adjust the steering wheel position in rake and height.

To do this, release the lever (A-fig. 28) pulling it towards the steering wheel.

After moving the steering wheel to the most suitable position, lock it pushing the lever fully forwards.

#### WARNING

Any adjustment of the steering wheel position must be carried out only with the vehicle stationary.

#### WARNING

It is absolutely forbidden to carry out whatever aftermarket operation involving steering system or steering column modifications (e.g.: installation of antitheft device) that could badly affect performance and safety, cause the lapse of warranty and also result in non-compliance of the car with homologation requirements.

#### **REAR-VIEW MIRROR ADJUSTMENT**

#### **INNER**

The mirror, fitted with a safety device that causes it to be released in the event of a violent crash, can be moved using the lever (A-fig. 29) to two different positions normal or antiglare.

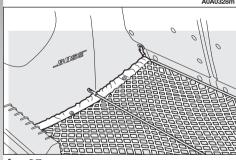


fig. 27

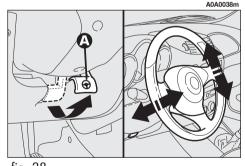


fig. 28

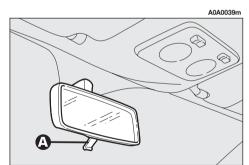


fig. 29

#### **OUTER**

#### Electric adjustment (fig. 30)

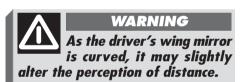
- use the switch (A) to select the mirror required (right or left);
- pressing the button (**B**), in one of the four directions, move the mirror selected previously;
- Position the switch (A) in the intermediate locking position.

**IMPORTANT** Adjustment is possible only with the ignition key at **MAR**.

#### Folding (fig. 31)

— In the event of need (for example when the mirror causes difficulty in narrow spaces) it is possible to fold the mirror moving it from position  $(\mathbf{A})$  to position  $(\mathbf{B})$ .





#### Defrosting/demisting (fig. 32)

The electric mirrors are fitted with heating coils which come into operation with rearscreen heating pressing the button (A) thereby defrosting and/or demisting the mirrors.

**IMPORTANT** The function is timed and automatically switched off after a few minutes.

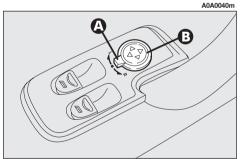


fig. 30

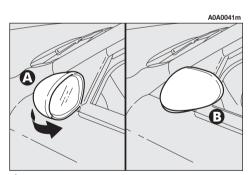


fig. 31



fig. 32

## 24

#### **POWER WINDOWS**

The power windows are fitted with a safety system with crush-prevention seals. The electronic control unit that operates the system is capable of detecting the presence of an obstacle during the window closing motion through the special seals. Should this occur, the system stops the movement of the window and reverses it immediately.

**IMPORTANT** If the crush-prevention function is operated for 3 times in 1 minute, the system automatically sets to the recovery mode (self-protection). To reset the correct system operating logic, use the control button. The window will rise in predefined steps until closing completely. The logic is reset and if there are no faults, the window winder automatically resumes normal operation; if not, contact Alfa Romeo Authorised Services.

**IMPORTANT** With the ignition key at **STOP** or removed, the power windows remain activated for about 3 minutes and are deactivated immediately the moment a door is opened.

#### Driver's side (fig. 33)

The driver's door panel contains the buttons that control the following windows, with the ignition key at **MAR**:

- A left front window
- **B** right front window.

Press the button to lower the window. Pull to raise it.

**IMPORTANT** The driver's power window is fitted with the "continuous automatic operation" device for both lowering and raising the window. A brief press on the upper or lower part of the button will cause it to move and continue automatically: the window stops in the required position by pressing either the upper or lower part of the button again.

#### Passenger's side (fig. 34)

The button (A) controls the passenger's side window.

**IMPORTANT** The passenger side power window is provided with an "automatic continuous operation" device both to lower and to raise the window. A brief push on the upper or lower part of the button is sufficient to start the run which continues automatically: the window stops at the required position by pushing once again indifferently the upper or lower part of the button.

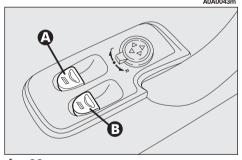


fig. 33

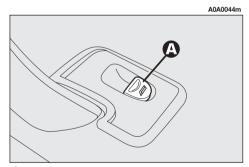


fig. 34

#### WARNING

Improper use of power windows can be dangerous. Before and during use, always make sure that the passengers are not exposed to the risk of harm either directly by the moving windows or by personal objects drawn or knocked by them. When leaving the car, always remove the ignition key to prevent the power windows from being operated inadvertently, and harming anyone left on board.

**IMPORTANT** After locking the doors, keeping the corresponding button of the remote control pressed for about 2 seconds causes automatic closing of the windows and sunroof (if present). The remote control button should be pressed until the windows have completed their stroke; releasing the button sooner, the windows stop in the position they are in at that moment.

On all versions, after unlocking the doors, keeping the remote control button pressed for about 2 seconds the windows and surroof (if present) are opened.

#### **SEAT BELTS**

#### **USING THE SEAT BELTS**

The belt should be worn keeping the chest straight and rested against the seat back.

Take hold the tongue (**A-fig. 35**) and insert it into the buckle (**B**), until hearing the locking click.

At removal, if it jams, let it rewind for a short stretch, then pull it out again without jerking.

Do not keep the button pressed when the window is completely raised or lowered.

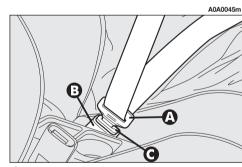


fig. 35

To unfasten the seat belts, press button (C). Guide the seat belt with your hand while it is rewinding, to prevent it from twisting.

The rear seat is fitted with inertial seat belts with three anchor points with reel for the side seats and for the centre seat (fig. 36).

#### WARNING

After tilting, when resetting the rear seat in straight position, take care to reposition the seat belt properly to have it ready for use.



#### WARNING

Never press button (C) when travelling.

Through the reel, the belt automatically adapts to the body of the passenger wearing it, allowing freedom of movement.

When the car is parked on a steep slope the reel mechanism may block; this is normal. The reel mechanism prevents the webbing coming out when it is jerked or if the car brakes sharply, in a collision or when cornering at high speed.



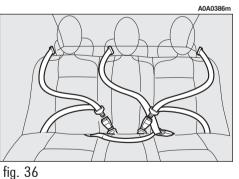
#### WARNING

When the seat back is coupled properly, the "red band" (B) next to the seat back levers (A) disappears. The "red band" actually indicates improper seat back coupling (fig. 36a). When resetting it in proper position, make sure to hear the locking click.



#### WARNING

Make sure the seat back is correctly hooked on both sides (not visible "red bands" (B)) to prevent seat back being thrown forwards and injuring passengers should you brake sharply.



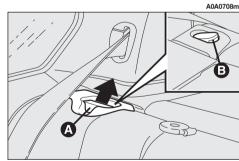


fig. 36a

26

#### WARNING

Remember that, in the event of an accident, any passengers occupying the rear seats who are not wearing a seat belt not only subject themselves to great personal risk but constitute a danger to the occupants of the front seats.

When the rear seats are not occupied, use the spaces provided in the cushion to stow the belt buckles.

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fig. 37

## FRONT SEAT BELT HEIGHT ADJUSTMENT

The front seat belt ring can take different positions which make it possible to adjust the height of the belts.

Always adjust the height of the belts adapting it to the person who is wearing it. This precaution improves their effectiveness. substantially reducing the risk of injury in the event of a crash.

Correct adjustment is obtained when the belt passes half way between the end of the shoulder and the neck.

To adjust, lower or raise the grip (**A-fig. 38**) of the locking device, at the same time moving the ring (**B**) to the most appropriate of the allowed positions.

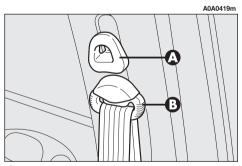


fig. 47

#### WARNING

After adjustment, always check that the slider (B-fig. 38) is anchored in one of the positions provided. To do this, with the button (A-fig. 38) released, exert a further pressure to allow the anchor device to catch if release did not take place at one of the preset positions.



#### WARNING

Make the height adjustment when the car is sta-

tionary.

#### **LOAD LIMITERS**

To increase passive safety, the front seat belt reels contain a load limiter which allows controlled sag in such a way as to dose the force acting on the shoulders during the belt restraining action.

#### 28

#### **PRE-TENSIONING DEVICES**

To increase the efficiency of the front seat belts, **Alfa 147 GTA** is fitted with pretensioning devices.

These devices "feel" that the car is being subject to a violent impact by way of a sensor rewind the seat belts a few centimetres. In this way they ensure that the seat belt adheres to the wearer before the restraining action begins.

The seat belt locks to indicate that the device has intervened; the seat belt cannot be drawn back up even when guiding it manually.

**IMPORTANT** The pretensioner will give maximum protection when the seat belt adheres snugly to wearer's chest and hips.

Front seat pretensioners activate only if front seat belts are properly fitted into buckles.

A small amount of smoke may be produced. This smoke is in no way toxic and presents no fire hazard.

The emergency tensioning retractor needs no maintenance or lubrication. Any modification to its original features will nullify the retractor's effectiveness. If, due to unusual natural events (floods, high waves, etc.), the device has been affected by water and mud, it must be replaced.

#### WARNING

The pretensioner can only be used once. After a collision that has triggered it, have it replaced at Alfa Romeo Authorized Service. The validity of the device is written on the plate located on the front left door near the lock. Contact Alfa Romeo Authorized Services to have pretensioner replaced as this date approaches.

Operations involving banging, vibrations or heating (above 100°C for a maximum of 6 hours) in the area of the pretensioners may damage or trigger off the device. Vibrations from rough road surfaces or accidental jolting caused by mounting pavements etc. do not have any effect on the pretensioner. If, however, you need assistance, go to Alfa Romeo Authorized Services.

#### WARNING

Never disassemble or tamper with the pretensioner components. All interventions must be carried out by qualified and authorised personnel. Always contact Alfa Romeo Authorized Services.

#### WARNING

To ensure the highest degree of protection, you are recommended to keep the seat backrest in the straightest position possible, and the belt adhering well to the chest and pelvis. Seat belt should always be worn in both the front and rear positions! Travelling without seat belt increases the risk of serious injury or death in the case of accident.

#### WARNING

Under no circumstances should the components of the seat belts and pretensioner be tampered with or removed. Any operation should be carried out by qualified and authorised personnel. Always contact an Alfa Romeo Authorized Service.

# GENERAL INSTRUCTIONS FOR THE USE OF THE SEAT BELTS

All the occupants of the car are obliged to respect the local traffic laws regarding the wearing of seat belts.

Always fasten the seat belts before starting.

#### WARNING

The seat belt must not be twisted and should cling tightly to the body. The upper part must pass over the shoulder and diagonally across the chest. The lower part must rest across the pelvis and not across the stomach to eliminate the risk of sliding forwards (fig. 39). Do not use devices (clips, stoppers, etc.) which keep the belts away from the body.

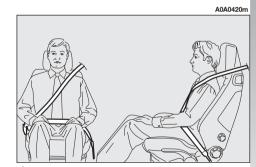


fig. 39

#### 30

#### WARNING

WARNING

Do not carry children on your knee using a single

seat belt for both (fig. 40). Do not fasten other objects to the body.

If the seat belt has been subjected to shock, for example during an accident, it must be completely replaced together with the attachments and their screws, and the pretensioning devices, even if visible defects are not detected as the belt may have lost its resilience.

Seat belts are also to be worn by expectant mothers: the risk of injury in the case of accident is greatly reduced for them and the unborn child if they are wearing a seat belt.

Pregnant women must of course position the lower part of the belt very low down so that it passes under the abdomen (**fig. 41**).

## HOW TO KEEP THE SEAT BELTS ALWAYS IN EFFICIENT CONDITIONS

 Always use the belts with the tape well taut and never twisted; make sure that it is free to run without impediments.

- After a serious accident, replace the belt being worn at that time, even if it does not appear damaged. Always replace the seat belts if pretensioners have been activated.
- To clean the belts, wash by hand with neutral soap, rinse and leave to dry in the shade. Never use strong detergents, bleach or dyes or any other chemical substance that might weaken the fibres.
- Prevent the reels from getting wet: correct operation of them is only guaranteed if water does not get inside.
- Replace the seat belt if it shows significant wear or cut signs.

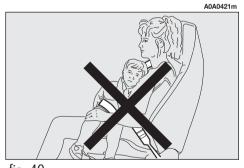


fig. 40



fig. 41

#### CARRYING CHILDREN SAFELY

SERIOUS DANGER! Never place cradle child's seats on the front passenger seats of cars equipped with passenger air bag since the air bag activation could cause serious injuries, even mortal. You are advised to carry children always on the rear seat, as this is the most protected position in the case of a crash. In any case, child's seats must absolutely not be positioned on the front seat of car's with passenger's air bag, which during inflation could cause serious injury, even mortal, regardless of the seriousness of the crash that triggered it. Children may placed on the front seat of cars fitted with passenger's air bag deactivation. In this case, it is absolutely necessary to check the warning light of warning light of warning light are in the massenger air bags' at item "Front passenger air bag"). The front passenger seat shall be adjusted in the most backward position to prevent any contact between the child's seat and the dashboard.

For the best level of protection in the event of a crash, all occupants must travel seated and secured by suitable restraint systems.

This is even more important for children.

According to 2003/20/EC Directive, this prescription is compulsory for all European Community countries.

Compared with adults, a child's head is proportionately larger and heavier than the rest of the body, while muscles and bone structure are not completely developed. Therefore, in order to restraint them correctly in the event of a crash, different systems are needed then adult seat belts.

0-10 kg 9-18 kg 15-25 kg 22-36 kg

fig. 42

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Group 0	until 10 kg in weight		
Group 0+	until 13 kg in weight		
Group 1	9-18 kg in weight		
Group 2	15-25 kg in weight		
Group 3	22-36 kg in weight		

As it may be noted, the groups partially overlap and in fact, in commerce it is possible to find devices that cover more than one weight group (fig. 42).

All the restraint devices must bear the homologation data, together with the control brand, on a solidly fixed label which must absolutely not be removed.

Over 1.50 m in height, from the point of view of restraint systems, children are considered as adults and wear belts normally.

The Lineaccessori Alfa Romeo includes seats for each weight group, which are the recommended choice because they have been designed and specifically experimented for Alfa Romeo cars.

#### GROUP 0 and 0+

Babies up to 13 kg must be carried facing behind (fig. 43) on a cradle seat, which, supporting the head, does not induce strain on the neck in the event of sharp deceleration.

The cradle is restrained by the car safety belts, as illustrated, and it should in turn restrain the child with the belts incorporated on it.

#### **GROUP 1**

Starting from 9 kg to 18 kg in weight, children may be carried facing forwards with seats fitted with front cushion (fig. 44). through which the car seat belt restrains both child and seat.

#### WARNING

The illustration is indicative only for assembly. Assemble the seat according to the compulsory instructions provided with it.

#### WARNING

The illustration is indicative only for assembly. Assemble the seat according to the compulsory instructions provided with it.

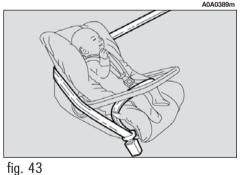


fig. 44



#### WARNING

Seats exist which are suitable for covering weight groups 0 and 1 with a rear connection to the car belts and its own belts to restrain the child. Because of their mass, they can be dangerous if installed incorrectly fastened to the car belts with a cushion. Strictly adhere to the assembly instructions provided.

#### **GROUP 2**

Starting from 15 to 25 kg in weight, children may be restrained directly by the car seat belts. Child seats only have the function of positioning the child correctly in relation to the belts, so that the diagonal part adheres to the chest and never to the neck and that the horizontal part adheres to the child's pelvis and not to the abdomen (fig. **45**).

#### **GROUP 3**

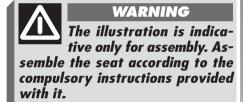
For children from 22 kg up to 36 kg the child's chest is thick enough not to need the spacer back rest any more.

**fig. 46** shows proper child seat positioning on the rear seat.

Over 1.50 m in height, children may wear seat belts like adults.

#### WARNING The illustration is indicative only for assembly. Assemble the seat according to the compulsory instructions provided

with it.



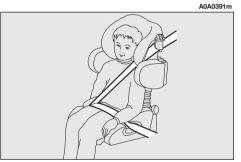


fig. 45



fig. 46

#### 34

#### PASSENGER SEAT COMPLIANCE WITH REGULATIONS ON CHILD'S SEAT USE

**Alfa 147 GTA** complies with the new EC Directive 2000/3 regulating child's seat assembling on the different car seats according to the following table:

#### **Versions rear seats**

Group	Range of weight	I	SEAT		
		Front passenger	Rear side passenger seat	Rear centre passenger seat (inertial seat belt with three anchor points)	
Group 0,0+	0 - 13 kg	L	U	U	
Group 1	9 -18 kg	L	U	U	
Group 2	15 - 25 kg	L	U	U	
Group 3	22 - 36 kg	L	U	U	

#### Key:

**U** = suitable for child restraint systems of the "Universal" category, according to European Standard ECE-R44 for the specified "Groups"

L = suitable for certain child's restraint systems available at Lineaccessori Alfa Romeo for the specified group

#### Below is a summary of the safetv rules to be observed when carrying children:

1) The recommended position for installing a child's seat is on the rear seat, as it is the most protected in the event of a crash.



- 2) If the passenger's Air bag is deactivated always, check the warning light on the cluster to make sure that it has actually been deactivated.
- **3)** Carefully follow the instructions provided with the child's seat, which the supplier is obliged to attach. Keep them in the car together with the documents and this booklet. Do not use used seats without the instructions for use.

- **4)** Always pull the tape to check that the belts are buckled.
- **5)** All restraint systems are strictly for one child only: never use for two children at the same time.
- **6)** Always make sure that the belts do not rest on the child's neck.
- **7)** During the journey, do not allow the child to stay in abnormal positions or release the belts.
- 8) Do not carry children in your arms, not even small babies. No-one, however strong. can keep hold of them in a crash.
- **9)** In the case of accidents, replace the child's seat with a new one.

#### FRONT AND SIDE **AIR BAGS**

The car is fitted with front Air bags for the driver (fig. 47), for the passenger (fig. **48**), side bags (**fig. 49**) and window bags (fig. 50).

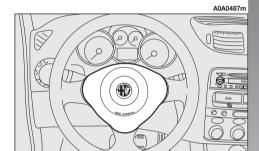


fig. 47

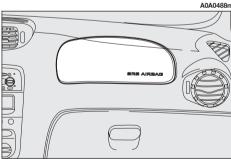


fig. 48

35

# 36

#### **FRONT AIR BAGS**

#### **Description and operation**

The front Air bag (driver's and passenger's) is a safety device which comes into action in the event of a head-on collision.

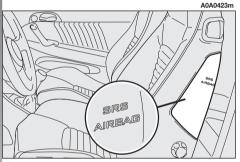


fig. 49

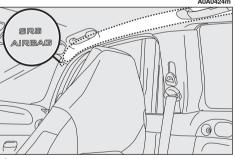


fig. 50

It is formed of a cushion that inflates instantaneously contained in a special recess:

- in the centre of the steering wheel for the driver;
- in the dashboard and with a bigger cushion for the passenger.

The front Air bag (driver's and passenger's) has been designed to protect the occupants in the event of head-on crashes of mediumhigh severity, by placing the cushion between the occupant and the steering wheel or dashboard.

In the case of a crash, an electronic control unit processes the signals leading from a deceleration sensor and, when necessary triggers inflation of the cushion.

The cushion inflates instantaneously, setting itself between the body of the front occupants and the structures that could cause injury. The cushion then deflates immediately afterwards.

The front air bag (driver's and passenger's) does not replace but is complementary to the use of belts, which should always be worn, as specified by law in Europe and most non-European countries.

In the event of a crash a person that is not wearing the seat belt moves forwards and may come into contact with the cushion while it is still opening. Under these circumstances the protection offered by the cushion is reduced.

Front air bags designeed to protect car's occupants in front crashes and therefore non-activation in other types of collusions (side collisions, rear-end shunts, roll-overs, etc...) is not a system malfunction

In collisions against highly deformable or mobile objects (road signposts, heaps of ice or snow, etc.), rear collisions (hit from behind by another vehicle), side collisions, wedging under other vehicles or protective barriers (for example under a lorry or guard rail) cutting in of the air bag is not activated as it does not offer any more protection than the seat belts therefore activation would be inappropriate.

Therefore the failure to be triggered does not mean that the system is not working properly.

#### WARNING

Please don't apply stickers or other objects to the steering wheel, to the air-bag cover on the passenger's side or on the side roof lining to the upholstery on the roof side. Don't place objects on the dashboard passenger's side (such as mobile phones) because they could tamper with the correct opening of the passenger's air-bag and than cause serious injuries to the vehicle occupants.

# PASSENGER'S FRONT AIR BAG

The passenger's front air bag has been designed to improve the protection of a person wearing a seat belt.

Its volume at maximum inflation fills most of the space between the dashboard and the passenger.



# WARNING SERIOUS DANGER: The car is fitted

with front passenger's air bag. Never place cradle child's seats on the front passenger seat of cars equipped with passenger air bag since the air baa activation could cause serious iniuries, even mortal. In the case of need, always deactivate the passenger's air bag when a child's seat is placed on the front seat. The front passenger seat shall be adjusted in the most backward position to prevent any contact between child's seat and dashboard. Even if not ruled by law, for better protection of adults you are recommended to reactivate the air bag immediately as soon as child transport is no longer necessary.

# MANUAL DEACTIVATION OF PASSENGER'S FRONT AIR BAG

Should it be absolutely necessary to carry a child on the front seat, the passenger's front air bag can be deactivated.

Deactivation/reactivation takes place with ignition key at **STOP** and operating it in the special key switch on the right-hand side of the dashboard (**fig. 51**). Access to the switch is only possible with the door open.

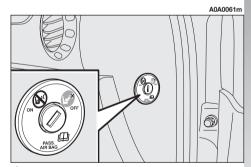


fig. 51

#### WARNING

Use the switch only with the engine off and the ignition kev removed.

The key-operated switch (fig. 51) has two positions:

- 1) Passenger's front Air bag activated: (ON position ⊗) warning light on instrument cluster off; it is absolutely prohibited to carry a child on the front seat.
- 2) Passenger's front Air bag deactivated: (OFF position 🛂 🖹 ) warning light on instrument cluster on: it is possible to carry a child protected by special restraint systems on the front seat.

The warning light **∠** on the cluster stays on permanently until the passenger's Air bag is reactivated.

Deactivation of the passenger's front Air bag does not inhibit operation of the side Air baa.

When the door is open, the key can be inserted and removed in both positions.

## **SIDE AIR BAGS** (SIDE BAG - WINDOW BAG)

The side bag and window bag have the task of increasing protection of the occupants in the event of a side crash of medium-high severity.

They are formed of an instantaneously-inflating cushion:

- the side bag is housed in the back rest of the front seats: with this solution it is always possible to have the cushion in the optimum position in relation to the passenger, regardless of the adjustment of the seat;
- the window bags, which are "curtain" cushions, are housed in the side roof lining covered by a special trim, which makes it possible to extend the cushion downwards. This solution, designed to protect the head, makes it possible to offer the highest degree of protection to the front and rear occupants in the event of side crash, thanks to the wide cushion inflation surface.

In the event of a side crash, an electronic control unit processes the signals leading from a deceleration sensor and activates. when necessary, inflation of the bags.

The bags inflate instantaneously, setting themselves between the body of the front passengers and the car door. The bags deflate immediately afterwards.

In the event of minor side crashes (for which the restraining action of the seat belts is sufficient), the air bags are not deployed. Also in this case it is of vital importance to wear the seat belts since in case of side crash they quarantee proper positioning of the occupant and prevent the occupant to be pitched out of the car in case of violent crashes.

Therefore the side air bags do not replace but are complementary to the use of belts. which you are recommended to always wear, as specified by law in Europe and most non-European countries.

Operation of the side air bags and window bags is not disabled by the front air bag deactivation switch, as described in the previous paragraphs.

**IMPORTANT** In the event of side crash, you can obtain the best protection by the system keeping a correct position on the seat, thus allowing correct window bag unfolding.

WARNING

Never rest head, arms and elbows on the door, on the windows and in the window bag area to prevent possible injuries during the inflation phase.

**IMPORTANT** The front and/or side air bags may be activated if the car is subjected to heavy shocks or accidents that involve the underbody area, such as for example violent bumps against steps, pavements or fixed obstacles on the ground, falling into big holes or bumpy roads.

**IMPORTANT** The triggering of air bags releases a small amount of powder. This powder is not harmful and does not indicate a start of fire; also the surfaces of the deployed bag and the car interior may be covered with dusty residue: this may irritate the skin and eyes. In the event of exposure, wash with neutral soap and water.



#### WARNING

Never lean head, arms and elbows out of the window.

The airbag system has a validity of 14 years for the pyrotechnic charge and 10 years for the coil contact (see the plate located on the front left door near the lock). Contact Alfa Romeo Authorized Services for replacement as these dates approach.

**IMPORTANT** If an accident has triggered the air bag, Alfa Romeo Authorized Services must be contacted to have the devices activated replaced and to have the whole system checked.

All operations involving checking, repairing and replacing components concerning the Air bag must be carried out by Alfa Romeo Authorized Services.

If the car is to be demolished, Alfa Romeo Authorized Services should be contacted beforehand to have the system deactivated.

If the car changes ownership, the new owner must be informed of the instructions for use and of the above warnings and be given this "Owner's Manual".

**IMPORTANT** The triggering of the pretensioners, front air bags and side bags is decided by the electronic control unit in a differentiated manner depending on the type of crash. The failure to trigger one or more of them does not necessarily indicate a system malfunction.

#### **GENERAL CAUTIONS**

If the \* warning light does not turn on when turning the ignition key to MAR or if it stays on when travelling, this could indicate a failure in safety retaining systems; under this condition air bags or pretensioners could not trigger in the event of collision or, in a restricted number of cases, they could trigger accidentally. Stop the car contact Alfa Romeo Authorised Services to have the sys-

tem checked immediately.

#### WARNING

Do not cover the back rest of front seats with trims or covers there are not set for the use of side bags.

# WARNING

Never travel with objects on your lap, in front of the chest or with a pipe, pencil, etc. between your lips. Serious injury may result in the case of the air bag being triggered.

#### WARNING

Always keep your hands on the steering wheel rim when driving, so that if the Air bag is triggered, it can inflate without meeting any obstacles. Do not drive with the body bent forwards, keep the seat back rest in the erect position and lean your back well against it.

#### WARNING

If the car has been stolen or an attempt to steal it has been made, if it has been subjected to vandals or floods, have the Air bag system checked by Alfa Romeo Authorized Services.

#### WARNING

Please don't apply stickers or other objects to the steering wheel, to the air-bag cover on the passenger's side or on the side roof lining to the upholstery on the roof side. Don't place objects on the dashboard passenger's side (such as mobile phones) because they could tamper with the correct opening of the passenger's air-bag and than cause serious injuries to the vehicle occupants.

#### WARNING

You are reminded that when the ignition key is engaged and in the MAR position, the Air bags can be triggered also on a stationary vehicle, if it is bumped by another moving vehicle. Therefore, even with the car stationary, never allow children on the front seat. You are also reminded that with the car stationary, without the key engaged and turned, the Air bags are not triggered in the event of an impact; in this case the failure to trigger the air bags should not be considered a system failure.

#### WARNING

Turning the ignition key to MAR the \(\sup \times \text{ warning light}\) (with the passenger's front Air bag deactivation switch at ON) turns on for about 4 seconds, and then flashes for another 4 seconds to remind that the passenger's Air bag and corresponding side Air bags will be activated in the event of a crash, then it goes off.

#### WARNING

The front Air bags are designed to be triggered for heavier crashes than the pretensioners. It is therefore normal for the pretensioners only to be triggered for crashes within the two activation thresholds.

#### WARNING

The air bag does not replace the seat belts, but increases their effectiveness. Additionally, as the front air bags are not triggered for head-on collision at low speed, side crashes, crashes from behind or overturning, in these cases the occupants are protected only by the seat belts, which must, therefore, always be fastened.

#### WARNING

Do not wash the seat back with pressurised water or steam (by hand or at automatic seat washing stations).

# WARNING

Do not hook rigid objects to the coat hooks and to the support handles.

# STEERING WHEEL LEVERS

The devices and services controlled by the levers on the steering wheel can only be activated with the ignition key at **MAR**.

#### **LEFT-HAND LEVER**

The left-hand lever controls the outer lights except the fog lamps and rear fog guards.

When the outer lights are switched on, the various controls on the dashboard are illuminated.

Only with the ignition key at **PARK**, regardless of the position of the knurled ring, the side lights and number plate lights stay on.

Position (1 or **2-fig. 57**) of the lever causes the turning on only of the side lights (front and rear), on the right or left respectively.

#### Lights switched off (fig. 52)

When the pointer on the knurled ring is opposite the symbol **O** the outer lights are switched off.

# Sidelights (fig. 53)

The sidelights are switched on by turning the knurled ring from  $\mathbf{O}$  to  $\mathfrak{P}$ .

The  $\stackrel{>}{>}$  of warning light on the instrument cluster will come on at the same time.

## Dipped-beam headlights (fig. 54)

These are switched on by turning the knurled ring from  $- \rlap/ \square$  to  $\square$ .

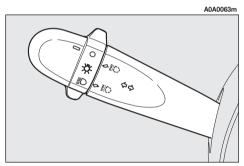


fig. 52

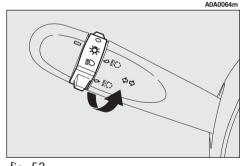


fig. 53

# Main beams (fig. 55)

To turn main beams on, set knurled ring to position  $\mathbb{S}^{\mathbb{N}}$ , push the lever towards the dashboard (stable position); warning light  $\mathbb{S}^{\mathbb{N}}$  on the instrument panel will turn on.

To set dipped-beams back pull the lever towards the steering wheel.

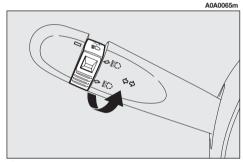


fig. 54

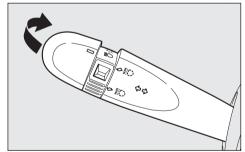


fig. 55

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When low beams and fog lights turned on, the external light control unit (integral into the Body Computer) can behave according to one of the following logic:

- as the high beams are turned on, the low beams turn off, in the meanwhile the fog lights remain on, and the starting conditions are restored, as soon as the low beams are turned on again;
- otherwise, when the high beams are turned on, the fog lights are turned off, and they will automatically be turned on again when the high beams are turned off.

Hence, should the Body Computer be replaced, the lights management logic could differ from the previous one.

#### Flashing (fig. 56)

The headlights are flashed pulling the lever towards the steering wheel (instable position) regardless of the position of the knurled ring. The  $\equiv \bigcirc$  warning light on the cluster will come on at the same time.

**IMPORTANT** Only the main-beam lights are flashed. To avoid penalties follow local regulations.

## Direction indicators (fig. 57)

Regardless of the position of the knurled ring, moving the lever to the stable position will:

up, position (1) - engage the right-hand direction indicators:

down, position (2) - engage the left-hand direction indicators.

One of the warning lights  $(\blacktriangleleft \text{ or } \Rightarrow)$  will come on on the instrument cluster at the same time.

The lever is returned to its home position automatically and the indicators are switched off when the steering wheel is straightened.

**IMPORTANT** If you wish to signal a rapid change of direction involving only a minimal movement of the steering wheel, the lever can be moved up or down without it clicking (unstable position). When released, the lever will return to its home position.

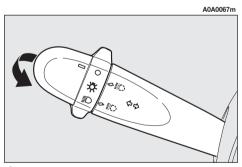


fig. 56

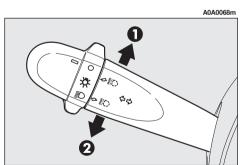


fig. 57

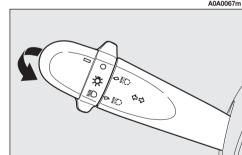


fig. 58

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# "Follow me home" device (fig. 58)

This function allows the illumination of the space in front of the car for the length of time set, and is activated with the ignition key at **STOP** or removed, pulling the left-hand stalk towards the steering wheel.

This function is activated pulling the lever within 2 minutes from when the engine is turned off. At each single movement of the lever, the staying on of the dipped beams and sidelights is extended by 30 seconds up to a maximum of 3.5 minutes; the lights switch off automatically after the time set.

Each time the lever is operated, the  $\blacksquare$ O warning light on the cluster turns on.

This function can be interrupted by keeping the lever pulled towards the steering wheel for more than 2 seconds.

#### **RIGHT-HAND LEVER**

The right-hand lever is used to operate the windscreen wiper-washer and rearscreen wiper-washer. The windscreen washer control also activates the headlamp washers, if fitted.

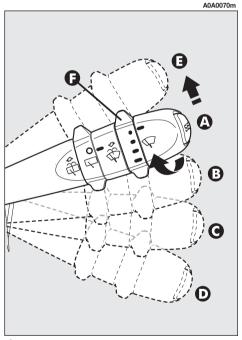


fig. 59

# Windscreen wiper - washer (fig. 59-60)

The lever can be moved to five different positions, corresponding to:

- A Windscreen wiper off.
- **B** Intermittent.

With the lever in position (**B**), turning the ring (**F**) four possible intermittent speeds are obtained:

- = intermittent slow.
- = intermittent medium.
- = intermittent medium-fast.
- $\blacksquare \blacksquare \blacksquare \blacksquare =$ fast intermittent.
  - **C** Continuous, slow.
  - **D** Continuous, fast.
  - **E** Fast, temporary (unstable position).

Operation in position (**E**) is limited to the time the lever is held in this position. When the lever is released, it returns to position (**A**) automatically stopping the wiper.

**IMPORTANT** When the wiper is on, engaging reverse gear automatically turns on the rearscreen wiper.

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### "INTELLIGENT WASHING" FUNCTION"

Pulling the lever towards the steering wheel (instable position) operates the wind-screen washer.

Keeping the lever pulled, with only one movement it is possible to operate the washer jet and the wiper at the same time; indeed, the latter comes into action automatically if the lever is pulled for more than half a second.

The wiper stops working a few strokes after releasing the lever; a further "cleaning stroke" after a few seconds completes the wiping operation.

#### Rain sensor (fig. 61)

The rain sensor (**A**), fitted only on certain versions, is an electronic device combined with the windscreen wiper which has the purpose of automatically adjusting the number of wipes during intermittent operation, to the intensity of the rain.

All the other functions controlled by the right-hand lever remain unchanged.

The rain sensor is activated automatically moving the right-hand lever to position (**B-fig. 59**) and it has a range of adjustment that gradually varies between wiper stationary (no wiping) when the windscreen is dry, to wiper at first continuous speed (continuous, slow) with heavy rain.

Turning the knurled ring (**F-fig. 59**) it is possible to increase the sensitivity of the rain sensor, obtaining a quicker change from stationary when the windscreen is dry, to first continuous speed (continuous, slow).

Operating the windscreen washer with the rain sensor activated (lever at position **B**) the normal washing cycle is performed at the end of which the rain sensor resumes its normal automatic function.

Turning the ignition key to **STOP** the rain sensor is deactivated and the next time the engine is started (**MAR** position) it will not be reactivated even if the lever has remained in position (**B**). In this case to activate the rain sensor, simply move the lever to (**A**) or (**C**) and then back to (**B**).

When the rain sensor is reactivated in this way, the wiper performs at least one stroke, even if the windscreen is dry, to indicate that reactivation has occurred.

The rain sensor is located behind the inner rear-view mirror in contact with the wind-screen and inside the area cleaned by the wiper and it controls an electronic control unit which in turn controls the wiper motor.

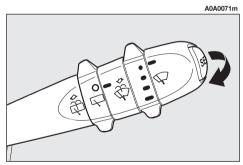


fig. 60

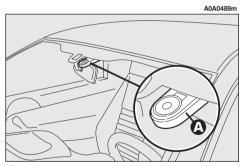


fig. 61

At each start, the rain sensor automatically stabilises at a temperature of about 40°C to eliminate any condensation from the control surface and prevent the formation of ice.

The rain sensor is able to detect and automatically adapt to the presence of the following particular conditions which require different sensitivity:

- impurities on the control surface (salt, dirt, etc.);
- streaks of water caused by worn wiper blades;
- difference between day and night (the human eye is more disturbed during the night by the wet glass surface).

# Rearscreen wiper-washer (fig. 62-63)

Pushing the lever towards the dashboard (unstable position) operates the rearscreen washer jet and continuous operation of the rearscreen wiper.

Operation ends when the lever is released.

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fig. 62

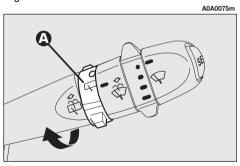


fig. 63

Turning the knurled ring (**A**) from position **O** to  $\square$  operates the rearscreen wiper intermittently.

#### Headlamp washers (fig. 64)

These come into operation when the windscreen washer is turned on with the dipped/main beam headlights on.

**IMPORTANT** On certain versions when the headlamp washer is operating, the climate control system automatically engages inside air re-circulation, to prevent the smell of liquid detergent from entering the passenger compartment.

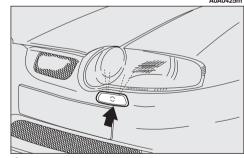


fig. 64

#### CRUISE CONTROL

#### **GENERAL**

The speed regulator (**CRUISE CON-TROL**), with electronic control, makes it possible to drive the car at the required speed without pressing the accelerator pedal. This reduces driving fatigue during long journeys because the speed memorised is automatically maintained.

**IMPORTANT** The device can only be engaged at speeds above 30 km/h.

The device is disengaged automatically in any one of the following cases:

- pressing the brake pedal;
- pressing the clutch pedal;
- if the ASR or VDC, MSR system cuts in.

#### **CONTROLS** (fig. 65)

Cruise Control is controlled by the **ON/OFF** knurled ring (**A**), by the +/- ring (**B**) and by the **RES** button (**C**).

Ring (A) has two positions:

- OFF in this position the device is deactivated;
- **ON** is the normal operating position of the device. When the knurled ring (A) is in this position, the warning light  $\mathfrak{S}$  on the instrument cluster turns on.

Ring (**B**) serves for memorising and maintaining the car speed or for increasing or lowering the speed memorised.

Turn the ring (**B**) to (+) to memorise the speed reached or increase the speed memorised.

Turn the ring **(B)** to **(—)** to lower the speed memorised.

Each time the ring is actuated (**B**) the speed increases or lowers by about 1.5 km/h.

Keeping the ring turned the speed changes continuously. The new speed reached will be maintained automatically.

The  ${\bf RES}$  button  $({\bf C})$  resets the memorised speed.

**IMPORTANT** Turning the ignition key to **STOP** or the ring (**A**) to **OFF**, the speed memorised is cleared and the system is switched off.



Cruise control must be activated only when the route and traffic allow a constant speed for a sufficiently long distance completely safely.

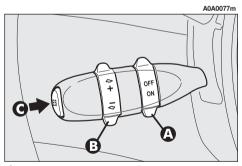


fig. 65

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#### 48

## TO MEMORISE THE SPEED

Move the ring (A) to **ON** and take the car to the required speed normally. Turn the ring (B) to (+) for at least three seconds, then release it. The car speed is memorised and it is therefore possible to release the accelerator pedal.

The car will continue to travel at the memorised constant speed until one of the following conditions takes place:

- pressing the brake pedal;
- pressing the clutch pedal;
- if the ASR or VDC system cuts in.

**IMPORTANT** In the case of need (when overtaking for instance) acceleration is possible simply pressing the accelerator pedal; later, releasing the accelerator pedal, the car will return to the speed memorised previously.

# TO RESET THE MEMORISED SPEED

If the device has been disengaged for example pressing the brake or clutch pedal, the memorised speed can be reset as follows:

- accelerate gradually until reaching a speed approaching the one memorised;
- engage the gear selected at the time of speed memorising (4th, 5th or 6th speed);
- press the **RES** button (**C**).

# TO INCREASE THE MEMORISED SPEED

The speed memorised can be increased in two ways:

1) pressing the accelerator and then memorising the new speed reached (turning the ring (**B**) for more than three seconds);

or

2) momentaneously turning the ring (**B**) to (+): each pulse of the ring will correspond to a slight increase in speed (about 1.5 km/h) while pressing continuously will correspond to a continuous speed increase. Releasing the ring (**B**) the new speed will be memorised automatically.

#### TO REDUCE THE MEMORISED SPEED

The speed memorised can be reduced in two ways:

- 1) disengaging the device (for instance pressing the brake pedal) and then memorising the new speed (turning the ring (B) to (+) for at least three seconds);
- 2) keeping the ring pressed (**B**) at (**-**) until reaching the new speed which will be memorised automatically.

#### **RESETTING THE MEMORISED SPEED**

The memorised speed is automatically reset turning off the engine or moving the ring (A) to OFF.

#### WARNING

When travelling with the cruise control on, do not move the gearshift lever to neutral.

It is advisable to engage the cruise control only when the conditions of the traffic or road so permit under completely safe conditions, i.e.: straight and dry roads, dual carriageways or motorways, flowing traffic and smooth road surface. Do not engage the device in town or in heavy traffic conditions.

#### WARNING

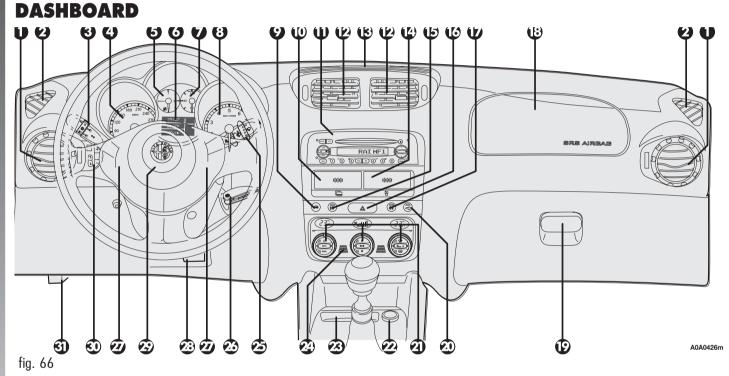
Cruise Control can only be engaged at speeds above 30 km/h. The max. speed at which the Cruise Control can be enagged is 190 km/h, at speeds higher than 190 km/h it will not be engaged.

The device may only be engaged in 4th, 5th or 6th agar, depending on the speed of the car. Travelling downhill with the device engaged the car speed may increase more than the memorised one, due to the change in the engine load.

WARNING

If the device is faulty or not working, turn the ring (A) to OFF and contact Alfa Romeo Authorised Services after checkina that the protection fuse is intact.

The ring (A) may be left constantly at ON without damaging the device. You are, however, advised to switch the device off when not in use, turning the ring to OFF, to avoid memorising speeds by accident.



1. Side swivel air vents - 2. Fixed side window air vents - 3. Outer light control lever - 4. Speedometer with mileage recorder and trip recorder and headlamp aiming display - 5. Fuel level gauge with reserve warning light - 6. Multifunction display - 7. Engine coolant fluid temperature gauge - 8. Rev counter - 9. Tailgate release button - 10. Card holder - 11. Radio - 12. Centre swivel air vents - 13. Fixed upper vent - 14. Glass holder - 15. Fog lamp button - 16. Hazard warning light switch - 17. Rear fog guard button - 18. Passenger's front Air bag - 19. Glovebox - 20. Door locking button - 21. Controls for heating, ventilation and climate control - 22. Cigar lighter - 23. Ashtray - 24. Temperature sensor - 25. Windscreen/rearscreen wiper control lever - 26. Ignition key and switch - 27. Horn - 28. Steering wheel locking/release lever - 29. Driver's front Air bag - 30. Set of controls: trip meter reset, headlamp aiming device, trip computer - 31. Bonnet opening lever.

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#### INSTRUMENT PANEL

A. Fuel level gauge with reserve warning light - B. Engine coolant fluid temperature gauge with maximum temperature warning light - C. Speedometer - D. Display (mileage recorder, trip meter and headlamp position display) - E. Reconfigurable multifunction display - F. Rev counter

#### **REV COUNTER**

The rev. counter shows engine rpm. The needle pointed to the danger area (red) indicates excessive high engine speed. Do not drive for long periods with the needle in this area.

**IMPORTANT** The electronic injection control system gradually shuts off the flow of fuel when the engine is "over-revving" resulting in a gradual loss of engine power.

When the engine is idling, the rev counter may indicate a gradual or sudden highering of the speed, this is normal as it takes place during normal operation, for example when engaging the climatecontrol system or the fan. In particular a slow change in the speed preserves the battery charge.

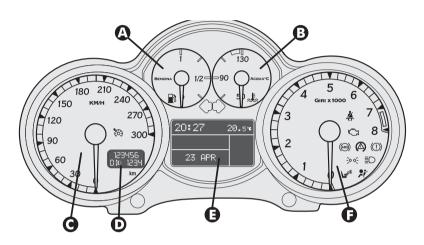


fig. 67

#### MILEAGE RECORDER

Display with double meter (total and trip) and headlamp position display.

The display shows:

- the mileage on the first line (6 figures)
- the trip meter on the second line (4 figures)
- $\boldsymbol{-}$  the position relating to the headlamp aiming device.

To reset the trip meter, keep the button (**A-fig. 68**) on the plate at the side of the steering column pressed for a few seconds.

