

# CAR MAINTENANCE

*The best way to preserve the performance and safety characteristics of your vehicle is to have it periodically inspected and maintained.*



*It may often be necessary to perform the maintenance operations marked with the symbol illustrated previously in order to avoid invalidation of the warranty cover.*

*The following pages contain the Programmed Maintenance Schedule and describe the most common checks and inspections which are fundamental to a correct maintenance schedule.*

*These operations should be carried out at the intervals indicated in the Programmed Maintenance Schedule.*

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# PROGRAMMED MAINTENANCE

## PRECAUTIONS

Many moving parts, high voltage cables and parts that reach high temperatures which may cause serious injury to unqualified persons are located in the engine compartment.

The following precautions should therefore be taken:

- Switch off the engine and wait until it cools.
- Be particularly cautious when working near the engine cooling fan as this may cut in unexpectedly on the basis of the engine coolant temperature.
- Do not smoke or use naked flame.
- Always keep a fire extinguisher to hand.
- Do not use the jack supplied with the car for checking underneath it.



### WARNING

*The jack with which the vehicle is fitted must only be used when changing a wheel. All other operations where the vehicle must be lifted require the use of specific procedures and should be carried out by Alfa Romeo Authorized Services.*



**Vehicle maintenance should be entrusted to an Alfa Romeo Authorized Service. For interventions of routine maintenance and small repairs you wish to carry out yourself, make sure you always have the proper equipment, genuine Alfa Romeo spare parts and the necessary liquids; do not, however, carry out these operations if you have no experience.**



### WARNING

*Ensure that scarves, ties and loose clothing cannot get caught by moving parts.*



### 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

*Never smoke when working in the engine compartment: inflammable gas and vapours may be present which constitute a fire hazard.*



**If the car is frequently used for towing trailers, the interval between programmed maintenance operations should be reduced.**



**Warning, when topping up never confuse the various types of fluids which are incompatible and could seriously damage the vehicle.**

## **GENERALITIES**

Perfect performance and the life of every car are strictly connected with correct use of it, but above all on the care with which routine maintenance operations are carried out for which new programming criteria have been adopted owing to product development.

The mileage for programmed maintenance coupons is 20,000 km.

It is however wise to remember that the car still needs routine care such as for instance checking and topping up the fluids, checking the tyre pressure, etc.

Correct vehicle maintenance is surely the best way to preserve its performance levels, safety and environment protection features and low running costs over the years.

Also remember that strictly observing the maintenance instructions given in this Handbook marked by the symbol  can be a necessary condition for the guarantee.

It is possible to ask the Alfa Romeo Organisation for an estimate of the cost of service coupon operations.

**IMPORTANT** You are advised to contact Alfa Romeo Authorized Services in the event of any minor operating faults, without waiting for the next service coupon.

**IMPORTANT** The programmed maintenance coupons are specified by the Manufacturer. The failure to have them carried out may invalidate the warranty.

# PROGRAMMED MAINTENANCE SCHEDULE

thousands of kilometres	20	40	60	80	100	120	140	160	180
Check tyre conditions and wear	●	●	●	●	●	●	●	●	●
Check front disk brake pad wear indicator	●	●	●	●	●	●	●	●	●
Check conditions of rear disk brake pads		●		●		●		●	
Check intactness of axle shaft and power steering boots, joint caps and check brake and fuel lines for leaks	●	●	●	●	●	●	●	●	●
Sight check for conditions: exterior bodywork and underbody protection (exhaust pipes - fuel supply - brakes) rubber parts (boots - sleeves - bushes - etc.)	●	●	●	●	●	●	●	●	●
Check for bonnet and boot lock cleanness, lever cleanness and lubrication	●	●	●	●	●	●	●	●	●
Check condition of timing drive belt			●						●
Sight check for conditions of Poly-V accessory drive belt			●						●
Check handbrake lever stroke		●		●		●		●	
Check/adjust valve clearance (JTD 10V versions)	●	●		●		●		●	
Check (petrol versions) engine exhaust emissions		●		●		●		●	
Check (JTD versions) engine smoke		●		●		●		●	
Check operation of anti evaporation system				●				●	