**IMPORTANT** If the battery is disconnected the trip meter reading is not stored.

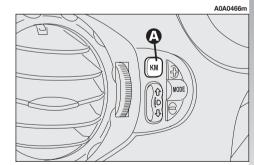


fig. 68

# **52**

# FUEL LEVEL GAUGE WITH RESERVE INDICATOR

This shows the amount of fuel left in the fuel tank.

The warning light  $\blacksquare$  turns on to indicate that approx. 7 litres of fuel are left in the tank.

**IMPORTANT** Under certain conditions (heavy slopes, for instance), the reading on the gauge may differ from the actual amount of fuel in the tank and changes in level may be indicated late.

This condition falls within the operation logics of the electronic control circuit to avoid highly unstable readings due to swaying of the fuel when travelling.

**IMPORTANT** Refuelling shall always be performed with engine off and ignition key to **STOP**. If the engine is off but the key is to **MAR**, a wrong fuel level could temporarily be indicated. This is due to the internal system control logic and cannot be considered as a system malfunctioning.

#### ENGINE COOLANT FLUID TEMPERATURE GAUGE WITH MAXIMUM TEMPERATURE WARNING LIGHT

This shows the temperature of the engine coolant fluid and begins when the fluid temperature exceeds approx. 50°C.

Normally the pointer should be towards the middle of the scale. If the pointer reaches the higher temperatures of the scale (red area) the request for vehicle performance should be decreased.

The turning on of the warning light (on some versions together with the message shown on the reconfigurable multifunction display) indicates that the coolant fluid temperature is too high; in this case, stop the engine and contact Alfa Romeo Authorised Services.

**IMPORTANT** The temperature of the engine coolant may rise towards the maximum values (red zone) when the vehicle is driven at low speeds, especially when the ambient air temperature is high. In this case it is advisable to stop the vehicle and switch off the engine for a few minutes, after which the journey can be resumed, preferably at a higher speed.

#### RECONFIGURABLE MULTIFUNCTION DISPLAY

The reconfigurable multifunction display is able to display all the useful and necessary information when driving and a menu allows the following adjustments and/or settings:

TIME

DATE

#### **OUTSIDE TEMPERATURE**

#### INFORMATION ABOUT VEHICLE CONDITION

- Trip computer
- Lighting adjustment (rheostat)
- Display of failure messages with corresponding symbol
- Display of warning messages with corresponding symbol (e.g.: possible ice on road)

# Reconfigurable multifunction display menu

#### **SPEED**

- Activation/deactivation of the corresponding indication (ON/OFF)
- Setting the speed limit

#### TRIP B

Activation/deactivation of the corresponding function (ON/OFF)

#### TIME

- Setting the hours
- Setting the minutes

#### DATE

- Setting the day
- Setting the month
- Setting the year

#### DST (SUMMER TIME)

- Activation/deactivation of summer time

#### MODE 12/24

- Selecting the clock mode on 12 or 24 hours

#### **RADIO**

- Activation/deactivation of the following items on the display:

frequency or RDS message of the radio station selected, compact disc and corresponding track selected, cassette function on

#### **TELEPHONE**

Activation/deactivation of the following items on the display: incoming or outgoing phone call with name and/or number of the subscriber connected

#### NAVIGATION

Activation/deactivation of the displays and information concerning the route to be followed

#### LANGUAGE

Setting the language of the messages shown on the display

#### UNITS

Selection of the following units of measure: km, mi, °C, °F, km/l, l/100km, mpg

#### BUZZER

- Buzzer volume adjustment

#### **SERVICE**

 Display of information concerning correct vehicle maintenance, strictly connected with the Scheduled Maintenance Programme

#### MENU OFF

- Exits the menu.

# **CONTROL BUTTONS** (fig. 69-70)

To use the information the reconfigurable multifunction display is able to give (with the ignition key at **MAR**) you should firstly familiarise with the control buttons (on the plate at the side of the steering column and on the top of the right lever) using them as described below. Before doing anything you are also advised to read this chapter in full.

cess the Menu

MODE

**SET** 

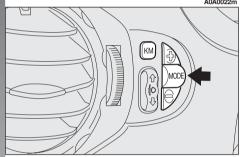


fig. 69

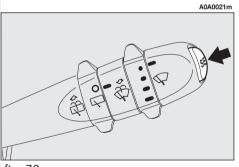


fig. 70

To scroll the display and the related options, upwards or to increase the value displayed depending on the case

Press for less than 1 second (pulse) indicated with MODEL in the following diagrams, to confirm the choice required and/or move to the next screen or ac-

Press for more than 2 seconds indicated with MODE2 in the following diagrams, to confirm the choice required and return to the standard screen

To scroll the display and the related options, down wards or decrease the value displayed according to the case

Press for less than 1 second (pulse) indicated with a in the following diagrams to move to the next screen

Press for more than 4 seconds indicated with in the following diagrams, to reset and then start a new journey

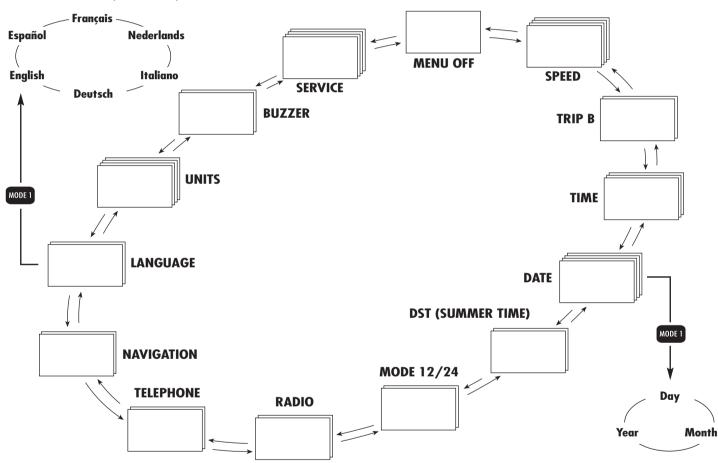
**IMPORTANT** Buttons • and • activate different functions depending on the following situations:

- When the standard screen is activated, they allow adjustment of the inner lighting
- Within the menu they allow scrolling up or down
- They make it possible to increase or decrease during setting operations.

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#### **DESCRIPTION OF THE MENU**

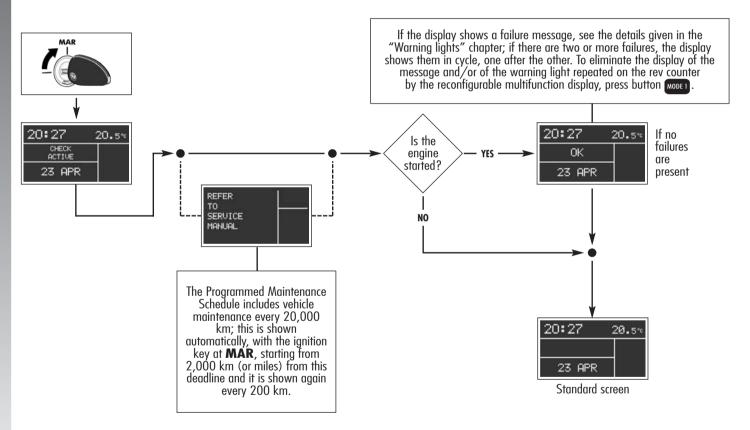
The menu comprises a series of functions arranged in a "circular fashion", which can be selected through the • and • buttons for access to the different select operations and settings (see examples "LANGUAGE" and "DATE" below); for further details, also refer to "Access to the menu screen" in the previous chapter.



#### **INITIAL CHECK**

Turning the ignition key to **MAR**, the reconfigurable multifunction display shows the message CHECK ACTIVE: the diagnostic phase of all the electronic systems on the car has started, this lasts for about 4 seconds. If no faults are detected when the engine has started, the display shows the OK message.

**IMPORTANT** If the reconfigurable multifunction display shows a failure message, see the details given in the "Warning lights" chapter.



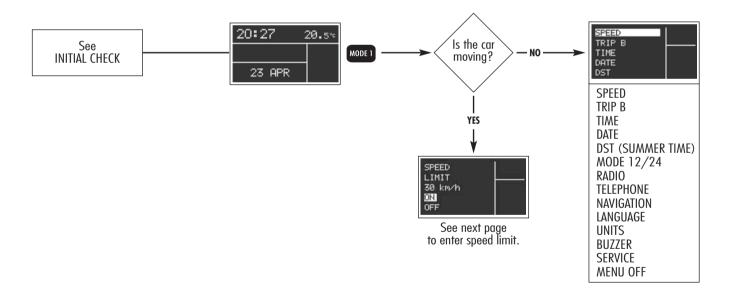
#### **ACCESS TO MENU SCREEN**

After the INITIAL CHECK, with the car stationary and with the standard screen, it is possible to access the menu screen: press MODEL 1.

To navigate use the • and • buttons.

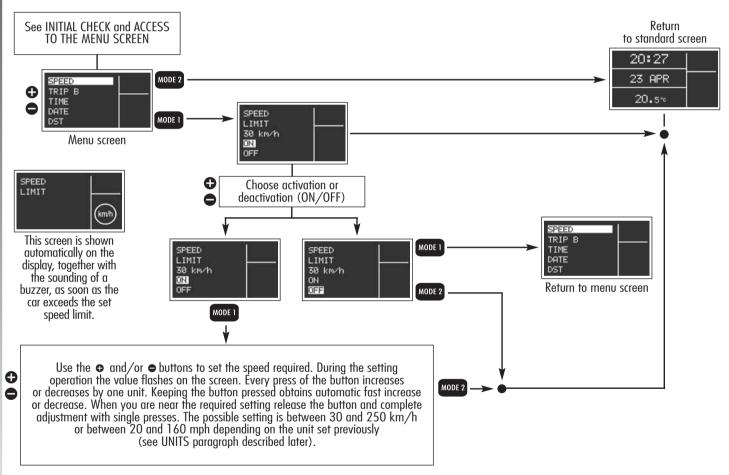
Setting the limit speed is also possible with the car on the move.

If the waiting time (no operation) is above 10 seconds, the standard screen or the screen that was active before pressing the button is restored automatically; all the operations confirmed are stored.



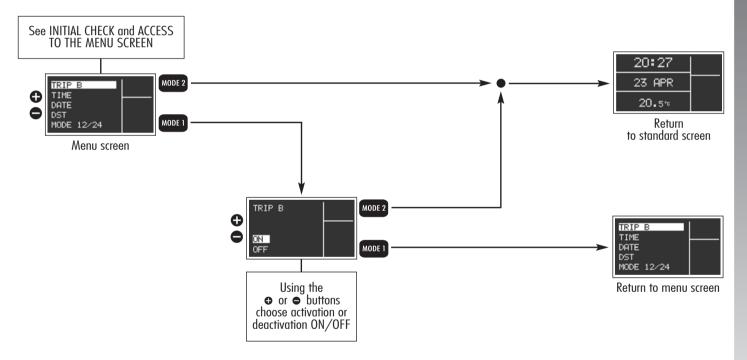
#### **SPEED**

Wit this function it is possible to set the car speed limit which, if exceeded, automatically sounds a buzzer to alert the driver. To set the speed limit, proceed as follows:



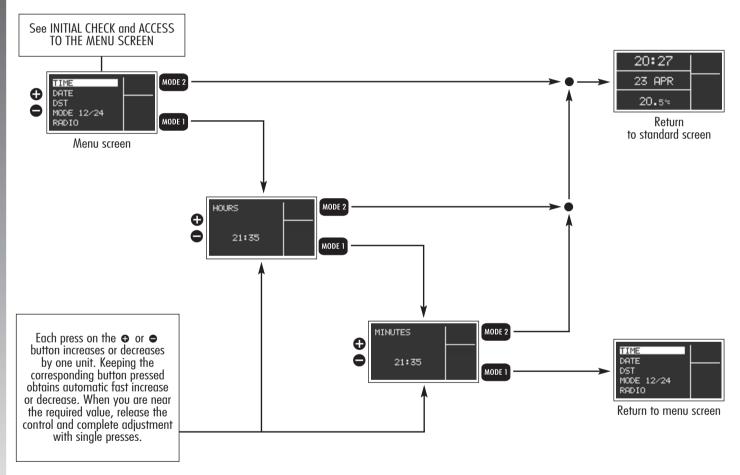
# TRIP B (ON/OFF)

With this option it is possible to turn ON or OFF the TRIP B function (partial trip) which displays the figures relating to AVERAGE CONSUMPTION B, AVERAGE VELOCITY B, TRAVEL TIME B, and TRAVEL DISTANCE B during a "partial mission" contained in the "general mission. For further information see "General Trip - Trip B".



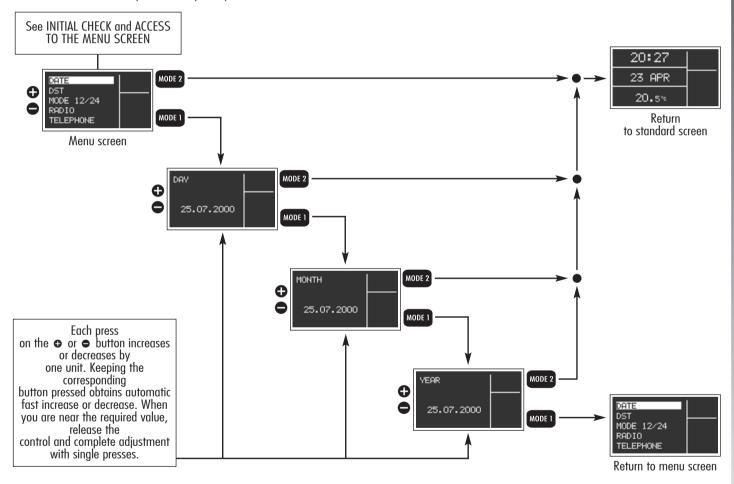
#### **TIME**

To adjust the clock (hours - minutes) proceed as follows:



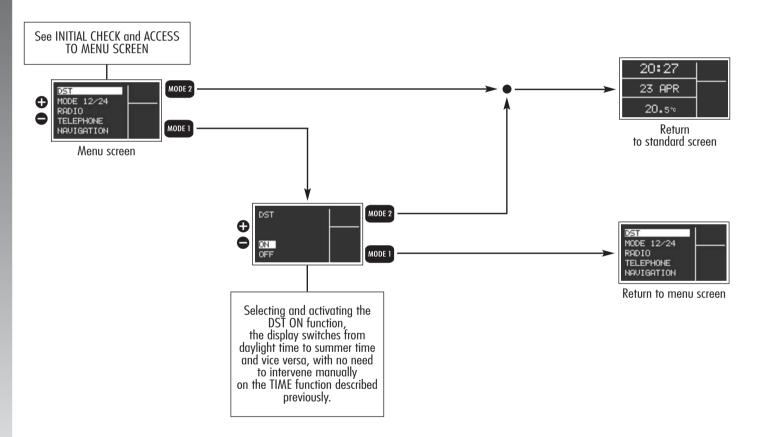
#### **DATE**

To correct the date (day - month - year) proceed as follows:



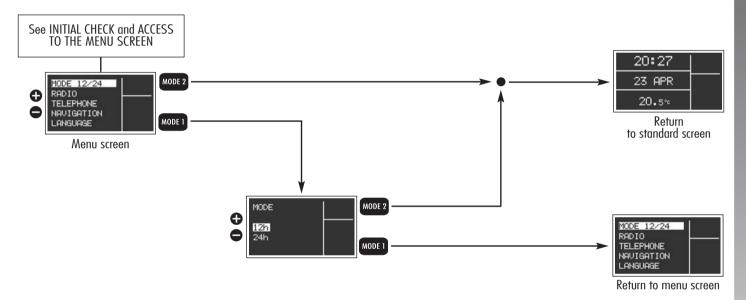
# **DST (SUMMER TIME)**

To activate /deactivate the summer time function (which corresponds to + 1 hour in relation to the daylight time), proceed as follows:



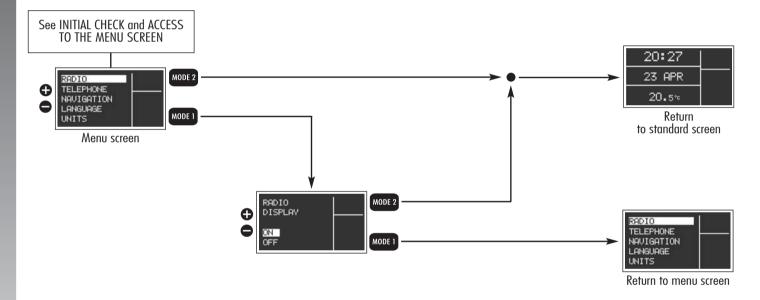
# **MODE 12/24**

This function is used to set the clock in the 12 hour or 24 hour mode. To adjust, proceed as follows:



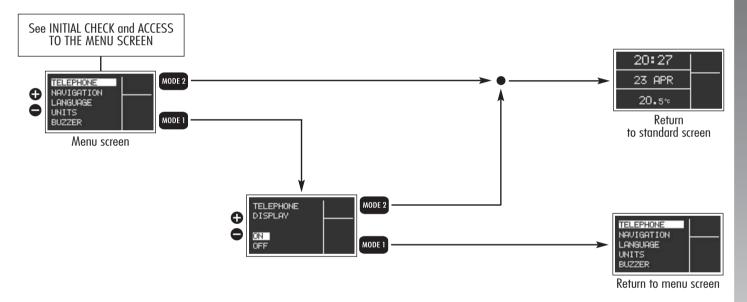
### **RADIO**

In the RADIO DISPLAY ON condition, when the radio is turned on, the display repeats the display on the front panel of the radio itself. To activate/deactivate this function, proceed as follows:



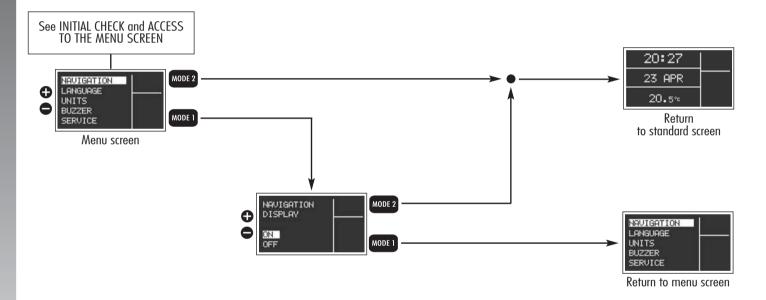
#### **TELEPHONE**

In the TELEPHONE DISPLAY ON condition, when a phone call arrives, the display shows (if listed) the name and phone number of the caller. To activate /deactivate this function, proceed as follows:



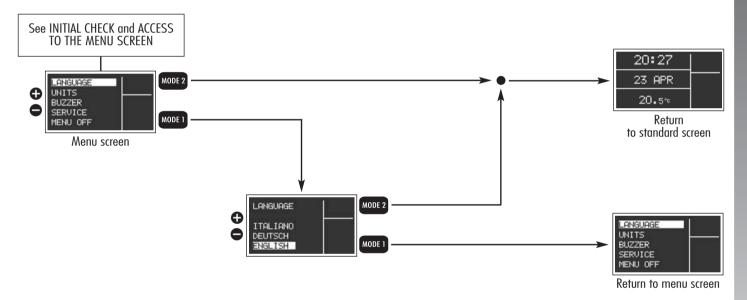
### **NAVIGATION**

In the NAVIGATION DISPLAY ON condition, during use of the radionavigator, the display repeats the display (pictograms) on the radionavigator display itself. To activate /deactivate this function, proceed as follows:



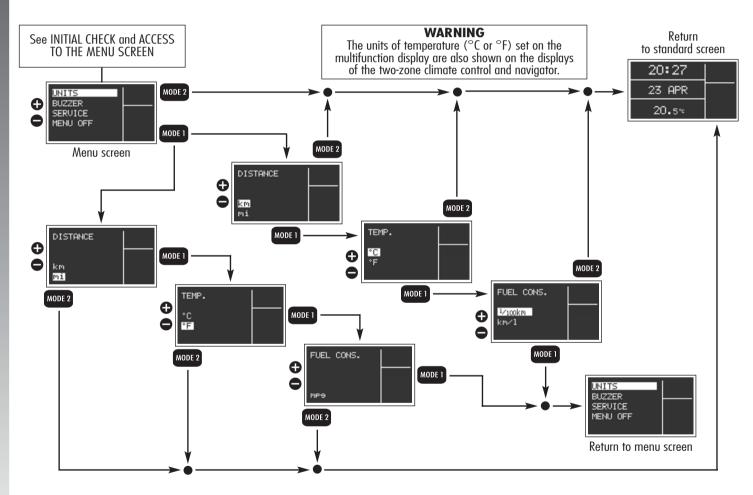
### **LANGUAGE**

To select the language required for the texts and messages shown on the display, proceed as follows:



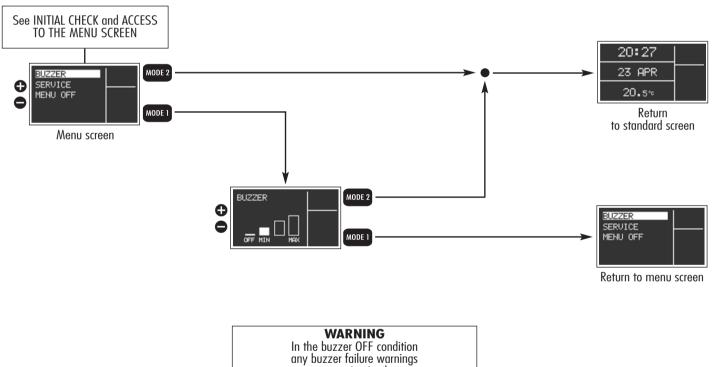
#### **UNITS**

The display provides information in relation to the unit of measure set. To choose the units required, proceed as follows:

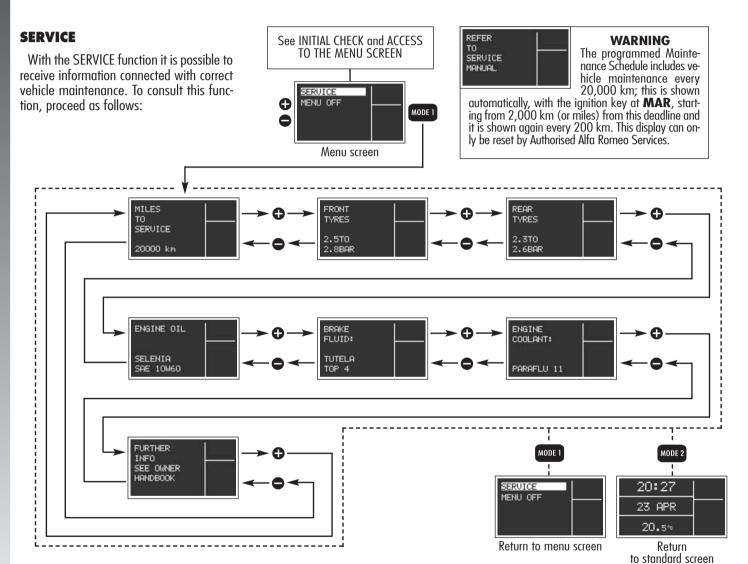


#### **BUZZER**

The buzzer that accompanies the controls in the car and any failure signals, can be adjusted to a pre-defined scale using the • and/or • buttons. To switch OFF or adjust, proceed as follows:



are maintained.



### **MENU OFF**

This is the last function that closes the circular setting cycle listed in the initial menu screen.



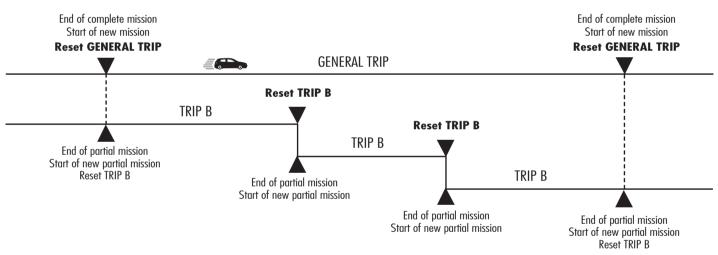
The TRIP COMPUTER function enables displaying on the re-configurable multifunction display the engine oil temperature and the sizes relevant to the car operating conditions. This function comprises the GENERAL TRIP concerning the complete mission of the car and TRIP B concerning the partial car mission. This function (as shown in the graph below) is contained within the complete mission. Both functions are resettable.

The GENERAL TRIP displays the figures relating to actual consumption, average consumption, range, average velocity, travel time (driving time), travel distance.

TRIP B (with automatic reset each time at least 2 hours have passed since stopping the engine), displays information concerning AVERAGE CONSUMPTION B, AVERAGE VELOCITY B, TRAVEL TIME B (driving time), TRAVEL DISTANCE B.

### Start of journey procedure (reset)

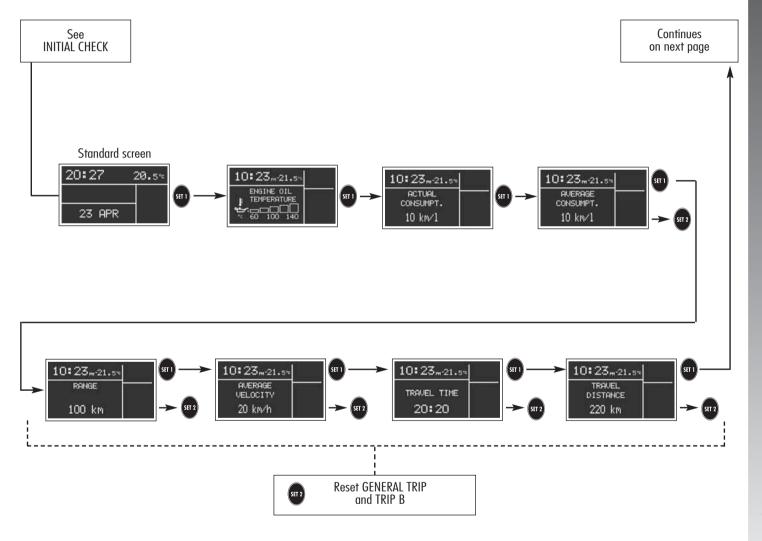
To start a new journey monitored by the GENERAL TRIP, with the ignition key at MAR, press the button with 🚳 (see "Control buttons").

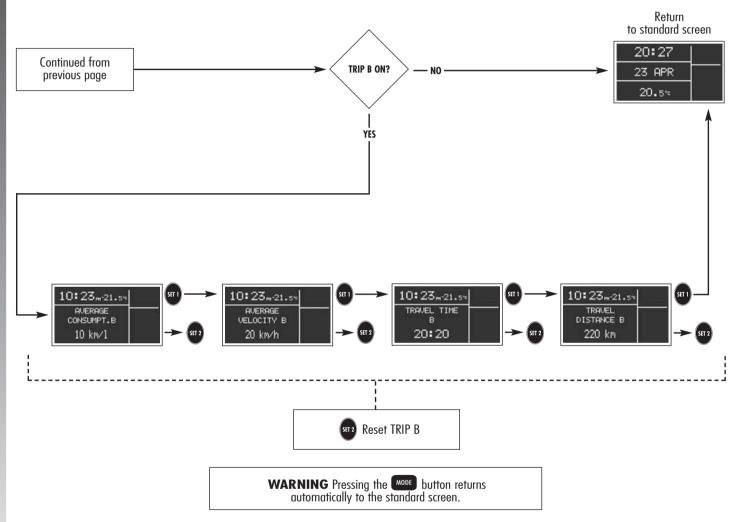


The reset operation (pressing the button) in the presence of the screens concerning the GENERAL TRIP also makes it possible to reset TRIP B. The reset operation (pressing the button) in the presence of only the screens concerning TRIP B makes it possible to reset only the information associated with this function.

**IMPORTANT** The RANGE and ACTUAL CONSUMPTION information cannot be reset.

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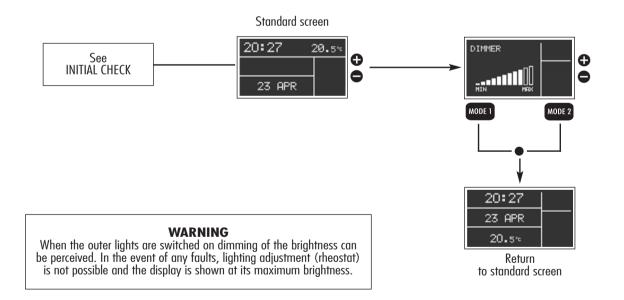
### **DIMMER**

With this function it is possible to adjust the lighting (dimming/brightening) of the instrument cluster, mileage recorder (total, trip meter), headlamp aiming display, radio display, radio navigator display and two-zone climate control.

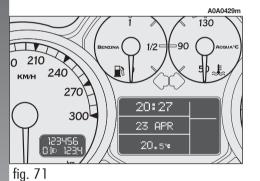
### **Partial lighting**

Keeping the button pressed (on the plate at the side of the steering column) for more than 4 seconds the instrument cluster lighting is turned off with the exception of the speedometer.

Keeping the • button pressed (on the plate at the side of the steering column) for more than 4 seconds the complete instrument cluster lighting is turned on again.



### **DISPLAYS IN CONCURRENCE WITH THE EVENT**



Display with the ignition key removed opening

or closing a door.
The reconfigurable multifunction display together with the mileage recorder display (total and trip) is timed, after 10 seconds it goes off automatically.



Standard screen: when the radio is turned on in the RADIO DISPLAY ON condition.



Standard screen: when a phone call is received in the TELEPHONE DISPLAY ON condition.



In the event of a failure see the "Warning lights" chapter.



Standard screen: during assisted navigation in the NAVIGATION DISPLAY ON condition.

The displays illustrated are purely indicative.

### WARNING LIGHTS

**IMPORTANT** The presence of warning lights depends on the type of equipment with which the car is fitted.

Warning	Mess	
light on dial	on dis	
	LOW BRAKE FLUTD	

pľay

(1)

### LOW BRAKE FLUID AND/OR HANDBRAKE ON

Turning the ignition key to MAR the warning light on the dial turns on, but it should go off after approx. 4 seconds.

The warning light turns on when the level of the brake fluid in the reservoir falls below the minimum level, due to a possible leak in the circuit and when the handbrake is engaged.

### WARNING

If the (1) warning light turns on when travelling check that the handbrake is not engaged. If the warning light stays on together with the message + symbol on the reconfigurable multifunction display with the handbrake off, stop the car immediately and contact Alfa Romeo Authorised Services.





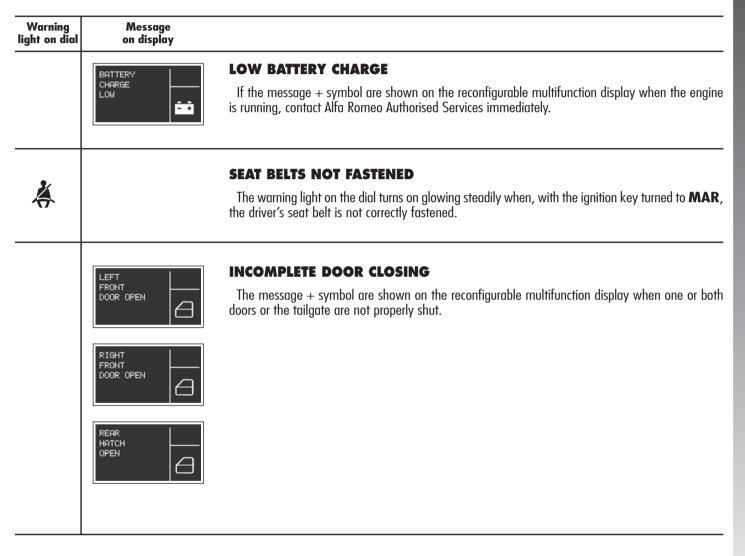
### HIGH ENGINE COOLANT FLUID TEMPERATURE

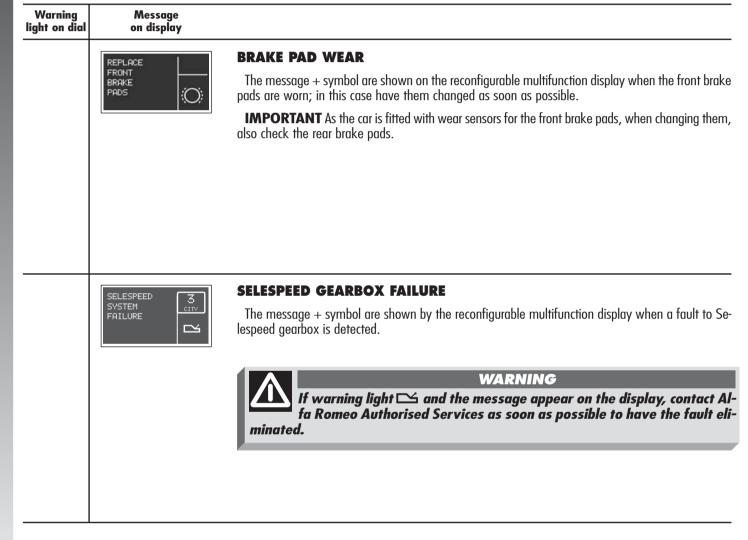
Turning the ignition key to MAR the warning light on the dial turns on, but it should go off after approx. 4 seconds.

The warning light turns on together with the message + symbol on the reconfigurable multifunction display, when the engine is overheated. If it turns on when travelling, stop the car leaving the engine on and slightly accelerated to further activate the circulation of the coolant fluid.

If the warning light does not go off within the next 2 or 3 minutes, stop the engine and contact Alfa Romeo Authorised Services.

Warning light on dial	Message on display	
**		<b>AIR BAG FAILURE</b> Turning the ignition key to <b>MAR</b> the warning light on the dial turns on, but it should go off after approx. 4 seconds The warning light stays on glowing steadily if there is an operating failure in the Air bag system.
		If the ** warning light does not turn on when turning the ignition key to MAR or if it stays on when travelling, this could indicate a failure in safety retaining systems; under this condition air bags or pretensioners could not trigger in the event of collision or, in a restricted number of cases, they could trigger accidentally. Stop the car and contact Alfa Romeo Authorized Services to have the system checked immediately.
		The failure of the ** warning light (warning light off) is also indicated by the flashing for more than the normal 4 seconds of the passenger's front air bag deactivated warning light.
	ENGINE OIL PRESSURE LOW	LOW ENGINE OIL PRESSURE  WARNING  If the message + symbol are shown on the reconfigurable multifunction display when travelling, stop the engine immediately and contact Alfa Romeo Authorised Services.





Warning light on dial Message on display





#### **EOBD ENGINE CONTROL SYSTEM FAILURE**

In normal conditions, turning the ignition key to **MAR**, the warning light turns on, but it should go off when the engine has started. The initial turning on indicates that the warning light is working properly.

If the warning light stays on or turns on when travelling together with the message + symbol on the reconfigurable multifunction display:

**glowing steadily** - means a fault in the supply/ignition system which could cause high emissions at the exhaust, possible lack of performance, poor handling and high consumption levels.

In these conditions it is possible to continue driving without however demanding heavy effort or high speeds. Prolonged use of the vehicle with the warning light on may cause damage. Contact Alfa Romeo Authorised Services as soon as possible.

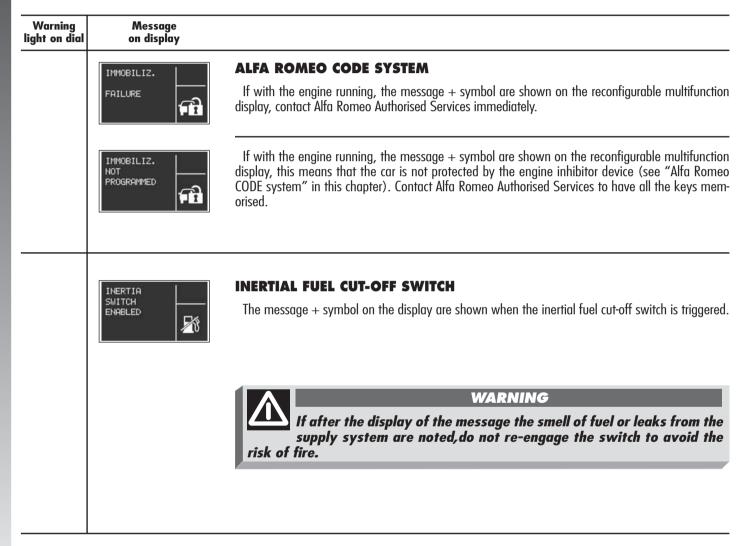
The warning light goes off if the fault disappears, but it is still stored by the system;

**flashing** - indicates the possibility of damage to catalyst (see "EOBD system" in this chapter).

If the warning light flashes, it is necessary to release the accelerator pedal to lower the speed of the engine until the warning light stops flashing; continue the journey at moderate speed, trying to avoid driving conditions that may cause further flashing and contact Alfa Romeo Authorised Services as soon as possible.



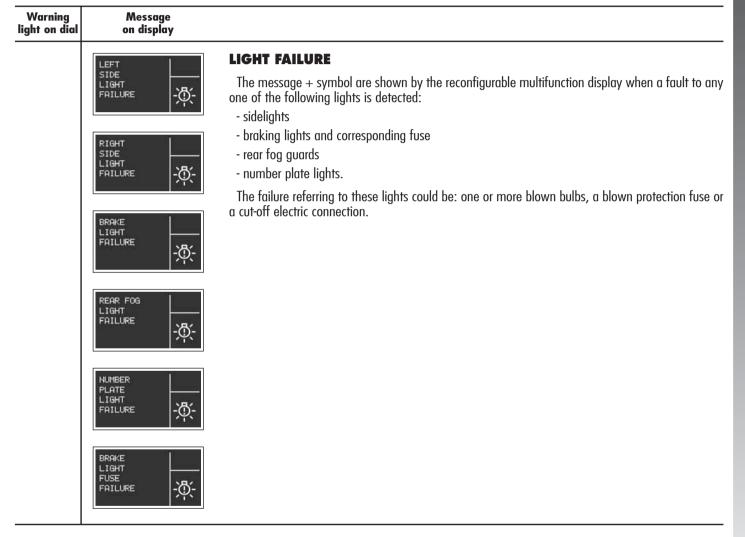
If, turning the ignition key to MAR, the warning light does not turn on or if it turns on glowing steadily or flashing when travelling, contact Alfa Romeo Authorised Services as soon as possible.



Warning light on dial	Message on display	
(ABS)	ABS SYSTEM FAILURE	INEFFICIENT ABS SYSTEM  Turning the ignition key to MAR the warning light on the dial lights up, but it should go off after approx. 4 seconds.  The warning light turns on together with the message + symbol on the reconfigurable multifunction display, when the system is inefficient. In this case the braking system keeps its effectiveness unchanged, but without the potential offered by the ABS system. Caution is advisable, particularly in all cases of less than perfect grip. It is therefore necessary to contact Alfa Romeo Authorised Services as soon as possible.
(!) + (ABS)	EBD SYSTEM FAILURE	Inefficient EBD electronic braking distributor  WARNING  The car is fitted with electronic braking distributor (EBD). The turning on at the same time of the (1) and (2) warning lights on the dial together with the message + symbol on the reconfigurable multifunction display, with the engine running indicates an EBD system failure; in this case heavy braking may cause the rear wheels to lock before time, with the possibility of skidding. Drive extremely carefully to the nearest Alfa Romeo Authorised Service to have the system checked.
		WARNING  The turning on only of the ((a)) warning light on the dial together with the message + symbol on the reconfigurable multifunction display, with the engine running normally indicates a failure of the ABS system only. In this case the braking system maintains its effectiveness, without however the antilock function. In these conditions, the effectiveness of the EBD may also be reduced, In this case too, you are recommended to contact the nearest Alfa Romeo Authorised Service immediately, driving in such a way as to avoid sharp braking to have the system shocked.

ing, to have the system checked.

Warning light on dial	Message on display	
<b>₩</b>		PASSENGER'S FRONT AIR BAG DEACTIVATED  With the passenger's front Air bag engaged, turning the ignition key to MAR the warning light turns on, but should go off after 4 seconds.
		WARNING
		Warning light ∠ indicates also warning light ≯ failure. This is indicated by intermittent flashing, over 4 seconds, of warning light ∠ . In this event, warning light ≯ could be not up to indicate restraint system failures, if any. Stop the car and ontact Alfa Romeo Authorized Services to have the system checked
		The warning light turns on when the passenger's front Air bag is deactivated.
	VDC SVSTEM FAILURE	VDC SYSTEM (VEHICLE DYNAMICS CONTROL)  Turning the ignition key to MAR, the warning light on the dial turns on and it should go off after approx. 4 seconds.  If the warning light does not go out or stays on when travelling together with the message + symbol shown on the reconfigurable multifunction display, contact Alfa Romeo Authorised Services.
		The flashing of the warning light when travelling indicates the cutting in of the VDC system.



Warning light on dial	Message on display	
		<b>FUEL RESERVE</b> The warning light on the dial turns on together with the message + symbol on the reconfigurable multifunction display, when about 7 litres of fuel are left in the tank and when autonomy is below 50 km.
	WARNING RANGE LIMITED	AUTONOMY (TRIP COMPUTER)  The message + symbol are shown on the reconfigurable multifunction display when autonomy is below 50 km.
	SPEED LIMIT (m/h)	SPEED LIMIT EXCEEDED  The warning light turns on together with the message on the display and the sounding of a buzzer when the car speed exceeds the speed limit set previously (see "Reconfigurable multifunction display" chapter).
	REFER TO SERVICE MANUAL	SCHEDULED MAINTENANCE  This is shown on the reconfigurable multifunction display 2000 km from the deadline given in the Scheduled Maintenance Programme (every 20,000 km) and it is shown again at timed intervals, turning the ignition key to MAR every 200 km.

on display	
	<b>LEFT-HAND DIRECTION INDICATOR (INTERMITTENT)</b> The warning light on the dial turns on when the direction indicator control lever is moved down wards or, together with the right indicator, when the hazard warning light button is pressed.
	RIGHT-HAND DIRECTION INDICATOR (INTERMITTENT)
	The warning light on the dial turns on when the direction indicator control lever is moved upwards or, together with the left indicator, when the hazard warning light button is pressed.
	SIDELIGHTS AND DIPPED-BEAMS  The warning light on the dial turns on when the sidelights or dipped beams are turned on.
	CONSTANT SPEED ADJUSTMENT (CRUISE CONTROL)
	The warning light on the instrument panel turns on when the constant speed adjustment ring nut (Cruise Control) is turned to the ON position.

Warning light on dial	Message on display	
		MAIN BEAMS  The warning light on the dial turns on when the main beams are turned on or when the "Follow me home" device is turned on (see corresponding chapter).
	ABS WARNING LIGHT ANOMALY	WARNING LIGHT FAILURE  This is shown on the reconfigurable multifunction display when a fault is detected to one of the warning lights indicated.
	EBD WARNING LIGHT ANOMALY	
	UDC WARNING LIGHT ANOMALY	
	POSSIBLE ICE ON ROAD	POSSIBLE PRESENCE OF ICE ON THE ROAD  The symbol * + message are shown by the reconfigurable multifunction display and the buzzer sounds, when the outside temperature reaches or falls below 3°C to warn the driver of the possible presence of ice on the road.

### **CLIMATE CONTROL SYSTEM**

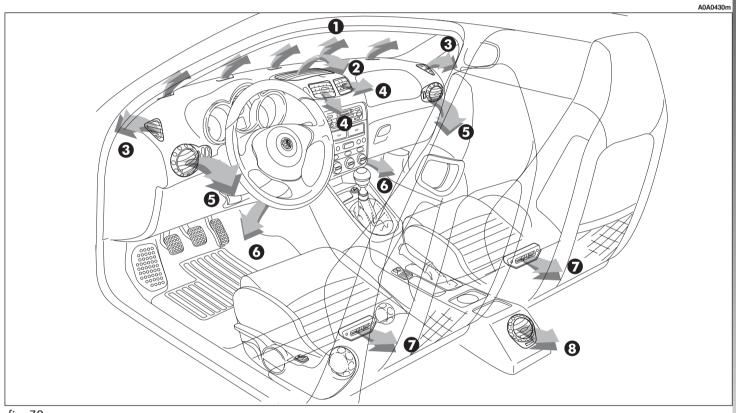


fig. 72

1 Upper stationary vent for defrosting or demisting windscreen - 2 Upper centre adjustable vent - 3 Stationary vents for defrosting or demisting side windows - 4 Adjustable centre, swivel vents - 5 Side adjustable and swivel outlets - 6 Front feet area fixed vents - 7 Rear feet area fixed vents - 8 Rear adjustable swivel outlet.

### **UPPER CENTRE VENT ADJUSTMENT** (fig. 73)

The vent (1) has an opening/closing control (A).

- Completely closed.
- = Completely open.

### **CENTRE SWIVEL VENTS ADJUSTMENT** (fig. 73)

Each vent (2) has a lever (B) which makes it possible to direct the flow of air (in the 4 directions: up/down, right/left).

To adjust the air flow, use control (C):

- = Completely closed.
- I = Completely open.

### SIDE SWIVEL OUTLETS **ADJUSTMENT** (fig. 74)

To direct the flow of air, turn the knurled ring (A) and/or directly use control (B) as required.

To adjust the air flow, use control (C):

- = Completely closed.
- **I** = Partially open.
- **II** = Completely open.
- **D** fixed vent for defrosting or demisting side windows.

### **REAR SWIVEL OUTLET ADJUSTMENT** (fig. 75)

To direct the flow of air, turn the knurled ring (A) and/or directly use control (B) as required.

To adjust the air flow, use control (**C**):

- = Completely closed.
- **I** = Partially open.
- **II** = Completely open.

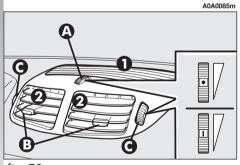
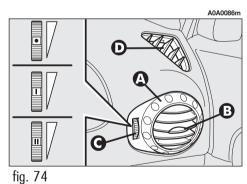


fig. 73



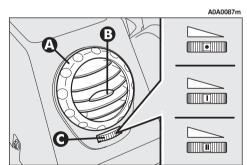


fig. 75

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### AUTOMATIC TWO-ZONE CLIMATE CONTROL SYSTEM

To start the system (fig. 76):

- turn the knob rings to set the required temperatures (driver's side passenger's side).
- press the **AUTO** button.

**IMPORTANT** The climate control system makes it possible to personalise the temperatures required on the two sides with a maximum difference of 7°C between the driver's side and the passenger's side.

**IMPORTANT** The climate control compressor only works with the engine running and an outside temperature above  $4^{\circ}$ C.

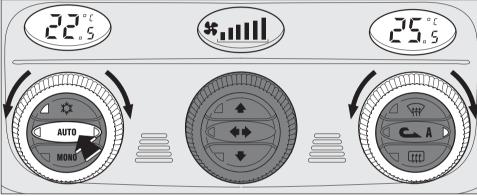


fig. 76

For further details about the system and how to make the best use of it, read the instructions given in the pages that follow.

### **GENERAL**

The car is fitted with a two-zone climate control system, controlled by an electronic control unit which makes it possible to separately adjust the air temperature on the driver's side and on the passenger's side. To obtain optimum temperature control in the two areas of the passenger compartment, the system has an outside sensor, a passenger compartment sensor and a two-zone sun ray sensor.

### WARNING

With an outside temperature below 4°C the climate control compressor is unable to work. It is therefore unadvisable to use the inside air re-circulation feature with a low outside temperature as the windows might mist over quickly.

The coolant used for the climate control system is R134a which meets cur-

rent regulations and does not harm the environment in the event of accidental spillage.

Absolutely avoid the use of other fluids which are incompatible with the system components.

On some versions the system is integrated with an incipient misting sensor installed behind the inside rear-view mirror, capable of "controlling" a predefined area of the windscreen inner surface which can automatically act on the system to prevent or reduce misting through a series of operations such as: opening air re-circulation, enabling the compressor, air flow to the windscreen, fan speed sufficient for demisting: in the case of heavy misting, enabling the MAX-**DEF** function.

To ensure correct operation of the incipient misting sensor, stickers must

not be applied (road licence holder, time card etc.) in the "control" area between the sensor and the windscreen. Care should also be given to cleaning the windscreen and the actual sensor, avoiding the accumulation of dust and other substances.

**IMPORTANT** The demisting procedure is enabled each time the ignition key is turned to MAR or pressing the AUTO button. When this procedure is working it can be turned off pressing one of the following buttons: compressor, air re-circulation, air flow, air capacity. This operation inhibits the incipient misting sensor signal until the Au-**TO** button is pressed again or the next time the ignition key is turned to MAR.

On certain versions, the system is intearated by an antipollution sensor capable of automatically switching on inside air re-circulation to lessen the harmful effects of polluted air in cities, queues, tunnels and operation of the windscreen washer (with the typical smell of spirits).

**IMPORTANT** The function of the antipollution sensor is subordinate to safety conditions; therefore disabling the climate control compressor or at an outside temperature below 4°C the sensor is disabled. The sensor can be re-enabled pressing the re-circulation button 
until taking it to the automatic mode.

Air quality control is also entrusted to a combined particle and activated carbon filter. The climate control system automatically controls and adjusts the following parameters and functions:

- temperature of the air admitted to the passenger compartment (for the driver's and passenger's side separately)
- fan speed
- air distribution
- inside air re-circulation on/off
- climate control compressor on/off en-

It is possible to change the setting of the following functions manually:

- fan speed
- air distribution
- inside air re-circulation on/off
- climate control compressor on/off enable.

The control of functions not changed manually remains automatic and in any case the temperature of the air admitted to the passenger compartment is controlled automatically according to the temperatures set on the driver's and passenger's displays.

**IMPORTANT** Manual selections prevail over automatic ones and remain in storage until the user decides to resume automatic control. The settings selected manually are stored when the engine is switched off and resumed the next time it is started.

### **CONTROLS** (fig. 77)

- 1 Inside temperature set display (driver's side)
- 2 Inside temperature adjustment knob (driver's side)
- 3 Fan speed set and system off display (OFF)
- 4 Knob for adjusting the fan speed and switching the system off
- 5 Inside temperature set display (passenger's side)
- 6 Inside temperature adjustment knob (passenger's side)
- 7 Maximum defrosting/demisting on/off button for windscreen and front side windows, rearscreen heating and wing mirror coils (MAX-DEF function (mx))
- 8 Inside air re-circulation on/off button (manual/automatic)
- 9 Rearscreen heating and wing mirror defrosting on/off button [ttt]
- 10 Air distribution selection buttons
- 11 Inside air temperature sensor

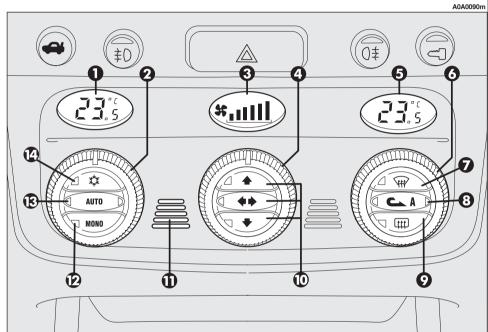


fig. 77

- **12** Button for aligning the temperature set on the passenger's side with that on the driver's side **mono**
- 13 Button for selecting the system automatic mode **AUTO**
- **14** Climate control compressor on/off enable button 🌣

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# HOW TO USE THE AUTOMATIC TWO-ZONE CLIMATE CONTROL SYSTEM (fig. 77)

**IMPORTANT** The knob rings do not have a mechanical stopper therefore, once the maximum or minimum value has been reached, they are free to turn in both directions.

The system can be started in different ways, but it is advisable to set the temperatures required on the displays, then press the (13) AUTO button.

This way the system will start working completely automatically to reach the temperatures set as quickly as possible and then maintain them.

During completely automatic system operation, the temperatures set can be changed at any time: the system will automatically change its settings to adjust to the new requirements.

**IMPORTANT** To be able to be accepted by the system, the difference in temperature between the driver's and passengers side must be within a range of 7°C.

It is possible to personalise the choices made automatically by the system intervening manually on the following controls:

- fan speed adjustment knob (4)
- air distribution selection buttons (10)
- inside air re-circulation on/off button(8) ←
- climate control on enable button (14)

Manually selecting one or more of these functions turns off the right led on the button (13) AUTO.

With one or more functions engaged manually, the adjustment of the temperature of the air admitted to the passenger compartment continues to be controlled automatically by the system (left led on button **13 AUTO** on) except with the climate control compressor off.

In fact, in this condition, the air admited to the passenger compartment cannot have a lower temperature than the outside air; this condition is indicated by the turning off of the two leds on button (13) Auto and flashing on the display (1) and/or (5) related with the temperature rate that cannot be obtained.

### AIR TEMPERATURE ADJUSTMENT KNOBS (fig. 78)

Turning the rings of knobs (2 or 6), clockwise or counter-clockwise, respectively highers or lowers the temperature of the air required respectively in the left zone (knob 2) or right zone (knob 6) of the passenger compartment. The temperatures set are shown on the displays (1) and (5) above the knobs.

Separate operation of the temperatures set is restored automatically using knob (6).

Turning the knob rings clockwise or counter-clockwise until they reach the extreme selections **HI** or **LO**, the maximum heating or cooling functions are respectively engaged:

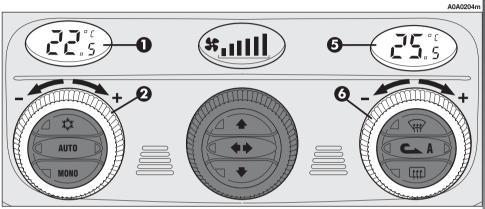


fig. 78

### HI function (highest heating power - fig. 79)

This is turned on setting on the display a temperature above 32.5°C, and can be activated independently from the driver's or passenger's side or both; this setting brings the system to the "monozone" mode and is shown on both displays.

This function can be engaged when requiring to heat the passenger compartment as quickly as possible, exploiting the maximum potential of the system.

This function uses the maximum temperature of the coolant fluid, while air distribution and fan speed are controlled according to the system settings.

### This function is unadvisable with the engine cold to prevent admitting air that is not warm enough to the passenger compartment.

All manual settings are possible with this function on.

To switch the system off, simply turn the ring of knob ( $\mathbf{2}$ ) or ( $\mathbf{6}$ ) of the temperature set to a value below 32.5°C; the opposite display will show 32.5°C.

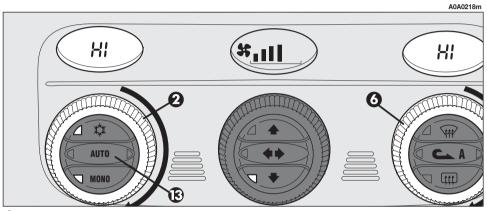


fig. 79

Pressing key (**13**) **AUTO** the display will show a temperature of 32.5°C and returns to an operating condition with automatic temperature adjustment.

### LO function (highest cooling power - fig. 80)

This is turned on setting on the display a temperature below 16.5°C; this setting is shown on both displays.

This function can be engaged when requiring to cool the passenger compartment as quickly as possible, exploiting the maximum potential of the system.

The function cuts off air heating, engages inside air re-circulation (to prevent admitting hot air to the passenger compartment) and the climate control compressor, takes air distribution to  ${\tt R}$   ${\tt E}$  and the fan speed as set by the system.

All manual settings are possible with this function on.

To switch the function off, simply turn the ring of knob ( $\mathbf{2}$ ) or ( $\mathbf{6}$ ) of the temperature set on a value above 16.5°C; the opposite display will show 16.5°C.

Pressing key (**13**) **AUTO** the display will show a temperature of 16.5°C and returns to an operating condition with automatic temperature adjustment.

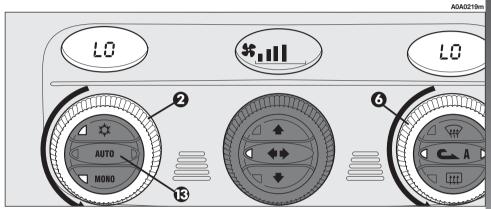


fig. 80

# MONO BUTTON FOR ALIGNMENT OF THE TEMPERATURES SET (fig. 81)

Pressing button (12) mono automatically aligns the the temperature on the passenger's side with that on the driver's side, therefore it is possible to set the same temperature between the two zones simply turning the ring of knob (2) on the driver's side.

This function is provided to simplify temperature adjustment of the whole passenger compartment when only the driver is on board.

Separate operation of the temperatures set is automatically restored when the passenger uses the ring on knob (6) or presses button (12) MONO.

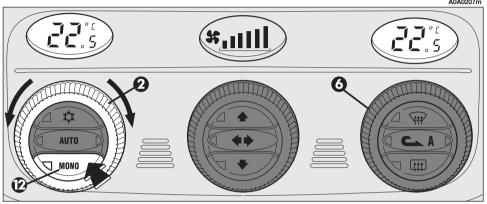


fig. 81

### FAN SPEED ADJUSTMENT KNOB (fig. 82-83)

Turning the ring of knob (4), clockwise or counter-clockwise, increases or decreases the speed of the fan, thus the amount of air admitted to the passenger compartment; the 16 selectable speeds are shown on a bar (in steps of 3) up to a maximum of 6 bars lit:

- maximum fan speed = all bars lit;
- minimum fan speed = one bar lit.

The fan can be cut off (all bars off) only if the climate control compressor has been switched off pressing button (14) . To restore automatic fan speed control, after a manual adjustment, press button (13) auto. Completely turning the ring of knob (4) counter-clockwise switches the system off, with the following situation: display (1) off; display (5) off; centre display (3) with lit display off and left led on inside air re-circulation button (8) on.

**IMPORTANT** Pressing the inside air recirculation button (8) it is possible to obtain the inlet of untreated outside air to the passenger compartment.

To turn the system on again, simply turn the ring of knob (4) clockwise, or press any one button, except the inside air re-circula-

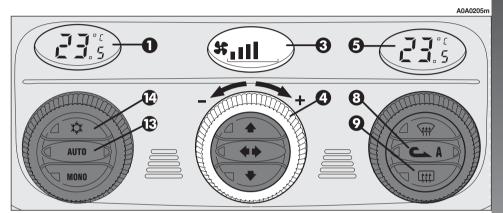


fig. 82



fig. 83

tion (**8**) and rearscreen heating (**9**) buttons; this operation restores all the operating conditions stored previously.

**IMPORTANT** On leaving the **off** condition, inside air re-circulation returns to the condition prior to switching off.

### 100

### AIR DISTRIBUTION SELECTION BUTTONS (fig. 84)

Pressing one or more buttons (**10**) it is possible to manually choose one of the 5 possible air distributions to the passenger compartment:

- R E Flow of air to the dashboard centre and side outlets and rear outlet.
- R E Splitting of the air flow between the vents to the lower part of the passenger compartment (warmest air) and the dashboard centre and side outlets and the rear outlet (coolest air). This air flow distribution is particularly useful in spring and autumn, when the sun is shining.
- Z Air flow towards the front and rear lower parts of the passenger compartment. Due to the natural tendency of heat to spread upwards, this type of distribution allows heating of the passenger compartment in the shortest time, also giving a prompt feeling of warmth to the coldest parts of the body.

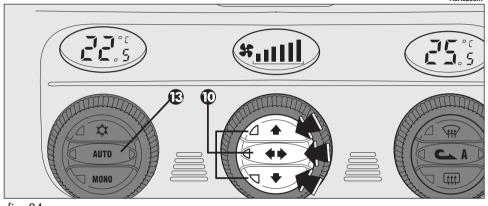


fig. 84

- Splitting of the air flow between the windscreen and side window defrosting/demisting vents and the lower part of the vehicle. This type of air distribution allows satisfactory heating of the passenger compartment while preventing possible misting of the windows.
- Q Air flow to the windscreen and front side window vents to demist or defrost them.

**IMPORTANT** Pressing one of these buttons turns on (led on button itself on) or off (led on button off) the associated function if the combination chosen is among the 5 possible ones, if not it only activates the main function of the button pressed, without the possibility of turning off with another press (at least in one distribution the air flow should be spread in the passenger compartment).

To restore automatic air distribution control after a manual selection, press button (13) AUTO.

# CLIMATE CONTROL COMPRESSOR ON/OFF ENABLE BUTTON \* (fig. 85)

Pressing button (14) 🌣 enables the turning on of the climate control compressor. This condition is shown by the lighting up of the led on the button itself.

When the climate control compressor is turned off, the leds on buttons (13) AUTO and (14) to go off; automatic inside air recirculation control is also excluded (both leds off on button 8 ) which always stays off to prevent misting the windows; even if unadvisable, it is still possible to restore automatic operation of inside air re-circulation pressing button (8)

With the climate control compressor off, it is not possible to admit air to the passenger compartment with a temperature below the outside temperature; in this case, the value flashes on the display concerning the temperature that cannot be reached and the left led on button (13 AUTO - fig. 86) goes off.

The switching off of the climate control compressor remains in storage even when the engine has been stopped. To restore automatic control for switching on the climate control compressor, press button (14) \*\*again, the led on the button turns on, or

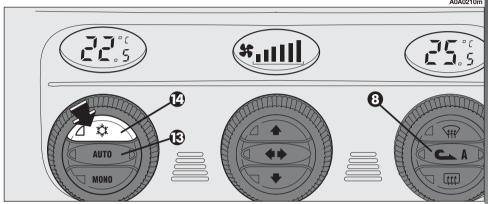


fig. 85

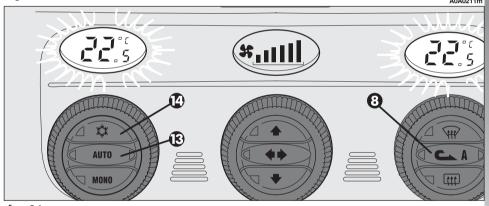


fig. 86

press button (13) **AUTO**; in which case, however, the other manual settings set will be cancelled.

# Operation of the climate control compressor is necessary for cooling and dehumidifying the air; it is advisable to keep this function always on, to prevent window mist-

# INSIDE AIR RE-CIRCULATION ON/OFF BUTTON (fig. 87)

ina problems.

Inside air re-circulation is controlled according to three operating logics

- automatic control, indicated by the turning on of the right led on the button;
- forced engagement (inside air re-circulation always on), indicated by the turning on of the left led on the button (and by the right led going off at the same time);
- forced switching off (inside air re-circulation always off with air inlet from outside), indicated by the turning off of both leds.

These operating conditions are obtained pressing in sequence the inside air re-circulation button (8)

When inside air re-circulation is controlled automatically by the system, the right led

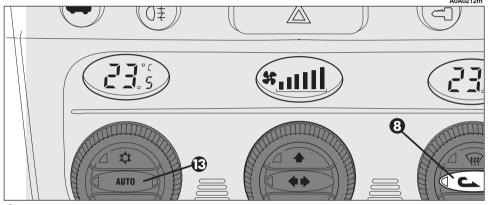


fig. 87

on the air re-circulation button (8) stays on all the time and the left led shows the air re-circulation condition:

**on** = air re-circulation operating;

**off** = air re-circulation off.

If inside air re-circulation has been turned on or off manually, the led on button (13) **AUTO** turns off.

In automatic operation, inside air re-circulation is turned on automatically when the antipollution sensor detects the presence of polluted air, for example in cities, queues, tunnels and operation of the windscreen washer (with the characteristic smell of spirit).

### WARNING

With the outside temperature below 4°C the climate control compressor is unable to work. It is therefore unadvisable to use the inside air re-circulation feature with low outside temperature as the windows may quickly mist over.

### WARNING

The inside air re-circulation system makes it possible to reach the required "heating" or "cooling" conditions faster. It is however inadvisable to use it on rainy/cold days as it would considerably increase the possibility of the windows misting inside, especially if the climate control system is off.

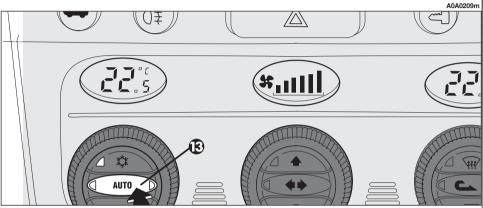


fig. 88

#### WARNING

It is advisable to turn on the inside air re-circulation system in queues or tunnels to avoid admitting polluted air from outside. The prolonged use of this function should however be avoided, especially with several persons on board, to avoid the possibility of the windows misting inside.

#### WARNING

In certain weather conditions (e.g.: outside temperature around 0°C) and with automatic air re-circulation control on, mist may form on the windows. In this case press the inside air re-circulation button (8) —, to switch off re-circulation (leds on button off) and if necessary increase the flow of air to the windscreen.

### AUTOMATIC OPERATION AUTO BUTTON (fig. 88)

Pressing the (13) **AUTO** button the system automatically adjusts the amount and distribution of the air admitted to the passenger compartment, cancelling all the previous manual adjustments.

This condition is indicated by the lighting up of both leds on the button itself.

When the right led, on button (13) AuTO, is off, this means that one or more manual operations have been carried out and
therefore automatic control is not complete
(except temperature control which is always
automatic) indicated by the left led on, or
that the system is in the OFF condition.

## QUICK FRONT WINDOW DEMISTING/DEFROSTING BUTTON

( MAX-DEF function) (fig. 89)

Pressing button (7) the climate control automatically activates timed operation of all the functions needed to quicken demisting/defrosting of the windscreen and front side windows, i.e.:

- it turns on the climate control compressor;
- switches off inside air re-circulation, if on (both leds off);
- sets the maximum air temperature (**HI**) on both displays (**1**) and (**5**);
- operates the fan at a predefined speed;
- directs the flow of air towards the windscreen and front side window vents;
- turns on rearscreen heating and, if present, the wing mirror coils.

When the maximum demisting/defrosting feature is on, the led on button (7) (7), the led on the rearscreen heating button (9) (14) and the led on button (14) is turn on; at the same time the leds on button (8) go off.

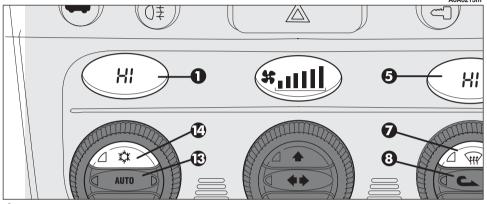


fig. 89

**IMPORTANT** If the engine is not warm enough, the function will not engage the predefined fan speed immediately, to limit the flow to the passenger compartment of air that is not warm enough to demist the windows.

When the maximum demisting/defrosting function is on, the only manual operations possible are manual adjustment of the fan and switching rearscreen heating off.

Pressing one of the following buttons again: (7) (8) (12) MONO, (13) AUTO or (14) It the system switches off the maximum demisting/defrosting function, restoring the operating conditions of the system prior to turning it on, in addition to activating the last function required, if any.

# WING MIRROR AND REARSCREEN DEFROSTING/DEMISTING BUTTON [ttt] (fig. 90)

Pressing button (9) turns on demisting/defrosting of the rearscreen and, if present, the wing mirror coils.

The turning on of this function is shown by the turning on of the led on the button.

This function is timed and switches off automatically after 20 minutes, or pressing the button again; the function is also switched off when the engine is stopped and will not be switched on again the next time the engine is started.

**IMPORTANT** The system turns on rearscreen heating automatically if the temperature is below 3°C.

**IMPORTANT** Do not apply stickers on the inside of the rearscreen over the heating filaments to avoid damage that might cause it to stop working properly.

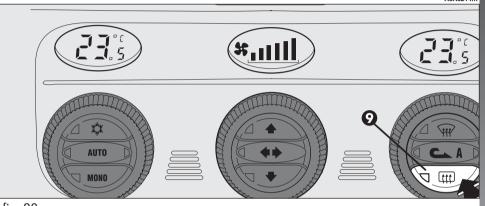


fig. 90

### **POLLEN FILTER**

The filter has the specific capability of combining the mechanical filtering of the air with an electrostatic effect so that the outside air admitted to the passenger compartment is purified and free of particles such as dust, pollen, etc.

In addition to the above, it also effectively reduces the concentration of pullutants.

The filtering action takes place under all air inlet conditions and it is clearly most effective with the windows shut.

Have the conditions of the filter checked by Alfa Romeo Authorised Services at least once a year, preferably at the onset of summer.

If the vehicle is used mainly in dusty or polluted areas it should be checked and if necessary replaced, at shorter intervals.



The failure to replace the filter may considerably reduce the effectiveness of

the climate control system up to blocking the air flow from the outlets and vents.

### **CONTROLS**

### **TAILGATE OPENING (fig. 91)**

Electric tailgate release is only allowed with the ignition key in the ignition switch at MAR vehicle stationary, at STOP or **PARK** for 3 minutes without opening/closing a door. To release the tailgate, press button (A) on the centre console panel.

### **HAZARD WARNING LIGHTS** (fig. 91)

These are switched on by pressing button (C), on the centre console panel, regardless of the position of the ignition key.

When the hazard warning lights are switched on, the switch itself begins to flash together with the direction indicators and the direction indicator warning lights on the instrument cluster. This function is switched off by pressing the button again.

### FOG LIGHTS (fig. 91)

These are turned on pressing button (B) on the centre console panel, when the outer lights are already on, at the same time the led on the button itself turns on.

Turning the ignition key to **STOP** the fog lights are turned off automatically and do not come on the next time the engine is started without pressing button (**B**).

Press button (**B**) again to switch off.

**IMPORTANT** The front foglights should be used in compliance with local traffic laws.



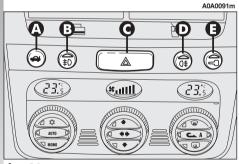


fig. 91

106

### **REAR FOG GUARDS** (fig. 91)

These are turned on, with the dipped beam headlights or fog lights on, pressing button (**D**) on the centre console panel, at the same time the warning light on the button itself turns on.

Turning the ignition key to **STOP** the fog guards are automatically turned off and they do not come on the next time the engine is started unless button (**D**) is pressed. To turn them off press button (**D**).

**IMPORTANT** Always use the rear fog guards in compliance with local regulations.

### **DOOR LOCKING SYSTEM** (fig. 91)

To lock the doors simultaneously, press button (**E**) on the centre console panel, regardless of the position of the ignition key.

The deterrent led turns on as follows:

- with the ignition key at **MAR** glowing steadily with a yellow light.
- with the ignition key at **STOP** flashing with a red light (deterrence condition).

### INERTIAL FUEL CUT-OFF SWITCH (fig. 92)

This is an automatic safety switch, to be found on the floor next to the driver's door pillar, which is triggered in the event of a crash of a certain magnitude to interrupt the flow of fuel.

The cutting in of the inertial switch is shown on the display of the instrument cluster.

### WARNING

If a smell of fuel is noted following an accident, or the fuel system is leaking, to avoid the risk of fire do not reset the switch.

If no leaks are found the vehicle can be restarted. Press button (**A**) to activate the fuel supply system again.

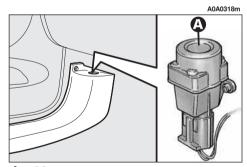


fig. 92

### HEADLIGHT AIMING DEVICE (fig. 93) (excluding versions with Xenon headlights)

The headlights should be aimed correctly depending on the vehicle load.

To do this, use the rocker button  $(\mathbf{A})$ , on the plate at the side of the steering column:

- press the arrow on the button (A), to increase by one position (eg.:  $0 \rightarrow 1 \rightarrow 2 \rightarrow 3$ );
- press the arrow on the button (S), to lower by one position (eg.:  $3 \rightarrow 2 \rightarrow 1 \rightarrow 0$ ).

The display (**B**), in the tachometer shows the positions during adjustment.

For correct adjustment, bear in mind the following conditions:

- position **0**: one or two people occupying the front seats
- position 1: five people;
- position 2: five people + load in the boot;
- position 3: driver + maximum permissible load all stowed in luggage compartment

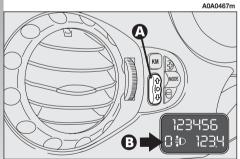
### HAND BRAKE (fig. 94)

The hand brake lever is located between the two front seats.

To operate the brake when the vehicle is stationary, pull lever (**A**) upwards, until the required braking action is obtained.

When the ignition key is at **MAR** the warning light on the instrument cluster (1) will come on.







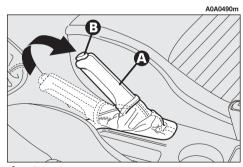


fig. 94

**108** fig. 93

To release the hand brake:

- slightly lift the lever  $(\mathbf{A})$  and press the release button  $(\mathbf{B})$ ;
- keeping the button pressed lower the lever, the warning light (1) on the instrument cluster will go out.

To prevent the car from moving accidentally, keep the brake pedal pressed when engaging the hand brake.

**IMPORTANT** The hand brake lever (**A**) is fitted with a safety device which prevents the brake from being released when, with the lever pulled, button (**B**) is pressed. Therefore, to release the brake, in addition to pressing button (**B**) it is also necessary to pull lever (**A**) further upwards to release the safety device, then lower the lever completely.

**IMPORTANT** On certain versions a buzzer sounds to alert the driver if the car is moved with the hand brake engaged.

### **GEARSHIFT LEVER (fig. 95)**

The position of the single gears is shown by the pictogram on the gearshift lever knob.

When shifting gear, always fully depress the clutch pedal. Before engaging reverse gear (**R**) wait for the car to be stationary.

For versions fitted with six speed gearbox, to engage reverse gear  $(\mathbf{R})$ , raise the ring under the grip (with the fingers of the same hand holding the lever).

After engaging reverse gear, release the ring. It is not necessary to raise the ring on the lever when shifting from reverse to another gear.

**IMPORTANT** Reverse gear may only be engaged with the car completely at a standstill. With the engine running, before engaging reverse gear it is necessary to wait for at least 3 seconds with the clutch pedal fully depressed to prevent clashing and the possibility of damaging the gears.

WARNING

To change gear smoothly, the clutch pedal must be fully depressed. Therefore, there should be no obstacles on the floor under the pedal unit: make sure that any mats are well laid and do not interfere with the pedals.

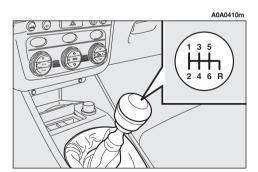


fig. 95

### SELESPEED TRANSMISSION

The car may be fitted with a mechanical transmission with electronic control called "Selespeed".

The Selespeed considerably simplifies use of the car, reducing the fatigue of city driving or when frequent gearshifting is required, at the same time offering brilliant performance.

**IMPORTANT** To be able to use the Selespeed correctly, this chapter should be read in full to understand the correct, permissible operations to be carried out right from the start.

This device comprises a conventional mechanical gearbox to which an electronically-operated electrohydraulic device has been added which automatically controls the clutch and gear engagement.

The clutch pedal has been eliminated and the vehicle moves off using only the accelerator pedal.

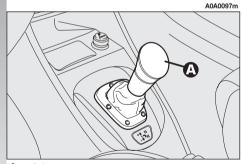
Gearshifting takes place through the control lever (**A-fig. 96**) which is of the floating type with a "single central stable position".

Using the lever it is possible to request an increase/decrease of the gear ratio engaged and/or reverse gear engagement  $(\mathbf{R})$  or neutral  $(\mathbf{N})$ .

There are also two stalks on the steering wheel spokes (**fig. 97**) through which, only with the car on the move (with speed above 2 km/h), it is possible to shift gear up or down.

The gearbox can work in two operating modes:

- the first is semiautomatic (**MANUAL**), in which the driver directly requests gearshifting through the lever on the centre console or pressing the buttons at the steering wheel;
- the second is automatic, called **CITY**, in which the system decides directly when to shift gear (mode selectable with the specific button **A-fig. 98**).



**110** fig. 96

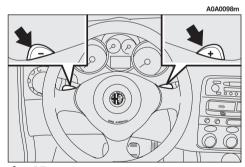


fig. 97

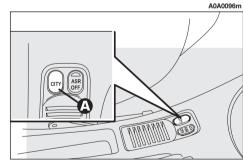


fig. 98

With the gearbox in the CITY mode it is still possible to carry out manual gearshifting, both using the gear lever and the steering wheel controls. The gearbox remains in the CITY mode.

The gear engaged (fig. 99) is always signalled on the display regardless of the selected mode.

N = neutral:

1 =first gear;

2 = second gear;

**3** = third gear;

**4** = fourth gear;

**5** = fifth gear;

**6** = sixth gear

 $\mathbf{R}$  = reverse.

Failures of the Selespeed gearbox are signalled to the driver through a warning light () connected with the associated failure message (fig. 100) and accompanied by an acoustic signal.

### SYSTEM ACTIVATION

**IMPORTANT** When the driver's door is opened the Selespeed starts the hydraulic part of the system to prepare it for when the engine is started. This function (noted by the turning of the electric pump) is deactivated after 10 door openings / closings not followed by actual system activation turning the ignition kev.

Turning the ignition switch to MAR, after about one second, the reconfigurable multifunction display shows the gear engaged (N, 1, 2, 3, 4, 5, 6, R); from this moment onwards, the Selespeed system accepts gearshift commands.

**IMPORTANT** If after 10 seconds the reconfigurable display does not show the gear engaged or the warning light (together with the message shown by the display) stays on, turn the ignition key to STOP and wait for the display to turn off, then repeat system switch on. If the fault persists, contact Alfa Romeo Authorised Services.

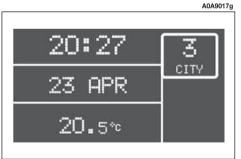






fig. 100

### **OPERATION WITH ENGINE OFF**

**IMPORTANT** Before using the gearshift control lever, always check the gear engaged on the display (N, 1, 2, 3, 4, 5, 6, R).

With the vehicle stopped and the brake pedal pressed, requests to change gear are accepted **only** through the control lever on the centre console.

To request gearshifting, in addition to keeping the brake pedal pressed:

— to shift upwards (+) (fig. 101) push the lever "forwards" (if the car is in first gear it shifts to second, if in second it shifts to third and so on up to fifth). If the system is in neutral (N) or reverse (R) moving the lever forwards causes the engagement of first gear (1).

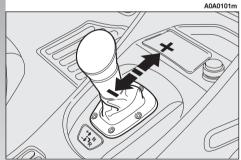
to shift downwards (-) (fig. 101) push the lever backwards (if the car is in fifth gear it shifts to fourth, if in fourth it shifts to third and so on down to first gear).

To allow setting the transmission to neutral (N), starting from the condition with the vehicle stationary and brake pedal pressed, move the gearshift lever to the right (fig. 102). The neutral control (N) is accepted with car speed below 60 km/h.

From any gear (N, 1, 2, 3, 4, 5, 6) and with the car practically stationary, it is possible to request the engagement of reverse gear pushing the lever to the right and then backwards (**fig. 103**). If the car is moving, the request is not accepted. Wait for the car to stop and then request gear engagement again.

**IMPORTANT** Once a gear has been changed it is necessary to immediately release the gearshift control lever after making the request. A manoeuvre prolonged (over 10 seconds) causes the system switches automatically to CITY.

**IMPORTANT** When parking the vehicle on a sloping road and engaging a gear to keep it braked, always check that the reconfigurable multifunction display shows the new gear engaged and wait for one or two seconds before releasing the brake pedal to allow complete engagement of the clutch.



**112** fig. 101

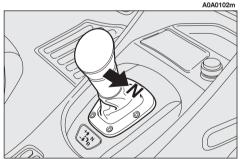


fig. 102

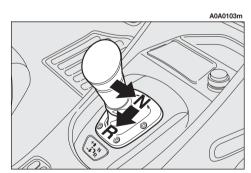


fig. 103

#### STARTING THE ENGINE

The engine can be started either with a gear engaged or in neutral (**N**) provided that the brake pedal is fully depressed.

**IMPORTANT** If the brake pedal is not depressed, the starter motor will not turn, thus preventing the engine from being started

After starting, the gearbox sets to neutral automatically, the reconfigurable multifunction display shows the letter (**N**) and the system selects the semiautomatic operating mode (manual).

### WARNING

If the engine fails to start with the gear engaged, the driver is informed of the potentially dangerous situation due to the fact that the gearbox is in neutral by the buzzer and by the reconfigurable multifunction display.

## SWITCHING OFF THE ENGINE AND SYSTEM DEACTIVATION

Turning the ignition key to **STOP** the engine turns off but the Selespeed system is still active waiting for the car to stop completely. After about 2 - 4 seconds from when the key has been moved to **STOP**, the hydraulic part is deactivated and the reconfigurable multifunction display is turned off immediately afterwards; at this point is the Selespeed system deactivated.

The gear selected before switching off the engine remains engaged.

If the engine is stopped with the gearbox in neutral (N), the buzzer calls the driver's attention so that the car can be put in safety conditions engaging first gear (1) or reverse (R). In this case, the ignition key should be turned to MAR and with the brake pedal pressed, engage first gear (1) or reverse (R).

**IMPORTANT** If the engine is stopped with the **CITY** mode engaged, this will be stored by the system. Indeed, the next time the engine is started, this condition will still be active.

**IMPORTANT** Should the engine go off with the car on the move, the next time it is started the Alfa Romeo CODE warning light (A) may come on. In this case check that the warning light goes off turning the engine off and on again with the vehicle stationary. If not contact Alfa Romeo Authorised Services.



### WARNING

NEVER leave the car with the gears in neutral (N).

WARNING
Never remove the ignition

key when the car is moving. In addition to the fact that the Selespeed system would not work properly up to stopping the car, the steering wheel would lock automatically the first time it is turned.

### WARNING

It is absolutely necessary to turn off the engine and then turn off the Selespeed system keeping the brake pedal pressed: ONLY release the pedal when the reconfigurable multifunction display on the cluster has aone out.

### **MOVING THE CAR**

With the engine on and the car stationary, the gears that can be engaged for moving off are only first (1), second (2) and/or reverse (R).

To shift gears, keep the brake pedal pressed and use only the lever on the centre console since the stalks on the steering wheel can be only operated if the car speed exceeds 10 km/h.

**IMPORTANT** Reverse gear (**R**) can be engaged from any of the following other ratios: neutral (N), first (1) or second (2). If the car is moving, the request is not accepted, it is necessary to wait for the car to stop completely and request the enaggement of reverse aggin  $(\mathbf{R})$ .

The driver is informed of the reverse gear engaged condition by the reconfigurable multifunction display on the instrument cluster and by the intermittent sound of a buzzer.

**IMPORTANT** If when shifting from reverse  $(\mathbf{R}) \to \text{first } (\mathbf{1}) \text{ or neutral } (\mathbf{N}) \to \text{first}$ (1) sticking occurs on first gear, the system automatically engages second gear (2). This is not to be considered as a fault as it is part of the operating logic. For the same reason, in the case of sticking on reverse gear, the system partially closes the clutch to allowgear engagement; in this case the engagement of reverse gear (R) will not be as smooth as usual.

Moving off of the car is obtained:

- 1) releasing the brake pedal:
- **2**) gradually pressing the accelerator pedal.

The more the accelerator is pressed the higher the pickup torque.

When the ASR system is off (through the relevant ASR OFF button) max pickup is obtained ("sprint" starting)

### WARNING

After a request to shift gear with the car stationary, before pressing the accelerator pedal to make the car move, the driver must always check the display to see that the gear engaged is the one required.

### **WARNINGS**

- With the car stopped and a gear engaged always keep the brake pedal pressed until deciding to move off;
- during prolonged halts with the engine running it is advisable to keep the gearbox in neutral;
- when the car is parked facing uphill, do not use the moving off manoeuvre to keep the car still; use the brake pedal and press the accelerator pedal only when deciding to move off;
- use second gear **only** when more control is needed for moving off manoeuvres at low speed;
- if, in reverse gear, first gear is engaged or vice versa, shift gear only when the car is stopped completely and with the brake pedal pressed.

Though highly unadvisable, if when travelling downhill for some unexpected reason the car is set to neutral (**N**), when the engagement of a gear is requested the system automatically engages the best gear in relation to the speed of the car to allow the correct transmission of torque to the wheels.

When travelling downhill with a gear engaged and the accelerator released (if the vehicle is moving), beyond a pre-established speed, the system engages the clutch automatically to give the car adequate engine braking.

For safety reasons the Selespeed system activates the buzzer when:

- clutch overheating occurs while the vehicle is being started; in this case it is necessary to "force" starting avoiding hesitation or, if the car is on a slope, release the accelerator and use the brake pedalto stop the car;
- the car moves in the opposite direction to the gear engaged, (e.g.: it moves forwards with reverse gear engaged; in this situation it is necessary to stop the car and engage the correct gear, keeping the brake pedal pressed.

Still due to safety reasons, with the car stationary, the engine running and gear (1), (2) or (R) engaged, the system activates the buzzer and automatically shifts to neutral (N) when:

- no action is made on the accelerator and/or brake pedals for at least 3 minutes;
- the brake is pressed for over 10 minutes;
- the driver's door is opened and the accelerator and brake are not touched for at least 1 second.

### STOPPING THE CAR

To stop the car, simply release the accelerator pedal and, if necessary press the brake pedal.

Regardless of the gear engaged and the operating mode activated (**MANUAL** or **CITY**) the system automatically disengages the clutch and shifts to a lower gear.

If deciding to move off again without having stopped the car completely, the most suitable ratio will be available for accelerating again.

Stopping the car the system automatically engages first gear (1).

### **OPERATION**

The gearbox can work in two operating modes:

- the first is semigutomatic (MANUAL). in which the driver directly decides when to shift aear.
- the second is completely automatic (CITY), in which the system decides directly when to shift gear according to the type of driving.

The **CITY** mode can be selected by pressing the specific button **CITY** on the gearbox lever knob; when this mode is selected, the CITY sign appears on the display.

### **SEMIAUTOMATIC OPERATION** (MANUAL)

In the operating mode, the reconfigurable multifunction display on the cluster shows the gear engaged.

In this operating mode, the decision to change gear is left to the driver who decides the most appropriate moment.

The requests to change gear may take place through:

- the control lever on the centre console (A-fig. 104);
- steering wheel stalks (fig. 105). which can be operated only when the car speed exceeds 2 km/h.

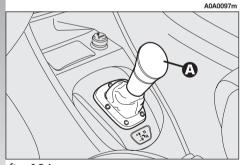
The MANUAL operating mode is set when, with the CITY mode selected, the CITY button(A-fig. 106) is pressed again, excluding the previously selected mode.

When changing gear it is not necessary to release the accelerator pedal because the Selespeed system directly controls the enaine in such a way as to:

- reduce and then increase engine torque;
- adapt the engine speed to the latest gear engaged.

When downshifting, the engine is accelerated automatically to bring it to the speed necessary with the new gear ratio.

The neutral command (N) is accepted until the vehicle speed exceeds 40 km/h. The reverse gear engagement command (R) is accepted only if the vehicle is stationary.



**116** fig. 104

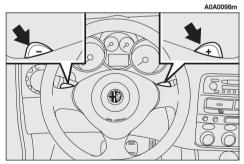


fig. 105

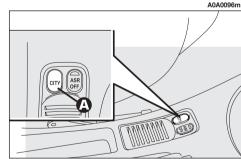


fig. 106

In the "**MANUAL**" operating mode there are certain automatic/security devices which simplify driving:

- when slowing down the clutch is opened and the transmission ratio is automatically reduced to be ready for picking up again; otherwise, when the car is stopped, the gearbox will automatically be in firstgear (1);
- requests to change gear that would take the engine to above maximum speed or below minimum speed are not accepted;
- if jamming occurs during gear engagement, the system firstly tries to engage the gear required again and, if it is still not possible, it automatically engages the immediately higher one to avoid leaving the car inneutral.

**IMPORTANT** It is advisable to wait for the end of a gear shifting operation before requesting another one, to avoid multiple requests in rapid succession.

### **AUTOMATIC OPERATION (CITY)**

The automatic operating mode **CITY** is selected pressing button (**A-fig. 106**) at the base of the gearshift lever.

In addition to the gear, the reconfigurable multifunction display shows the word **CITY** (**fig. 99**).

The system decides directly when gearshifting according to the engine running speed and the driving style.

Releasing the accelerator pedal quickly, the system does not engage a higher gear in order to maintain an adequate level of engine brake.

### **FAILURE WARNING**

Failures of the Selespeed gearbox are shown by the warning light (**fig. 100**) connected with the associated failure message, both shown on the display.

When the system is turned on (turning the ignition key to **MAR**), the warning light should turn on glowing steadily for about 4 seconds and then turn off.

If the warning light stays on it means that a fault to the gearbox has been detected; at the same time a buzzer sounds intermittently for 4 seconds to attract the driver's attention.



### WARNING

If warning light \( \simeq \) and the message appear on the display, contact Alfa Romeo Authorised Services as soon as possible to have the fault eliminated.

In the case of a fault to the gearshift control lever, the system automatically engages the automatic operating mode **CITY** to make it possible to reach the nearest Alfa Romeo Authorised Service to have the fault eliminated.

In the case of a fault to other gearbox components, the system only allows the engagement of certain gears: first gear (1), second gear (2) and reverse (R).

### WARNING

In the event of a gearbox fault to any component, contact Alfa Romeo Authorised Services as soon as possible to have the system checked over.

#### **BUZZER WARNINGS**

The buzzer is activated when:

- reverse gear is engaged (**R**);
- the car is parked with the gearbox in neutral (N): signal that can be noted turning the ignition key to **STOP**;
- clutch overheating occurs when moving off:
- the car moves in the opposite direction to the gear engaged (e.g.: the car moves downwards with reverse agar engaged):
- in the event of gearbox failure;
- the system has shifted automatically to neutral (N) when:
- an attempt is made to start the engine with a gear engaged and the brake pedal is not pressed completely:
- no action is made on the accelerator and/or brake pedal for at least 3 minutes;

- the brake is pressed for over 10 min-
- the driver's door is opened and no action is made on the accelerator and brake for at least 1 second:
- a gearbox failure has been detected.

### PARKING THE CAR

To park the car safely it is **absolutely necessary** to engage first gear (1) or reverse (R) and also the hand brake if the road is on a slope.

Turning off the engine with the car on an uphill slope and a gear engaged, it is absolutely necessary to wait for the reconfigurable multifunction display showing the gear engaged to go off before releasing the brake pedal, so that the clutch is completely inserted.

If the gearbox is in neutral (N) and wanting to engage a parking gear, the system should be activated and with the foot on the brake pedal it is necessary to engage 1st gear (1) or (R).

### TOWING THE CAR

**IMPORTANT** For towing the car follow local regulations. Make sure that the gearbox is in neutral (N) (checking that the car moves if pushed) and tow as for a car with normal mechanical gearbox following the instructions given in the chapter "In an emergency".

Should it be impossible to set to neutral. do not tow the vehicle but contact Alfa Romeo Authorised Services.



### **INTERIOR FITTINGS**

### **GLOVEBOX**

On the dashboard there is a glovebox with lid and light.