	thousands of kilometres									
	20	40	60	80	100	120	140	160	180	
Change fuel filter (diesel versions)	●	●	●	●	●	●	●	●	●	
Change air cleaner cartridge (petrol versions)		●		●		●		●		
Change air cleaner cartridge (diesel versions)	●	●	●	●	●	●	●	●	●	
Check and if necessary top up fluid level (brakes, hydraulic clutch, power steering, windscreen wiper, battery, engine coolant, etc.)	●	●	●	●	●	●	●	●	●	
Replacement of timing gear drive belt (*) and Poly-V accessory drive belt						●				
Replacement of counter-rotating shaft drive belt (2.0 T.SPARK engine only)						●				
Replacement of spark plugs (petrol versions)					●					
Check operation of engine control systems (through diagnostics socket)		●		●		●		●		
Check manual gearbox and differential oil level				●				●		
Check electronic automatic gearbox oil level (Sportronic versions)		●		●		●		●		
Change engine oil and oil filter	●	●	●	●	●	●	●	●	●	
Change brake fluid (or every 24 months)			●			●			●	
Check dust/pollen filter	●	●	●	●	●	●	●	●	●	

(\*) Or every 3 years in harsh conditions (cold climates, stop and go city traffic).  
Or every 5 years, regardless of the mileage.

## ANNUAL INSPECTION PLAN

**An annual inspection plan has been established for cars that cover less than 20,000 km a year (e.g. 10,000 km). It consists of the following:**

- Checking the condition/wear of tyres, and adjusting pressure (including the compact spare wheel, where applicable).
- Checking the lighting system (headlights, turn indicators, hazard warning lights, boot light, passenger compartment, warning lights of instrument panel, etc.).
- Checking the working order of the windscreen wiper-washer and adjusting the nozzles.
- Checking the positioning/wear of the windscreen wipers.
- Checking the condition and wear of the front brake pad.

- Visually checking the following: engine, gearbox, transmission, piping (exhaust, fuel supply, brakes) rubber items (casings, sleeves, bushings etc.), hoses of braking and supply systems.

- Check for bonnet and boot lock cleanliness, lever cleanliness and lubrication.

- Checking the battery charge condition.

- Visually checking the condition of the belts and various controls.

- Checking and topping up, if necessary, the level of liquids (coolant, brake fluid, windscreen washer fluid, battery etc.).

- Replacing the engine oil.

- Replacing the engine oil filter.

- Replacing the pollen filter (only for vehicles with automatic climate control).

## ADDITIONAL OPERATIONS

**Every 1000 km** or before long journeys check and if necessary top up:

- the engine coolant fluid level

- brake fluid/hydraulic clutch control fluid level

- power steering fluid level

- windscreen washer and headlamp washer fluid level

- tyre pressure and conditions.

**Every 3000 km** check the level of the engine oil and top up if necessary.

**Every 5000 km** (only for fuel oil engines): drain the condensation water from the filter. You are recommended to use products of the **FL Selenia**, designed and developed expressly for Alfa Romeo cars (see the table “Specifications of fluids and lubricants” in the Technical specifications” chapter).

### **IMPORTANT - Engine oil**

Change the engine oil more frequently than stated in the Scheduled Maintenance Programme if the car is used prevalingly in one of the following particularly harsh conditions:

- trailer or caravan towing
- dusty roads
- short, repeated journeys (less than 7-8 km) with an outside temperature of below freezing point.
- engine idling frequently or driving long distances at low speed (e.g. taxi or door-to-door deliveries) or in the case of prolonged inactivity.

### **IMPORTANT - Air cleaner**

Using the car on dusty roads, change the air cleaner more frequently than stated in the Scheduled Maintenance Programme.

For any doubts about the intervals between engine oil and air cleaner changes in relation to how the car is used, contact Authorised Alfa Romeo Services.

### **IMPORTANT - Fuel oil filter**

The variety of the degree of purity of the fuel oil in commerce may make it necessary to change the fuel oil filter more frequently than stated in the Scheduled Maintenance Programme. If the engine is “sobbing” it is a sign that the filter needs changing.

### **IMPORTANT - Pollen filter**

If the car is used frequently in dusty or heavily polluted environments, you are recommended to change the activated carbon filtering element more frequently; in particular, it should be changed if a lower flow of air admitted to the passenger compartment is noted.

### **IMPORTANT - Batteries**

You are recommended to have the battery charge conditions checked, preferably at the onset of winter, to avoid the possibility of freezing the electrolyte.

This check should be carried out more frequently if the car is used prevalingly for short journeys, or if it is fitted with services that absorb high amounts of current permanently with the ignition key off, especially if installed in the after market.

In the case of use of the car in hot climates or particularly harsh conditions, it is wise to check the level of the battery fluid (electrolyte) at more frequent intervals than stated in the Scheduled Maintenance Programme.

### **IMPORTANT - Remote control**

If when pressing the remote control button of the key, the operating led on the key flashes briefly only once, the battery need replacing with other of the same type.



### **WARNING**

*Never smoke during work in the engine compartment: there is the possibility of inflammable gas and vapours with the risk of fire.*



When topping up take care not to confuse the various types of fluids: they are all incompatible and could seriously damage the car.



Vehicle maintenance should be entrusted to the Alfa Romeo Service Network. For ordinary and minor operations you can do yourself, always make sure you have adequate tools, original Alfa Romeo spares and the correct fluids. Do not carry out these operations if you have no experience.



If the vehicle is frequently used for towing trailers, the interval between one programmed maintenance and the next should be reduced.