To open use handle (A-fig. 107).

When the glovebox is opened with the key at MAR an inside courtesy light turns on (A-fig. 108).



The fitting is completed by device (**B**), on the lid, for inserting a pen or pencil.

**IMPORTANT** Turning the ignition key to STOP, opening the glovebox, the light inside can only be turned on for 15 minutes; after which the system turns it off to avoid draining the battery.

### **GRAB HANDLES** (fig. 109)

Suitable grab handles are fitted above the doors and rear side windows.

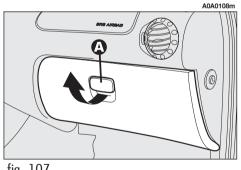


fig. 107

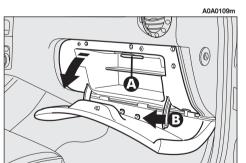


fig. 108

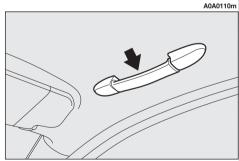


fig. 109

119

### 120

### FRONT ROOF LIGHT (fig. 110)

The roof light comprises two courtesy lights with corresponding control switch.

**IMPORTANT** When a door is opened the roof light turns on and timing of about 3 minutes is activated automatically, after which it goes off; closing the doors (within the 3 minutes) a second timing of about 7 seconds is activated to allow vehicle starting.

Unlocking the doors using the remote control, the roof light turns on gradually and timing is activated automatically for about 15 seconds. Locking the doors with the remote control the roof light turns off gradually.

The lights are turned off moving the ignition key to **MAR** (with the doors closed).

With switch (**A**) in the central position (**1**), both lights are turned on when a door is opened.

Pressing switch (A) to the left (position 0), the lights stay off (OFF position).

Pressing switch (**A**) to the right (position **2**) both lights stay on.

Switch (**B**) turns the lights on individually.

Pressing switch (**B**) to the left (position **0**) the left light is turned on. Pressing the switch to the right (position **2**) the right light is turned on.

With switch (**B**) in the central position (position **1**) the lights stay off.

**IMPORTANT** Turning the ignition key to **STOP** turning the roof light on is only possible for 15 minutes; after which, the system turns it off to avoid draining the battery.

**IMPORTANT** Before leaving the car, make sure that both switches are in the central position. By so doing, the roof lights will turn off when the doors are closed. Forgetting a door open the lights will turn off automatically after a few seconds.

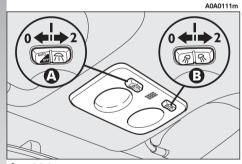


fig. 110

### **COURTESY LIGHTS** (fig. 111)

On the back of the driver's or passenger's sun visor, opening the cover (A) the roof lights turn on (B) at the side of the courtesy mirror, with the ignition key at MAR. These lights allow use of the courtesy mirror when the light is poor.

**IMPORTANT** Turning the ignition key to **STOP** the lights can be activated only for 15 minutes; after which the system turns them off to avoid draining the battery.

### **REAR ROOF LIGHT** (fig. 112)

**IMPORTANT** When a door is opened, the roof light turns on and a timing of about 3 minutes is activated, after which it turns off; closing the doors (within 3 minutes) a second timing of about 7 seconds is activated to allow the car to be started.

Unlocking the doors using the remote control, the roof light turns on gradually and timing is activated automatically for about 15 seconds. Locking the doors with the remote control the roof light turns off gradually.

The light turns off in any case turning the ignition key to **MAR** (with the doors closed).

On the light there is a switch with three positions.

When switch (**A**) is in the central position (**0**) the light turns on automatically when a door is opened.

Moving the switch to the right (position 1) the light stays off.

Moving the switch to the left (position  ${\bf 2}$ ) the light stays on.

**IMPORTANT** Turning the ignition key to **STOP** the roof light can be turned on for only 15 minutes; after which it is turned off to avoid draining the battery.

**IMPORTANT** Before leaving the car, make sure that the switch (**A**) is in the central position (**0**), so that the roof light turns off when the doors are closed.

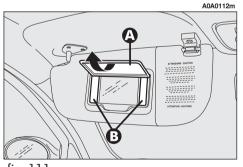
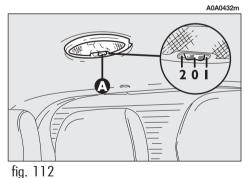


fig. 111



### **PUDDLE LIGHTS** (fig. 113) (for versions/markets where applicable)

The light (A) housed in the doors turns on when the associated door is opened, regardless of the position of the ignition key.

### **DETERRENT LED** (fig. 114)

The led (A) on the instrument cluster comes into operation when the doors are locked (ignition key at **STOP** or removed) and it remains in the "deterrence" condition, flashing with a red light until the next time the doors are unlocked.

**IMPORTANT** If a door or the tailagte are not closed perfectly, the deterrent led flashes at a higher frequency for 4 seconds and then flashes at normal frequency again.

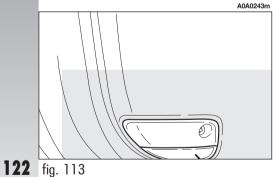
### FRONT ASHTRAY AND CIGAR LIGHTER (fig. 115)

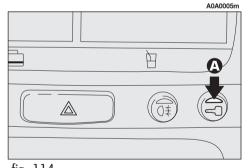
To use the ashtray open the lid (A).

To use the ashtray, with the key at MAR, press button (B); after a few seconds the button will return automatically to its initial position and the cigar lighter is ready for use.

Remove the tray to empty and clean the ashtray (**C**).

The position of the cigar lighter in relation to the ashtray and viceversa, may vary depending on the trim level.





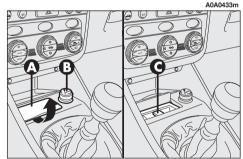


fig. 114

fig. 115

The cigar lighter gets extremely hot. Handle with care and prevent its use by children: danger of fire and/or burn-



Always ensure that the cigar lighter has turned off.

### WARNING

Do not use the ashtray as waste paper basket: it might set on fire in contact with cigarette stubs.

### **REAR ASHTRAYS** (fig. 116)

For the rear passengers there are two concealed ashtrays.

To use or remove pull in the direction of the arrow.

### **CD COMPARTMENT** (fig. 117) (for versions/ markets where applicable)

To open the CD compartment, press it as shown by the arrow.

### **CARD HOLDER RECESS AND** GLASS HOLDER (fig. 117/a) (for versions/markets where applicable)

The interior fittings are completed by the removable card holder recess(A) and glass holder (B) located at the centre of the dashboard. To use them, press as shown.

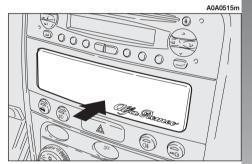


fig. 117

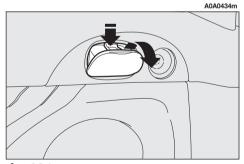


fig. 116

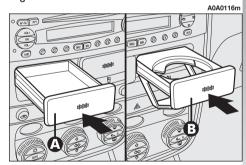


fig. 117/a

### **ODDMENT POCKETS** ON THE DOORS (fig. 118)

Each door has an oddments pocket (A).

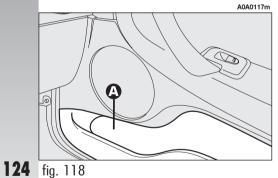
### **ODDMENT RECESSES ON CENTRE CONSOLE** (fig. 119)

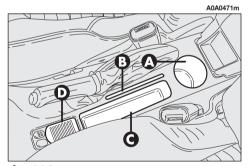
On the centre console, at the side of the hand brake lever, depending on the versions, the following recesses are provided:

- oddment recess (A);
- magnetic card or toll ticket holder (B);
- pen or pencil holder (C);
- coin holder (**D**).

### **REAR ODDMENT POCKETS** (fig. 120)

These are at the side of the rear seats in the side trim (A).





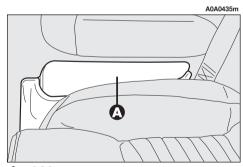


fig. 119

fig. 120

### SUN VISORS (fig. 121)

The visors can be directed at the front and side.

Behind the visors have a courtesy mirror with a light at the side (**A**). To use, open the cover (**B**).

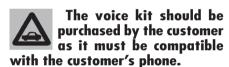
The lights allow use of the mirrors with dim light.

# CELL PHONE PROVISION

The car may be fitted with a provision for installing a cell phone.

The mobile phone provision consists in:

- Radio + cell phone dual-purpose antenna;
- Connection and supply cables with specific connector for connecting hands-free kit.



# ACCESSORIES PURCHASED BY THE OWNER

If after buying the car, you decide to install electrical accessories that require a permanent electric supply (alarm, voice feature, radionavigator with satellite antitheft, etc.) or accessories that in any case burden the electric supply, contact Alfa Romeo Authorised Services, whose qualified personnel, besides suggesting the most suitable devices belonging to Lineaccessori Alfa Romeo, will also evaluate the overall electric absorption, checking whether the vehicle's electric system is able to withstand the load required, or whether it needs to be integrated with a more powerful battery.

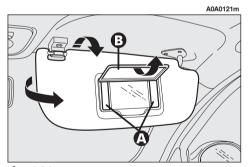


fig. 121

For the installation of a cell phone and connection to the provision in the car, contact only Alfa Romeo Authorised Services; this will guarantee first-rate results with no possibility of any inconvenience that may compromise the safety of the vehicle.

### **RADIO** TRANSMITTERS AND CELL PHONES

Cell phones and other radio transmitter devices (CB for instance) may not be used inside the car, unless a separate aerial is used fitted outside the car.

Moreover the transmission and reception efficiency of these devices may be downgraded by the screening effect of the car bodv.

### WARNING

The use of cell phones, CB transmitters or the like inside the passenger compartment (without outside aerial) produces radio frequency electromagnetic fields which, amplified by the resonance effects inside the passenger compartment, may cause, besides potential health hazards for the passengers, also malfunctioning of the electronic systems with which the vehicle is fitted, such as engine control unit, ABS/EBD control unit etc., which could adversely affect vehicle safety.

### **SUNROOF**

### WARNING

Improper use of the sunroof can be danaerous. Before and while operating it, always make sure that the passengers are not exposed to the risk of harm caused either directly by the sunroof in motion or by personal items drawn or knocked by it.

# WARNING

damage may result.

Do not open the sunroof with snow or ice on it:



### WARNING

Open and close the sunroof only with the vehicle stationary.

**SLIDING FORWARDS**/

opening positions available.

(A) to the centre position.

drawn by hand using a catch.

is accessible (fig. 123).

With the ignition key at MAR turn the

To close the roof, take the control knob

The sunroof is fitted with a sliding curtain

The curtain is drawn by the roof when it

opens and is pushed completely inside the roof panel when the sunroof is opened com-

pletely. With the closing movement, it will

come out partially so that the hand catch

below, which prevents sun radiation and is

control knob (A-fig. 122), in the direction of the arrow, choosing one of the 6

**BACKWARDS** 

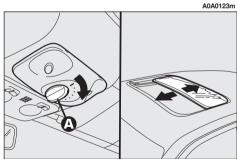


fig. 122

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### WARNING

When leaving the vehicle the ignition key should be removed to prevent the sunroof from being operated inadvertently and harming anyone remaining in the vehicle.

**IMPORTANT** If the car is fitted with a safety anti-crushing system, after locking the doors, keeping the corresponding remote control button pressed for about 2 seconds, triggers automatic closing of the roof and windows. The button should be pressed until the roof and windows have completed their stroke; releasing the button sooner, the windows and roof will stop in the position they are in at that moment.

On all versions, after releasing the doors, keeping the corresponding remote control button pressed for about 2 seconds, obtains opening of the roof and windows.

### RAISING AT THE REAR

With the ignition key at **MAR** turn the control knob (**A-fig. 124**), in the direction of the arrow, choosing one of the three opening positions available.

To close the roof, move the control knob (**A**) to the centre position.

### **EMERGENCY OPERATION**

If the electrical control device does not work the sunroof can be operated manually as follows:

- apply leverage in the points shown by the arrows and remove the plate (Afig. 125);
- insert a special Allen wrench in the seat
   (B) with hexagon slot;
- then turn the wrench clockwise to open the roof or counter-clockwise to close.

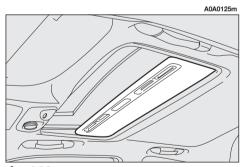


fig. 123

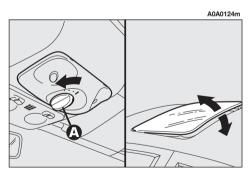


fig. 124

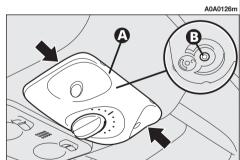


fig. 125

### LUGGAGE COMPARTMENT

The tailgate can be opened:

**from the outside of the car** - by a remote control impulse;

from the inside of the door - by depressing the button (A-fig. 126).

**IMPORTANT** The non perfect hatchback closure is shown by the ☐ symbol being turned on as the same time as the dedicated message on the re-configurable multifunction display.

# **OPENING FROM INSIDE** (fig. 126)

Tailgate is released electrically and this can be performed only when the ignition key is in position **MAR** with car at a standstill or in **STOP** or **PARK** position for 3 minutes without unlocking/locking one of the doors.

To unlock the tailgate, press button (**A**) on the centre console panel.

Tailgate raising is facilitated by the gas shock springs.

The gas springs are calibrated to ensure correct tailgate raising with the weights foreseen by the manufacturer. The arbitrary addition of items (such as spoilers, etc.) may compromise the correct operation and safety of the actual tailgate.

# **OPENING WITH REMOTE CONTROL** (fig. 127)

The tailgate can be opened by remote control from outside pressing the button (A), also when the electronic alarm is engaged. Opening of the tailgate is accompanied by a double flash of the direction indicators; closing is accompanied by a single flash.

If an electronic alarm is fitted, with the opening of the tailgate, the alarm system switches off volumetric protection and the tailgate control sensor, the system "beeps" twice (with the exception of certain markets).

Closing the tailgate again, the control functions are restored, the system "beeps" twice (with the exception of certain markets).

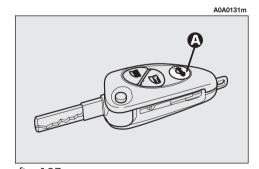


fig. 127

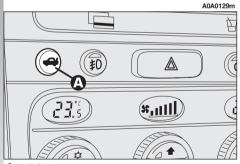


fig. 126

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### 129

### TAILGATE CLOSING

To lock, push in correspondence with the Alfa Romeo badge to lower tailgate, until you feel the click of the lock.

# LUGGAGE COMPARTMENT LIGHTING (fig. 128)

When the tailgate is opened the light turns on automatically (**A**) in the right-hand side of the boot. Closing the tailgate, the light turns off automatically.

**IMPORTANT** Turning the ignition key to **STOP**, opening the tailgate, turning on the light will only be possible for 15 minutes; after which the system turns it off to avoid draining the battery.

## EMERGENCY OPENING OF TAILGATE

To succeed in opening the tailgate from the inside, should the car battery be flat, or because of a defect of the electric lock of the tailgate itself, proceed as follows (refer to "Extending the Luggage Compartment" in the chapter "Getting to know your car"):

- remove rear headrests;
- tilt the rear seat cushions;
- tilt the backrests;

Operate on lever (**A-fig. 129**) as shown, to achieve the tailgate mechanical release, operating from the inside of the luggage compartment.

### **SECURING THE LOAD** (fig. 130)

The loads carried may be secured straps hooked to the special rings (**A**) in the boot.

The rings also serve for fastening the luggage restrainer, if present (in any case available c/o Alfa Romeo Authorised Services).

## CAUTIONS FOR CARRYING LUGGAGE

Travelling at night with a load in the boot it is necessary to adjust the height of the low beam headlights (see next paragraph "Headlights" in this chapter). For correct use of the aiming device, also make sure that the load does not exceed the values given in the same paragraph.

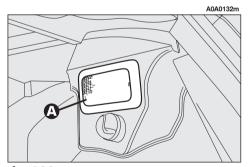


fig. 128

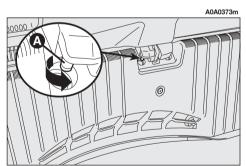


fig. 129

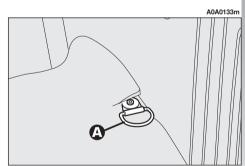


fig. 130

### WARNING

Do not load the boot above the permitted maximum (see "Technical specifications"). Also make sure that the objects contained in the boot are well secured to prevent them from being thrown forward, causing harm to the passangers.

### WARNING

A heavy load that has not been secured may cause serious harm to passengers.

### WARNING

If you want to carry reserve fuel in a can, follow legal regulations, only using a certified can, suitably fastened to the load securing eyelets. Even in this way the risk of fire is increased in the case of an accident.

### **BONNET**

The bonnet opening lever is under the left end of the dashboard.

To open:

- pull the lever (A-fig. 131) until the bonnet clicks open.
- press the safety lever (**A-fig. 132**) upwards.
- raise the bonnet.

**IMPORTANT** Bonnet raising is aided by two gas springs. Do not tamper with these springs and accompany the bonnet while raising it.



### WARNING

Do this only with the car stationary.

### WARNING

**DANGER-SERIOUS INJURY.** When carrying out checks or maintenance operations in the engine compartment, take special care not to bump the head on the raised bonnet.



### WARNING

If checks are needed in the engine compartment, when it is still hot, do not approach the

fan: it might start working also with the ignition key removed. Wait for the engine to cool down.

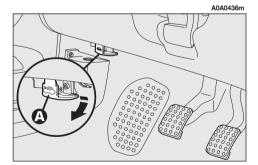


fig. 131

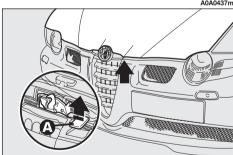


fig. 132

130

### WARNING

Scarves, ties and other loose clothing might be pulled by moving parts.

WARNING

For safety reasons the bonnet shall always be perfectly closed when travelling. Always check for proper bonnet locking. If the bonnet is left inadvertently open, stop the car immediately and close the bonnet.

To close:

- lower the bonnet until approx. 20 cm from the engine compartment and then let it drop, ensuring that it is fully closed and not just held in position by the safety catch.

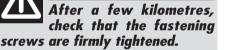
If the bonnet does not close properly do not push it down but open it again and repeat the above procedure.

### **ROOF RACK PROVISION**

The front hooks are in points (Afig. 133).

The rear hooks are located in the points (**B**) shown by the serigraph ( $\nabla$ ) on the side rear windows.

WARNING



Follow the regulations in force concerning maximum clearances.

**IMPORTANT** Closely follow the assembly instructions provided in the kit. Assembly must be carried out by skilled personnel.

WARNING

Distribute the load evenly and when driving, bear in mind the increased sensitivity to side wind.

Never exceed the maximum permissible loads (see "Technical Specifications" chapter).

B

fig. 133

131

A0A0232m

### **HEADLIGHTS**

The adjustment of the headlights is vital to your safety and comfort and to that of other road users.

The adjustment of the headlights is also governed by precise regulations.

Contact Alfa Romeo Authorised Services to have the headlights correctly adjusted.

**IMPORTANT** On the inside surface of the headlight there could appear a slight coat of fogging; this does not show a defect. since it is a natural occurrence due to low temperature and to the degree of humidity in the air; it will soon disappear as soon as the lights are turned on. The presence of drops inside the headlight shows water seepage, refer to the Alfa Romeo Dealership.

### COMPENSATION FOR TILT (fig. 134) (excluding versions with Xenon headlights)

When the vehicle is loaded, the beam from the headlights is raised due to the backwards tilt of the vehicle.

In this case the headlights must be adjusted correctly.

To do this, use the rocker button (A), on the plate at the side of the steering column:

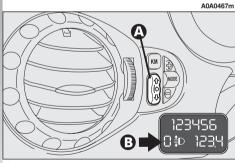
- press the arrow on the button (A), this will increase by one position (eq.:  $0 \rightarrow 1$ **→ 2 → 3**);
- press the arrow on the button (s), this will lower by one position (eg.:  $3 \rightarrow 2 \rightarrow$

The display (**B**), in the tachometer shows the positions while adjustment is being made.

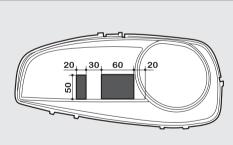
For correct adjustment, bear in mind the following conditions:

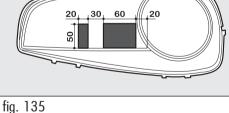
- position **0**: one or two people occupying the front seats
- position 1: five people;
- position 2: five people + load in the boot:
- position **3**: driver + maximum permissible load all stowed in luggage compartment

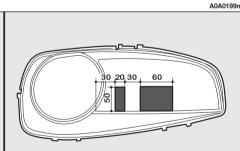




**132** fig. 134







### **HEADLIGHT ADJUSTMENT** ABROAD (fig. 135)

The dipped-beam headlights are adjusted for circulation in the country in which the vehicle is marketed. In countries with opposite circulation, to avoid alaring oncoming vehicles it is necessary to cover the areas of the headlight as shown below; this is done using non-transparent sticker tape.

The illustration refers to passing from righthand drive to left-hand drive.

### GAS DISCHARGE **HEADLIGHTS**

### (optional for versions/markets where applicable)

The gas (xenon) discharge headlights operate with a voltaic arc, in an ambient saturated with pressure xenon, instead of the alow filament.

The resulting illumination is sensibly higher to that of conventional lamps, both for light quality (clearer light) and for the width and positioning of the illuminated area.

The advantages of better illumination can be perceived (due to less eyesight fatique and greater orientation capacity for the driver, which in turn means higher driving safety) especially in case of bad weather, fog and/or insufficient road signs, thanks to the better illumination of the side parts of the visual field, normally obscured.

The large increase of the side part illumination increases driving safety since it allows the driver to better see the other users on the edge of the road (pedestrians, cyclists and bikers).

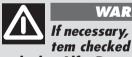
The triggering of the voltaic arc requires a very high voltage, while subsequent power supply can take place at a low voltage.

The headlights achieve their top luminosity approx. 15 seconds after they are switched on.

The intense light produced by this type of headlights requires the use of an automatic system to keep headlight trim constant and avoid dazzling the vehicles coming from the opposite direction in case of braking, acceleration or when carrying loads.

The electric mechanical system for automatically keeping the trim constant, makes unnecessary the device for compensating the headlight dip and the visual indication of the position on the display.

Xenon lights have a very long life, therefore breakdowns are unlikely.



### WARNING

If necessary, have the system checked and repaired only by Alfa Romeo Authorized Services.

### **ABS**

The car is fitted with an ABS braking system, which prevents the wheels from locking when braking, makes full use of the grip and within the limits of the grip available, keeps the car controllable also in emergency braking.

When braking a slight pulsing accompanied by noise may be felt on the brake pedal due to the action of the ABS system.

This should not be interpreted as a braking malfunction. It is the signal to the driver that the ABS has come into action: it is the warning that the car is travelling at the limit of its grip and therefore the speed should be adapted to the type of road.

The ABS system is an additional part of the base braking system; in the event of a failure it is disabled, leaving the braking system in the same conditions as a vehicle without ABS.

In the case of a failure, the anti-lock action is no longer present, the braking capacity of the vehicle is not adversely affected at all.

If you have never previously used cars fitted with ABS, it is advisable to practice a little on a slippery surface, naturally in safety conditions and in accordance with the local Highway Code you are also advised to read the following instructions carefully.

The advantage of the ABS over a conventional system is that it makes it possible to obtain the highest degree of handling also when braking completely under limited grip conditions, preventing the wheels from locking.

However, with the ABS do not expect the braking distance to always shorten: for example, on soft surfaces like gravel or fresh snow or a slippery surface, the space might increase.

To better exploit the possibilities of the anti-lock system in the case of need, the advice given below should be followed.

### WARNING

The ABS better exploits the grip available, but cannot increase it; caution is therefore necessary on slippery surfaces, without taking unnecessary risks.

### WARNING

If the ABS cuts in it means that the limit of grip is being reached between the tyre and the road surface: it is therefore necessary to slow down to adapt driving to the grip available.

### WARNING

In the event of a system failure, with the turning on of the warning light on the instrument cluster, have the car checked immediately by Alfa Romeo Authorised Services driving slowly, to be able to have the system restored to fully efficient conditions.

Always take due car when braking on bends, even with the help of the ABS.

The most important advice of all, however, is this:

### WARNING

When the ABS cuts in, and you feel the pulsing on the pedal, do not lighten the pressure, but keep the pedal firmly pressed with no fear; this way you will stop in the least space possible, compatibly with the conditions of the road surface.

Following these instruction you will be in the best braking condition under all circumstances.

**IMPORTANT** Cars fitted with ABS may only be fitted with the wheel rims, tyres and brake linings of type and brand approved by the Manufacturer.

The system is completed by the EBD (Electronic Brake Distributor) which distributes the braking action through the control unit and the ABS system sensors.

### WARNING

The car is fitted with an electronic braking distributor (EBD). If the (a) and (b) warning lights turn on simultaneously with the engine running, this indicates an EBD system failure; in this case with sharp braking the rear wheels might lock too early, with the possibility of skidding. Driving extremely carefully, go to the nearest Alfa Romeo Authorised Service to have the system checked.

IMPORTANT If the battery is run down the (a) and (b) warning lights might turn on when starting the engine and go off after starting. This should not be considered as a fault but as a warning that during starting the ABS is not active. The turning off of the warning lights ensures normal system operation.

### WARNING

The turning on of only the warning light with the engine running normally indicates a fault to the ABS system only. In this case the braking system is still efficient, though without the aid of the anti-lock device. Under these conditions performance of the EBD system may be reduced. In this case too, you areadvised to go immediately to the nearest Alfa Romeo Authorised Service to have the system checked over, driving in such a way as to avoid sharp braking.

### WARNING

If the low brake fluid level (1) warning light turns on, stop the car immediately and contact the nearest Alfa Romeo Authorised Service. Any loss of fluid from the hydraulic system will negatively affect the operation of the braking system be it of the conventional type or of the type with ABS.

### **VDC SYSTEM**

### (Vehicle Dynamics Control)

The VDC is an electronic system that controls vehicle stability, intervening on the driving torque and braking the wheels in a differentiated manner, in the lack of grip, it helps to bring the car back to the correct direction.

When travelling the car is subjected to lateral and longitudinal forces which can be controlled by the driver as long as the tyres offer adequate roadholding; when this falls below the minimum level, the car begins to divert from the course required by the driver.

Especially when travelling on an uneven surface (such as paving, or due to the presence of water, ice or soil), changes in speed (acceleration or braking) and/or course (bends or the need to avoid obstacles) may cause the tyres to lose grip.

When the sensors detect the conditions that would lead to skidding, the VDC system intervenes on the engine and on the brakes producing a stabilising torque.

### WARNING

The performance of the system, in terms of active safety should not induce the driver to take pointless and unnecessary risks. The style of driving must in any case always be adapted to the conditions of the road surface, visibility and traffic. The responsibility for road safety is always and in any case the driver's.

The VDC system helps the driver to keep the car under control in the event of a loss of tyre grip.

The forced induced by the VDC system to control the loss of vehicle stability always depend on the grip between the tyre and the road surface.

### HOW THE VDC SYSTEM WORKS

The VDC system is engaged automatically when the car is started and cannot be switched off.

The basic components of the VDC system are:

- an electronic control unit that processes the signals received from the various sensors and brings about the most appropriate strategy;
- a sensor that detects the position of the steering wheel;
- four sensors that detect the turning speed of each wheel;
- a sensor that detects rotation of the car around its vertical axis;
- a sensor that detects lateral acceleration (centrifugal force).

The heart of the VDC system is the VDC control unit, which with the data supplied by the sensors installed on the car calculates the centrifugal forces generated when the car is cornering. The yawing sensor, which originates from the aeronautical industry, detects the rotations of the car around its own vertical axis. The centrifugal forces generated when the car is cornering are detected by a highly sensitive lateral acceleration sensor.

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The stabilising action of the VDC system is based on the calculations of the system electronic control unit, which processes the signals received from the steering wheel rotation sensor, acceleration sensor and rotation speed sensor of ech wheel. These signals allow the control unit to recognise the manoeuvre the driver intends to do when the steering wheel is turned.

The control unit processes the information received from the sensors and therefore able to know the position of the car instant by instant and compare it with the course the driver would like to follow. In the event of a discrepancy, in a fraction of a second the control unit chooses and commands the most suitable intervention to bring the car immediately back to the required course: braking one or more wheels at different intensity and, if necessary, reducing the power transmitted by the engine.

The corrective actions are modified and controlled continuously in seeking the course required by the driver.

The action of the VDC system considerably enhances the active safety of the car in very critical situations and it is particularly helpful when the grip conditions of the road surface change.

# CUTTING IN OF THE VDC SYSTEM

The cutting in of the VDC system is indicated by the flashing of the (A) warning light on the instrument cluster, to inform the driver that the car is in critical conditions of stability and grip.

### **VDC** system failure warning

In the event of a failure the VDC system disengages automatically and the (4) warning light on the instrument cluster turns on glowing steadily, together with the message on the reconfigurable multifunction display.

In the event of a VDC system failure the car behaves like a vehicle not fitted with this system: in any case it is advisable to contact Alfa Romeo Authorised Services as soon as possible.

### WARNING

For the VDC system to work correctly, the tyres must be of the same brand and type on all wheels, in perfect conditions and above all of the specified type, brand and size.

### **ASR SYSTEM**

(Antislip Regulation)

The ASR function controls the vehicle drive and cuts in automatically every time one or both driving wheels slip.

In slipping conditions, two different control systems are activated:

- 1) if slipping involves both driving wheels, being caused by excessive power transmitted, the ASR device cuts in reducing the power transmitted by the engine.
- 2) if slipping involves only one driving wheel, the ASR system cuts in automatically braking the wheel that is slipping, with an effect similar to that of a self-locking differential.

The action of the ASR is particularly helpful in the following circumstances:

- slipping of the inner wheel on a bend, due to the effect of dynamic load changes or excessive acceleration.
- too much power transmitted to the wheels also in relation to the conditions of the road surface.
- acceleration on slippery, snowy or frozen surfaces.
- in the case of loss of grip on a wet surface (aquaplaning).

### WARNING

The performance of the system in terms of active safety should not induce the driver to take pointless and unnecessary risks. The style of driving must in any case be adapted to the conditions of the road surface, visibility and traffic. Road safety is always the driver's responsibility.

## SWITCHING ON THE ASR FUNCTION

The ASR function switches on automatically each time the engine is started.

When travelling the device can be switched off and on again pressing switch (**A-fig. 136**) on the centre console.

Function disconnection is shown by the relevant led on the switch itself being turned on and by the dedicated message displayed on the re-configurable multifunction display.

Should the function be disconnected when running, it will automatically be activated again at the next ignition and the re-configurable multifunction display will inform user about this condition by displaying a dedicated message.

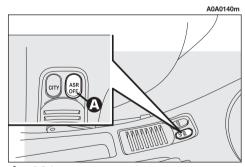


fig. 136

### WARNING

For correct operation of the ASR system the tyres must absolutely be of the same brand and type on all wheels, in perfect conditions and, above all, of the specified type, brand and size.

**IMPORTANT** When travelling on snow with snow chains, it may be helpful to turn the ASR device off: in fact, in these conditions, slipping of the driving wheels when moving off makes it possible to obtain better drive.

### ASR system failure warning

Should a defect arise, the ASR system is automatically disconnected and the re-configurable multifunction display informs user about this condition by displaying a dedicated message.

In the event of an ASR system operating failure, the car behaves in the same way as a car that is not fitted with this system: in any case, it is advisable to contact Alfa Romeo Authorised Services as soon as possible.

### **EOBD SYSTEM**

The EOBD system (European On Board Diagnosis) installed on the car meets Directive 98/69/CE (EURO 3).

This system allows continuous diagnosis of the components on the car correlated with emissions; it also alerts the driver, by turning on the warning light (on some versions together with the message + symbol on the reconfigurable multifunction display) on the instrument panel when these components are no longer in peak conditions.

The objective is:

- to keep system efficiency under control;
- warn when a fault causes emission levels to increase over the threshold established by European law;
- warn of the need to replace deteriorated components.

The system also has a diagnostic connector that can be interfaced with appropriate tools, which makes it possible to read the error codes stored in the control unit, together with a series of specific parameters for enaine operation and diagnosis.

If, turning the ignition key to MAR, the warning light to MAR, the warning light does not turn on or if, while travelling it turns on glowing steadily or flashing together with the message + symbol on the reconfigurable multifunction display, contact Alfa Romeo Authorised Services as soon as possible.

**IMPORTANT** After eliminating the inconvenience, to check the system completely, Alfa Romeo Authorised Services are obliged to run a bench test and, if necessary road tests which may also call for a long journey.

### RADIO PRESETTING **SYSTEM**

### (for versions/markets where applicable)

The car, if not delivered with sound system, is fitted with a glove compartment on the instrument panel (fig. 136g).

Sound system presetting system includes the following:

- sound system power cables;
- front and rear speaker power cables;
- aerial power cable;
- sound system housing;
- aerial on car roof.

The sound system shall be installed in the proper housing occupied by the glove compartment that can be removed by pressing the two retaining tabs fitted in the glove compartment: here are the power cables.



If after buying the car you want to install the sound system, contact first Alfa

**Romeo Authorised Services whose** qualified personnel, in addition to suggesting the most suitable devices, will evaluate the overall electric absorption to safeguard the battery. Excessive loadless absorption could damage the battery and lose warranty.

The wiring diagram is the following (**fig.** 136b):

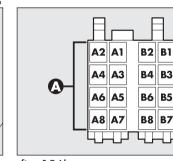


fig. 136b

A1 N.C.

Connector A

A2 N.C.

A3 N.C.

A4 + 30 (battery-powered)

A5 Aerial power supply

A6 Light

A7 + 15 (key-powered)

A8 Ground

### **Connector B**

B1 RH rear speaker

B2 RH rear speaker

**B3** RH front speaker

**B4** RH front speaker

**B5** LH front speaker

**B6** LH front speaker

A0A0709n

B

B7 LH rear speaker

**B8** LH rear speaker



fig. 136a

### RADIO WITH COMPACT DISC PLAYER

### INTRODUCTION

The fixed radio, fitted with Compact Disc player and parametric sound equaliser has been designed in accordance with the specific features of the passenger compartment, with a personalised design that blends with the style of the dashboard.

The radio is installed in a user-friendly position for the driver and passenger and the araphics on the front panel make location of the controls quick, facilitating use.

The CD-Changer for 10 discs, if present, is housed in the right-hand side of the boot.

To increase safety against theft, the set is fitted with a protection system that allows the use of it only on the car on which it was oriainally fitted.

Below you will find the instructions for use. which you are advised to read through carefully. The instructions also contain the procedure for controlling the CD-Changer through the radio. For the instructions for use of the CD-Changer refer to the specific manual.

#### **ADVICE**

### **Road safety**

You are advised to learn how to use the various radio functions (e.g. storing stations) before starting to drive.

### WARNING Too high a volume when

driving can put the driver's life at risk and that of other peo-

ple. Therefore the volume should always be adjusted in such a way that it is always possible to hear the noises of the surrounding environment (e.g. horns, ambulance, police sirens, etc.).

### **Reception conditions**

Reception conditions change constantly when driving. Reception may be disturbed by the presence of mountains, buildings or bridges particularly when far away from the station being listened to.

**IMPORTANT** When receiving traffic information, the volume may be higher than normal.

#### Care and maintenance

The radio structure ensures long operation with no need for particular maintenance. In the event of a fault, contact Authorised Alfa Romeo Services.

To clean the front panel only use a soft, antistatic cloth. Cleaning and polishing products might spoil the surface.

### **Compact Disc**

Remember that dirt, marks or distortion on Compact Discs can cause skipping and poor sound quality. For top performance conditions, we give the following advice:

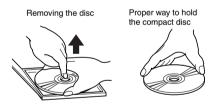
— Only use Compact Discs which have the following brand:



- Carefully clean all Compact Disc of fingerprints and dust using a soft cloth. Support Compact Discs from the outer circumference and clean from the centre outwards.

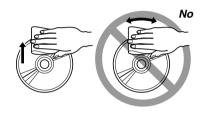
- Never use chemical products for cleaning (e.g. spray cans, antistatics or thinners) as they might damage the surface of Compact Discs.— After use, put Compact Discs back in their container, to avoid marks or scratches that may cause skipping when playing.
- Do not expose Compact Discs to direct sunlight, high temperatures or damp for prolonged lengths of time to prevent them from bending.
- Do not stick labels or write on the recorded surface of Compact Discs with pens or pencils.

To remove a Compact Disc from its container, press the centre and raise the disc carefully, holding it by the outer circumference.

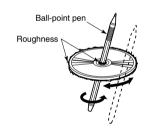


Always hold Compact Discs by the outer circumference. Never touch the surface.

To remove fingerprints and dust, use a soft cloth starting from the centre of the Compact Disc outwards.



New discs may be rough around the edges. When these discs are used, the player might not work or the sound might skip. To remove the roughness from the edge of the disc use a ball-point pen etc.

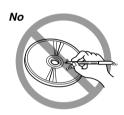


**IMPORTANT** Do not use the protective sheets for CD in commerce or discs with stabilisers, etc. as they might get stuck in the internal mechanism and damage the disc.

**IMPORTANT** If the CD is copy-protected, the system may need few seconds before starting to play it.

### **Notes on Compact Discs**

Do not stick labels on the surface of the Compact Disc or write on the surface with pens or pencils.



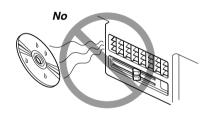
Do not use solvents like stain removers, antistatic sprays or thinners in commerce for cleaning Compact Discs.



Do not use highly scratched, cracked, or distorted discs, etc. The use of these discs will involve malfunctioning or damage to the player.



Do not expose Compact Discs to direct sunlight or any source of heat.



To obtain the best sound quality, use original CD supports. Correct operation is not ensured if not correctly written CD-R/RW supports and/or with capacity higher than 650 MB are used.

### **GENERAL**

The set possesses the following functions:

### **Radio** section

- PLL tuning with FM/MW/LW frequencv bands
- RDS (Radio Data System) with TA (traffic information) - PTY (Program Type) - EON (Enhanced Other Network) - REG (Regional Programmes) functions
- Alternative frequency search selection in RDS mode (AF function)
- Emergency alarm reception provision
- Automatic/manual station tuning
- Manual storage of 30 stations: 18 in the FM band FM (6 in FM1, 6 in FM2, 6 in FMT). 6 in the MW band MW and 6 in the LW band
- Automatic storage (Autostore function) of 6 stations in FMT band
- SENS DX/LO function (sensitivity adjusting in searching radio stations)
- Scan Function (scanning stored stations)
- Automatic Stereo/Mono switching.

### **Compact Disc Section**

- Disc select (disc no.)
- Track select (forward/backward)
- Fast forward/backward
- Repeat function (repetition of last piece)
- Scan Function (scanning the tracks on the Compact Disc)
- Mix Function (random playing)
- TPM Function (storing CD track playing sequence)
- CLR Function (clearing CD track stor-



For installation and connection of the CD-Changer apply only to Alfa Romeo Authorised Services.

### WARNING

On multimedia CDs in addition to sound tracks also data tracks are recorded. Playing one of these CDs may cause rustling and such a volume as to compromise road safety, as well as causing damage to the final stages and speakers.

#### Sound section

- Pause Function
- Loudness Function (except versions with BOSE HI-FI system)
- 7 band graphic equalizer
- Separate bass/treble adjustment
- Right/left and front/rear channel balancing.

#### **CAUTIONS**

If it is very cold inside the car and the CD player is used a little after turning the heater on, a film of damp may form on the Compact Disc or on the player optics and the sound may not be perfect. In this case do not use the CD player for at least an hour, so that the condensation dissolves naturally and normal operation is resumed.

Driving on rough roads with heavy vibrations may cause skipping when the CD player is working.

### PROTECTION AGAINST THEFT

The radio is fitted with an antitheft protection system based on the exchange of information between the radio and the electronic control unit (Body Computer) installed on the car. This system warrants the highest level of security and prevents entry of the secret code every time the radio supply is disconnected.

After every re-connection an automatic check procedure is performed during which the display shows the wording "CAN-CHECK" for about one second. If the result of the check is positive, the set starts working, whereas if the comparison codes are not the same or if the radio is connected for the first time to the vehicle electric system, the device informs the user of the need to enter the secret code according to the procedure described in the following paragraph.

During the code entry procedure the display shows the word "**CODE**". The set will not work until the correct code is entered

This way the protection system makes the radio unusable after removal from the dashboard in the case of theft.

### **Entering the secret code**

Entry of the secret code is required to allow the radio to work after the first connection to the vehicle electric system or to a different Body Computer than the original one.

Connecting the radio to the car supply, the display will show the wording "CODE" for about 2 seconds, followed by four dashes "---"

The secret code comprises four figures from 1 to 6, each corresponding to one of the dashes.

To enter the first digit of the code, press the corresponding key of the preset stations (from 1 to 6). Enter the other code digits in the same way.

If the four figures are not entered within 20 seconds, te display shows the word "CODE" for 2 seconds and then four dashes "- - - -". This is not to be considered as an incorrect code entry.

After entering the fourth digit (within 20 seconds), the radio starts to work.

If a wrong code is entered, the radio sounds a "beep", the display shows the word "**CODE**" for 2 seconds and then four dashes "- - - " to inform the user that it is necessary to enter the correct code.

Every time the user enters a wrong code, the waiting time increases gradually (1 min, 2 min, 4 min, 8 min, 16 min, 30 min, 1h, 2h, 4h, 8h, 16h, 24h) until reaching a maximum of 24 hours.

The waiting time will be shown on the display with the word "**WAIT**". When this goes off it is possible to start the new code entry procedure.

#### Code Card

This is the document that certifies possession of the radio. The Code Card contains the radio model, serial number and secret code.

**IMPORTANT** Keep the Code Card carefully to be able to give the related data to the competent authorities in the event of theft

### **GLOSSARY**

### AF (Alternative frequency)

Function that allows the radio to stay tuned on the FM station selected also passing through areas served by transmitters with different frequencies.

In fact the RDS system keeps the intensity and quality of the signal received under control, automatically switching tuning on the frequency of the transmitter that is sending the strongest signal.

### Autostore/Travelstore

Function with which it is possible to automatically store radio stations.

### **Balance (Channel balancing)**

Function with which it is possible to appropriately adjust the sound from the right or left speakers

#### Bass

This function adjusts the bass tones.

### **CD-Changer**

Multiple Compact Disc player.

### CLR (Clear)

Function with which it is possible to clear all the tracks of the CD stored with the TPM function.

### **EON (Enhanced Other Network)**

Function that allows the radio to tune automatically on a different radio station than the one being listed to which broadcasts traffic information.

#### Fader

Function with which it is possible to appropriately adjust the sound from the front or rear speakers.

### **Hicut (Treble reduction)**

Function with which it is possible to reduce the treble tones, in accordance with the signal transmitted.

### Distant/Local (Sens Dx/Loc)

These are the two levels of reception sensitivity.

- 1) Distant (maximum sensitivity), which makes it possible to tune all the stations that can be received.
- 2) Local (minimum sensitivity), which makes it possible to tune only those stations with sufficiently strong signals, such as for example local stations.

### Loudness

A function that automatically emphasises the bass and treble tones when listening, at low level. It is cut off with the volume set to the maximum.

#### Mix

This function is used to randomly select a Compact Disc among those present in the loader and all the tracks on this Compact Disc are played in random sequence.

### MSS (Searching previous/next track)

With this function it is possible to listen to the next or previous track on the cassette.

#### Mute

Function which, if activated, for example in the presence of a cell phone in the car, brings the volume to zero when a phone call is being made/received.

### **Presettings**

Number of radio stations that can be stored manually or automatically.

### PTY (Program Type)

This function allows the presetting of a category of programmes such as for instance, news bulletins, music, sport, etc. The set automatically gives priority to the type of programme selected when transmission starts, interrupting the one in progress.

### RDS (Radio Data System)

This is a radiophonic information system which uses the 57 kHz subcarrier of normal FM broadcasts.

With this function it is possible to receive different types of information such as traffic bulletins and station names and to automatically tune to a station with the strongest signal that is broadcasting the same programme.

### **REG** (Regional transmission reception function)

Function with which it is possible to tune only to local (regional) stations.

### Repeat

Function with which it is possible to continuously listen to the last track played on the Compact Disc.

#### Scan

Function with which it is possible to listen for a few seconds to all the radio stations stored, or the beginning of all the tracks contained on the Compact Disc.

### Scrolling

Function with which it is possible to receive different programmes in the same network (in the FM band only).

### **PLL Tuning**

Digital tuning with Phase Lock Loop circuit to obtain the best radio channel tunina.

#### **Soft Mute**

Function that gradually highers and lowers the volume when Mute is turned on or off.

#### Sound Flavour

A function that sets the best equalizing possible depending on the type of music selected (Classic, Jazz, Rock, etc).

### **SVC**

Function that automatically adjusts the level of the volume to the speed of the car to maintain the ratio with the noise level in the passenger compartment.

### **TA (Traffic information)**

Function with which it is possible to receive the traffic information broadcast by the stations enabled, also when tuned to another station or listening to a cassette, CD, or during a phone call.

### **TPM (Track Program Memory)**

Function with which it is possible to store the sequence for playing the tracks of a CD, to be able to play them later in the sequence set.

#### Treble

This adjusts the treble tones.

## **CONTROLS ON FRONT PANEL** (fig. 137)

- 1. AF-TA Function select button:
  - AF (alternative frequencies)
  - TA (traffic information)
- **2. PTY** Function select button:
  - RDS PTY (type of RDS programme)
  - Choice of the subject of PTY transmission in EON mode
- **3.** Compact Disc slot

- Selected sound and menu adjustment and manual station search button
- **5.** ▲ Compact Disc eject button
- Sound and Menu select button and automatic station search
- 7. Selected Sound and Menu function adjustment and manual station search
- 8. ▼ Sound and Menu select button and automatic station search

- **9. MENU-PS** Menu and Scan function button (hearing stored stations in sequence)
- **10. 6** Function select button:
  - Call station no. 6
  - Store station no. 6

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- **11.5-MIX** Function select button:
  - Call station no. 5
  - Store station no. 5
  - Random CD track playing
- **12. 4-RPT** Function select button:
  - Call station no. 4
  - Store station no. 4
  - Continuous CD track playing
- **13. BN-AS** Radio frequency range select function (FM1, FM2, FMT, MW, LW) Autostore
- 14. SRC-SC Operating mode select button Radio - Compact Disc -CD-Changer and Scan function (hearing stations in sequence)
- **15. 3-II** Function select button:
  - Call station no. 3
  - Store station no. 3
  - CD playing pause
- **16. 2-CLR** Function select button:
  - Call station no. 2
  - Store station no. 2
  - CLR function (CD track storage clearing)

- **17. 1-TPM** Function select button:
  - Call station no. 1
  - Store station no. 1
  - TPM function (storing CD playing sequence)
- 18. AUD-LD Sound function select button: bass tones, treble tones, right/left and front/rear balancing and Loudness (except versions with BOSE HI-FI system)
- 19. VOL- Volume lowering button
- - Set on/off
  - Mute on/off
- 21. VOL+ Volume highering button

### **CONTROLS ON THE STEERING** WHEEL (fig. 138)

The main radio function controls are repeated on the steering wheel, to allow easier control.

- 1. Volume increase button
- 2. Volume decrease button
- 3. Mute button
- Radio frequency range select button (FM1, FM2, FMT, MW, LW) and available sources (Radio - Compact Disc - CD-Changer)
- **5.** Multifunction button:
  - Radio: call preset stations (from 1 to 6)
  - Compact Disc player: select next piece

A0A0100m

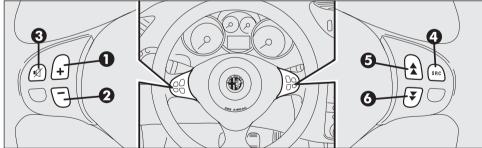


fig. 138

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**6.** Multifunction button:

- Radio: call preset stations (from 6 to
- Compact Disc player: select previous track.

### Volume adjustment and Mute **buttons**

The buttons for volume adjustment (1) e (2) and for turning Mute on off (3) work in the same way as the corresponding buttons on the radio.

### Radio frequency and sound source select button

To cyclically select the radio frequencies and sound sources, briefly and repeatedly press button (4).

The frequencies/sources available are: FMI. FMII. FMT. MW. LW. CD\*. CDC\*\*.

- (\*) Only if the Compact Disc is inserted
- (\*\*) Only if the CD-Changer is connected

### Multifunction buttons (5) and (6)

Multifunction buttons (5) and (6) call the preset radio stations, or select the next/previous track when listening to a Compact

Press button (5) to select stations from 1 to 6 or to listen to the next track on a CD

Press button (6) to select stations from 6 to 1 or to listen to the previous track on a CD.

### **FUNCTIONS AND ADJUSTMENTS** (fig. 137)

### Switching on

The set is turned on keeping the "ON" button pressed (20). If the radio was on before the engine was turned off, it will turn on again automatically the next time the enaine is started.

If the radio is turned on with the ignition key at **STOP**, it will turn off automatically after about 20 minutes.

With the ignition key at MAR the "ON" button is always lit to facilitate turning on the radio.

When the radio is turned on again it will resume with the same settings that were working before turning off, with the exception of the volume which, if it was set to above 20. it is activated at 20.

### Turning the radio off

To turn off keep the "ON" button (20) pressed again

If the ignition key is turned to **STOP** when the radio is on, it will turn off automatically and turn on again the next time the key is turned to MAR.

### Selecting the Radio/Compact **Disc/CD-Changer functions**

Briefly and repeatedly pressing the "SRC" button (14) it is possible to select the following functions in sequence:

- TUNER (Radio)
- CD (only if the Compact Disc is inserted)
- CHANGER (only if the CD-Changer is connected).

After each change of the sound source, for about 2.5 seconds, the display shows the function selected: TUNER (Radio), CD (Compact Disc), **CHANGER** (CD-Changer). The functions that cannot be selected (e.g. "CD" when the Compact Disc is not inserted) are disabled automatically. If the Compact Disc is not inserted and the CD-Changer is not connected, pressing the "SRC" button (14) for about 2.5 seconds the display will show only "NO CD".

**IMPORTANT** When listening to the radio with a Compact Disc inserted and the CD-Changer connected, pressing the "**SRC**" button (**14**) will select the last function used between Compact Disc and CD-Changer.

#### **Pause function**

If while listening to a Compact Disc another function is selected (e.g. the radio), playing is stopped and when the Compact Disc mode is resumed. it starts again from the point in which it was stopped.

If while listening to the radio another function is selected, when the Radio mode is resumed, it is tuned to the last station selected.

### **Volume adjustment**

Press button "**VOL+**" (21) to higher the volume or "**VOL-**" (19) to lower it.

Pressing the button briefly the change is gradual by steps. Pressing longer, the change is fast. For a few seconds the display shows the wording "**VOL**" and the volume level (from 0 to 66).

If the volume level is changed during the broadcast of a traffic bulletin or during use of the phone (if the voice feature is installed), the new setting is maintained only until the end of the bulletin or phone call.

### Volume changing with speed

The SVC function makes it possible to automatically adapt the volume level to the speed of the car, increasing it as the speed increases to maintain the ratio with the noise level inside the passenger compartment.

To activate the SVC function briefly press (less than 1 second) the "**MENU**" button (9), then use buttons " $\blacktriangle$ " (6) or " $\blacktriangledown$ " (8) to scroll the menu functions stopping on the SVC function and buttons " $\blacktriangleright$ " (7) or " $\blacktriangleleft$ " (4) to turn the function on or off selecting respectively "**SVC ON**" or "**SVC OFF**".

This function can be turned on or off in all the operating modes of the device (Radio/Compact Disc/CD-Changer).

### Mute function (turning off the volume completely)

To turn on the Mute function briefly press (less than 1 second) the " $\prec$ " button (**20**). The volume will lower gradually (Soft Mute function) and the display will show "**MUTE**".

To turn the Mute function off, briefly press the "◄" button again (20). The volume will increase gradually (Soft Mute function) returning to the value set before using the Mute function.

The Mute function is also turned off pressing one of the volume adjustment buttons "VOL+" (21) or "VOL-" (19): in this case the volume is changed directly.

With the Mute function on, all the other functions can be used and if a traffic bulletin arrives with the TA function on or an emergency alarm is received, the message ignores the Mute function.

### **Soft Mute function**

When the Mute function is turned on or off, the volume lowers or increases gradually (Soft Mute function). The Soft Mute function is also activated when one of the six presetting buttons, the "BN" button (13) or "ON" button (20) is pressed.

### **Tone adjustment**

Proceed as follows:

- briefly and repeatedly press the "AUD" button (18) until the display shows the wording "BASS" or "TREBLE" (Bass or Treble select function)
- press " $\blacktriangle$ " (6) to increase the basses or trebles or " $\blacktriangledown$ " (8) to lower them.

Pressing the buttons briefly, the change is gradual by steps. Pressing them longer, the change is fast.

For a few seconds the display shows the levels of the basses/trebles (from -6 to +6).

After about 5 seconds from the last adjustment the display returns to the main radio screen.

### **Balance adjustment**

Proceed as follows:

- briefly and repeatedly press the "AUD" button (18) until the display shows the wording "BALANCE" (Balance function select)
- press " $\blacktriangle$ " (6) to increase the sound from the right speakers or " $\blacktriangledown$ " (8) to increase the sound from the left speakers.

Pressing the buttons briefly, the change is gradual by steps. Pressing them longer, the change is fast. For a few seconds the display shows the balancing levels from R+9 to L+9 (" $\mathbf{R}'' = \text{right}$ , " $\mathbf{L}'' = \text{left}$ ). After about 5 seconds from the last adjustment, the display returns to the main radio screen.

#### Fader adjustment

Proceed as follows:

- briefly and repeatedly press the "**AUD**" button (**18**) until the display shows the wording "**FADER**" (Fader select function)
- press " $\blacktriangle$ " (**6**) to increase the sound from the rear speakers or " $\blacktriangledown$ " (**8**) to increase the sound from the front speakers.

Pressing the buttons briefly the change is gradual by steps. Pressing them longer, the change is fast. For a few seconds the display shows the fader levels from R+9 to F+9 (" $\mathbf{R}$ " = rear, " $\mathbf{F}$ " = front).

After about 5 seconds from the last adjustment the display returns to the main radio screen.

### Loudness Function (except versions with BOSE HI-FI system)

The Loudness function improves the sound volume when listening at low level, increasing the basses and trebles. It is cut off when the volume is set to maximum. To switch the function on/off keep the "AUD" (18) pressed until hearing the "beep". The function condition (on or off) is shown on the display for a few seconds by "LOUD ON" or "LOUD OFF".

On versions with BOSE HI-FI system the Loudness function is activated automatically by the amplifier.

## **TELEPHONE PROVISION** (fig. 137)

If the voice kit is installed on the car, when a phone call is received the radio sound is connected to the phone input. The telephone sound is heard with a fixed volume, but it can be adjusted during the conversation using "VOL+" (21) to higher the volume or "VOL-" (19) to lower it.

The fixed telephone volume can be adjusted through the "**PHONE**" function of the menu (see"**MENU**" paragraph).

The only buttons active during phone calls are:

- "**VOL+**" (**21**), "**VOL-**" (**19**): for volume adjustment
- "**ON**" (**20**): turning the radio on/off
- "AF-TA" (1): traffic information.

While the sound is off for a phone call, the display shows the word "**PHONE**".

The sound of the phone call will be interrupted in the case of transmission of a traffic bulletin or a PTY31 announcement; if wishing to interrupt the bulletin press the "AF-TA" button (1).

### **RADIO** (fig. 137)

When the set is turned on the last function selected before turning off is played (Radio, Compact Disc or CD-Changer).

To select the Radio function while listening to a Compact Disc, briefly and repeatedly press the "SRC" button (14) until this function is selected.

### Selecting the frequency band

If in the Radio mode, briefly and repeatedly press the "**BN**" button (**13**) to select the required reception band.

Every time the button is pressed the following bands are selected in sequence "FM1", "FM2", "FMT", "MW" and "LW" shown by the respective wording on the display.

The FM band is divided into section: FM1, FM2 and FMT.

The FMT reception band is reserved to the stations stored automatically with the Autostore function.

The radio is always ready to receive stations in the RDS Mode (Radio Data System).

### Presetting buttons

The buttons with the symbols 1 to 6 ("17", "16", "15", "12", "11", "10") make it possible to choose the following presettings:

- 18 in the FM band (6 in FM1, 6 in FM2, 6 in FMT)
- 6 in the MW band
- 6 in the LW band
- 6 types of PTY programming (only in the FM mode when PTY is selected).

To call a preset station, choose the required frequency band and then press briefly (less than 1 second) the corresponding preset button (from 1 to 6). For a few seconds the display will show the number of the station preset and the related frequency before showing the frequency band and the name of the RDS station.

#### Storing the last station heard

The radio automatically keeps in storage the last station heard for each reception band, which is then tuned when the radio is turned on or the reception band is changed.

### **Automatic tuning**

Briefly press (less than 1 second) " $\blacktriangle$ " (**6**) or " $\blacktriangledown$ " (**8**) to start automatically searching the tuning for the next station that it is possible to receive in the direction chosen.

if "A" (6) or "V" (8) is pressed for longer (over 1 second) quick searching takes place: upon having tuned in to the first well receivable station, the tuner stops for about 1 second (in Mute) before quick searching continues. When the button is released, the tuner stops on the next receivable station.

If the TA function is on (traffic information), the tuner only searches stations which broadcast traffic bulletins.

If the PTY function is on, the tuner only searches PTY stations. When searching the display alternatively shows the type of programme and the word "SEARCH".

If the station on which the tuner stops is one of the stations stored with the preset buttons, the display will show the presetting number for a few seconds.

### Manual tuning

This allows manual station searching in the chosen band.

- Select the band with the "BN" button(13): FM1, FM2, FMT, MW or LW.
- Briefly and repeatedly press "◄◄" (4) or "▶▶" (7).
- Pressing the button longer (over 1 second) obtains fast forward searching, which is stopped when the button is released.

To turn on manual tuning search it is necessary to turn off the PTY and AF (alternative frequencies) functions, if on.

If the station tuned is a station stored with the preset buttons, the display will show the presetting number for a few seconds.

### **Station scanning (Scan function)**

Keeping the "SRC" button pressed (14). Each station found will be heard for a few seconds and the name and frequency will flash on the display. While searching, the display will show "FM-SCAN", "AM-SCAN" or "PTY-SCAN" for a few seconds.

If the TA function is on (traffic information), the system will search only the stations that broadcast traffic bulletins. If the PTY function is on, the system will only search PTY stations.

When the Scan function is on, all the other functions are cancelled.

When wanting to continue listening to a station selected during scanning, press "SRC" (14) again.

The Scan function is interrupted in the following cases:

- turning the set off
- pressing "SRC" (14)
- pressing " $\blacktriangle$ " (**6**) or " $\blacktriangledown$ " (**8**) (starts manual or automatic tuning)
- pressing a preset button
- turning Autostore on
- turning PTY on/off
- changing the chosen frequency band
- pressing "AUD" (18)
- pressing "MENU" (9)
- when a station is found that is broadcasting a traffic bulletin, if the TA function is on
- inserting a Compact Disc.

In any case the search function will be turned off after scanning the frequency band, even if no station is selected.

### **Scanning preset stations**

Press the "**MENU**" (**9**) button for a prolonged length of time to start scanning the preset stations in the present frequency band:

- **FM**: FMI 1, FMI 2, ..., FMI 6, FMII 1, FMII 2, ... FMI 6, FMT 1, FMT 2, ..., FMT 6
- **MW**: MW 1, MW 2, ..., MW 6
- LW: LW 1, LW 2, ..., LW 6.

Each preset station will be heard for a few seconds and its name or frequency will flash on the display, if the signal intensity is sufficient. In passing from one presetting to another the display will show the word "SCAN" for about 2 seconds.

In the first 2 seconds in which the new preset station is heard, the display shows the current frequency band and the number of the pre-select button.

If the TA function is on (traffic information), the system will only search stations that broadcast traffic bulletins.

The preset station Scan function is interrupted in the following cases:

- turning the set off
- pressing "BN" (13)
- pressing " $\blacktriangle$ " (**6**) or " $\blacktriangledown$ " (**8**) (starts manual or automatic tuning)
- pressing a preset button
- turning Autostore on
- turning PTY on/off
- changing the sound source (CD, CD-Changer)
- changing the FM level or frequency band selected
- pressing "AUD" (18)
- pressing "MENU" (9)
- when a station is found that is broadcasting a traffic bulletin, if the TA function is on
- inserting a Compact Disc.

If no presetting has been selected, hearing the station chosen previously will be resumed.

### Manual station storage

The station being heard can be stored in the range selected with buttons (17), (16), (15), (12), (11), (10) numbered from 1 to 6.

Keep one of these buttons pressed (from 1 to 6 until receiving the confirmation "beep". After storage, the display shows the number of the button with which the station has been stored.

#### **Autostore function**

To turn on the Autostore function keep the "BN" button (13) pressed until hearing the confirmation "beep". With this function the radio automatically stores the stations with the strongest signal in decreasing order of intensity of the FMT frequency band.

**IMPORTANT** Activating the Autostore function cancels the stations stored previously in the FMT Band.

If the TA function is on (traffic information), only the stations that send traffic information will be stored. This function may also be turned on when listening to a Compact Disc or the CD-Changer.

During automatic storage the display will show the wording "A-STORE". To interrupt the storage process press the "BN" (13) button again: the radio will automatically tune to the station heard before activation of the Autostore function.

At the end of the Autostore function the radio automatically tunes on the first preset station in the FM1 band.

On buttons (17), (16), (15), (12), (11), (10) numbered from 1 to 6, the stations are automatically stored that give a strong signal in that moment in the preset band.

After storage the radio automatically tunes on the frequency stored on button 1 (17).

Every station is stored only once, except in the case of regional programmes which in certain cases might be stored twice.

During the automatic storage process the display shows the wording "A-STORE".

The behaviour of the set during Autostore is as follows:

- at the beginning of the Autostore function all the other functions are disabled
- any change in volume is not shown on the display
- pressing one of the radio function buttons, for example "PTY" (2), "▶>" (7), "◄◄" (4), (17), (16), (15), (12), (11), (10) the automatic storage process is interrupted, the last station heard before Autostore was turned on is tuned and the function associated with the button pressed is run
- pressing "AF-TA" (1) during automatic storage will interrupt it, the TA function (traffic information) will be turned on/off and a new automatic storage process will be started
- Changing the sound source (Radio, Compact Disc, CD-Changer) during automatic storage, Autostore is not interrupted.

**IMPORTANT** Sometimes the Autostore function is unable to find 6 stations with a strong signal. In this case, the free presetting buttons will be shown on the display, for about 2 seconds, by 4 dashes and the last station heard will be returned.

### Listening to stored stations

Proceed as follows:

- select the required frequency band (FM, MW. LW)
- briefly press one of the six station storage buttons.

The display will show the number that corresponds to the button.

In bands FM1, FM2 and FMT, if reception is poor and the AF alternative frequency search function is active, the station with the strongest signal that is broadcasting the same programme will be sought automatically.

### AF Function (alternative frequency search)

Within the RDS system the radio can work in two different modes:

**AF ON**: alternative frequency search on

**AF OFF**: alternative frequency search off.

When the signal of the RDS station tuned weakens, the following two cases may occur:

- With **AF ON** the RDS system activates automatic tuning of the optimum frequency of the station chosen, with the stations enabled, therefore the radio is automatically tuned to the station with the strongest signal that is broadcasting the same programme. During the journey it will thus be possible to continue listening to the station chosen without having to change the frequency when changing area. Of course, the station being listened to must be receivable in the area the car is crossing.
- With AF OFF the radio will not tune the strongest station automatically and it will have to be found manually using the tuner buttons.

If the radio is working in the AM band, when the "AF-TA" (1) is pressed, it passes to the FM band on the last station selected.

### TA function (traffic information)

Some stations in the FM band (FM1, FM2 and FMT) are enabled to also broadcast information about traffic conditions. In this case the display shows the wording "**TP**".

To turn on/off the traffic information **TA** function briefly press (less than 1 second) the "**AF-TA**" button (1).

The listening conditions and information given on the display may be the following:

**TA** and **TP**: if tuned to a station that sends traffic information and the traffic information function is on

**TP**: if tuned to a station that sends traffic information but the traffic information function is off

**TA**( $^*$ ): the traffic information function is on but the radio is tuned to a station that does not give traffic information

**TA** and **TP** not shown on the display: the radio is tuned to a station that does not give traffic information and the traffic information function is off.

(\*) If the traffic information function **TA** is on, but the radio station chosen does not give traffic information, the device "beeps" every 30 seconds.

With the **TA** function on (traffic information) it is possible:

- **a)** to search only RDS stations that transmit in the FM band, enabled to broadcast traffic information
- **b)** receive traffic information even if the Compact Disc player or CD-Changer is in use
- c) receive traffic information at a predefined minimum volume even with the radio volume off.

The operations to be carried out for each of the three above conditions are listed below.

- **a)** To receive stations enabled to broadcast traffic information:
- select band FM1, FM2 or FMT
- briefly press (less than 1 second) the "AF-TA" button (1) so that the display shows "TA".
- press the tuner buttons " $\blacktriangleright \blacktriangleright$ " (7) or " $\blacktriangleleft$ " (4).

To store stations with **TA** on, carry out the storage operations (see "Manual station storage").

b) If wishing to receive traffic information when listening to a Compact Disc, before inserting the Compact Disc or turning on the CD-Changer, tune to a station enabled to broadcast traffic information (TP) and turn on the TA function. If while listening to the Compact Disc, this station broadcasts traffic information, the Compact Disc will be suspended temporarily and resumed again automatically after the end of the message. At the start of reception of traffic information, the display will briefly show "INFO TRA", while the display continues giving further information (frequency, name, time of CD etc.).

If the Compact Disc player is already working and at the same time you want to receive traffic information, briefly pressing (less than 1 second) the "AF-TA" button (1) the radio tunes to the last station heard in the FM band, the TA traffic information function is activated and the traffic messages are transmitted. If the station selected does not send traffic information, the search for an enabled station starts automatically.

If wishing to interrupt the traffic information message, briefly press (less than 1 second) the "**AF-TA**" button (1) during transmission of the message.

- **c)** To receive traffic information while not listening to the radio:
- turn on the **TA** function, briefly pressing (less than 1 second) "**AF-TA**" button (1), so that the display shows "**TA**"
- tune to a station enabled to transmit traffic information so that the display shows"**TP**" take the volume to zero keeping the "**VOL-**" button pressed (**19**).

This way, if that station broadcasts traffic information, this will be heard at a minimum predefined volume.

**IMPORTANT** In certain countries radio stations exist which, even if the **TP** function is on (the display shows "**TP**"), do not transmit traffic information.

If the radio is working in the AM band when the "AF-TA" button (1) is pressed, it passes to the FM band on the last station heard. If the station selected does not broadcast traffic information (wording "TP" not shown on the display), the search for an enabled station starts automatically.

The volume with which the traffic bulletin is transmitted varies depending on the listening volume:

- listening volume below 30: traffic bulletin volume = 20 (fixed value)
- listening volume above 30: traffic bulletin volume the same as the listening volume + 1.

If the volume is changed during a traffic bulletin the value is not shown on the display and the new value is kept only for the bulletin in progress.

During a traffic bulletin it is possible to turn on sound adjustment with the "AUD" button (18). The new values set are also kept at the end of the bulletin.

**IMPORTANT** If the **TA** function is on and the station tuned is not able to provide traffic information or it is no longer able to provide this information (the display will not show "**TP**"), so after 1 minute in which the radio is in these conditions:

- if listening to a Compact Disc another station is sought that is enabled to transmit traffic information
- if when listening to the radio a "beep" is given to alert that it is not possible to receive traffic information; to interrupt it, it is necessary to tune to a station that can provide traffic information or switch off the **TA** function.

### **Emergency alarm reception**

In the RDS mode the radio is set to receive emergency announcements in the case of exceptional circumstances or events that may cause general danger (earthquakes, floods, etc.) if they are broadcast by the station tuned.

This function is activated automatically and cannot be deactivated.

### Program Type Function (PTY) (selecting a type of programme)

To turn on the PTY function, which makes it possible to give top priority to PTY programmes, when present, which may involve emergency messages or various topics (e.g. music, news bulletins) briefly press the "PTY" button (2) until the display shows "PTY" and the subject of the last station heard (e.g. "NEWS").

**IMPORTANT** To turn on the PTY function, the radio must be in the FM band.

If the station does not broadcast in the PTY mode, the wording "**NO-PTY**" is shown on the display for 5 seconds.

After 2 seconds the station name or frequency is shown on the display.

The list of the various subjects comprises:

**NEWS** 

**AFFAIRS** 

**INFO** 

**SPORT** 

**EDUCATE** 

**DRAMA** 

**CULTURE** 

**SCIENCE** 

**VARIED** (Variety)

POP M

**ROCK M** 

**M**, **O**, **R**, **M** (Middle of the Road Music)

**LIGHT M** (Light music)

**CLASSICS** 

**OTHER M** (Other music)

To change the type of PTY programme press "◄◄" (4) or "▶▶" (7) or one of the 6 preset buttons. If the display shows the station frequency or name, pressing "◄◄" (4) or "▶▶" (7) the current type of programme will be displayed.

To store the current type of programme on one of the 6 preset buttons, give a prolonged press (over 1 second) on the preset button. Storage is confirmed by a "beep". To seek a station with this programme see the "Automatic tuning" and "Scanning stations (Scan Function)" paragraphs.

If no station is available with this type of programme the system sounds a "beep", the station selected previously is heard and for 2 seconds the display shows the wording "NO-PTY".

To turn the PTY function off briefly press the "**PTY**" (**2**) button again.

### Controlling the station's type of PTY programme

To know the type of PTY programme of the station heard, keep the "PTY" (2) pressed until a "beep" is heard. After the "beep" the display will show the type of programme (see previous paragraph) offered by the station tuned. If the station has no PTY code, the display will show the wording "NO-PTY". After about 5 seconds the display will again show the RDS name or frequency of the station tuned.

### EON Function (Enhanced Other Network)

Some countries have circuits which group together several stations enabled to broadcast traffic information. In this case the programme of the station being heard, will be interrupted temporarily to receive traffic information (only with the TA function on), every time these bulletins are given by one of the stations of the same circuit.

### **Scrolling transmissions**

It is possible to receive different programmes in the same network and scroll them in FM Band only) - e.g.: NDR1, NDR2, NDR3, NDR4, N-JOY...

To turn on this function, briefly press the "AF-TA" button (1) to turn on the AF function. The user can then start scrolling pressing "▶▶" (7) or "◄◄" (4).

**IMPORTANT** The station must have been received previously at least once.

### Stereophonic stations

If the signal received is weak, the device switches automatically from Stereo to Mono.

### **MENU** (fig. 137)

### Functions of "MENU" button (9)

To turn on the menu function briefly press (less than 1 second) the "**MENU**" button (9). The display will show the word "**MENU**".

To scroll the Menu functions use " $\blacktriangle$ " (6) or " $\blacktriangledown$ " (8). To turn on/off the function selected use " $\blacktriangleright$ " (7) or " $\blacktriangleleft$ " (4).

The display will show the current status of the function selected.

The functions controlled by the menu are the following:

- EQ SET (Equalizer settings, only if the equalizer is on)
- PRESET/USER/CLASSIC/ ROCK/JAZZ (Turning on/off and choosing predefined equalizer adjustments)
- **HICUT** (Treble reduction)
- **PHONE** (Volume of phone, if installed)
- CD NAME (Allocation of CD names, only with CD inserted)
- SVC (Automatic volume control in relation to speed)
- SENS DX/LO (Tuning sensitivity)
- CD (CD display setting)

- CDC (CD-Changer display setting, if installed)
- **REG** (Regional programmes).
- **IGN TIME** (Switching off mode)

To exit the Menu function, press the "**MENU**" button again (**9**).

### Turning the equalizer on/off (except versions with BOSE HI-FI system)

The integrated equalizer can be turned on or off. With the equalizer off, it is possible to change the sound settings only adjusting the bass ("BASS") and treble tones ("TREBLE"), while activating the function makes it possible to adjust the sound curves.

To turn the equalizer off, select "**PRE-SET**" with " $\blacktriangle$ " (6) or " $\blacktriangledown$ " (8).

To turn on the equalizer, select one of the following with " $\blacktriangle$ " (6) or " $\blacktriangledown$ " (8) :

- "**USER**" (adjustment of the 7 equalizer bands that can be changed by the user)
- "CLASSIC" (predefined equalizer adjustment)
- "ROCK" (predefined equalizer adjustment)
- "JAZZ" (predefined equalizer adjustment).

After selecting the last adjustment set in the Menu using  $\blacktriangle''$  (6) or " $\blacktriangledown''$  (8) use, " $\blacktriangleright \blacktriangleright''$  (7) or " $\blacktriangleleft \lnot''$  (4) to change it.

When one of the equalizer settings is on, the display shows "**EQ**".

On versions with BOSE HI-FI system, analogue equalizing in amplitude and phase of the signal is done automatically by the amplifier.

### Equalizer settings (only if the equalizer is on)

To set a personal equalizer adjustment, use " $\blacktriangle$ " (6) or " $\blacktriangledown$ " (8) "USER"; the display shows "EQ SET".

To change the equalizer settings, use " $\blacktriangleright \blacktriangleright$ " (7) or " $\blacktriangleleft$ " (4). The display shows a graph with 7 bars, where each bar represents a frequency for the left or right channel. Choose the bar to be adjusted using " $\blacktriangleright \blacktriangleright$ " (7) or " $\blacktriangleleft$ " (4); the bar chosen starts to flash and it is possible to adjust it using " $\blacktriangle$ " (6) or " $\blacktriangledown$ " (8).

To store the new settings, press the "**MENU**" button again (**9**). The display still shows "**EQ SET**".

### Treble tone reduction function (HICUT)

Using this function it is possible to reduce the treble tones, in accordance with the signal transmitted. To turn this function on/off, use "◄◄" (4) or "▶▶" (7).

The display will show the current status of the function:

- "HICUT ON": function on

- "NO HICUT": function off.

### Phone volume adjustment function (PHONE)

With this function it is possible to adjust (setting from 1 to 66) or cut off (OFF setting) the telephone sound.

To turn on/off, use " $\blacktriangleleft$ " (4) or " $\blacktriangleright$ >" (7).

To adjust the sound, use "VOL+" (21) or "VOL-" (19).

The display will show the current status of the function:

- "PHONE 23": function on with volume setting 23
- "PHONE OFF": function off.

### Allocating a name to a CD (CD NAME)

This function can be chosen only if a Compact Disc is inserted. To turn on, use "<!

(4) or ">>" (7): the display will show "CD-NAME". If the CD already has a name, this will be shown on the display, if not, eight dashes will be shown. If storage is no longer available for a new name, the display will show the first name stored.

To change the name or give a name to the new CD press " $\blacktriangleleft$ " (4) or " $\blacktriangleright \blacktriangleright$ " (7). Press the buttons again to choose the position of the character to be changed. Press " $\blacktriangle$ " (6) or " $\blacktriangledown$ " (8) to choose or change the character.

To store the name, press the "MENU" button again (9). The display will show "CD-NAME".

To clear a name, turn the function on and press " $\blacktriangle$ " (6) or " $\blacktriangledown$ " (8) to choose the name to be cleared, then press the "**MENU**" button for about 2 seconds (9). The system beeps and the display shows "**ONE CLR**" for about 2 seconds. At this point the procedure can be started to give a new name.

To clear all the names, turn the function on and keep the "MENU" button pressed for about 4 seconds "MENU" (9). The set gives two beeps and the display shows "ALL CLR" for about 2 seconds. At this point, it is possible to start the name allocation procedure.

### Volume changing with speed function (SVC)

The SVC function makes it possible to automatically adapt the volume level to the speed of the car, increasing it as the speed increases to maintain the ratio with the noise level inside the passenger compartment.

To turn the function on/off use "◄◄" (4) or "▶▶" (7). The display will show the current status of the function:

- "SVC-ON": function on

— "SVC-OFF": function off.

### Tuner sensitivity adjustment (SENS DX/LO)

With this function it is possible to change the sensitivity of automatic station searching. When low sensitivity is set "SENS-LO" only stations with excellent reception are sought, when high sensitivity is set "SENS-DX" all stations are sought. Therefore, if the car is in an area with a considerable number of stations and you want to choose only those with a strong signal, set to low sensitivity "SENS-LO".

To set the sensitivity, use "◄◄" (4) or "▶▶" (7). The display will show the current status of the function:

- "SENS-LO": low sensitivity
- "SENS-DX": high sensitivity.

## Compact Disc data display function (CD)

With this function it is possible to choose the information shown by the display, when listening to a Compact Disc.

Two settings are available:

- TIME (time elapsed since the start of the track)
- NAME (CD name).

After choosing " $\mathbb{C}D$ " in the Menu using " $\mathbb{A}$ " (6) or " $\mathbb{V}$ " (8), the display shows" $\mathbb{C}D$ -DISP". To change the setting use " $\mathbb{V}$ " (4) or " $\mathbb{V}$ " (7).

### CD-Changer data display function (CDC) (if installed)

This function can be chosen only if a CD-Changer is connected. In this case the display will show "CDC-DISP".

To change function, use " $\blacktriangleleft$ " (4) or " $\blacktriangleright$ " (7).

The display shows the setting among the two possible: "**TIME**" and "**CD-NR**".

### Regional broadcast reception function (REG)

Some national broadcasters, at determinate times of the day, transmit regional programmes which differ from region to region. This function makes it possible to tune in only on local stations (regional). However if a regional programme is heard and you wish to stay tuned to it, the function must be activated.

To turn the function on/off, use " $\blacktriangleright \blacktriangleright$ " (7) or " $\blacktriangleleft \blacktriangleleft$ " (4).

The display will show the current status of the function:

- "REG-ON": function on
- "**REG-OFF**": function off.

If the function is off and a regional programme is tuned that works in a determinate area and the car enters a different area, the regional station of the new area is received.

**IMPORTANT** When the function is off ("**REG-OFF**") and the AF function is on (alternative frequencies) the radio automatically tunes to the frequency of the station selected with the strongest signal.

### **IGN TIME function**

With this function it is possible to choose if when turning the engine (or the instrument panel) off, the sound system shall turn off immediately (**00 MIN**) or if it shall stay on for other 20 minutes (**20 MIN**).

After selecting "**IGN TIME**" in the menu using buttons ▲ or ▼, the display will show the message "**IGN TIME**".

To change setting use button ◀◀ or ▶▶.

Two settings are available:

- "00 MIN": sound system going off immediately when turning the engine (or the instrument panel) off;
- "20 MIN": sound system staying on for 20 minutes after turning the engine (or the instrument panel) off.

### COMPACT DISC PLAYER

(fig. 137)

### Selecting the Compact player

To turn on the Compact Disc player integrated in the set, when a CD is already inserted, turn the set on, then briefly and repeatedly press the "SRC" button (14) to select the "CD" operating mode. Inserting a CD, also with the device off, the CD player is turned on.

### Inserting/ejecting a CD

To insert the CD set it gently in place (3) to activate the powered loading system, which will position it correctly.

Press "\( '\), with the device on, to operate the powered CD eject system.

After ejection, the source heard before playing the CD will return. The CD cannot be ejected if the device is off.

### Possible error messages

If the CD inserted is illegible, the display will show the wording "CD-ERROR" for about 2 seconds, then the CD is ejected and the previous source before CD was selected returns.

### **Display information**

When the CD Player is working, the display shows information which has the following meaning:

"**T05**": shows the number of the track on the CD

"**03:42**": shows the time elapsed since the start of the track (if the corresponding Menu function is on)

"MADONNA": shows the name given to the CD.

### Select track (forward/backward)

Briefly press " $\blacktriangle$ " (**6**) to play the next track on the CD and " $\blacktriangledown$ " (**8**) to play the previous one.

To select tracks continuously, keep the button pressed.

If playing the track started more than 3 seconds ago, pressing " $\nabla$ " (8) the track is played again from the start. In this case if wanting to play the previous track, press the button twice consecutively.

### Fast forward/backward

Keep "▶" (7) pressed to move the track selected forward at high speed and keep "◄" (4) pressed to move it quickly backward. Fast forward/backward is interrupted once the button is released.

If the CD name display has been chosen in the menu, this will be replaced by the CD time display. After about 2 seconds from the last time the button is pressed, the CD name will be displayed again.

### **Pause function**

To pause the CD player press the preset button 3 (15). The display will show "CD-PAUSE".

To listen again, press the preset button 3 again (15).

### Scanning pieces on the CD (Scan Function)

With this function it is possible to hear all the pieces contained on a CD.

Keep the "SRC" button pressed (14) for over one second to play the first 10 seconds of each track on the CD. While the track is playing the display will alternately show, for 2 seconds, the CD function chosen (CD time or name) and the word ing "SCAN". If the Scan function is on, Repeat and Mix are turned off.

The scanning sequence is the following:

- from the track played up to the last one on the CD
- from the first one on the CD up to the one played the moment scanning was started.

The Scan function is interrupted in the following cases:

- turning the set off
- pressing the " $\mathbf{SRC}$ " button again (14) to continue listening to the track that was being played
- pressing " $\blacktriangle$ " (**6**) or " $\blacktriangledown$ " (**8**) (pressing them together the track will be skipped)
- pressing a preset button
- turning Autostore on
- turning PTY on
- changing the sound source
- pressing "AUD" (18)
- If the TA function is on and the station selected is broadcasting a traffic bulletin
- pressing "MENU" (9).

If the Scan function is not interrupted, at the end it will continue playing the track played before scanning was started.

### Repeat

Briefly press the preset button 4 (12) to listen repeatedly to the last track played: for about 2 seconds the display will show "RPT TRACK".

Press preset button 4 (12) again to turn off the repeat function: for about 2 seconds the display will show "RPT OFF". When the function is on the display shows "RPT".

Changing the sound source, the function is turned off.

**IMPORTANT** When the repeat function is turned on, the Scan and Mix functions are turned off.

### **Random playing (MIX function)**

To start the random playing of tracks on the Compact Disc, press the preset button 5 (11). A new track will be played and for about 2 seconds the display will show "CD-MIX-ON". Press the preset button 5 (11) again to turn the function off: for about 2 seconds the display will show "CD-MIX-OFF".

When the Mix function is on, all the tracks on the CD are played in random sequence.

Changing the sound source, the function is turned off.

**IMPORTANT** When the Mix function is turned on, Scan and Repeat are turned off.

### TPM Function (CD playing sequence storage)

With the TPM function (Track program memory) it is possible to store the sequence for playing tracks of a CD, to be able to play them later in the sequence set.

To turn the function on briefly press (less than 1 second) the preset button 1 (17), while listening to a CD. When the function is on, the display shows "**TPM**".

To store tracks, select the track required, then press the preset button 1 (17) for about 1 second, until hearing the beep; the display will show "STORED". Repeat this procedure for all the other tracks to be stored.

# (clearing CD track storage) With the CLR function it is possible

**CLR Function** 

With the CLR function it is possible to clear one or all the CD tracks stored with the TPM function.

To clear only one track from storage, select it using buttons " $\blacktriangle$ " (6) or " $\blacktriangledown$ " (8) when the TPM function is on, then press the preset button 2 (16) for about 2 seconds; the TPM function is turned off, a beep is heard and the display shows "**TR CLR**".

To clear all the tracks of the CD selected from storage, turn on the TPM function then press preset button 2 (16) for about 4 seconds; the TPM function is turned off, a double beep is heard after about 2 and 4 seconds and the display shows "CD CLR".

### **CD-CHANGER**

### (Compact Disc Player)

Lineaccessori Alfa Romeo offers two kits for the CD-Changer (multiple Compact Disc player) for 5 and 10 discs, complete with multipolar cable for connection with the radio and a support bracket for assembly.

### Selecting the CD-CHANGER

To turn on the CD-Changer, turn on the set, then press briefly and repeatedly the "SRC" button (14) to select the "CHANGER".

When listening to a Compact Disc for the first time after putting it in the CD loader, playing starts from the first track on the first disc available in the loader.

### Possible error messages

If the CD selected is not available due to lack of the loader or because the loader is not inserted in the CD-Changer, the display shows "**CHANGER**".

If the CD played is illegible the display shows "CD-ERROR", the next CD will be selected; if there are no other CDs or if they are also illegible, the display will show the wording "NO CD" until the sound source is changed.

In the event of a fault to the CD-Changer or difficulty in removing the loader, the display will show the wording "CD ERROR".

### **Display information**

When the CD-Changer is working, the display shows the following information which means:

"**T05**": shows the number of the track on the CD

"**03:42**": shows the time elapsed since the start of the track (if the corresponding Menu function is on)

"CD 04": the number of the CD in the loader.

### **Choosing the CD**

Press "
"(4) to select the previous CD and ">>" (7) to select the next CD. If in the menu the CD time display function was selected, this will be replaced for about 2 seconds by the CD number.

If the loader does not contain a disc in the position selected, the display briefly shows the wording "**NO CD**", and the next disc is played automatically.

### Select track (forward/backward)

Briefly press " $\blacktriangle$ " (6) to play the next track of the CD chosen and " $\blacktriangledown$ " (8) to play the previous track.

To select tracks continuously, keep the button pressed.

If playing the track started more than 3 seconds ago, pressing " $\nabla$ " (8) the track is played again from the start. In this case if wanting to play the previous track, press the button twice consecutively.

### Fast forward/backward

Keep "▶" (7) pressed to move the track selected forward at high speed and keep "◄" (4) pressed to move it quickly backward. Fast forward/backward is interrupted once the button is released.

A brief press on the button moves the track forward or backward 1 second.

If the CD number display function was selected in the menu, this will be replaced for about 2 seconds by the CD time display function.

### Scanning CD tracks (Scan function)

With this function it is possible to listen to all the tracks contained on the CD selected.

Keep the "SRC" button pressed (14) for more than one second to play the first 10 seconds of every track on the CD. While playing, the display will alternately show for about 2 seconds the CD function chosen (CD-Name, time or number) and the word "SCAN". If the Scan function is on, the Repeat and Mix functions are turned off.

The scanning sequence is the following:

- from the track played up to the last of the tracks on the CD
- change of CD and scanning all the tracks (and so on for all the CDs in the changer)
- from the first track up to the one played until the start of scanning.

The Scan function is interrupted in the following cases:

- turning the set off
- pressing the "**SRC**" button again (**14**) to continue listening to the track that was being played
- pressing " $\blacktriangle$ " (6) or " $\blacktriangledown$ " (8) (pressing them together the track will be skipped)

- pressing a preset button
- turning Autostore on
- turning PTY on
- changing the sound source
- pressing "AUD" (18)
- If the TA function is on and the station selected is broadcasting a traffic bulletin
- pressing "MENU" (9).

If the Scan function is not interrupted, at the end it will continue playing the track played before scanning was started.

### **Pause function**

To pause the CD-Changer press the preset button 3 (15). The display will show "CD-PAUSE".

To resume playing the track, press preset button 3 (**15**) again.

### Repeat

Briefly press the preset button 4 (12) to listen repeatedly to the last track played: for about 2 seconds the display will show "RPT TRUCK".

Press preset button 4 (12) again to turn off the repeat function: for about 2 seconds the display will show "RPT OFF". When the function is on the display shows "RPT".

Changing the sound source, the function is turned off.

**IMPORTANT** When the repeat function is turned on, the Scan and Mix functions are turned off.

### Random playing (Mix function)

To start the random playing of tracks on the Compact Disc, press the preset button 5 (11). A new track will be played and for about 2 seconds the display will show "CD-MIX-ON". Press the preset button 5 (11) again to turn the function off: for about 2 seconds the display will show "CD-MIX-OFF".

When the Mix function is on, all the tracks on the CD are played in random sequence.

Changing the sound source, the function is turned off.

**IMPORTANT** When the Mix function is turned on, Scan and Repeat are turned off.

### TECHNICAL INFORMATION

#### Radio

Maximum power: 4 x 40W.

### Aerial (fig. 139)

The aerial is located on the car roof. You are recommended to slacken and remove the aerial from the roof to avoid damaging it when washing the car in an automatic system.

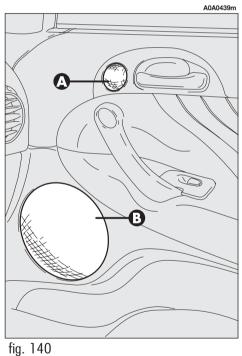
### **Speakers (fig. 140-141)**

The sound system is formed of a system comprising:

- 4 tweeters (  $\pmb{A} )$  (2 front and 2 rear) with 30W power
- -4 speakers (**B**) with a diameter of 165 mm (2 front and 2 rear) with 40W power.

### **Protection fuse**

The radio has a 10A fuse located in the rear part of the set. To replace the fuse, the radio needs to be pulled out: therefore contact Alfa Romeo Authorised Services.



TIG. 14

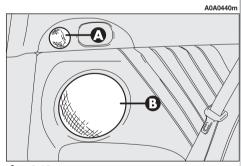
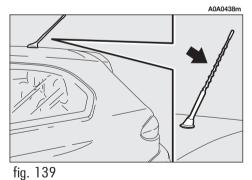


fig. 141



# BOSE HI-FI SOUND SYSTEM

The BOSE HI-FI system has been accurately designed for the **Alfa 147 GTA**, to offer outstanding sound quality and reproduce the musical realism of a live concert, for all the seats in the passenger compartment.

The system's features include outstandingly faithful reproduction of crystalline treble tones and full, rich basses which among other things, make the Loudness function superfluous. In addition, the complete range of the sounds is reproduced in the whole passenger compartment enveloping the occupants with the natural spatial sensation that is felt when listening to live music.

The components adopted are patented and are the result of the most sophisticated technology, but at the same time they are easy and intuitive to use, so that even less expert people can use the system.

## **TECHNICAL INFORMATION** (fig. 142-143-144)

System comprises:

- four high efficiency woofers (**A**) with diameter 165 mm, two at the front and two at the back, each having a coaxial tweeter inside;
- a bass box with a volume of 12 dm³
   (B) housed on the left-hand side of the boot;
- a high power HI-FI amplifier (150W) with 6 channels, analogue equalising in amplitude signal phase and with 130 mm diameter sub-woofer.