# CHECKING LEVELS, TOPPING UP AND REPLACING

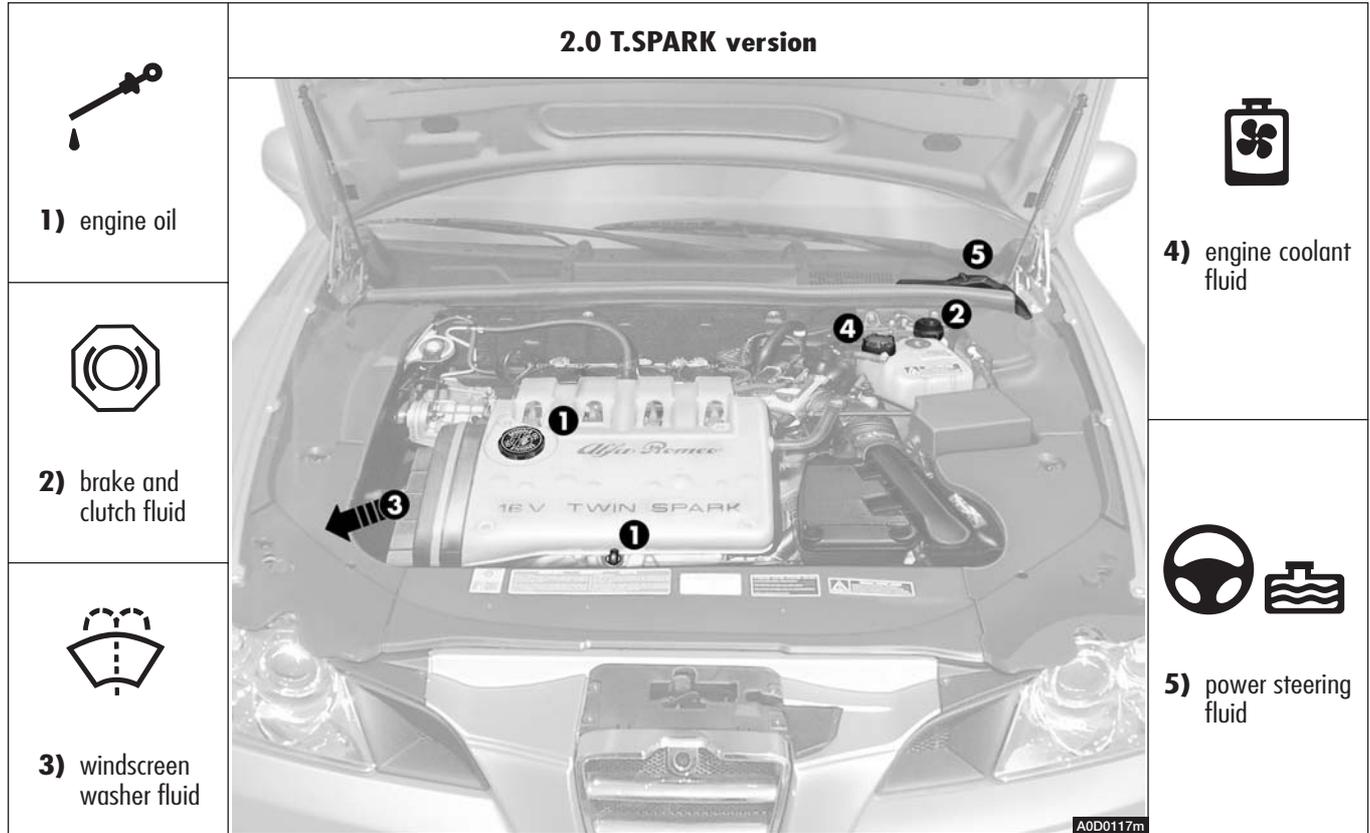


fig. 1