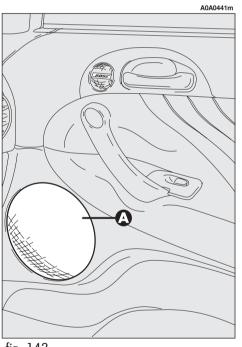


fig. 142

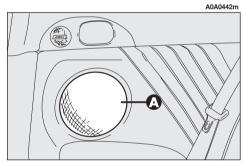


fig. 143

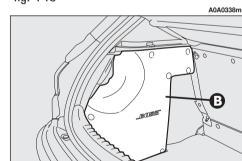


fig. 144

### REFUELLING



The antipollution devices on the car oblige the use of only four-star unleaded

petrol with an octane number (R.O.N.) of 95 or over.



Never use leaded petrol, as this would irreversibly damage the exhaust gas

catalyst. If leaded fuel is added to the fuel tank, no matter how small the auantity, DO NOT START THE **ENGINE.** Do not attempt to dilute the fuel in the tank, completely drain the fuel circuit and tank.

To prevent accidentally filling with leaded petrol, the diameter of the fuel tank filler is of such a size as not to accept the nozzle of this type of petrol.



An inefficient catalyst leads to harmful emission at the exhaust, thus environment pollution.

### FUEL CAP (fig. 145)

The fuel cap (A) is key-lockable and has a catch to prevent misplacing it (B) that fastens it to the flap (C); to gain access to it, open the flap then use the ignition key to turn counter-clockwise and remove the cap.

When refuelling, hook the cap to the device on the inner flap, as illustrated.

**IMPORTANT** The sealing of the tank may cause light pressurising. A little breathing off, while slackening the cap is absolutely normal.

After refuelling, turn the cap clockwise until one or more clicks are heard; then turn the key clockwise to lock. Close the flap.

**IMPORTANT** For your safety, before starting the engine, also make sure that the fuel nozzle is correctly inserted in the fuel distributor



#### WARNING

Do not go near the fuel filler with naked flames or

lit ciaarettes: danaer of fire. Avoid going too near the fuel filler with your face, to avoid inhaling harmful vapours.

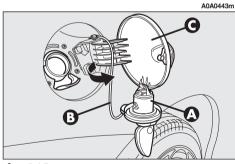


fig. 145

In the case of need, only replace the fuel cap with another genuine one, or the

efficiency of the fuel vapour recovery system could be adversely affected.

# ENVIRONMENTAL PROTECTION

The design and construction of the vehicle have not only been developed with the traditional aspects of performance and safety in mind, but also take into account the increasingly pressing problems tied to protecting the environment.

The choice of materials, techniques and particular parts are the result of work which has made it possible to drastically reduce the harmful effects on the environment and guarantee compliance with the most stringent international regulations.

### USE OF NON-TOXIC MATERIALS

None of the components of the vehicle contain asbestos. The padding and the climate control system do not contain CFCs which are held responsible for the destruction of the ozone layer.

The colouring agents and the corrosion inhibitors used on the nuts, screws and bolts do not contain cadmium or chrome which could pollute the atmosphere or water tables.

### **EMISSION REDUCING DEVICES**

### Trivalent catalytic converter (catalytic silencer)

The exhaust system is fitted with a catalyst formed of alloys of precious metals; it is housed in a stainless steel container which is able to withstand the high operating temperatures.

The catalyst converts the unburnt hydrocarbons, carbon monoxide and nitric oxide in the exhaust gas (even in minimal quantity owing to the electronic ignition and injection systems) into non polluting compounds.

### Lambda sensors

Lambda sensors measure the content of oxygen present in the exhaust gas. The signal transmitted by the Lambda sensors is used by the injection and ignition electronic control unit to adjust the air-fuel mixture.

### **Anti-evaporation system**

As it is impossible, even when the engine is switched off, to prevent the formation of fuel vapours, a system has been devised which traps the vapours in a special activated carbon container.

When the engine is running these vapours are withdrawn and sent to combustion.



### WARNING

Due to the high temperatures reached during operation of the catalytic silencer the vehicle should not be parked over inflammable materials (paper, fuel oils, grass, dry leaves etc.).

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### CORRECT USE OF THE CAR

# STARTING THE ENGINE

**IMPORTANT** The car is fitted with an electronic engine lock device. If the engine fails to start, see "The Alfa Romeo CODE system".

We recommend that during the initial period you do not drive to full vehicle performance (for example excessive acceleration, long journeys at

top speed, hard braking etc.).

WARNING

Running the engine in confined areas is extremely dangerous. The engines consumes oxygen and produces carbon monoxide which is a highly toxic and lethal gas.

The ignition switch is fitted with a safety device which obliges the driver to return the key to the **STOP** position before repeating the starting operation if the engine does not start immediately.

Similarly, when the engine is running, the device prevents the key being moved from the **MAR** to the **AVV** position.

When the engine is switched off never leave the ignition key in the MAR

position to prevent pointless current absorption from draining the battery.

### STARTING PROCEDURE

**IMPORTANT** It is important never to press the accelerator before the engine has started.

- 1) Make sure the handbrake is engaged.
- 2) Move the gear lever to neutral.
- 3) Fully depress the clutch pedal, so that the starter motor is not forced to crank the gears.
- 4) Ensure that the electric systems and devices, especially if they absorb high quantities of energy (e.g. heated rearscreen) are switched off.
- 5) Turn the ignition key to the **AVV** position and release it as soon as the engine starts.
- 6) If the engine does not start, return the key to **STOP** then repeat the procedure.

**IMPORTANT** If it is difficult to start the engine do not insist with extended attempts which may damage the catalyst, but contact Alfa Romeo Authorised Services.

**IMPORTANT** The electric devices that absorb a high amount of energy (climate control, rearscreen heating etc.) are cut off automatically during starting.

If the engine does not start at the first attempt, move the ignition key to **STOP** before repeating starting.

If starting is difficult (with the Alfa Romeo CODE system working properly), do not insist with prolonged attempts.

Only use an auxiliary battery if the cause is due to low battery charge. Never use a battery charger to start the engine.

### **WARMING THE ENGINE**

- Drive off slowly, at medium revs without accelerating abruptly.
- Do not drive at full performance for the initial kilometres of the journey. Wait until the engine coolant temperature reaches 50-60  $^{\circ}\text{C}.$

#### **SWITCHING OFF**

- Release the accelerator pedal and wait until the engine reaches idle speed.
- Turn the ignition key to the **STOP** position and switch off the engine.
- **IMPORTANT** After a tiring journey it is advisable to let the engine "get its breath back" allowing it to idle a while to lower the temperature in the engine compartment.

Sharp accelerating before switching the engine off should be avoided. A "kick" on the accelerator serves no purposes and consumes fuel pointlessly.

**IMPORTANT** If the engine turns off with the vehicle on the move, the next time it is started, the Alfa Romeo CODE warning light may turn on (1991). In this case, check that switching off and starting the engine again with the vehicle stationary, the warning light stays off. If not, contact Alfa Romeo Authorised Services.

#### **EMERGENCY STARTING**

If the Alfa Romeo CODE system does not recognise the code transmitted by the ignition kev (1981) warning light on the instrument cluster on glowing steadily) emergency starting may be carried out using the code of the CODE card.

For the correct procedure see the chapter "In an emergency".



Never bump, tow, or coast start the vehicle as this would cause fuel to

flow into the catalyst causing irreversible damage.

### PARKING

When the vehicle is parked, proceed as follows:

- Switch off the engine.
- Engage the handbrake.
- Engage first gear if the vehicle is facing uphill or reverse if the vehicle is facing downhill.
- Turn the front wheels so that the vehicle will immediately come to a halt if the handbrake slips.



To avoid useless consumption of power and possibly draining the bat-

tery, never leave the ignition key in the MAR position when the engine is not running.

#### WARNING

Remember that the servobrake and power steering are not operational until the engine has been started, therefore much more effort than usual is required on the brake pedal and steering wheel.



### WARNING

Never leave children unattended in the vehicle. Al-

ways remove the ignition key when leaving the vehicle and take it with you.

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### SAFE DRIVING

In designing your Alfa 147 GTA, Alfa Romeo has worked thoroughly to achieve a vehicle able to offer top levels of safety to its passengers. However, the behaviour of the driver is still a decisive factor for road safety.

Below you will find a few simple rules for travelling safely under different conditions. You are certainly familiar with many of them but it is still helpful to read them all carefully.

#### **BEFORE DRIVING OFF**

- Make sure the lights and headlights are working properly.
- Adjust the seat, steering wheel and rearview mirrors, in order to obtain a correct position for driving.
- Carefully adjust the headrests so that the head and not the neck rests on them. Check that nothing (mats etc.) can get under the foot pedals.

- Make sure that any child restraint systems (seats, cradles, etc.) are correctly fastened on the rear seat
- Place any objects in the boot with care to prevent abrupt braking from throwing them forwards.
- Avoid heavy meals before a journey. A light meal will help to keep reflexes ready. Above all avoid alcohol.

Routinely remember to check:

- tyre pressure and conditions;
- engine oil level;
- engine coolant fluid level and system conditions:
- brake fluid level;
- power steering oil level;
- windscreen washer fluid level.

### WHEN TRAVELLING

- The first rule for safe driving is care.
- Care also means being able to predict the actions of other road users.
- Strictly respect the traffic regulations in all countries, especially the speed limits.
- Ensure that both yourself and your passengers are wearing their seat belts, that children are carried with the appropriate seats and that any animals are in appropriate compartments.
- Long distances should be tackled in good health.



### WARNING

**Driving under the influence** of drugs and/or some medicines is highly dangerous for oneself and for others.

### WARNING

Always fasten the front and rear seat belts including those of any children's seat. Travelling without seat belts increases the risks of serious injury or even death in the event of an accident.

#### WARNING

Take car when fitting additional spoilers, alloy wheels and wheel caps: they might reduce ventilation of the brakes, thus their efficiency, during abrupt and repeated braking, or long downhill slopes.

### WARNING

Never drive with objects on the floor in front of the driver's seat: they might get stuck under the pedals making it impossible to accelerate or brake.

### WARNING

Make sure any mats are appropriate in size: even a slight inconvenience to the braking system may require a higher pedal stroke than normal.

### WARNING

Water, ice and salt on the roads may deposit on the brake disks, reducing the effectiveness of the brakes the first time they are used.

- Do not drive for long periods without a break. During breaks get out of the vehicle and move around a bit to shake off the drowsiness.
- Make sure the air in the passenger compartment is changed constantly.
- Never coast the vehicle downhill with the engine switched off: this eliminates the engine braking and power steering effect thus requiring a greater effort on the pedal and steering wheel.

### **NIGHT DRIVING**

Here are some suggestions for night driving.

- Drive with particular care: night driving involves a greater degree of concentration.
- Reduce speed, especially on unlit roads.
- At the first signs of drowsiness stop the car: continuing the journey is dangerous for yourself and others. Continue driving only after sufficient rest.
- Maintain a greater distance from the vehicle in front than in the day: it is more difficult to judge the speed of a vehicle when only the lights can be seen.
- Ensure that the headlights are correctly aimed: if they are too low, visibility is reduced and eyesight is tired. If they are too high they may cause disturbance to other road users.
- Use the main beams only outside builtup areas and only when you are certain that other drivers are not disturbed by their use.
- When meeting oncoming vehicles, switch off the main beams and drive with the dipped-beam headlights on.
- Keep the headlights and light units clean.
- Outside built-up areas take care of animal crossings.

#### **DRIVING WITH RAIN**

Rain and wet roads can be dangerous.

If the road is wet, the traction between wheel and asphalt is greatly reduced, thus increasing the stopping distance and decreasing road holding.

Here are a few suggestions in the case of rain:

- Reduce speed and keep further back from the vehicle in front.
- Heavy rain also reduces visibility. In these cases, turn on the headlights even during the day to make yourself more visible to others.
- Do not drive over puddles at high speed and hold the steering wheel firmly: you may lose control of the car (aquaplaning).
- Position the ventilation controls for demisting (as described in the chapter ("Getting to know your car"), to prevent visibility from worsening.
- Routinely check the conditions of the windscreen wiper blades.

#### **DRIVING IN FOG**

- If fog is very thick, avoid travelling where possible. If travelling with mist, ground fog or the possibility of fog banks:
- Drive at moderate speed.
- Also in the day turn on the dipped-beam headlights, rear fog guards and front fog lights. Do not use the main-beam headlights.

**IMPORTANT** If visibility in some parts improves, switch off the rear fog guards; the intense light disturbs the occupants of vehicles behind.

- Remember that fog also involves wet asphalt, thus greater difficulty in all types of manoeuvres and longer stopping distances.
- Keep well away from the vehicle in front.
- Where possible avoid sudden changes in speed.
- Possibly avoid overtaking other vehicles.
- If the vehicle is forced to stop (faults, impossibility to continue due to poor visibility, etc.), firstly try to pull off the road. Then turn on the hazard warning lights and, if possible the dipped-beam headlights. Rhythmically sound the horn if you note another car coming.

#### **MOUNTAIN DRIVING**

- When travelling down hill use the engine braking by engaging lower gears to prevent the brakes from overheating.
- Never coast down hill with the engine off or in neutral and especially not with the ignition key removed.
- Drive at a moderate speed and avoid cutting corners.
- Remember that overtaking up hill is slower and therefore requires a greater length of clear road. If you are being overtaken on a hill, move over to enable the other vehicle to pass in safety.

#### **DRIVING ON SNOW AND ICE**

Here are a few suggestions for driving in these conditions:

- Drive very slowly.
- On a snowy road, fit winter tyres or snow chains; see the related paragraphs in this chapter.
- Use engine braking where possible and avoid abrupt braking.
- Braking with a car without ABS, avoid locking the wheels, modulating the pressure on the brake pedal.
- Avoid abrupt acceleration and changes of direction.
- During cold weather even apparently dry roads may be covered with occasional patches of ice. Pay great attention therefore when driving on roads which are in the shade, or where rocks or trees line the road and on which ice may persist.
- Keep further back from the vehicle in front.

#### **DRIVING WITH ABS**

The ABS is a part of the braking system which essentially offers 2 advantages:

- 1) it prevents locking, thus skidding, of the wheels during emergency braking and especially under conditions with poor grip;
- 2) it allows braking and steering at the same time, to avoid any sudden obstacles or to direct the car as required when braking, compatibly with the physical limits of lateral grip of the tyre.

To make the most of the ABS:

- In emergency braking or when grip is low, a slight pulsing can be felt on the brake pedal: this means that the ABS has come into action. Do not release the pedal, but continue pressing it to give continuity to the braking action.
- The ABS prevents the wheels from locking but it does not increase the physical limits of grip between the asphalt and the road. Therefore, also with a car fitted with ABS, keep within a safety distance from the vehicle in front and limit speed when approaching bends.

The ABS serves to increase vehicle controllability not to go faster.

# REDUCING RUNNING COSTS AND ENVIRONMENT POLLUTION

By following a few simple guidelines, it is possible to save vehicle running costs and reduce harmful emissions.

#### GENERAL CONSIDERATIONS

#### Vehicle maintenance

The conditions of the vehicle represent an important factor which affects fuel consumption as well as travelling tranquillity and the life of the vehicle. For this reason, it is wise to take care of its maintenance have the checks and adjustments carried out in accordance with the "Scheduled Maintenance Programme" (see... spark plugs, air cleaner, timing).

Check the pressure of the tyres routinely at an interval of no more than 4 weeks: if the pressure is too low consumption levels increase as resistance to rolling is higher. It should be underscored that in these conditions tyre wear increases and vehicle performance is lower, therefore also its safety.

#### **Useless loads**

Never travel with an overload in the boot. The weight of the vehicle (especially in urban traffic), and its geometry heavily affect consumption levels and stability.

#### Luggage/ski racks

Remove the luggage rack or ski rack from the roof as soon as they are no longer used. These accessories lower air penetration and adversely affect consumption levels. When needing to carry particularly voluminous objects, preferably use a trailer.

#### **Electric services**

Use electric devices only for the amount of time needed. Rearscreen heating, additional headlights, windscreen wipers and heater fan need a considerable amount of energy therefore, increasing the requirement of current increases fuel consumption (up to +25% in the urban cycle).

#### **Climate control system**

The climate control system is a further load bearing heavily on the engine inducing higher consumption levels (up to +20% on average). Outside temperature permitting, preferably use the air vents.

#### **Aerodynamic items**

The use of non-certified aerodynamic items may adversely affect air drag and consumption levels.

#### **DRIVING STYLE**

#### **Starting**

Do not warm the engine with the car at a standstill or at idle or high speed: under these conditions the engine warms up much more slowly, increasing electrical consumption and emissions. It is therefore advisable to move off immediately, slowly, avoiding high speeds. This way the engine will warm faster.

#### Pointless manoeuvres

Avoid accelerating when waiting at traffic lights or before switching off the engine. This and also double declutching is absolutely pointless on modern cars and also increase consumption and pollution.

#### Gear shifting

As soon as the conditions of the traffic and road allow, use a higher gear. Using a low gear to obtain brilliant performance increases consumption. In the same way improper use of a high gear increases consumption, emissions and engine wear.

#### Top speed

Fuel consumption considerably increases with speed: it is helpful to note that passing from 90 to 120 km/h consumption increases by about +30%. Also maintain an even as possible speed, avoiding superfluous braking and accelerating again, which cost in terms of both fuel and emissions. It is therefore advisable to adopt a "smooth" driving style trying to anticipate manoeuvres to avoid imminent hazards and respect safety distances to avoid sudden slowing.

#### **Acceleration**

Accelerating heavily taking the engine to a high speed, has a considerably adverse effect on consumption and emission levels; it is wise to accelerate gradually and not exceed the maximum torque.

#### **CONDITIONS OF USE**

#### **Cold starting**

Short journeys and frequent cold starts do not allow the engine to reach optimum operating temperature. This results in a significant increase in consumption levels (from +15 to +30% on the urban cycle) and emission of harmful substances.

### Traffic situations and road conditions

Rather high consumption levels are tied to situations with heavy traffic, for example in queues with frequent use of the lower gears or in cities with many traffic lights.

Also winding mountain roads and rough road surfaces adversely affect consumption.

#### Stopping in the traffic

During prolonged stops (e.g. level crossings) it is advisable to switch the engine off.

## ECONOMY AND ENVIRONMENT FRIENDLY DRIVING

Environment protection is one of the principles that guided the development of your **Alfa 147 GTA**.

It is not merely by chance that its antipollution devices obtain results far beyond those specified by current regulations.

However, the environment still needs the utmost care from all of us.

By following a few simple rules it is possible to avoid damage to the environment and very often at the same time to limit fuel consumption. On this subject we are giving some helpful suggestions to be added to those marked with the lin various points of this booklet.

Kindly read them all carefully.

#### PROTECTING EMISSION **REDUCING DEVICES**

Correct operation of the anti-pollution devices not only guarantees respect for the environment but also influences vehicle performance. Keeping these devices in good condition is therefore the first rule for both environment-friendly and economy driving.

The first precaution is to closely follow the "Programmed Maintenance Schedule". Use only unleaded petrol (95 RON) (Specification EN228).

If difficulty with starting is experienced do not insist with extended attempts. Especially avoid bump, tow or coast starts: these may all damage the catalyst. Only use an auxiliary battery to start the car in an emergency.

If when driving the engine is not running smoothly, continue, minimising the need for engine performance and contact Alfa Romeo Authorised Services as soon as possible.

When the fuel reserve warning light turns on, fill up as soon as possible. A low fuel level may cause an irregular supply to the enaine with inevitable increase of the exhaust aas temperature: this would result in serious damage to the catalyst.

Never run the engine, even as a test, with one or more spark plugs disconnected. Do not warm the engine at idle speed before moving off, unless the outside temperature is very low and, in this case too, for no more than 30 seconds.



#### WARNING

Do not spray anything on the catalyst, lamda sensor and exhaust pipe.

#### WARNING

During normal service the catalyst reaches high temperatures. Do not therefore park the car over inflammable materials (grass, dry leaves, pine needles, etc.): fire hazard.

#### WARNING

Do not install other heat quards and do not remove the existing ones on the catalyst and exhaust pipe.



#### WARNING

The failure to follow these rules may cause a fire hazard.

#### TRAILER TOWING

The car does not have the approval to tow trailers.

#### WINTER TYRES

These tyres are specially designed for driving on snow and ice, to be fitted in replacement of those fitted on the car.

Use winter tyres of the same size as the normal tyres provided on the car.

Alfa Romeo Authorised Services will be pleased to advise you on the choice of the car most suited to the use the Customer intends to make of it.

For the type of tyre to be used, inflation pressures and the specifications of winter tyres, follow the instructions given in the "Technical Specifications" chapter.

The winter features of these tyres are reduced considerably when the tread depth is below 4 mm. In this case, they should be replaced.

Due to the winter features, under normal conditions of use or on long motorway journeys, the performance of these tyres is lower than that of normal tyres.

It is necessary therefore to limit their use to the purposes for which they are certified. **IMPORTANT** When winter tyres are used with a maximum speed index below the one that can be reached by the vehicle (increased by 5%), place a notice in the passenger compartment, plainly in the driver's view which states the maximum permissible speed of the winter tyres (as per CE Directive).

Fit the same type of tyre on all four wheels (brand and profile) to ensure higher driving safety when braking and good handling.

Remember that it is inappropriate to change the direction of rotation of tyres.

Use of snow chains should be in compliance with local regulations.

Use snow chains with reduced size with maximum protrusion beyond the tyre profile of 12 mm.



Snow chains may not be used on tyres type 225/45 ZR 17", 235/35 R18".

Only spider type chains can be used on tyres type 215/45 R17" and 215/45 ZR17". SPIKES SPIDER **COMPACT** snow chains (17003 compact model) with 9 arms and 16 mm adjustable length and 17" wheel cover adapter are available at Lineaccessori Alfa Romeo. Keep your speed down when this type of chains is fitted. Do not exceed 50 km/h with this type of chains, avoid sudden acceleration and deactivate the ASR system (the warning light on the button shall be on). Remember that snow chains make braking distance longer.

Snow chains should only be applied to the drive wheels (front).

Before purchasing or using snow chains, you are recommended to contact Alfa Romeo Authorised Services.

Check the tension of the chain after the first few metres have been driven.





Keep you speed down when snow chains are fitted.

Do not exceed 50 km/h. Avoid potholes, steps and pavements to prevent damaging the tyres, suspension and steering.

### VEHICLE INACTIVITY

If the vehicle is to be left inactive for long periods, the following precautions should be noted:

- House the vehicle under cover in a dry and possibly ventilated place.
- Engage a gear.
- Check that the handbrake is not engaged.
- Clean and protect the paintwork by protective wax.
- Cover the rubber windscreen and rearscreen wiper blades with talcum powder and raise them off the glass.
- Open the windows slightly.
- Inflate the tyres to a pressure of 0.5 bars above normal. If possible rest the tyres on wooden planks and periodically check the pressure.
- Do not turn on the electronic alarm system.

- Disconnect the battery negative terminal (—) from the battery and check the battery charge. This check should be repeated once a month during stowage. Charge the battery if the loadless voltage is below 12.5V.
- Do not empty the engine cooling system.
- Cover the vehicle with a fabric or perforated plastic cover. Do not use compact plastic covers which prevent the humidity on the surface of the vehicle from evaporating.

#### **USING AGAIN**

Before using the car again after a prolonged period of inactivity, the following operations are recommended:

- Do not dust the outside of the car.
- Check for leaks of fluids (oil, brake and clutch fluid, engine coolant fluid, etc.).
- Change the engine oil and filter.
- Check the level of brake and clutch fluid engine coolant fluid.

- Check the air cleaner and change it if necessary.
- Check the tyre pressure and the tyres for signs of damage, cuts or cracks. In this case they need to be changed.
- Check the conditions of the engine belts.
- Re-connect the battery negative terminal (—) after checking the battery charge.
- With the gears in neutral, start the engine and let it idle a few minutes, pressing the clutch pedal repeatedly.

#### **USEFUL ACCESSORIES**

Independently of current regulations, we suggest you keep the following on board (fig. 2):

- first aid kit containing non-alcoholic disinfectant, sterile gauzes, gauze roll, plasters, etc.;
- electric torch;
- rounded scissors;
- work gloves.

#### WARNING

This operation must be carried out in the open.
Exhaust gas contains carbon monoxide which highly toxic and lethal.

ADAD HOME

fig. 2

A0A0148m

#### IN AN EMERGENCY

### EMERGENCY STARTING

If it is not possible to deactivate the engine inhibitor with the Alfa Romeo CODE system, the  $\mathfrak{M}$  and  $\mathfrak{M}$  warning lights stay on and the engine will not start. Emergency starting is needed to start the engine.

**IMPORTANT** You are advised to carefully read the entire procedure before carrying it out.

If a mistake is made during the emergency procedure, the ignition key should be turned to **STOP** and the operations must be repeated from the start (point 1).

- 1) Read the 5-figure electronic code on the CODE card.
- 2) Turn the ignition key to **MAR**.

- 3) Fully depress the accelerator pedal and keep it pressed. The warning light will come on for eight seconds and then go off, now release the accelerator pedal.
- 4) The warning light begins to flash: after it has flashed the same number of times as the first digit on the CODE card, press the accelerator pedal and keep it pressed until the warning light turns on (for four seconds) and then goes off, now release the accelerator pedal.
- 5) The warning light starts to flash: after the number of flashes corresponding to the second digit on the CODE card, press the accelerator pedal and keep it pressed.
- 6) Repeat this procedure for the remaining digits on the CODE card.
- 7) After entering the last figure, keep the accelerator pedal pressed. The warning light turns on (for four seconds) and then goes off; now release the accelerator pedal.

- 8) A quick flash of the warning light (for about 4 seconds) confirms that the operation has been carried out correctly.
- 9) Start the engine turning the ignition key from **MAR** to **AVV** without returning the key to the **STOP** position.

Conversely, if the warning light stays on, turn the key to **STOP** and repeat the procedure starting from point 1).

**IMPORTANT** After emergency starting it is advisable to contact an Alfa Romeo Authorised Service, because the emergency procedure must be repeated each time the engine is started.

### STARTING WITH AN AUXILIARY BATTERY

If the battery is flat, (for battery with optical hydrometer: dark colour without green area in the centre), it is possible to start the engine using an auxiliary battery with the same capacity or a little higher than the flat one.

Proceed as follows (**fig. 1**):

- 1) Remove the protective cover on the positive battery post, pressing on the opening catches (front), then connect the positive terminals (+ sign next to the terminal) of the two batteries using a special cable.
- 2) Connect the end of the second jump lead to the negative terminal (—) of the auxiliary battery with an earth point \$\preceq\$ on the engine or gearbox of the vehicle to be started.

A0A0492m

fig. 1

**IMPORTANT** Do not directly connect the negative terminals of the two batteries: any sparks may ignite the detonating gas which could come out of the battery. If the auxiliary battery is installed on another car, avoid metal parts touching accidentally between this car and the one with the flat battery.

- 3) Start the engine.
- 4) When the engine has started, remove the cables, reversing the sequence followed for connection.

If after a few attempts the engine does not start, do not insist but contact the nearest Alfa Romeo Authorised Service.

#### WARNING

This starting procedure must be carried out by qualified personnel because incorrect operations may cause electrical discharge of considerable intensity. The liquid contained in the battery is poisonous and corrosive. Avoid contact with the skin and eyes. Keep naked flames and lighted cigarettes away from the battery and do not cause sparks.

Never use a battery charger to start the engine as this could damage the electronic systems of your vehicle, particularly the ignition and fuel supply control units.

#### STARTING BY INERTIA

#### IN THE EVENT OF A PUNCTURE

Never push, tow or coast start the vehicle. This could cause fuel to flow into the catalyst damaging it irreversibly.

**IMPORTANT** The car is equipped with "Kit for tyre quick repair Fix&Go", see the instructions contained in the following chapter

Should the type of wheels used be changed (alloy rims instead of steel), it is also necessary to replace the complete kit of fastening bolts with others of suitable size.

Remember that the engine brake and power steering are not operational until the engine is started, therefore, much greater effort than usual is needed on the

brake pedal and steering wheel.

Signal the presence of the stationary vehicle according to the current regulations: hazard warning lights, reflecting triangle, etc. Any passengers should leave the car.

#### FIX&GO KIT FOR QUICK TYRE REPAIRING

The car is equipped with a tyre quick repairing kit called FIX&GO.

WARNING

Signal the presence of the stationary vehicle accord-

The quick repairing kit is placed in the boot inside the appropriate container (**A-fig. 11**).

The quick repairing kit includes (**fig. 12**):

- -a tool (**A**) to remove the valve body;
- a compressor  $(\mathbf{B})$  with pressure gauge and fittings;
- a bottle ( $\mathbf{C}$ ) containing sealer and fitted with a filling pipe;
- -a "spout" (**D**) to be connected to the filling pipe;
- a sticker bearing the notice "max 80 km/h", to be placed in a position visible to the driver (on the instrument panel) after fixing the tyre.

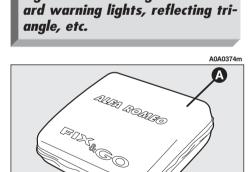
**IMPORTANT** In the event of a puncture caused by foreign bodies, it is possible to fix tyres having cracks with maximum diameter up to 4 mm.

In (fig. 13) it is possible to identify:

**A** - tyre area which can be fixed (holes or cracks with diameter of max 4 mm);

**B** - areas which CANNOT be fixed.

A0A0376m



ing to the current regulations: haz-

fig. 11

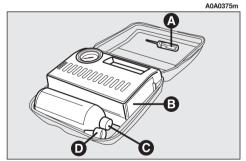


fig. 12

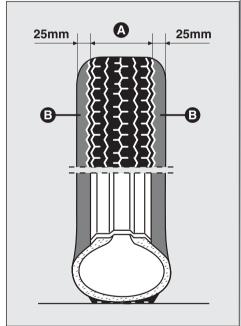


fig. 13

#### WARNING

It is not possible to fix cracks on the tyre sides and permanent sealing of cracks on the tread within 25 mm from the tyre side is not guaranteed.

#### WARNING

In case of damages to the wheel rim (the deformation is such that there is an air leakage) or the tyre outside the limit areas previously indicated, fixing is not possible. Do not remove foreign bodies (screws or nails) which have penetrated the tyre.

### IT IS NECESSARY TO KNOW THAT:

### WARNING Do not operate the

Do not operate the compressor for more than 20 minutes: risk of overheating!

WARNING

Do not use the quick repairing kit if the tyre is damaged due to driving with the wheel flattened. That it is why it is necessary to check accurately the tyre sides.

WARNING

Warning! The bottle (C-fig. 12) contains propylene glycol. This substance is toxic: do not swallow it and avoid contact with the eyes, the skin and the clothes. In case of contact, rinse with abundant water. If any allergy reaction should take place call a medical doctor. Keep the bottle cylinder in the appropriate compartment away from heat and children.

The sealer included in the quick repairing kit, good for temperatures between  $-30^{\circ}\text{C}$  e  $+80^{\circ}\text{C}$ , is not adequate for permanent fixing.

The liquid inside the tyre can be easily removed with water.

The sealer has no expire date.

#### INFLATING PROCEDURE

- Place the wheel in the position illustrated in the figure (A-fig. 14) for the operation with the valve, then engage the handbrake.
- Screw the filling pipe (**B-fig. 15**) to the bottle ( $\mathbf{C}$ ).
- Unscrew the tyre valve plug, remove the element inside the valve by using the appropriate tool (**D-fig. 16**); be careful not to place it on the sand or on a dirty surface.
- Introduce the filling pipe (**B-fig. 17**) in the tyre valve, keep the bottle (**C**) with the pipe directed downwards, then press the bottle so that the whole sealer can get into the tyre.

- Screw again the element inside the valve with the tool (**D-fig. 18**).
- Use the appropriate lever (**E-fig. 19**) to insert and clamp the air compressor pipe (**F**) to the tyre valve.
- Start the engine, insert the plug (**G-fig. 20**) in the lighter (or current socket, where fitted) and inflate the tyre according to the right pressure value (see "Cold inflation pressures" in the "Technical specification"). You are advised to check the tyre pressure value on the pressure gauge (**H-fig. 19**) with the compressor off, in order to have a more accurate reading.

If it is not possible to reach the prescribed pressure, move the car forwards or backwards for about 10 metres, so that the sealer is distributed inside the tyre, then repeat inflation.

If, in spite of the last operation, the prescribed pressure is not achieved, do not move the vehicle and contact Alfa Romeo Authorized Services.

Once the correct tyre pressure has been reached, start driving immediately so that the sealer is distributed evenly inside the tyre.

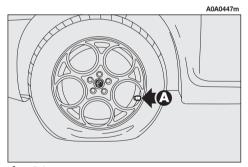


fig. 14

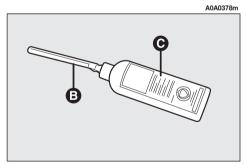


fig. 15

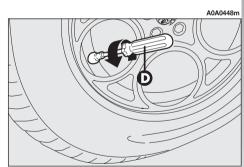


fig. 16

#### WARNING

Place the sticker in a position where it can be clearly seen by the driver as a notice that the tyre has been treated with the quick repairing kit. Drive carefully especially in a bend. Do not overcome 80 km/h. Avoid sudden acceleration or braking.

After about 10 minutes, stop and check the tyre pressure once again; remember to engage the handbrake.

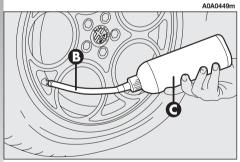
#### WARNING

If the pressure is below 1,3 bars do not drive any further: the quick repairing kit cannot guarantee proper hold because the tyre is too much damaged. Contact Alfa Romeo Authorized Services.

Conversely, if at least 1,3 bars are detected, restore the correct pressure (with the engine running and the handbrake engaged) and start driving the car with great care.

#### WARNING

If, during the pressure restoring operation, it is not possible to reach at least 1,8 bars, do not drive any further because the tyre is too much damaged and the quick repairing kit cannot guarantee proper hold. Contact Alfa Romeo Authorized Services.



**194** fig. 17

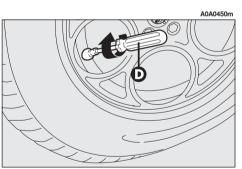


fig. 18

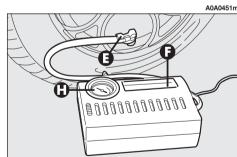


fig. 19

#### WARNING

Tyres fixed with the quick repairing kit must be used only temporarily.

Drive carefully to the nearest Alfa Romeo Authorized Service to check the tyre conditions, then have it fixed or replaced.

It is absolutely necessary to communicate that the tyre has been fixed with the quick repairing kit.

#### WHEN NEEDING TO CHANGE A BULB

WARNING

Alterations or repairs to the electric system not carried out correctly and without taking account of the system specifications may cause failures and the risk of fire.

WARNING

Where possible, it is advisable to have bulbs changed c/o Alfa Romeo Authorised Services. The correct operation and aiming of the outer lights are vital to the safety of the vehicle and its passengers and the subject of specific laws.

WARNING

Halogen bulbs must be handled touching only the metallic part. If the transparent bulb is touched with the fingers, its lighting intensity is reduced and the life of the bulb may be compromised. If touched accidentally, rub the bulb with a cloth moistened with methylated spirit and allow to dry.

WARNING

Halogen bulbs contain pressurised gas, in the case of breakage they may burst.

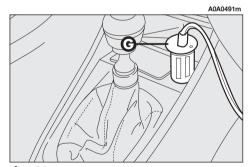


fig. 20

#### **GENERAL INSTRUCTIONS**

- When a light is not working, check that the corresponding fuse is intact before changing a bulb.
- For the location of fuses, refer to the paragraph "In the event of a burnt fuse" in this chapter.
- Before changing a bulb check the contacts for oxidation.
- Burnt bulbs must be replaced by others of the same type and power.
- Always check headlight aiming after changing a bulb to ensure they are safe.

#### TYPES OF BULBS (fig. 21)

Various types of bulbs are fitted to your vehicle:

#### A. All glass bulbs

These are pressed on. Pull to remove.

#### B. Bayonet type bulbs

Press the bulb, turn counter-clockwise to remove this type of bulb from its holder.

#### C. Tubular bulbs

Free them from their contacts to remove.

#### D.-E. Halogen bulbs

To remove, free it from the clip on its housing.

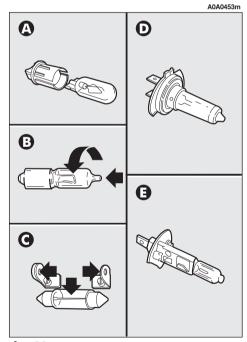


fig. 21

BULBS	FIGURE 21	TYPE	POWER
High beam	D	H7	55W
Low beam	D	Н7	55W
Front sidelights	В	H6W	6W
Foglight	E	H1	55W
Front direction indicators	В	H21W	21W
Side direction indicators	A	W5W	5W
Rear direction indicators	В	P21W	21W
Rear sidelights - braking lights	В	P21/5W	5W/21W
Third stop (additional braking lights)	A	W2.3W	2.3W
Reversing light	В	P21W	21W
Rear fog guards	В	P21W	21W
Number plate light	А	W5W	5W
Puddle lights	С	C5W	5W
Front roof light	С	C10W	10W
Rear roof light	С	C10W	10W
Courtesy mirror light	A	W1.2W	1.2W
Glovebox light	A	W5W	5W
Boot light	С	C5W	5W

#### IF AN EXTERIOR LIGHT GOES OUT

#### **XENON LIGHTS**

Xenon lights have a very long life, therefore breakdowns are unlikely.

WARNING If necessary, have the system checked and repaired only by Alfa Romeo Authorised Services.

ly, the description of the correct procedure to replace a Xenon light.

WARNING Any operation regarding the front light units shall be carried out with the lights turned off and the ignition key removed from the ignition switch: risk of electric discharges.

The front light units contain the front sidelight, dipped beam, main beam and fog light bulbs.

The bulbs are arranged inside the light unit as follows (fig. 22a):

- (A) Main beam headlights
- (**B**) Sidelights
- (C) Xenon dipped beam headlights
- (**D**) Fog lights.

To change the bulbs of the sidelights, dipped beams and main beams it is necessary to remove the cover (A-fig. 22b) releasing the locking screws (B).

To change the fog lights, remove the cover (C) turning it counter-clockwise.



After replacement, refit the covers correctly checking that they are properly secured.

Hereafter you will find, as information on-

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fig. 22a

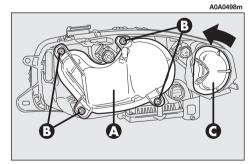


fig. 22b

### 199

#### Front fog lights (fig. 23a)

**IMPORTANT** When needing to change the left bulb, the side trim next to the light itself needs to be removed to facilitate access to the engine compartment.

To change the bulb, proceed as follows:

- Remove the protective cover turning it counter-clockwise.
- Disconnect the electric connector (A).
- Release the bulb catch (**B**).
- Remove the bulb and replace it.
- Fit a new bulb, making the tab of the metal part coincide with the one on the lamp unit, then hook the bulb holder catch (**B**).
- Reconnect the electric connector (A).
- Refit the protective cover correctly.

### Xenon dipped beam headlights (fig. 23b)

To change the bulb, proceed as follows:

- Remove the protective cover releasing the locking screws.
- Disconnect the electric connector (A) turning it slightly counter-clockwise.
- Remove ring nut (**B**) turning it slightly counter-clockwise
- Remove the bulb and replace it.
- Fit a new bulb correctly observing the grooves on the lamp lens, then refit the ring nut (**B**).
- Reconnect the electric connector (A).
- Refit the protective cover correctly.

#### Front sidelights (fig. 24a)

To change the bulb, proceed as follows:

- Remove the protective cover releasing the locking screws.
- Using the extension (**A**), integral with the bulb holder (**B**), withdraw the bulb holder itself which is snap-fitted.
- Remove the bulb (**C**), pushing it gently and turning it counter-clockwise.
- Change the bulb and refit the bulb holder making sure that it clicks into place; also check that the bulb is in the correct position looking at the lamp from outside.
- Refit the protective cover correctly.

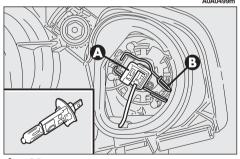


fig. 23a

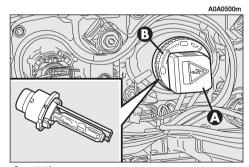


fig. 23b

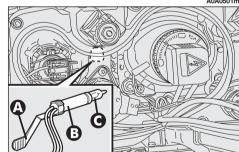


fig. 24a

### Main beam headlights (fig. 24b)

To change the bulb, proceed as follows:

- Remove the protective cover releasing the locking screws.
- Disconnect the electric connector (A).
- Release the bulb catch (**B**).
- Remove the bulb and replace it.
- Fit a new bulb making the tabs of the metallic part coincide with the grooves on the reflector, then hook the bulb holder catch (**B**).
- Reconnect the electric connector (A).
- Refit the protective cover correctly.

#### **HALOGEN LIGHTS**

WARNING
Alterations or repairs to

the electric system not carried out correctly and without taking account of the system specifications may cause failures and the risk of fire.

**IMPORTANT** See the previous chapter "When needing to change a bulb" for the type of bulb and power rating.

The front light units contain the dipped beam, main beam and fog light bulbs.

The bulbs are arranged inside the light unit as follows (**fig. 25a**):

- (A) Fog lights.
- (B) Dipped beam headlights
- (C) Sidelights.
- (**D**) Main beam headlights

To change the bulbs of the sidelights, low beams and main beams it is necessary to remove the cover (**A-fig. 25b**) releasing the catches (**B**).

To change the fog lights, remove the cover (**C**) turning counter-clockwise.

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fig. 24b

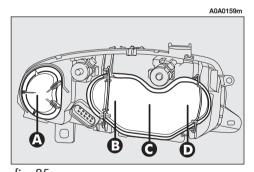


fig. 25a

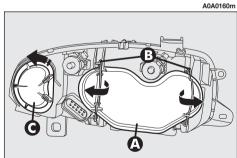


fig. 25b

After replacement, refit the covers correctly checking that they are properly secured.

**IMPORTANT** On the inside surface of the headlight there could appear a slight coat of fogging; this does not show a defect, since it is a natural occurrence due to low temperature and to the degree of humidity in the air; it will soon disappear as soon as the lights are turned on. The presence of drops inside the headlight shows water seepage, refer to the Alfa Romeo Dealership.

#### Fog lights (fig. 26a)

**IMPORTANT** When needing to change the left bulb, the side trim next to the light itself needs to be removed to facilitate access to the engine compartment.

To change the bulb, proceed as follows:

- Remove the protective cover turning counter-clockwise.
- Disconnect the electric connector (A).
- Release the bulb catch (**B**).
- Remove the bulb and replace it.
- Fit a new bulb, making the tab of the metal part coincide with the one on the lamp unit, then hook the bulb holder catch **(B)**.
  - Re-connect the electric connector (A).
  - Refit the protective cover correctly.

#### **Dipped beam headlights** (fig. 26b)

To change the bulb, proceed as follows:

- Remove the protective cover releasing the catches.
- Disconnect the electric connector (A).
- Release the bulb catch (**B**).
- Remove the bulb and replace it.
- Fit a new bulb, Fit a new bulb, making the tabs of the metallic part coincide with the grooves on the reflector, then hook the bulb holder catch (B).
  - Re-connect the electric connector (A).
  - Refit the protective cover correctly.

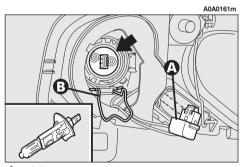


fig. 26a

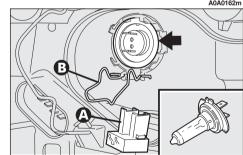


fig. 26b

#### Front side lights (fig. 27a)

To replace the bulb, proceed as follows:

- Remove the protective cover releasing the catches
- Using the extension (A) integral with the bulb holder (B), withdraw the bulb holder itself which is snap-fitted.
- Remove the bulb (**C**), pushing gently and turning counter-clockwise.
- Change the bulb and re-insert the bulb holder making sure that it clicks into place; also check that the bulb is in the correct position looking at the lamp from outside.
- Refit the corrective cover correctly.

#### **Main-beam headlights** (fig. 27b)

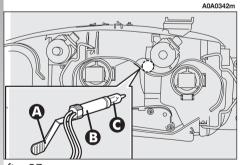
To change the bulb, proceed as follows:

- Remove the protective cover releasing the catches.
- Disconnect the electric connector (A).
- Release the bulb catch (B).
- Remove the bulb and replace it.
- Fit a new bulb, Fit a new bulb, making the tabs of the metallic part coincide with the grooves on the reflector, then hook the bulb holder catch (B).
- Re-connect the electric connector (A).
- Refit the protective cover correctly.

#### FRONT DIRECTION INDICATORS (fig. 28-29)

To change the bulb, proceed as follows:

- Work in the point shown by the arrow in order to compress the internal clip (A), then remove the lens. To do this use the flatbladed screwdriver provided, protect the tip with a soft cloth to avoid damaging the car.
- Turn the bulb holder (B) clockwise and remove it from the lens unit.



**202** fig. 27a

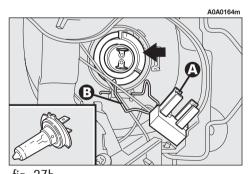


fig. 27b

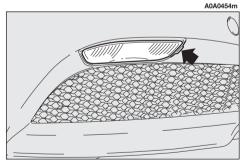


fig. 28

- Remove the bulb pushing it gently and turning it counter-clockwise.
- Replace the bulb.
- Refit the bulb holder turning clockwise and checking that it is secured correctly.