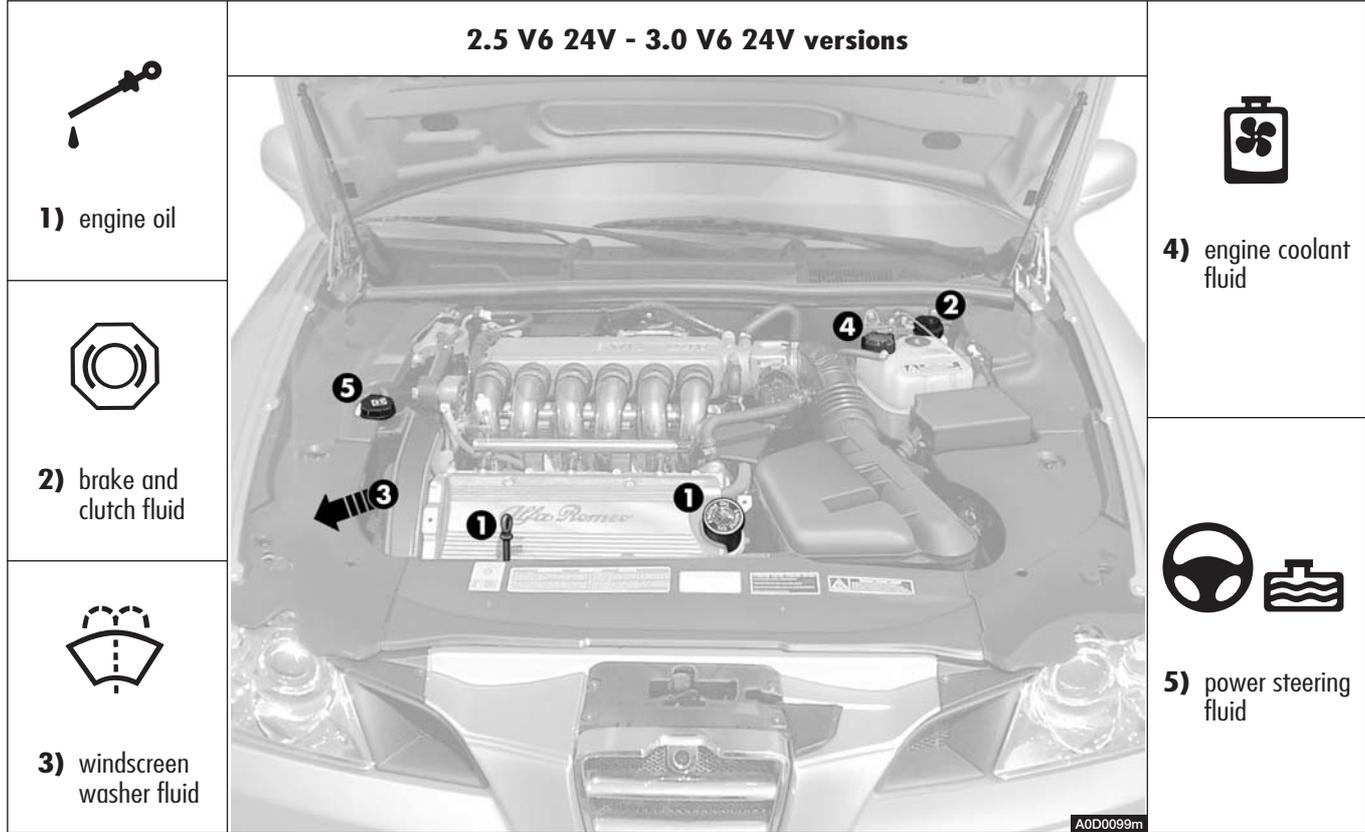


fig. 2

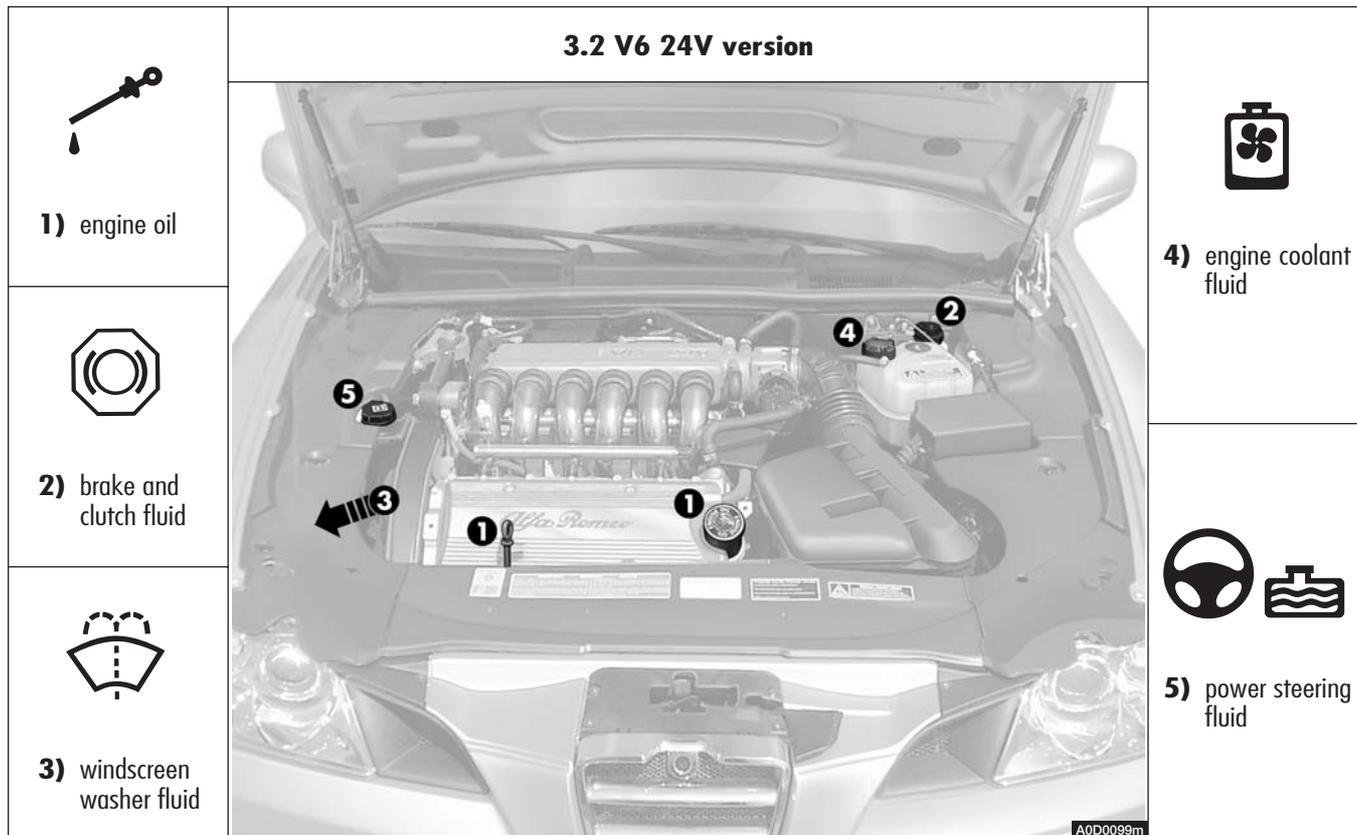


fig. 3