### **SIDE DIRECTION INDICATORS** (fig. 30)

- Push the transparent cover towards the rear of the car to compress the catch (**A**). Release the front part and remove this unit.
- Turn the bulb holder counter-clockwise
   (B) and remove it from the cover.
- Remove the snap-fitted bulb and replace it.
- Insert the bulb holder ( $\mathbf{B}$ ) in the transparent cover, then position the unit making sure the catch clicks into place ( $\mathbf{A}$ ).

#### REVERSING LIGHTS AND REAR FOG GUARDS (fig. 31-32)

The reversing light and rear fog guard are in the tail light unit fastened to the tailgate; they are to be found respectively one on the right and the other on the left of the vehicle facing forwards.

To change the bulb, proceed as follows:

- Open the tailgate.
- Remove the cap (**A**) then, using the extension with the screwdriver provided (working as illustrated), loosen the fastening nuts (**B**) of the light unit concerned.

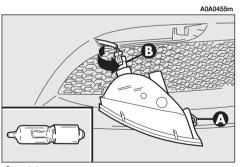


fig. 29

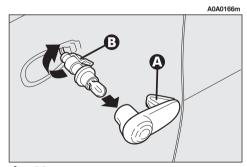


fig. 30

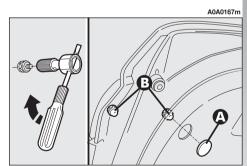


fig. 31

- Withdraw the light unit outwards.
- Slacken the electric connector (C).
- Slacken the screws (**D**), and remove the bulb holder.
- Remove the bulb pushing gently and turning counter-clockwise.
- Replace the bulb, then refit the bulb holder and tighten the screws  $(\mathbf{D})$ .
- Re-tighten the electric connector (**C**).
- Refit the light unit on the tailgate tightening the nuts  $(\mathbf{B})$  then refit the cap  $(\mathbf{A})$  pressing it on.

#### REAR DIRECTION INDICATORS REAR SIDELIGHTS-BRAKING LIGHT (fig. 33-34)

The rear direction indicators and the side light-braking light are in the tail light unit fastened to the body.

To change the bulb, proceed as follows:

- From inside the boot, open the preformed trim (**A**) then, using the extension and the screwdriver provided (working as illustrated) slacken the nuts (**B**) fastening the light unit.
- Withdraw the light unit outwards.

- Disconnect the electric connector (**C**).
- Slacken the screw (**D**), and remove the bulb holder.
- Remove the bulb to be changed pushing gently and turning counter-clockwise:
- (E) bulb for rear sidelight-braking light.
- (F) bulb for rear direction indicators.
- Replace the bulb, then refit the bulb holder and tighten the screw (**D**).
  - Re-connect the electric connector (**C**).
- Refit the light unit on the body tightening the screws  $(\mathbf{B})$ .
- Close the preformed trim (A).

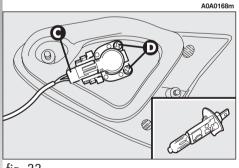
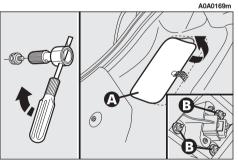


fig. 34



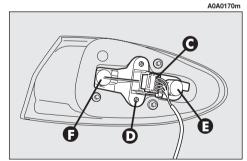


fig. 35

**204** fig. 33

### **NUMBER PLATE LIGHTS** (fig. 35)

To change the bulbs proceed as follows:

- Work on the transparent cover frame, in the point shown by the arrow to compress the catch (**B**). Free the opposite end and remove the unit.
- Turn the bulb holder counter-clockwise
   (A) and remove it from the transparent cover.
- Remove the snap-fitted bulb and replace it.
- Insert the bulb holder (A) in the transparent cover then refit the unit checking that the catch clicks into place (B).

### **ADDITIONAL BRAKING LIGHT (THIRD STOP)** (fig. 36-37)

To change the bulbs, proceed as follows:

- Open the tailgate, slacken the screws
   (A) then disconnect the electric connector
   (B).
- Remove the transparent cover-bulb holder
   (C) from the support (D).
- Working on the side catches (**E**), remove the bulb holder.
- Remove the bulb to be changed.

- Insert the bulb holder making sure the catches click into place  $(\mathbf{E})$ .
- Refit the transparent cover-bulb holder
   (C) in the support (D).
- Re-connect the electric connector (**B**).
- Refit the unit on the tailgate tightening the screws  $(\mathbf{A})$ .

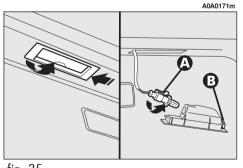


fig. 35

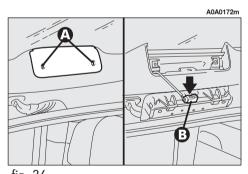


fig. 36

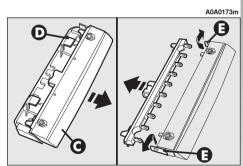


fig. 37

## **PUDDLE LIGHT** (fig. 38) (for versions/markets where applicable)

To change the bulb proceed as follows:

- Open the door and slacken the screw
   (A) fastening the transparent covers.
- Remove the unit composed of the two transparent covers then change the bulb, releasing it from the side contacts making sure that the new bulb is correctly clamped between the contacts.
- Realign the two transparent covers and tighten the fastening screw  $(\mathbf{A})$ .

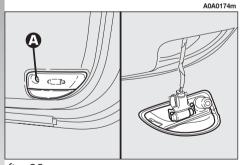
### IF AN INTERIOR LIGHT GOES OUT

### FRONT ROOF LIGHT (fig. 39-40)

To change the bulbs proceed as follows:

- Remove the light unit (**A**) levering in the points shown by the arrow (in correspondence with the retainer catches).
- Open the protective cover (**B**).
- Replace the bulb concerned releasing it from the side contacts making sure that the new bulb is correctly clamped between the contacts.

- Close the protective cover (**B**).
- Refit the light unit pressing gently in correspondence with the retainer catches, until hearing the click.



**206** fig. 38

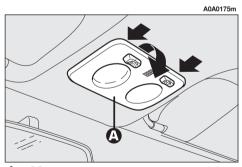


fig. 39

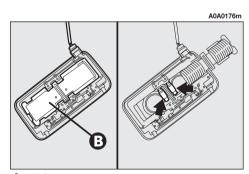


fig. 40

## — Put the bulb holder correctly (**C**) back

### in its housing.

#### - Refit the transparent cover (B) inserting it in its correct position firstly on one end and then on the other until it clicks into place.

#### **REAR ROOF LIGHT** (fig. 41-42)

To change the bulb proceed as follows:

- Remove the light unit (A) levering in the point shown by the arrow.
- Replace the bulb releasing it from the side contacts making sure that the new bulb is correctly clamped between the contacts.
- Refit the light unit in the correct position inserting first the side with the connector, then pressing the other side until the catch clicks into place (**B**).

#### **COURTESY MIRROR LIGHT** (fig. 43-44)

To change a bulb proceed as follows:

- Open the mirror cover (A).
- Remove the transparent cover (B) levering in the point shown by the arrow.
- Gently raise the bulb holder (C) from its housing, remove the snap-fitted bulb and change it.

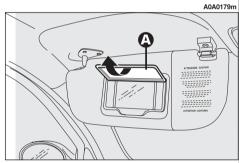


fig. 43

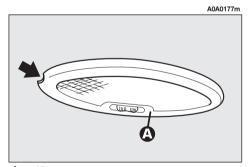


fig. 41

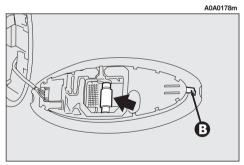


fig. 42

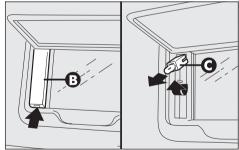
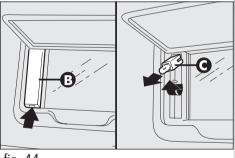


fig. 44



#### **GLOVEBOX LIGHT** (fig. 45-46)

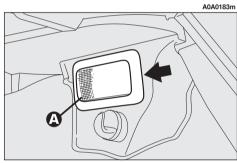
To change the bulb proceed as follows:

- Open the glovebox, then remove the light unit (**A**) levering in the point shown by the arrow.
- Open the protection (**B**) and change the snap-fitted bulb.
- Close the protection (B) on the transparent cover.
- Refit the light unit inserting it in its correct position firstly on one end and then on the other until it clicks into plac.

#### **BOOT LIGHT** (fig. 47-48)

To change the bulb proceed as follows:

- Open the tailgate.
- Remove the light unit  $(\mathbf{A})$  levering in the point shown by the arrow.
- Open the protective cover (**B**) and replace the bulb releasing it from the side contacts, making sure that the new bulb is correctly clamped between the contacts.
- Close the protective cover again (**B**).
- Refit the light unit inserting it in its correct position firstly on one end and then on the other until it clicks into plac.



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fig. 47

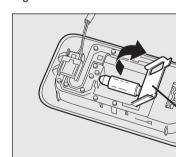


fig. 48

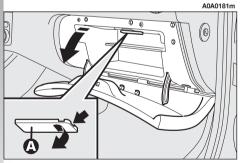


fig. 45

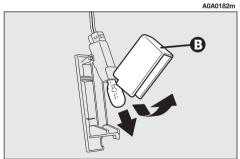


fig. 46

#### IN THE EVENT OF A BLOWN FUSE

#### **GENERAL**

The fuse is a protective device for the electric system: it comes into action (i.e. it cuts off) mainly due to a fault or improper action on the system.

When a device does not work, check the efficiency of its fuse. The conductor element (A-fig. 49) must be intact; if not, replace the fuse with one of the same amp rating (same colour).

- (B) Undamaged fuse
- (C) Fuse with damaged filament.

Remove the blown fuse using the pincer provided (**D**), in the control box.



#### WARNING

If a general fuse (MAXI-FUSE or MEGA-FUSE) cuts

in, do not attempt any repair and contact an Alfa Romeo Authorised Service.



Never replace a fuse with metal wires or anything else. Always use an intact fuse of the same colour.



#### WARNING

Before replacing a fuse, make sure the ignition key has been removed and that all the other services are switched off and/or disengaged.

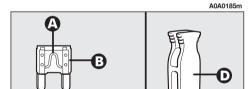


fig. 49



#### WARNING

Never replace a fuse with another with a higher amp rating, DANGER OF FIRE.



#### WARNING

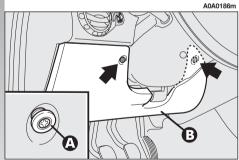
If a fuse blows again, contact an Alfa Romeo Authorised Service.

Access is gained to the control box on the dashboard by slackening the two retainers (**A-fig. 50**) and removing the protective trim (**B**).

To access the fuses in the control unit on the battery pole, it is necessary operate in the direction shown by the arrows on the blocking devices (**A-fig. 51**) and then open the 2 covers (**B**).

To access the fuses of the control unit located near the battery, it is necessary to operate in the opposite way on the retaining devices  $(\mathbf{C})$ , and then remove cover  $(\mathbf{D})$ .

To locate the protection fuses, consulting the summary table on the following pages, refer to the following illustrations **fig. 52**, **fig. 53** and **54**.



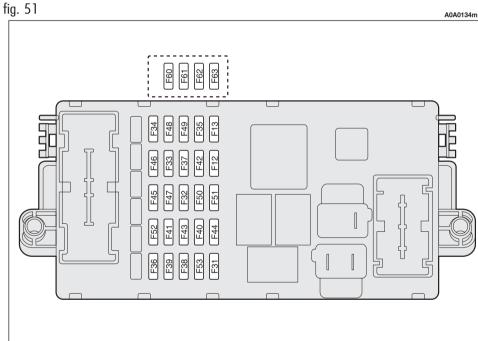
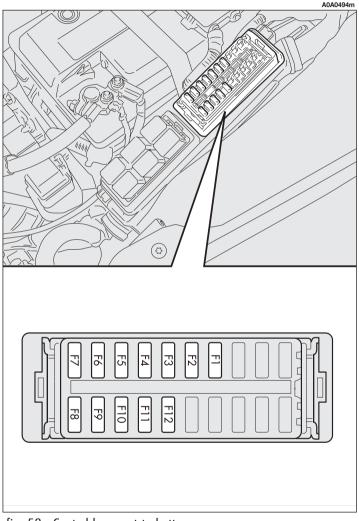


fig. 52 - Control box on dashboard

**210** fig. 50



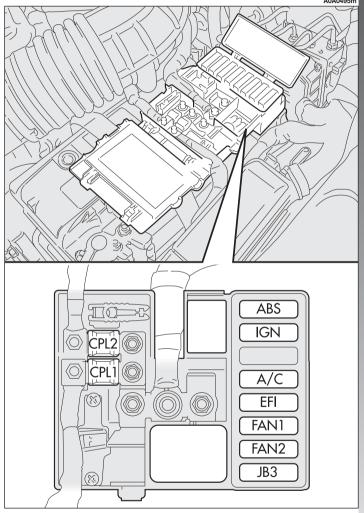


fig. 53 - Control box next to battery

fig. 54 - Control box on battery positive pole

#### **FUSE SUMMARY TABLE**

LIGHTS	FIGURE	FUSE	AMPERES
Hazard warning light	52	F53	10
Right dipped-beam headlight	52	F12	10
Left dipped-beam headlight	52	F13	10
Main-beam headlight	53	F2	15
Foglight	53	F30	15
Braking light	52	F37	10
Reversing light	52	F35	7.5
+30 direction indicators	52	F53	10

SERVICES	FIGURE	FUSE	AMPERES
Selespeed transmission pump	54		30
Ignition switch	54	IGN (MAXI-FUSE)	30
Headlight aiming device	52	F13	10
Climate control system	52	F31	7.5
Climate control system	52	F39	15
Climate control compressor	53	F1	7.5
Heater unit relay coils	52	F31	7.5

SERVICES	FIGURE	FUSE	AMPERES
Key-operated +30	52	F32	15
Selespeed transmission	53	F11	7.5
Selespeed transmission	52	F51	7.5
Radio	52	F39	15
Navigator	52	F39	15
Rearscreen wiper	52	F52	15
Left rear power window	52	F33	20
Right rear power window	52	F34	20
Rearscreen heating	52	F40	30
Windscreen - rearscreen washer (two-way pump)	52	F43	30
Cigar lighter	52	F44	20
Seats with electric heating	52	F45	15
Heated wing mirrors - heated nozzles	52	F41	7.5
Cruise control	52	F35	7.5
Central door locking	52	F38	20
Headlight washer	53	F5	20
Services + 30	52	F39	15
Primary services (electronic injection)	53	F8	7.5
Secondary services (electronic injection)	53	F9	15
Secondary services	52	F49	7.5

SERVICES	FIGURE	FUSE	<b>AMPERES</b>
Climate control fan	54	A/C (MAXI-FUSE)	40
Radiator fan	54	FAN1 (MAXI-FUSE)	40
Radiator fan	54	FAN2 (MAXI-FUSE)	40
Horn	53	F3	15
Fuel pump	53	F4	15
Tailgate electric unlocking	52	F60 (*)	25
Electronic injection system	53	F11	7.5
Bose system	52	F61 (*)	15
Bose system	52	F62 (*)	15
Sunroof	52	F63 (*)	20
Sun roof	52	F46	15
Petrol/ignition coil injectors	53	F10	15
Services	53	F12	7.5
Electronic injection	54	EFI (MAXI-FUSE)	30
Engine compartment fuse carrier module	54	JB3 (MAXI-FUSE)	50

<sup>(\*)</sup> Fuse behind dashboard control box on an auxiliary bracket.

# IN THE EVENT OF A FLAT BATTERY

Before anything else, you are advised to read the precautions for preventing the battery from draining and for ensuring long life in the "Vehicle maintenance" chapter.

#### **CHARGING THE BATTERY**

**IMPORTANT** The battery charging procedure is described only for information purposes. This operation should be carried out by Alfa Romeo Authorised Services.

Charging should be slow at a low amp rating for 24 hours. Charging for a longer time may damage the battery.

Charge the battery as follows:

- Disconnect the battery negative terminal (-).
- Connect the charger cables to the battery terminals ensuring that the bigs is correct.
- Turn on the charger.
- After charging, turn off the charger before disconnecting it from the battery.
- Re-connect the battery negative terminal (-).

## STARTING WITH AN **AUXILIARY BATTERY**

See "Starting with an auxiliary battery" in this chapter.

## WARNING

Do not attempt to charge a frozen battery: it must firstly be thawed, otherwise it may burst. If freezing has occurred, the battery should be checked by skilled personnel to make sure that the internal elements are not damaged and that the body is not cracked, with the risk of leaking poisonous and corrosive acid.

WARNING The liquid contained in the

battery is poisonous and corrosive. Avoid contact with the skin or eyes. The battery should be charged in a well ventilated place, away from naked flames or possible sources of sparks: danger of explosion and fire.

Strictly avoid using a battery charger to start the engine: you may damage the electronic systems, in particu-

lar the ignition and fuel supply control units.

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# IF THE VEHICLE IS TO BE TOWED

The tow ring supplied with the vehicle is housed in the tool box under the boot mat.

# Front towing

To install the tow ring, proceed as follows:

- Take the tow ring from the tool box.
- Remove the cover (A) snap-fitted on the front bumper (fig. 55). To do this use the flat-bladed screwdriver provided, protect the tip with a soft cloth to avoid damaging the car.
- Firmly screw the ring in its housing.

# **Back towing**

To install the tow ring, just screw the ring firmly in its housing (fig. 56).

## WARNING

Before tightening the ring carefully clean the threaded housing. Before beginning to tow the car, make sure that the ring is firmly tightened in its threaded housing.

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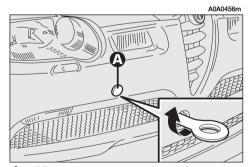


fig. 55

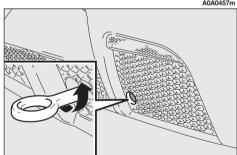


fig. 56

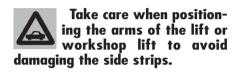
Do not start the engine when towing the car. Before starting to tow, turn the ignition key to MAR and back to STOP again without removing it. Removing the key automatically engages the steering lock resulting in the impossibility to steer the wheels. When towing remember that without the help of the engine brake and power steering greater effort is required on the pedal and steering wheel. Do not use flexible cables for towing and avoid jerks. During towing operations make sure that fastening the joint to the car does not damage the components in contact with it. When towing the car, it is compulsory to follow specific traffic requlations concerning both the towing device and behaviour on the road.

WARNING

# IF THE VEHICLE IS TO BE LIFTED

# USING AN ARM LIFT OR WORKSHOP LIFT

The vehicle should be lifted only at the side setting the ends of the arms or the workshop lift in the area shown in **fig. 57**.



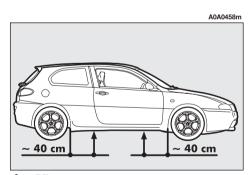


fig. 57

# IN THE EVENT OF AN ACCIDENT

- It is important to keep calm.
- If you are not directly involved, stop at least a few dozen metres away from the accident.
- On motorways, stop without blocking the emergency lane.
- Turn the engine off and the hazard warning lights on.
- At night, illuminate the place of the accident with the headlights.
- Take care, do not risk being run over.

- Signal the accident placing the triangle at regulation distance in a clearly visible place.
- Call the emergency organisation, giving the most accurate information possible. On motorways use the special phones provided
- In motorway pileups, especially with poor visibility, the risk of being involved in other crashes is high. Leave the car immediately and go beyond the guard-rail.
- If the doors are blocked, do not try to get out of the car breaking the windscreen which is stratified. The windows and rear screen are easier to break.
- Remove the ignition key of the vehicles involved.

- If you note a smell of fuel or other chemical products, do not smoke and have cigarettes stubbed out.
- To put out fires, even small ones, use the extinguisher, blankets, sand, or earth. Never use water.
- If use of the lighting system is not necessary, disconnect the battery negative terminal (—).

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## IF PEOPLE ARE INJURED

- An injured person must never be abandoned. Helping is compulsory also for persons not directly involved in the accident.
- Do not crowd around injured people.
- Reassure the injured person that help is on the way, and stay near to overcome any panic.
- Release or cut the seat belt restraining injured persons.
- Do not give injured persons anything to drink.
- An injured person should never be moved except in the following circumstances.
- Remove an injured person from the car only in danger of fire, sinking or falling. When removing an injured person: do not pull the limbs or bend the head and keep the body as horizontal as possible.

#### **FIRST AID KIT**

It is advisable to have also a fire extinguisher and a blanket besides the first-aid kit.

# VEHIGLE MAINTENANCE

# SCHEDULED SERVICING

Correct maintenance is determinate in ensuring long vehicle life under the best conditions.

This is why Alfa Romeo has programmed a series of checks and maintenance operations every 20,000 km.

**IMPORTANT** On versions fitted with reconfigurable multifunction display, at 2000 km from the maintenance deadline, the display will show "REFER TO SERVICE MANUAL" which is shown again turning the ignition key to **MAR**, every 200 km. For further details, see "Service" in the "Reconfigurable multifunction display" paragraph.

It is however wise to remember that Programmed Maintenance does not completely cover all the car's requirements: also in the initial period before the 20,000 km service coupon and later, between one coupon and another, ordinary care is still necessary such as for example routinely checking and topping up the level of fluids, checking the tyre pressure, etc...

**IMPORTANT** The Programmed Maintenance coupons are specified by the Manufacturer. The failure to have them carried out may invalidate the warranty.

The Programmed Maintenance service is carried out by all Alfa Romeo Authorised Services, at pre-established times.

If during each operation, in addition to the ones programmed, the need arises for further replacements or repairs, these may be carried out only with the explicit agreement of the customer.

**IMPORTANT** You are advised to contact Alfa Romeo Authorised Services in the event of any minor operating faults, without waiting for the next service coupon.

# **SCHEDULED MAINTENANCE PROGRAMME**

Thousands of km	20	40	60	80	100	120	140	160	180
Check tyre conditions/wear and adjust pressure if necessary	•	•	•	•	•	•	•	•	•
Check operation of lighting system (headlights, direction indicators, hazard warning lights, boot, passenger compartment, glovebox lights, warning lights, etc)	•	•	•	•	•	•	•	•	•
Check operation of windscreen washer system, adjust spray jets	•	•	•	•	•	•	•	•	•
Check position/wear of windscreen/rearscreen wiper blades	•	•	•	•	•	•	•	•	•
Check operation of front disk brake pad wear indicator	•	•	•	•	•	•	•	•	•
Check wear conditions of rear disk brake pads		•		•		•		•	
Sight check the conditions of: body exterior, underbody protection, stiff pipes and hoses (exhaust - fuel supply - brakes), rubber parts (boots - sleeves - bushes etc)	•	•	•	•	•	•	•	•	•
Check for bonnet and boot lock cleanness, lever cleanness and lubrication	•	•	•	•	•	•	•	•	•
Sight check for accessory poly-V drive belt			•						•
Check handbrake lever stroke adjustment		•		•		•		•	
Check antievaporation system				•				•	
Change air cleaner cartridge		•		•		•		•	
Top up fluid levels (engine coolant, brakes, windscreen washer, battery, etc)	•	•	•	•	•	•	•	•	•
Check and if necessary top up the Selespeed automatic transmission oil level	•	•	•	•	•	•	•	•	•
Sight check for conditions of timing gear drive toothed belt			•						•

Thousands of km	20	40	60	80	100	120	140	160	180
Change timing gear drive belt (*)						•			
Change accessory Poly-V drive belt						•			
Change spark plugs			•			•			•
Check operation of engine control system (through diagnosis socket)		•		•		•		•	
Check mechanical transmission and differential oil level				•				•	
Change engine oil	•	•	•	•	•	•	•	•	•
Change engine oil filter	•	•	•	•	•	•	•	•	•
Change brake fluid (or every 2 years)			•			•			•
Change pollen filer (or once a year)	•	•	•	•	•	•	•	•	•
Check emissions/smoke at the exhaust		•		•		•		•	

<sup>(\*)</sup> Or every 3 years for harsh conditions (cold climates, city driving or prolonged lengths of time at idle speed, dusty areas) Or every 5 years, regardless of mileage.

# ANNUAL INSPECTION PROGRAMME

For cars with an annual mileage of below 20,000 km (for example about 10,000 km) the following yearly inspection programme is advised:

- Check tyre conditions/wear and if necessary adjust the pressure
- Check operation of lighting system (headlights, direction indicators, hazard warning lights, boot, passenger compartment, glovebox lights, warning lights)
- Check operation of windscreen wiper system, spray jet adjustment
- Check position/wear of windscreen/ rearscreen wiper blades
- Check front disk brake pad conditions and wear
- Check for bonnet and boot lock cleanness, lever cleanness and lubrication

- Sight check for conditions of: engine, gearbox, transmission, pipes (exhaust fuel supply brakes) rubber parts (boots sleeves bushes etc..), brake and fuel supply system hoses
- Check battery charge
- Sight check for conditions of various drive belts
- Check and if necessary top up fluid levels (engine coolant, brakes, windscreen washer, battery, etc...)
- Change engine oil
- Change engine oil filter
- Change pollen filter.

# **ADDITIONAL OPERATIONS**

Every **1000 km** or before long journeys, check and if necessary top up:

- engine coolant fluid level
- brake/hydraulic clutch control fluid level
- power steering fluid level
- windscreen/rearscreen and headlamp washer fluid level
- tyre pressure and conditions.

Every **3000 km** check and if necessary top up the engine oil level.

The use of products of the **FL Selenia** is recommended which have been designed and made expressly for Alfa Romeo cars (see "Refuelling" in the "Technical Specifications" chapter).

# IMPORTANT Engine oil

Should prevailing use of the car be under one of the following specially heavy conditions:

- trailer or caravan towing
- dusty roads
- frequently idling engines or long distance low speed driving or in case of a long term inactivity
- short distances (less than 7-8 km) repeated and with external temperatures below zero replace engine oil more frequently than required on Service Schedule.

## IMPORTANT Air cleaner

Using the car on dusty roads change the air cleaner more frequently than specified in the Scheduled Maintenance Programme.

For any doubts concerning the intervals between engine oil and air cleaner replacement in relation to how the vehicle is used, contact Alfa Romeo Authorised Services.

## IMPORTANT Battery

It is advisable to check the battery charge, preferably at the onset of winter, to prevent the possibility of the electrolyte freezing.

This check should be carried out more frequently if the car is used mainly for short trips, or if it is fitted with accessories that permanently absorb electricity even with the ignition key removed, especially in the case of after market accessories.

If the vehicle is used in hot climates or particularly harsh conditions it is wise to check the level of the battery fluid (electrolyte) more frequently than specified in the Scheduled Maintenance Programme.

#### IMPORTANT Pollen filter

If the vehicle is used frequently in dusty or heavily polluted environments it is advisable to replace the filtering element more frequently; in particular it should be replaced if a reduction of the amount of air admitted to the passenger compartment is noted.



Vehicle maintenance should be entrusted to Alfa Romeo Authorised Services. For

routine and minor maintenance operations you wish to carry out yourself, always make sure you have the proper equipment, genuine Alfa Romeo spares and the necessary fluids;do not however carry out these operations if you have no experience.

# **CHECKING LEVELS**

Never smoke while working in the engine compartment; gas and inflammable vapours may be present, with the risk of fire.

When topping up take care not to confuse the various types of fluids: they are all incompatible with one another and could seriously damage the vehicle.

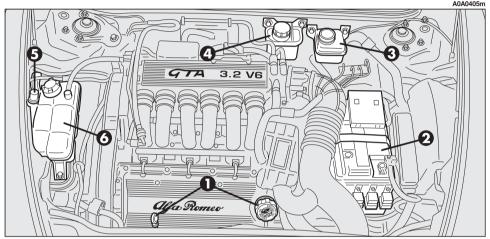


fig. 1

1 Engine oil - 2 Battery - 3 Brake fluid - 4 Power steering fluid - 5 Windscreen/rearscreen/head-lamp washer fluid - 6 Engine coolant fluid

# **ENGINE OIL** (fig. 3)

The engine oil should be checked with the vehicle on a level surface a few minutes (about 5) after the engine has been switched off.

Remove the dipstick (A) clean it, put it back in completely, remove it and check that the level is within the MIN and MAX marks on the dipstick. The interval between the MIN and MAX marks corresponds to about one litre of oil.

### WARNING

When the engine is hot, take care when working inside the engine compartment to avoid burns. Remember that when the engine is hot, the fan may cut in: danger of injury.

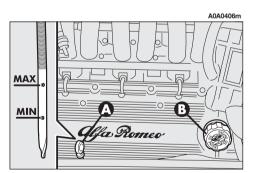
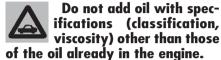


fig. 3



If the oil level is near or even below the **MIN** mark, add oil through the filler neck **(B)**, until reaching the **MAX** mark.

**IMPORTANT** If a routine check reveals that the level is above the **MAX** mark, contact Alfa Romeo Authorised Services to have the correct level restored.

**IMPORTANT** After topping up the oil, before checking the level again, run the engine a few seconds and wait for a few minutes after stopping it.

# **Engine oil consumption**

Max engine oil consumption is usually 400 grams every 1000 km.

During the initial period of use the engine settles, therefore engine oil consumption may be considered stabilised only after the first  $5000 \div 6000$  km.

**IMPORTANT** Engine oil consumption depends on the way of driving and the conditions of use of the vehicle.

Used engine oil and filter contain harmful substances for the environment. Contact Alfa Romeo Authorised Services, to have the oil and filter changed as they are equipped to dispose of the waste oil and filters respecting nature and the law.

# **SELESPEED TRANSMISSION OIL** (fig. 4)

The Selespeed transmission oil should be checked with the vehicle on a level surface and with the engine stopped and cold.

To check the level, proceed as follows:

- turn the ignition key to **MAR**;
- disconnect the breather tube and remove the cap (A) checking that the level corresponds with the MAX mark on the dipstick integrated with the cap;

- if the oil is below the **MAX** mark, top up to reach the correct level;
- after refitting the cap, insert the breather tube firmly on the housing on the cap and turn the ignition key to **STOP**.

WARNING

Be very careful working inside the engine compartment if the engine is hot: danger of burns. Remember that the fan may cut in if the engine is very hot: danger of injury.

Used gearbox oil contains dangerous substances for the environment. For changing the oil we advise contacting Alfa Romeo Authorised Services who are equipped for disposing of used oil respecting nature and the law.



Do not add oil with specifications other than that already in the gearbox.

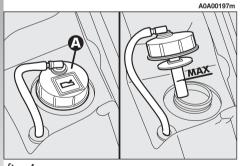


fig. 4

## **ENGINE COOLANT FLUID** (fig. 5)



#### WARNING

Do not remove the cap when the engine is hot: danger of burns.

The level of the coolant in the header tank (reservoir) should be checked with the engine cold and the car on a level surface and it should be between the MIN and MAX marks on the tank.

If the level is low, loosen the header tank cap (A) and slowly pour a mixture of the fluid specified in the "Fluids and lubricants" table in section "Technical Specifications", through the filler neck until nearing the MAX mark: have this operation carried out at Alfa Romeo Authorised Services.

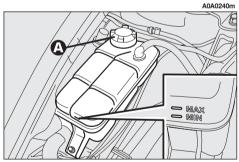


fig. 5

The antifreeze mixture contained in the cooling circuit guarantees protection down to —40°C



The cooling system is pressurised. If necessary, replace the cap only with

another genuine one, otherwise system efficiency could be compromised.



Top up only with the same fluid contained in the cooling circuit. PARAFLU UP

(red) cannot be mixed with PARAFLU 11 (blue) or with other fluids. Should this take place, do not start the engine and contact Alfa Romeo Authorized Service.

# **POWER STEERING FLUID** (fig. 6)

Check that the level of the oil in the reservoir is at maximum.

This operation should be carried out with the vehicle on a level surface and the enaine switched off and cold.

Check that the level reaches the MAX mark on the reservoir or coincides with the upper notch (maximum level) on the dipstick (A) integral with the reservoir cap.

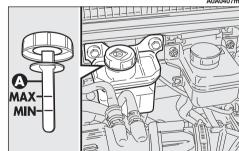


fig. 6

If the oil level in the reservoir is below the specified one, top up only with one of the products listed in the "Fluids and lubricants" table in the "Technical Specifications" chapter proceeding as follows.

- Start the engine and wait for the oil level in the reservoir to stabilise.
- With the engine running, turn the steering wheel lock to lock a few times.
- Top up to the  $\mathbf{MAX}$  level notch, then refit the cap.

# WARNING

Do not allow the power steering fluid to touch hot parts of the engine: it is inflammable.

# BRAKE AND HYDRAULIC CLUTCH FLUID (fig. 7)

Slacken the cap (**A**) and check that the fluid contained in the reservoir reaches the maximum mark.

Oil consumption is very low, if topping up again is needed shortly afterwards, have the system checked for possible leaks by Alfa Romeo Authorised Services.

When loosening the reservoir cap do not allow the fluid to come into contact with painted parts. If it does, wash it off immediately with water.

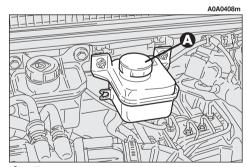


fig. 7

## WARNING

Brake and clutch fluid is poisonous and highly corrosive. In the event of accidental contact, wash the parts concerned immediately with neutral soap and water, then rinse thoroughly. See a doctor at once if the fluid is swallowed.

#### WARNING

The symbol on the container indicates synthetic brake fluid, distinguishing it from the mineral kind. Using mineral fluids irreversibly damages the special braking system rubber seals.

**IMPORTANT** Brake and hydraulic clutch fluid is hygroscopic (i.e. it absorbs moisture). For this reason, if the car is mainly used in areas with a high degree of atmospheric humidity, the fluid should be replaced at more frequent intervals than specified in the Scheduled Maintenance Programme.

# WINDSCREEN/REARSCREEN/ **HEADLIGHT WASHER FLUID** (fig. 8)

Open the cap (A) and check the level in the reservoir.

If necessary top up using a mixture of water and TUTELA PROFESSIONAL SC 35 fluid as follows:

- 30% of TUTELA PROFESSIONAL **SC 35** and 70% water in summer;
- 50% of TUTELA PROFESSIONAL **SC 35** and 50% water in winter;
- in the case of temperatures below -20°C use TUTELA PROFESSIONAL SC 35 fluid neat.

## WARNING

Some commercial additives for windscreen washers are inflammable. The engine compartment contains hot components which may set it on fire.

# WARNING

Do not travel with the windscreen washer reservoir empty: the action of the windscreen washer is fundamental for improvina vision.



To avoid damaging the pump motor, do not use the windscreen/rearscreen washers when the reservoir is empty.

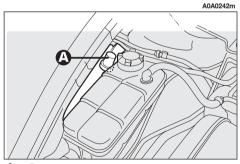


fig. 8

It must therefore always be in perfect conditions, to ensure correct operation of the engine, low consumption and exhaust emission levels.



If the operations concerning cleaner replacement are not carried out correct-

ly and with the due precautions, they may compromise the travelling safety of the vehicle. You are recommended to have this operation carried out by Alfa Romeo Authorised Services.



If the car is habitually used in dusty areas, the cleaner should be replaced at shorter intervals than those specified in the Programmed Maintenance Schedule.



Any attempt to clean the cleaner may damage it, leading to serious engine damage.

## **POLLEN FILTER**

This has a mechanical/electrostatic air filtering action, provided that the windows and doors are shut.

Have the dust/pollen filter checked once a year by Alfa Romeo Authorised Services, preferably at the onset of summer.

If the car is mainly used in dusty or heavily polluted areas, the filter should be changed at more frequent intervals than specified in the Scheduled Maintenance Proaramme.

**IMPORTANT** The failure to replace the pollen filter can considerably reduce the effectiveness of the climate control system.

# **BATTERY**

The battery is of the "Limited Maintenance" type and is fitted with an optical indicator (**A-fig. 9**) for checking the electrolyte level and charge.

Under normal conditions of use the electrolyte does not need topping up with distilled water. To make sure that it is in efficient conditions, at routine intervals check the indicator on the battery cover which should be dark in colour with a green central area.

If the indicator is a bright light colour, or dark without the green central area, contact Alfa Romeo Authorised Services.

Batteries contain harmful substances for the environment. To change the battery we advise contacting Alfa Romeo Authorised Services who are equipped for disposal respecting nature and the law.

WARNING
When working on the bat-

tery or near to it, always protect the eyes with goggles.

The incorrect installation of electric accessories may cause serious damage to the vehicle. If after buying the car you wish to install accessories (alarm, radio, radiotelephone etc.) contact Alfa Romeo Authorised Services who will be able to suggest the most suitable devices and above all advise about the need to use a more powerful battery.

WARNING
The liquid contained in the

battery is poisonous and corrosive. Avoid contact with the skin or eyes. The battery should be charged in a well ventilated place away from naked flames or possible sources of sparks: danger of explosion and fire.

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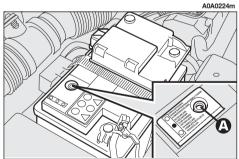


fig. 9

If the car is to remain inactive for a long time in very cold conditions, remove the battery and take it to a warm place, otherwise it may freeze.

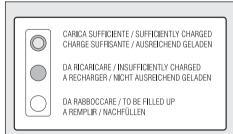


fig. 10 **233** 

# WARNING Working with a low fluid level may damage the battery irreversibly, even causing it to burst.

#### **CHECKING THE CHARGE**

The battery charge may be checked satisfactorily using the indicator, and acting according to the colour the indicator shows.

Refer to the table below or to the label (**fig. 10**) on the battery itself.

#### CHARGING THE BATTERY

**IMPORTANT** The battery charging procedure is described only for information purposes. This operation should be carried out by Alfa Romeo Authorised Services.

Charging should be slow at a low amp rating for 24 hours. Charging for a longer time may damage the battery.

Charge the battery as follows:

- Disconnect the battery negative terminal (—).
- Connect the charger cables to the battery terminals ensuring that the bias is cor-
- Turn on the charger.

- After charging, turn off the charger before disconnecting it from the battery.
- Re-connect the battery negative terminal (—).



## WARNING

Never attempt to charge a frozen battery: it must firstly be thawed, otherwise it may burst. If freezing has occurred, the battery should be checked before charging by specialised personnel, to make sure that the internal elements are not damaged and that the body is not cracked, with the risk of leaking poisonous and corrosive acid.

Brilliant white colour	Top up the electrolyte	Contact Authorised Alfa Romeo Services		
Dark colour without green area in the centre	Low charge level	Charge the battery (you are advised to contact Alfa Romeo Authorised Services)		
Dark colour with green area in the centre	Sufficient electrolyte level and charge	No action		

**IMPORTANT** If the battery is kept with a charge of below 50% it is damaged by sulphation, its starting capability is reduced and it is also more subject to the possibility of freezing (this may occur already at -10 °C). In the event of prolonged inactivity, refer to the paragraph "Vehicle inactivity", in the chapter "Correct use of the car".

#### **CHANGING THE BATTERY**

When changing the battery it should be replaced with another original one with the same characteristics. If it is replaced by a battery with different characteristics, the maintenance intervals given in the Scheduled Maintenance Programme in this chapter are no longer valid and for maintenance it will be necessary to follow the battery Manufacturer's instructions.

# USEFUL HINTS TO EXTEND THE LIFE OF YOUR BATTERY

To avoid rapidly draining the battery and ensure that it continues to work correctly, the following should be noted:

- The terminals must always be firmly tightened.
- Within reason, avoid using electrical devices for a long time when the engine is switched off (radio, hazard warning lights, parking lights, etc.).

- When the vehicle is parked in a garage, ensure that the doors, bonnet, boot and inner lids are closed properly so that the lights do not stay on permanently.
- Before carrying out any work on the electric system, disconnect the negative cable from the battery.
- If after buying the car, you wish to install electric accessories which require a permanent electric supply (alarm, voice feature, radionavigator with satellite antitheft function etc.) or accessories that burden the electric system, contact Alfa Romeo Authorised services whose qualified personnel, in addition to suggesting the most suitable devices belonging to Lineaccessori Alfa Romeo, will evaluate the overall electric absorption. checking whether the vehicle's electric system is capable of withstanding the load required, or whether it should be integrated with a more powerful battery. In fact, as some of these devices continue absorbing energy even when the ignition kev is off (car stationary, engine off), they gradually drain the battery.

The maximum absorption of all the accessories (standard and fitted afterwards) should be  $0.6 \text{ mA} \times \text{Ah}$  (of the battery), as shown in the following table:

Battery	Maximum permissible loadless absorption
60 Ah	36 mA
70 Ah	42 mA

You are also reminded that services with high current absorption switched on by the user, such as for example: baby bottle warmers, vacuum cleaner, mobile phone, mini fridge, etc., quicken the battery draining process if they are turned on with the engine off or running at idle speed.

**IMPORTANT** When installing additional systems on the vehicle, bear in mind that improper branches on connections of the vehicle wiring are dangerous, particularly if safety devices are involved.

# ELECTRONIC CONTROL UNITS

With normal use of the vehicle. no particular precautions need to be taken.

In the event of work on the electric system or emergency starting, the instructions given below must absolutely be adhered to:

- Always switch off the engine before disconnecting the battery from the electric system.
- If it is necessary to charge the battery, always disconnect it from the electric system.
- When starting in an emergency, only use an auxiliary battery and not a battery charger.
- Check that the bias is correct and that the connections between the battery and the electric system are in efficient conditions.
- Before disconnecting or connecting the terminals of electronic units, ensure that the ignition key is not in the MAR position.

- Do not check for current in the cables by short-circuiting the ends.
- If electric welding is to be carried out on the body, remember to disconnect the electronic control units, or remove them if the work involves high temperatures.

WARNING
Alterations or repairs to

the electric system carried out incorrectly and without taking account of the specifications of the system, may cause operating faults with the risk of fire.

# WHEELS AND TYRES

#### TYRE PRESSURE

Check the tyre pressure of every wheel, including the spare.

The pressure should be checked with the tyre rested and cold.

It is normal for the pressure to increase when the car is in use. Should it become necessary to restore the pressure with the tyre hot, bear in mind that the pressure should be +0.3 bar compared with the specified rating.

For the correct tyre inflation pressure, see wheels in the "Technical Specifications" chapter.

Remembe

WARNING

Remember that vehicle road holding also depends on correct tyre inflation pressure.

Incorrect pressure causes abnormal tyre wear (**fig. 11**):

A - Normal pressure: tread evenly worn.

**B** - Low pressure: tread particularly worn at the edges.

**C** - High pressure: tread particularly worn in the centre.



Excessively low pressure causes overheating of the tyre with the possibility of serious damage to it.

Tyres should be changed when the tread thickness is reduced to 1.6 mm. In any case follow local regulations.

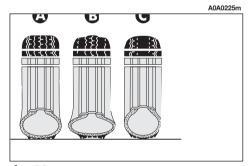


fig. 11

## **IMPORTANT**

Where possible, avoid suddent braking, tyre squealing starts, etc.

Particularly avoid violent bumps against kerbs, potholes or obstacles of various kinds. Prolonged driving on rough roads may damage the tyres. Routinely check the tyres for cuts on the sides, swellings or uneven tread wear. If necessary contact Alfa Romeo Authorised Services.

Avoid overloading the vehicle when travelling: this may cause serious damage to the wheels and tyres.

If a tyre is punctured, stop immediately and change it to avoid damage to the tyre itself, the rim, suspensions and steering system. Tyres age even if they are not used much. Cracks in the tread rubber are a sign of aging. In any case, if the tyres have been on the vehicle for over 6 years, they should be checked by specialised personnel, to see if they can still be used.

In the case of replacement, always fit new tyres, avoiding those of dubious origin.

The **Alfa 147 GTA** uses Tubeless tyres. Never use an inner tube with these tyres.

If a tyre is changed, also change the inflation valve.

To allow even wear between the front and rear tyres it is advisable to change over every 10-15 thousand kilometres, keeping them on the same side of the car so as not to reverse the direction of rotation (**fig. 12**).

A0A0459m

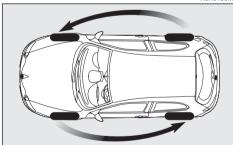


fig. 12

## WARNING

Do not cross switch the tyres, moving them from the right of the car to the left and vice versa.



#### WARNING

Alloy rim painting involving temperatures exceeding 150°C should be avoided since wheel mechanical characteristics could be impaired.

## RUBBER HOSES

As far as the brake system and fuel supply rubber hoses are concerned, carefully follow the Scheduled Maintenance Programme of this chapter. Indeed, ozone, high temperatures and the prolonged lack of fluid in the system may cause hardening and cracking of the hoses, with possible leaks. Careful control is therefore necessary.

# WINDSCREEN/ REARSCREEN WIPERS

#### **BLADES**

Periodically clean the rubber part using special products; TUTELA PROFESSIONAL **SC 35** is recommended.

If the rubber blades are bent or worn they should be replaced. In any case they should be changed once a year.

A few simple notions can reduce the possibility of damage to the blades:

- If the temperature falls below zero, make sure that ice has not frozen the rubber against the glass. If necessary, thaw using an antifreeze product.
- Remove any snow from the glass: in addition to protecting the blades, this prevents effort on the motor and overheating.
- Do not operate the windscreen and rearscreen wipers on dry glass.