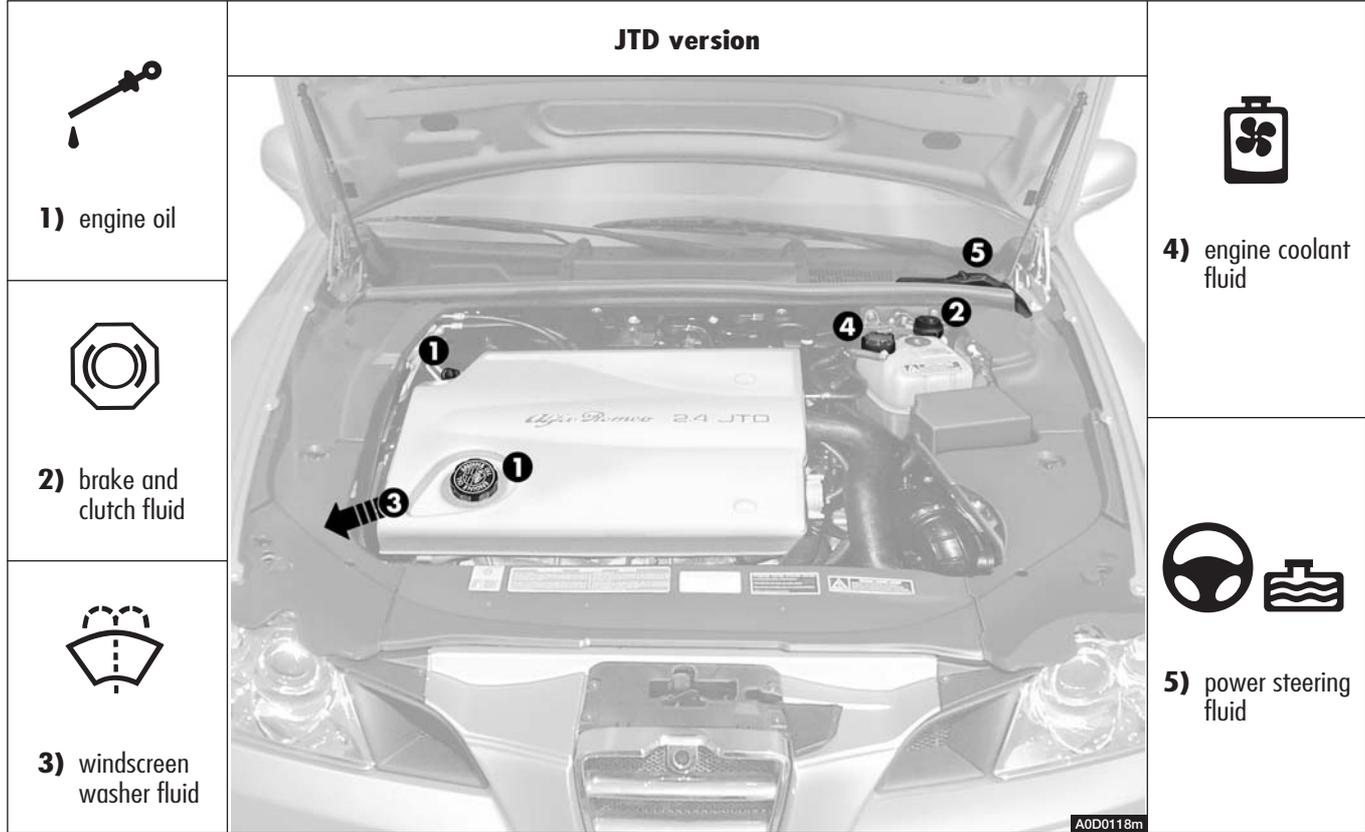


fig. 4

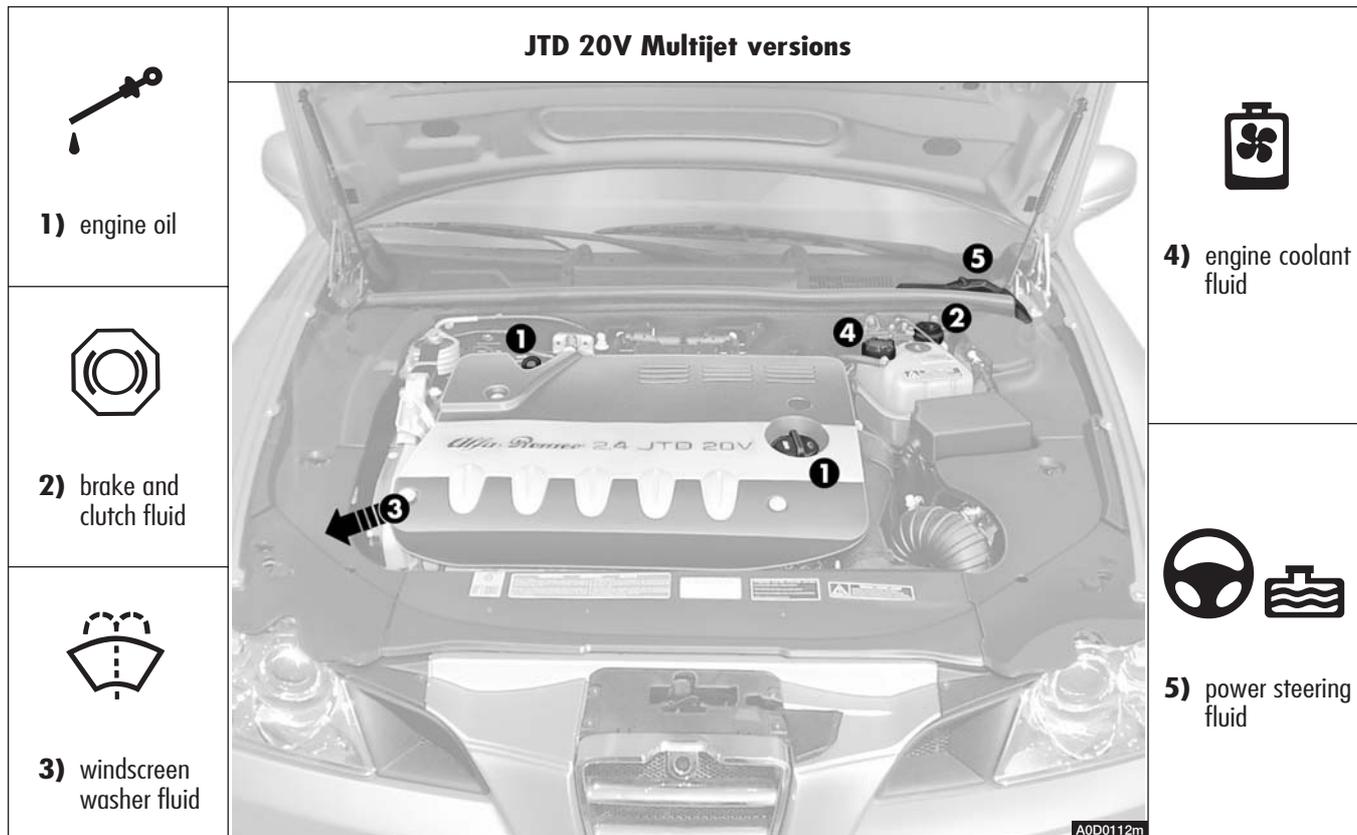


fig. 5

## PROTECTIVE SHIELD UNDER ENGINE

The car is fitted with a protective shield under the engine.