# Driving with worn wiper blades is a serious hazard, because visibility is reduced in bad weather.

# Changing the windscreen wiper blade (fig. 13)

# Instructions for removing the windscreen wiper blade

Proceed as follows:

fig. 13

- raise the windscreen wiper arm (A);
- turn blade (**B**)  $90^{\circ}$  around pin (**C**), set at the end of the arm:
- remove the blade from pin (**C**).

# Instructions for refitting the windscreen wiper blade

To refit the blade proceed as follows:

- fit pin ( $\mathbf{C}$ ) into the hole located at the middle of the blade ( $\mathbf{B}$ );
- place the arm with the blade on the windscreen.

# Changing the rearscreen blade (fig. 14)

- Raise the cover ( $\bf A$ ) and remove the arm from the car, slackening the nut ( $\bf B$ ) that fastens it to the pivot pin.
- Correctly position the new arm and firmly tighten the nut.
- Lower the cover.

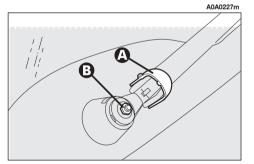


fig. 14

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## **SPRAY JETS** (fig. 15-16)

If the jet of fluid is inadequate, firstly check that there is fluid in the reservoir: see "Checking levels" in this chapter.

Then check that the nozzle holes are not clogged, if necessary use a needle.

If necessary, direct the jet of fluid working on the adjustment screw (A).

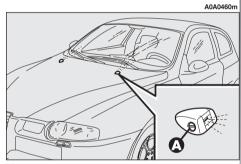


fig. 15

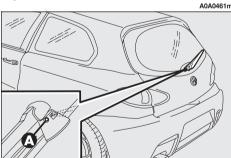


fig. 16

# **HEADLIGHT WASHERS**

Regularly check that the spray jets are intact and clean (**fig. 17**).

If it is necessary to direct the jet, contact an Alfa Romeo Authorised Service.

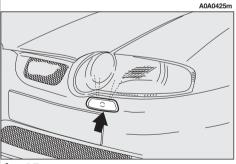


fig. 17

## **BODYWORK**

# PROTECTION FROM ATMOSPHERIC AGENTS

The main causes of corrosion are:

- atmospheric pollution
- salty air and humidity (coastal areas, or hot humid climates)
- seasonal environment conditions.

Not to be underestimated is also the abrasive action of wind-borne atmospheric dust and sand and mud and gravel raised by other vehicles.

On your **Alfa 147 GTA**, Alfa Romeo has implemented the best manufacturing technologies to effectively protect the bodywork against corrosion.

These include:

- Painting products and systems which give the vehicle particular resistance to corrosion and abrasion.
- Use of galvanised (or pretreated) steel sheets, with high resistance to corrosion.
- Spraying the underbody, engine compartment, wheel arches and other parts with highly protective wax products.

- Spraying of plastic parts, with a protective function, in the more exposed points: underdoor, inner wheel arch linings, etc.
- Use of "open" boxed sections to prevent condensation and pockets of moisture from triggering rust inside.

# VEHICLE EXTERIOR AND UNDERBODY WARRANTY

The **Alfa 147 GTA** is guaranteed against perf oration due to rust of any original element of the structure or body. For the general terms of this warranty, refer to the Warranty Booklet.

# 241

# ADVICE FOR PRESERVING THE BODYWORK

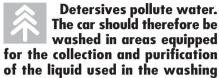
#### **Paint**

The paintwork does not only serve an aesthetic purpose but also protects the underlying sheet metal.

In the case of deep scrapes or scores, you are advised to have the necessary touching up carried out immediately to avoid the formation of rust.

Only original products should be used for touching up paint (see "Body paint identification plate" in the "Technical Specifications" chapter).

Normal paint maintenance consists in washing at intervals depending on the conditions and environment of use. For example, in highly polluted areas, or if the roads are sprayed with salt, it is wise to wash the car more frequently.



To correctly wash the car:

process.

- 1) Remove the aerial from the roof to prevent damage to it if the car is washed in an automatic system.
- 2) Spray the vehicle with a low pressure iet of water.
- 3) Pass a sponge moistened with a light detergent solution, rinsing the sponge frequently.
- 4) Rinse well with water and dry with a jet of air or chamois leather.

When drying, take particular care with the less visible parts like door surrounds, bonnet and around the headlights where water may stagnate. The vehicle should not be taken to a closed area immediately, but left in the open so that residual water can evaporate.

Do not wash the vehicle after it has been left in the sun or with the bonnet hot: this may alter the shine of the paintwork.

Exterior plastic parts must be cleaned in the same way as the rest of the vehicle.

Where possible, do not park under trees; the resinous substance many species release give the paint a dull appearance and increase the possibility of triggering rust processes.

**IMPORTANT** Bird droppings must be washed off immediately and thoroughly as the acid they contain is particularly aggressive.

#### Windows

Use specific products to clean the windows. Use clean cloths to avoid scratching or altering the transparency of the glass.

**IMPORTANT** The inside of the rearscreen should be wiped gently with a cloth in the direction of the filaments to avoid damaging the heating device.

### **Engine compartment**

At the end of the winter the engine compartment should be carefully washed, without directing the jet against electronic control units. Contact a specialised workshop to have this done.

Detergents cause water pollution. Therefore the engine compartment should be washed in areas equipped for collecting and purifying the liquid used in the washing process.

**IMPORTANT** The vehicle should washed with the engine cold and the ignition key at **STOP**. After washing make sure that the various protections (e.g. rubber caps and various covers) have not been damaged or removed.

# **INTERIOR FITTINGS**

Periodically check that water is not trapped under the mats (due to water dripping off shoes, umbrellas, etc.) which could cause oxidisation of the sheet metal.

#### WARNING

Never use inflammable products like fuel oil ether or rectified petrol for cleaning inside the car. The electrostatic charges generated when rubbing to clean may cause fire.

# CLEANING SEATS AND FABRIC AND VELVET PARTS

- Use a soft brush or vacuum cleaner to remove dust. Velvet is cleaned better if the brush is moistened.
- Rub the seats with a sponge moistened with a solution of water and neutral deteraent.

#### **CLEANING LEATHER SEATS**

- Remove dried on dirt with a lightly moistened chamois leather or cloth without pressing too hard.
- Remove liquid and grease stains with a dry absorbent cloth without rubbing. Then wipe with a soft cloth or chamois leather with water and neutral soap. If the stain persists, use specific products, carefully following the instructions for use.

**IMPORTANT** Never use alcohol. Make sure that cleaning products do not contain alcohol and alcohol derivatives even at low strength.

#### **INTERIOR PLASTIC PARTS**

Use appropriate products designed to preserve the appearance of components.

**IMPORTANT** Never use spirit or petroleum to clean the instrument cluster.

 $\triangle$ 

# WARNING

Do not keep aerosol cans in the car. They might explode. Aerosol cans must never be exposed to a temperature above 50°C. The temperature inside the car exposed to the sun may go well beyond that figure.

# TECHNICAL SPECIFICATIONS

# IDENTIFICATION DATA

You are advised to note the identification codes. The identification data stamped and given on the labels and their position are the following (**fig. 1**):

- 1 Identification label
- 2 Body label
- **3** Bodywork paint identification label
- **4** Engine label.

# IDENTIFICATION LABEL

This (**fig. 2**) is to be found on the front cross member of the engine compartment.

It contains the following information:

- (A) Space for details of national homologation
- **(B)** Space for punching the consecutive chassis number
- (C) Space available for maximum weights authorised by various national regulations
- **(D)** Space for version and any supplementary indications to those specified

- **(E)** Space for smoke coefficient (Diesel versions)
- **(F)** Space for punching manufacturer's name.

#### **BODYWORK LABEL**

This is located in the engine bay, to one side of the upper right shock absorber (**fig. 3**) and contains:

- Type of vehicle: ZAR 937.000
- Manufacturer's serial number (chassis number).

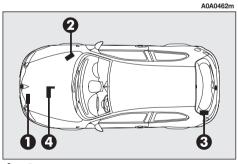


fig. 1

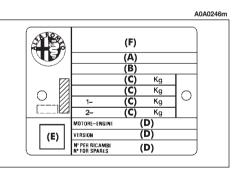


fig. 2

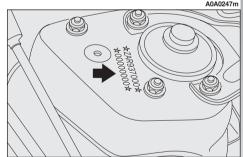


fig. 3

# BODYWORK PAINT IDENTIFICATION LABEL

The label (**fig. 4**) is on the inner left edge of the tailgate. It contains the following information:

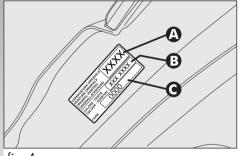
- **A**. Paint manufacturer.
- **B**. Name of colour.
- **C**. Colour code.

## **ENGINE STAMP**

The engine marking is stamped on the gearbox side of the crankcase, in correspondence with the exhaust manifold.

# **ENGINE CODES - BODY VERSIONS**

	Engine code	Body versions
3.2 V6 24V	932A000	937AXL1B 16C
3.2 V6 24V Selespeed	932A000	937AXL11 17C



A0A0248m

**244** fig. 4

# **ENGINE**

		3.2 V6 24V	3.2 V6 24V Selespeed
Code type		932A000	932A000
Cycle		Otto	Otto
Number and position of cylinders		6 in 60° V	6 in 60° V
Piston bore and stroke	mm	93 x 78	93 x 78
Total displacement	cm³	3179	3179
Maximum horsepower (EEC):	kW HP rpm	184 250 6200	184 250 6200
Maximum torque (EEC):	Nm kgm rpm	300 30.6 4800	300 30.6 4800
Spark plugs		NGK R PFR6B	NGK R PFR6B
Fuel		Unleaded petrol 95 RON (Specification EN228)	Unleaded petrol 95 RON (Specification EN228)

# **FUEL SUPPLY**

	3.2 V6 24V	3.2 V6 24V Selespeed
Supply	Electronic injection Multi Point	Electronic injection Multi Point
Firing order	1-4-2-5-3-6	1-4-2-5-3-6



# WARNING

Alterations or repairs to the supply system not carried out correctly or without taking account of the technical specifications of the system, may cause abnormal functioning with the risk of fire.

# **TRANSMISSION**

	3.2 V6 24V	3.2 V6 24V Selespeed			
Gearbox	Six forward gears plus reverse all synchronised	Six forward gears plus reverse with electronic control			
Clutch	Dry single disk with hydraulic control	Dry single disk with electrohydraulic control			
Drive	Front	Front			

If examined by an expert eye, the appearance of a spark plug is a sound clue for locating a fault, even if not involving the ignition system. Therefore if you are experiencing any engine problems, it is important to have the spark plugs checked by Alfa Romeo Authorized Services.



Spark plugs should be replaced at the intervals specified in the Scheduled

maintenance programme. Only use spark plugs of the specified type: if the thermal capacity is inadequate or if the envisaged life is not guaranteed inconveniences may ensue.

## **BRAKES**

		3.2 V6 24V - 3.2 V6 24V Selespeed
Service brakes:	— front	Disk self-ventilated
	— rear	Disk
		Wheel anti-look system (ABS) with electronic braking distribution. Servo-brake. Electronic control with brake pad wear sensors. Gaskets of ecological type.
Parking brake		Controlled by hand lever operating rear brakes.

# **STEERING**

	3.2 V6 24V	3.2 V6 24V Selespeed
Туре	Rack and Hydraulic power steering with fluid	pinion. reservoir in engine compartment
Turning radius (between pavements)	12.1 m	12.1 m

# **WHEELS**

	3.2 V6 24V - 3.2 V6 24V Selespeed
Standard fittings	
Rims	7,5J x 17"
Tyres	225/45 ZR17" 91Y (unchainable tyres)
Optional items	
Rims	8J x 18″
Tyres	235/35 R18" 90Y (▼) (unchainable tyres) 215/45 R17" 87W (*) 215/45 ZR17" 87W (*)
Winter tyres	225/45 ZR17" 91Q (M+S) (unchainable tyres)

<sup>(\*)</sup> **IMPORTANT** Chainable tyres; see paragraph "Snow chains" in section "Correct use of the car".

## **TYRES INFLATION PRESSURES COLD**

		Tyres 225/45 ZR17" 91Y				Tyr 215/45 R		Tyres 215/45 ZR17" 87W		
		front	rear	front	rear	front	rear	front	rear	
Reduced load (2 occupants)	bar	2.5	2.3	2.5	2.3	2.5	2.3	2.5	2.3	
Full load	bar	2.8	2.6	2.8	2.6	2.8	2.6	2.8	2.6	

With the tyre hot the inflating pressure should be +0.3 bar compared with the specified rating. Recheck pressure value with cold tyres. With winter tyres the inflation pressure should be +0.2 bar compared with the specified rating.

<sup>(</sup>**V**) Size certified and admitted only for YOKOHAMA.

#### **RIMS AND TYRES**

Alloy rims.

Radial Tubeless tyres.

The Log book shows all the homologated tyres.

**IMPORTANT** In the event of any discrepancies between this Handbook and the vehicle Log Book, only the latter should be considered.

While the specified dimensions remain the same, for driving safety, the vehicle must be fitted with tyres of the same brand and type on all wheels.

**IMPORTANT** Do not use inner tubes with Tubeless tyres.

# **CORRECT TYRE READING** (fig. 5)

Below are the instructions necessary to know the meaning of the code stamped on the tyre.

The code may be like one of the examples given below.

# Example: **225/45 ZR17 91Y**

**225** = Nominal width (**S**, distance in mm between sides).

**45** = Percentage height/width ratio (**H/S**).

**ZR** = Radial tyre with speed above 240 kph.

**17** = Rim diameter in inches  $(\emptyset)$ .

**91** = Load index (capacity).

 $\mathbf{Y}$  = Maximum speed index.

# Load index (capacity)

<b>84</b> = 500 kg
<b>85</b> = 515 kg
<b>86</b> = 530 kg
<b>87</b> = 545 kg
<b>88</b> = 560 kg
<b>89</b> = 580 kg
<b>90</b> = 600 kg
<b>91</b> = 615 kg
<b>92</b> = 630 kg
<b>93</b> = 650 kg
<b>94</b> = 670 kg
<b>95</b> = 690 kg
<b>96</b> = 710 kg
<b>97</b> = 730 kg
<b>98</b> = 750 kg
<b>99</b> = 775 kg
<b>100</b> = 800 kg
<b>101</b> = 825 kg
<b>102</b> = 850 kg
<b>103</b> = 875 kg
<b>104</b> = 900 kg
<b>105</b> = 925 kg
<b>106</b> = 950 kg

# Maximum speed index

 $\mathbf{Q} = \text{up to } 160 \text{ km/h}$ 

 $\mathbf{R} = \text{up to } 170 \text{ km/h}$ 

 $\mathbf{S} = \text{up to } 180 \text{ km/h}$ 

T = up to 190 km/h

U = up to 200 km/h

 $\mathbf{H} = \text{up to } 210 \text{ km/h}$ 

 $\mathbf{V} = \mathbf{up} \text{ to } 240 \text{ km/h}$ 

 $\mathbf{W} = \text{up to } 270 \text{ km/h}$ 

 $\mathbf{Y} = \text{up to } 300 \text{ km/h}$ 

# Maximum speed index for snow tyres

 $\mathbf{Q} \mathbf{M} + \mathbf{S} = \text{up to } 160 \text{ km/h}$ 

T M + S = up to 190 km/h

 $\mathbf{H} \mathbf{M} + \mathbf{S} = \text{up to } 210 \text{ km/h}$ 

#### **CORRECT RIM READING**

Below are the instructions necessary to know the meaning of the code stamped on the rim, as shown in **fig. 5**.

Example:

7.5 J x 17 H2 ET 43

**7.5** = rim width in inches (1)

rim drop centre outline (side projection where the tyre bead rests(2)

17 = rim nominal diameter in inches (corresponds to diameter of the tyre to be mounted) (3 = 0)

**H2** = "hump" shape and number (relief on the circumference holding the Tubeless tyre bead on the rim)

**ET 43** = camber angle (distance between disk/rim line and wheel rim centre line)

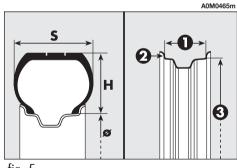


fig. 5

## WHEEL GEOMETRY

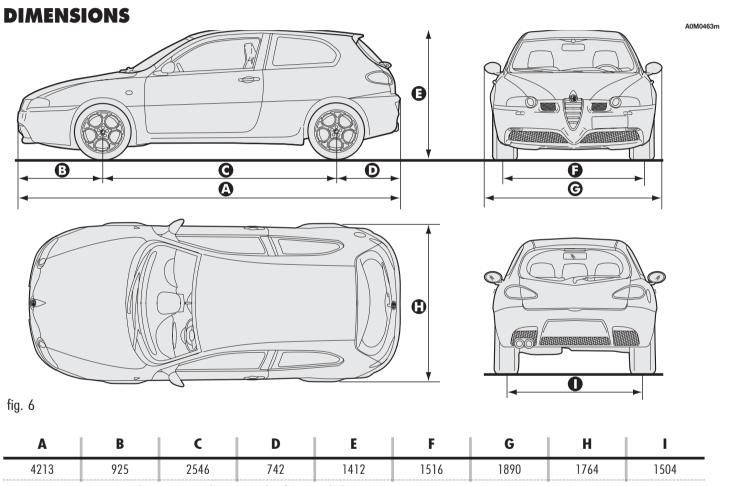
3.2 V6 24V - 3.2 V6 24V Selespee	d
----------------------------------	---

		3.2 vo 2+v 3.2 vo 2+v 3elespeeu
Front wheels:	— camber	- 0° 24´ ± 20´
	— caster	4° 6′ ± 30′
	— toe-in	−2 ± 0.6 mm (*) (−18 ± 5)
Rear wheels:	— camber	- 1° 12′ ± 20′
	— toe-in	+2.5 ± 1 mm (*) (23´ ± 9)

<sup>(\*)</sup> The toe-in value, primes to mm conversion, is always calculated taking into account a 15" rim regardless of rims actually used. Should it be impossible to set the 15" rim at the test bench, refer to primes value. The toe-in value, tolerance included, shall always be evenly distributed between the two wheels.

# **PERFORMANCE**

	3.2 V6 24V	3.2 V6 24V Selespeed
Maximum speed	246 km/h	246 km/h
Acceleration from 0-100 km/h	6.3 s	6.3 s
Kilometer with standing start	26.1 s	26.1 s



Dimensions are expressed in mm - Height indicated is for an unladen car

#### **LUGGAGE COMPARTMENT** - SALOON VERSIONS

		3.2 V6 24V	3.2 V6 24V Selespeed
Capacity	dm³	280	280
Capacity with rear seat back rest folded	dm³	1030	1030

#### WEIGHTS

		3.2 V6 24V	3.2 V6 24V Selespeed
Kerb weight	kg	1360	1360
Max. permitted weight (*)	kg	1880	1880
Payload including driver (**)	kg	520	520

(\*) Weight not to be exceeded. The Driver must arrange the goods in the luggage compartment and/or load surface so that they comply with these limits.

<sup>(\*\*)</sup> If special equipment is fitted (sunroof etc.) the unladen weight increases, thus reducing the payload as specified in the maximum weight allowed.

### REFILLING

		3.2 V6 24V	3.2 V6 24V Selespeed	Specified fuels Recommended products
Fuel tank: — including a reserve of	litres litres	63 7	63 7	Unleaded petrol with no less than 95 R.O.N (Specification EN228)
Engine cooling system	litres	9.2	9.2	Mixture of distilled water and <b>PARAFLU 11</b> (blue) at 50% or <b>PARAFLU UP</b> (red) at 50%
Oil sump and filter	litres	5.90	5.90	SELENIA RACING
Mechanical gearbox/ differential	litres	2	2	TUTELA CAR MATRYX
Selespeed hydraulic control system	litres	_	0.6	TUTELA CAR CS SPEED
Windscreen washer and rearscreen washer fluid reservoir: — with headlamp washer	litres litres	2.5 5.3	2.5 5.3	Mixture of water and liquid TUTELA PROFESSIONAL SC 35

#### **FLUIDS AND LUBRICANTS**

#### **USABLE PRODUCTS AND THEIR SPECIFICATIONS**

Use	Quality features of fluids and lubricants for correct vehicle operation	Recommended fluids and lubricants	Applications
Lubricants for petrol engines	SAE 10W-60 engine oil synthetic lubricant	SELENIA RACING	SAE 10W-60  SAE 10W-60  SAE 10W-60  - 45° - 40° - 30° 20° 10° 20° 20°

**IMPORTANT** Do not top up with oil with different specifications that the oil already in the engine.

Use	Quality features of fluids and lubricants for correct vehicle operation	Recommended fluids and lubricants	Applications
	SAE 75W-85 synthetic oil.  Meets API GL 4 and MIL-L-2105 D LEV specifications	TUTELA CAR MATRYX	Mechanical gearbox and differential
Lubricants and greases for transmissions	ATF DEXRON III type oil	TUTELA CAR CS SPEED	Selespeed transmission electrically-operated electrohydraulic drive
	"ATF DEXRON II D LEV", type oil	TUTELA GI/A	Hydraulic power steering
	Lithium-soap-based grease with molybdenum bisulphate. Consistency NLGI 2	TUTELA MRM 2	C.V. joints
Brake fluid	F.M.V.S.S. n° 116 DOT 4, ISO 4925, SAE J1704 CUNA NC 956-01 synthetic fluid	TUTELA CAR TOP 4 for Alfa Romeo	Hydraulic brake and clutch control
Protective agent for radiators	Protective with antifreeze action, blue color, based on inhibited monoethylene glycol, CUNA NC 956-16	PARAFLU 11 (*)	Cooling ducts
	Protective with antifreeze action, red colour, based on inhibited monoethylen glycol, with O.A.Tbased organic formula, that passes CUNA NC 956-16, ASTM D 3306 specifications	PARAFLU UP (*)	Percentage: 50% down to -35°C
Windscreen/ rearscreen/headlamp washer fluid	Mixture of spirits and surface-active agents CUNA NC 956-11	TUTELA PROFESSIONAL SC 35	To be used neat or diluted

<sup>(\*)</sup> **IMPORTANT** Do not add or mix with fluids with specifications other than the specified ones.

#### **FUEL CONSUMPTION**

The fuel consumption values shown in the following tables were established during homologation tests prescribed in specific European Directives.

The test conditions adopted include the following:

 an urban cycle: this includes cold starting followed by simulation of a mixed urban route;

- **an extraurban cycle**: this includes frequent accelerating in all gears, simulating normal extraurban use of the vehicle; the speed varies between 0 and 120 kph;
- **combined consumption**: this is calculated by considering a route consisting of about 37% urban cycle and 63% extraurban cycle.

WARNING The type of route, traffic conditions, weather conditions, driving style, conditions of the vehicle, trim level/equipment/accessories, vehicle load, presence of roof rack, use of the climate control system, other items that negatively affect the aerodynamics of the vehicle or wind resistance lead to different fuel consumption levels than those measured by the above-mentioned procedures (see "Reducing running costs and environment pollution" in the chapter "Correct use of the car").

#### CONSUMPTION ACCORDING TO EEC 1999/100/ (litres x 100 km)

	3.2 V6 24V	3.2 V6 24V Selespeed
Urban	18.1	18.1
Extraurban	8.6	8.6
Combined	12.1	12.1

## CO<sub>2</sub> EMISSIONS

The CO<sub>2</sub> emission levels shown in the following tables are measured on a mixed cycle.

### CO<sub>2</sub> EMISSIONS ACCORDING TO DIRECTIVE 1999/100/EC (g/km)

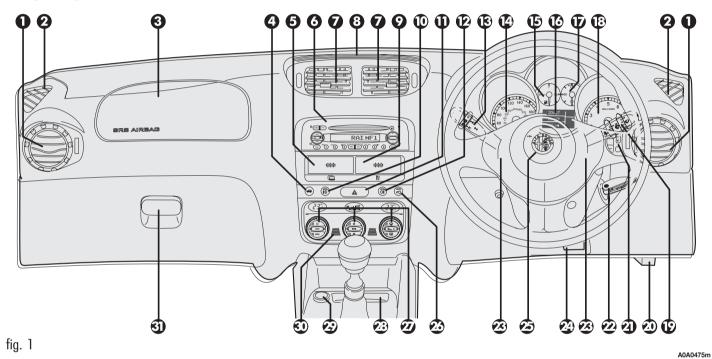
		3.2 V6 24V	3.2 V6 24V Selespeed
Value	(g/km)	287	287

## RIGHT HAND DRIVE VERSION

This chapter describes the main characteristics of the right hand drive version.

For any topic not specifically dealt with in this chapter, refer to the main chapters of this manual which should be thoroughly read to ensure that the vehicle is used correctly and that the maximum performance is obtained under conditions of safety.

#### **DASHBOARD**



1. Side swivel air vents - 2. Fixed side window air vents - 3. Passenger's front Air bag - 4. Tailgate release button - 5. Card holder - 6. Radio - 7. Centre swivel air vents - 8. Fixed upper vent - 9. Glass holder - 10. Fog lamp button - 11. Hazard warning light switch - 12. Rear fog guard button - 13. Outer light control lever - 14. Speedometer with mileage recorder and trip recorder and headlamp aiming display - 15. Fuel level gauge with reserve warning light - 16. Multifunction display - 17. Engine coolant fluid temperature gauge - 18. Rev counter - 19. Windscreen/rearscreen wiper control lever - 20. Bonnet opening lever - 21. Set of controls: trip meter reset, headlamp aiming device, trip computer - 22. Ignition key and switch - 23. Horn - 24. Steering wheel locking/release lever - 25. Driver's front Air bag - 26. Door locking button - 27. Controls for heating, ventilation and climate control - 28. Ashtray - 29. Cigar lighter - 30. Temperature sensor - 31 Glovebox.

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#### **INSTRUMENT PANEL**

A. Fuel level gauge with reserve warning light - B. Engine coolant fluid temperature gauge with maximum temperature warning light - C. Speedometer - D. Odometer display (mileage recorder, trip meter with headlamp position display) - E. Reconfigurable multifunction display - F. Rev counter

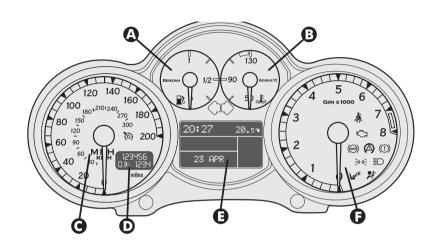


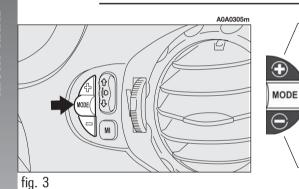
fig. 2

#### RECONFIGURABLE MULTIFUNCTION DISPLAY

**SET** 

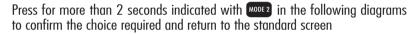
#### **CONTROL BUTTONS** (fig. 3-4)

To make use of the information that the digital display (with the ignition key at **MAR**) is capable of providing, it is firstly necessary to familiarise with the corresponding control buttons, to be found on the panel at the side of the steering column and on the top of the right lever. You are also advised to read through the corresponding description in the chapter "Getting to know your car" before doing anything at all.

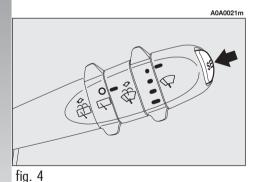


To scroll the display and the related options, upwards or to increase the value displayed depending on the case

Press for less than 1 second (pulse) indicated with word in the following diagrams to confirm the choice required and move to the next screen



To scroll the display and the related options, downwards or decrease the value displayed according to the case



Press for less than 1 second (pulse) indicated with a in the following diagrams to move to the next screen

Press for more than 4 seconds indicated with a in the following diagrams, to reset and then start a new journey

**IMPORTANT** Buttons • and • activate different functions depending on the following situations:

- When the standard screen is activated, they allow adjustment of the inner lighting
- Within the menu they allow scrolling up or down
- They make it possible to increase or decrease during setting operations.

#### MILEAGE RECORDER

Odometer display with double counter for showing the total and trip meter in miles and showing the headlamp aiming.

The display shows:

- the miles travelled on the first line (6 digits)
- the trip meter in miles on the second line (4 digits)
- at the side the position of the headlamp aiming device.

To reset the trip meter in miles, keep button (**A-fig. 5**) on the panel at the side of the steering column pressed for a few moments.

**IMPORTANT** If the battery is disconnected the distance of the trip meter is not stored.

## STEERING WHEEL ADJUSTMENTS

The driver can adjust the steering wheel position in rake and height.

To do this, release the lever (**A-fig. 6**) pulling it towards the steering wheel.

After moving the steering wheel to the most suitable position, lock it pushing the lever fully forwards.

# Any adjustment of the steering wheel position must be carried out only with the vehicle stationary.

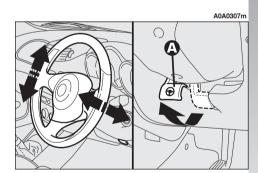
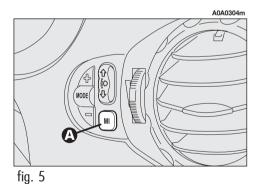


fig. 6



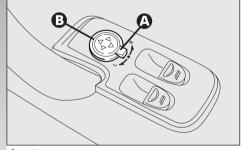
## WING MIRROR ADJUSTMENT

#### Electric adjustment (fig. 7)

- use the switch (A) to select the mirror required (right or left);
- pressing the button (**B**), in one of the four directions, move the mirror selected previously;
- Position the switch  $(\mathbf{A})$  in the intermediate locking position.

**IMPORTANT** Adjustment is possible only with the ignition key at **MAR**.

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**264** fig. 7

#### **POWER WINDOWS**

For some versions, the power windows are fitted with a safety system with crush-prevention seals. The electronic control unit that operates the system is capable of detecting the presence of an obstacle during the window closing motion through the special seals. Should this occur, the system stops the movement of the window and reverses it immediately.

**IMPORTANT** If the crush-prevention function is operated for 3 times in 1 minute, the system automatically sets to the recovery mode (self-protection). To reset the correct system operating logic, use the control button. The window will rise in predefined steps until closing completely. The logic is reset and if there are no faults, the window winder automatically resumes normal operation; if not, contact Alfa Romeo Authorised Services.

With the ignition key at **STOP** or removed, the power windows remain activated for about 3 minutes and are deactivated immediately the moment a door is opened.

#### Driver's side (fig. 8)

The driver's door panel contains the buttons that control the following windows, with the ignition key at **MAR**:

- A left window
- **B** right window.

Press the button to lower the window. Pull to raise it.

**IMPORTANT** The driver's power window is fitted with the "continuous automatic operation" device for both lowering and raising the window. A brief press on the upper or lower part of the button will cause it to move and continue automatically: the window stops in the required position by pressing either the upper or lower part of the button again.

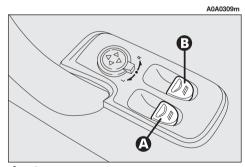


fig. 8

#### Passenger's side (fig. 9)

The button (**A**) controls the passenger's side window.

**IMPORTANT** The passenger's power window is fitted with the "automatic continuous operation" device for lowering the window only. The device works in the same way as the one on the driver's side.

#### WARNING

Improper use of power windows can be dangerous. Before and during use, always make sure that the passengers are not exposed to the risk of harm either directly by the moving windows or by personal objects drawn or knocked by them. When leaving the car, always remove the ignition key to prevent the power windows from being operated inadvertently, and harming anyone left on board.

**IMPORTANT** If the car is fitted with safety seals, after locking the doors, keeping the corresponding button on the remote control pressed for about 2 seconds the windows and sunroof (if present) are closed automatically. The remote control button must be kept pressed until the windows have completed their stroke, releasing the button before, the windows stop in the position they are in at that moment.

On all versions, after unlocking the doors, keeping the remote control button pressed for about 2 seconds the windows and sunroof (if present) are opened.



Do not keep the button pressed when the window is completely raised or d.

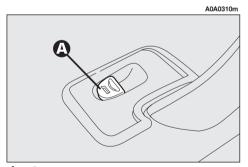
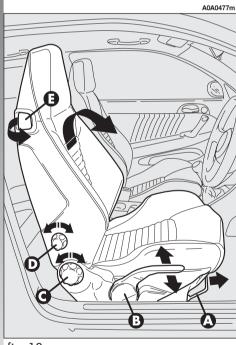


fig. 9

#### **FRONT SEATS**





**266** fig. 10

## LENGTHWISE ADJUSTMENT (fig. 10)

Raise the lever (**A**) and push the seat backwards or forwards; in the driving position the arms should be slightly flexed and the hands should rest on the rim of the steering wheel.

#### WARNING

After releasing the adjustment lever, always check that the seat is locked on the runners, trying to move it to and fro. The lack of this clamping action could cause the seat to move unexpectedly and cause loss of vehicle control.

#### DRIVER'S SEAT HEIGHT ADJUSTMENT (fig. 10)

To raise the seat, pull the lever (**B**) upwards, then work the lever (up and down) until reaching the required height, then release it. To lower the seat, push the lever (**B**) downwards then work the lever (up and down) until reaching the required height.

**IMPORTANT** Adjustment must be carried out only seated in the driver's seat.

## BACK REST ANGLE ADJUSTMENT (fig. 10)

Turn the knob  $(\mathbf{C})$  until reaching the position required.

## **TILTING THE BACK REST** (fig. 10) (3-door versions)

To gain access to the rear seats, pull the handle (**E**), the back rest folds and the seat is free to run forwards.

A recovery mechanism with memory makes it possible to take the seat back to its previous position.

Once the seat back has been returned to the travelling condition, make sure that it is correctly clamped, checking that the "red band" on the upper part of the handle ( $\mathbf{E}$ ) is concealed. In fact, this "red band" indicates that the seat back is not camped.

Also check that the seat is firmly locked on the runners, trying to move it to and fro.

#### DRIVER'S SEAT LUMBAR ADJUSTMENT (fig. 10)

Turn the knob (**D**) until obtaining the most comfortable position.

# FRONT AND SIDE AIR BAGS

The car is fitted with front Air bags for the driver (**fig. 11**), for the passenger (**fig. 12**) and side bag (**fig. 13**) and window bag (**fig. 14**).

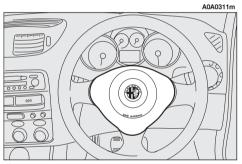


fig. 11

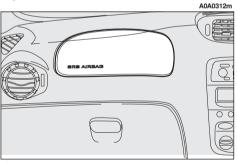


fig. 12

# DEACTIVATING THE PASSENGER'S FRONT AIR BAG MANUALLY

Should it be absolutely necessary to carry a child on the front seat, the passenger's Air bag on the vehicle can be deactivated.

Deactivation takes place using the car ignition key to operate the special switch on the left hand side of the dashboard



fig. 13

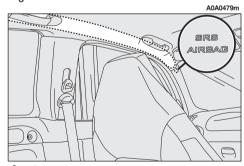


fig. 14

(  $\mathbf{fig.}\ 15$  ). Access to the switch is only possible with the door open.

The key-operated switch (**fig. 15**) has two positions:

- 1) Passenger's front Air bag activated: (**ON** position **3**) warning light on instrument cluster off; it is absolutely prohibited to carry a child on the front seat.
- 2) Passenger's front Air bag deactivated: (**OFF** position \*\*) warning light on instrument cluster on; it is possible to carry a child protected by special restraint systems on the front seat.

The warning light \* on the cluster stays on permanently until the passenger's Air bag is reactivated.

Deactivation of the passenger's front Air bag does not inhibit operation of the side Air bag.

When the door is open, the key can be inserted and removed in both positions.

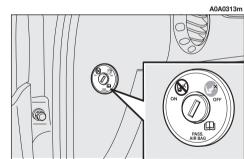


fig. 15

#### **CLIMATE CONTROL SYSTEM**

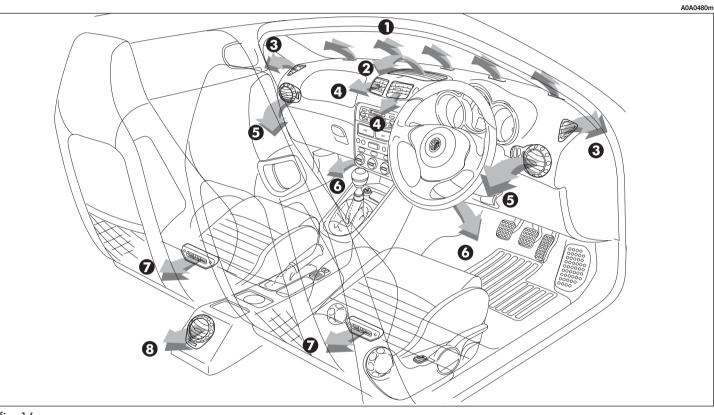


fig. 16

1 Upper stationary vent for defrosting or demisting windscreen - 2 Upper centre adjustable vent - 3 Stationary vents for defrosting or demisting side windows - 4 Adjustable centre, swivel vents - 5 Side adjustable and swivel outlets - 6 Front feet area fixed vents - 7 Rear feet area fixed vents - 8 Rear adjustable swivel outlet.

#### **UPPER CENTRE VENT ADJUSTMENT** (fig. 17)

The vent (1) has an opening/closing control (A).

- Completely closed.
- **I** = Completely open.

#### **CENTRE SWIVEL VENTS ADJUSTMENT** (fig. 17)

Each vent (2) has a lever (B) which makes it possible to direct the flow of air (in the 4 directions: up/down, right/left).

To adjust the air flow, use control (C):

- = Completely closed.
- Completely open.

#### SIDE SWIVEL OUTLETS **ADJUSTMENT** (fig. 18)

To direct the flow of air, turn the knurled ring (A) and/or directly use control (B) as required.

To adjust the air flow, use control (C):

- = Completely closed.
- **I** = Partially open.
- **II** = Completely open.
- **D** fixed vent for defrosting or demisting side windows.

#### **REAR SWIVEL OUTLET ADJUSTMENT** (fig. 19)

To direct the flow of air, turn the knurled ring (A) and/or directly use control (B) as required.

To adjust the air flow, use control (**C**):

- Completely closed.
- **I** = Partially open.
- **II** = Completely open.

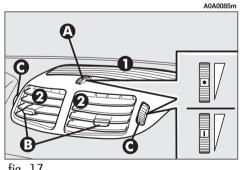


fig. 17

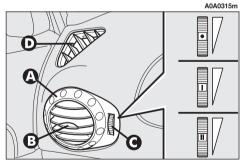


fig. 18

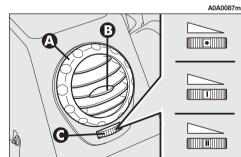


fig. 19

#### INTERIOR FITTINGS

#### **GLOVEBOX**

On the dashboard there is a glovebox with lid and liaht.

To open use handle (A-fig. 20).



#### WARNING

Do not travel with the glovebox open: the lid could harm the passenger in the event of an accident.

When the glovebox is opened with the ignition key at MAR a courtesy light inside is turned on (A-fig. 21).

The fitting is completed by a recess (B) on the lid for inserting a pen or pencil.

#### CONTROLS

#### **INERTIAL FUEL CUT-OFF** SWITCH (fig. 22)

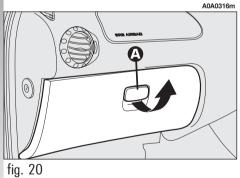
This is an automatic safety switch, to be found on the floor next to the driver's door pillar, which is triggered in the event of a crash of a certain magnitude to interrupt the flow of fuel.

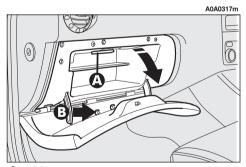
The cutting in of the inertial switch is shown on the display of the instrument cluster.



If a smell of fuel is noted following an accident, or the fuel system is leaking, to avoid the risk of fire do not reset the switch.

If no leaks are found the vehicle can be restarted. Press button (A) to activate the fuel supply system again.





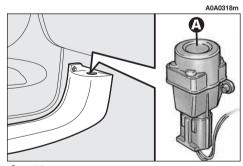


fig. 21

fig. 22

#### **BONNET**

The bonnet opening lever is under the left end of the dashboard.

#### To open:

- pull the lever (A-fig. 23) until the bonnet clicks open.
- press the safety lever (A-fig. 24) upwards.
- raise the bonnet.

**IMPORTANT** Bonnet raising is aided by two gas springs. Do not tamper with these springs and accompany the bonnet while raising it.



#### WARNING

Do this only with the car stationary.



#### WARNING

DANGER-SERIOUS INJURY. When carrying out checks or maintenance operations in the engine compartment, take special care not to bump the head on the raised bonnet.



#### WARNING

If checks are needed in the engine compartment, when it is still hot, do not approach the fan: it might start working also with the ignition key removed. Wait for the engine to cool down.



fig. 23

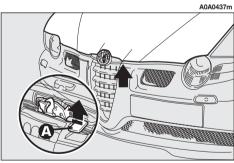


fig. 24



#### WARNING

Scarves, ties and other loose clothing might be pulled by moving parts.



For safety reasons the bonnet shall always be perfectly closed when travelling. . Alwavs check for proper bonnet locking. If the bonnet is left inadvertently open, stop the car immediately and close the bonnet.

#### To close:

- lower the bonnet until approx. 20 cm from the engine compartment and then let it drop, ensuring that it is fully closed and not just held in position by the safety catch.
- If the bonnet does not close properly do not push it down but open it again and repeat the above procedure.

#### **HEADLIGHTS**

## **COMPENSATION FOR TILT** (fig. 25)

When the vehicle is loaded, the beam from the headlights is raised due to the backwards tilt of the vehicle.

In this case the headlights must be adjusted correctly.

To do this, use the rocker button (**A**), on the plate at the side of the steering column:

- pressing the button in correspondence with the arrow ( $\bigcirc$ ) increases by one position (e.g.:  $0 \rightarrow 1 \rightarrow 2 \rightarrow 3$ );

The display (**B**) in the speedometer shows the position while adjustment takes place.

For correct adjustment, bear in mind the following conditions:

- position **0**: one or two people occupying the front seats
- position 1: five people;
- position 2: five people + load in the boot;
- position 3: driver + maaximum permissible load all stowed in the boot

## HEADLIGHT ADJUSTMENT ABROAD (fig. 26)

The dipped-beam headlights are adjusted for circulation in the country in which the vehicle is marketed. In countries with opposite circulation, to avoid glaring oncoming vehicles it is necessary to cover the areas of the headlight as shown below; this is done using non-transparent sticker tape.

The illustration refers to the passage from left-hand drive to right-hand drive.



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A 128458
B 128458

**272** fig. 25

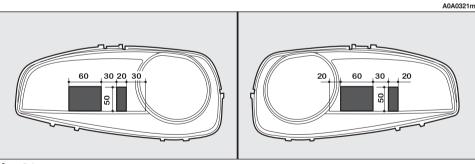


fig. 26

#### IN THE EVENT OF A BLOWN FUSE

Never replace a fuse with metal wires or anything else. Always use an intact fuse of the same colour.

#### WARNING

If a general fuse (MAXI-FUSE or MEGA-FUSE) cuts in, do not attempt any repair and contact an Alfa Romeo Authorised Service.



#### WARNING

If a fuse blows again, contact an Alfa Romeo Authorised Service.

Access is gained to the control box on the dashboard by slackening the two retainers (A-fig. 27) and removing the protective trim (**B**).



#### WARNING

Never replace a fuse with another with a higher amp rating, DANGER OF FIRE.



#### WARNING

Before replacing a fuse, make sure the ignition key has been removed and that all the other services are switched off and/or disengaged.

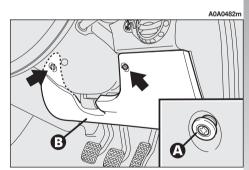


fig. 27

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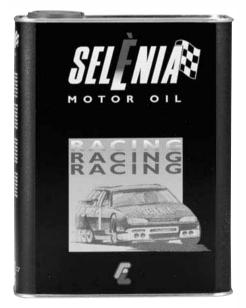
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NOTES	
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#### TYRES INFLATION PRESSURE COLD

		Tyres 225/45 ZR17" 91Y (•)		Tyres 235/35 R18" 90Y (•) (▼)		Tyres 215/45 R17" 87W (*)		Tyres 215/45 ZR17" 87W (*)	
		front	rear	front	rear	front	rear	front	rear
Reduced load (2 occupants)	bar	2.5	2.3	2.5	2.3	2.5	2.3	2.5	2.3
Full load	bar	2.8	2.6	2.8	2.6	2.8	2.6	2.8	2.6

(•) Unchainable tyres.

(▼) Size certified and admitted only for YOKOHAMA.

(\*) **IMPORTANT** Chainable tyres; see paragraph "Snow chains" in section "Correct use of the car".

Increase the specified pressure by +0.3 bar if the tyre is warm.

With the tyre hot the inflating pressure should be +0.3 bar compared with the specified rating. Recheck pressure value with cold tyres. With winter tyres the inflation pressure should be +0.2 bar compared with the specified rating.

ENGINE OIL REPLACEMENT		3.2 V6 24V	3.2 V6 24V Selespeed		
Oil sump and filter	litres	5.90	5.90		
Do not discard used oil in the environment.					

REFFUELLING		3.2 V6 24V	3.2 V6 24V Selespeed		
Fuel tank capacity	litres	63	63		
Reserve	litres	7	7		

Only use unleaded petrol with over 95 R.O.N. (Specification EN228)



#### **AFTER SALES**

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