**IMPORTANT** When changing the engine oil and filter, checking and changing the gearbox and differential oil, this protection should be removed. This operation should be carried out by Alfa Romeo Authorized Services.

## CHECKING ENGINE OIL LEVEL

**Fig. 6:** 2.0 T.SPARK version

**Fig. 7:** 2.5 V6 24V - 3.0 V6 24V  
3.2 V6 24V versions

**Fig. 8:** JTD version

**Fig. 9:** JTD 20V Multijet versions

The engine oil level should be checked when the vehicle is standing on a level surface a few minutes (about 5) after the engine has been switched off.

Remove the dipstick (A), clean it, then re-insert it completely, remove it once again and check that the level is between the MIN and MAX marks on the dipstick.

The interval between the MIN and MAX marks corresponds to approximately 1 litre of oil.

Max. engine oil consumption is usually 400 grams every 1000 km.

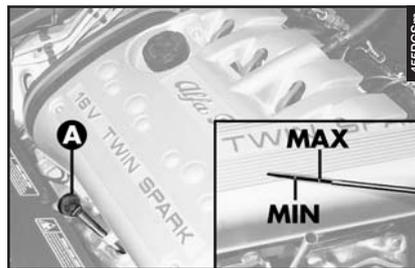


fig. 6 - 2.0 T.SPARK version

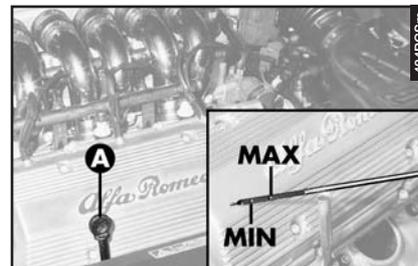


fig. 7 - 2.5 V6 24V - 3.0 V6 24V  
3.2 V6 24V versions

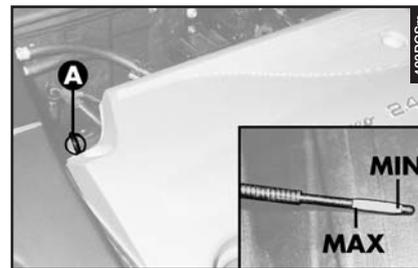


fig. 8 - JTD version

When the car is new, the engine needs to run in, therefore the engine oil consumption can only be considered stabilised after the first 5000-6000 km.

The oil consumption depends on driving style and the conditions under which the car is used.



### WARNING

*To avoid burns particular care should be taken when working inside the engine compartment when the engine is warm.*

### TOPPING UP ENGINE OIL

**Fig. 10:** 2.0 T.SPARK version

**Fig. 11:** 2.5 V6 24V - 3.0 V6 24V  
3.2 V6 24V versions

**Fig. 12:** JTD version

**Fig. 13:** JTD 20V Multijet versions

When the level falls to the MIN mark, cap (B) should be removed and the system topped up to the MAX mark through the filler neck.

Do not exceed the MAX mark when topping up with engine oil.

**IMPORTANT** After topping up the engine oil, before checking the level, run the engine a few seconds and wait for a few minutes (approx. 5) after stopping it.

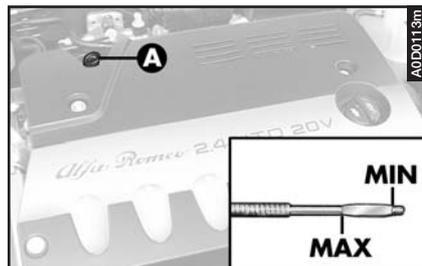


fig. 9 - JTD 20V Multijet versions

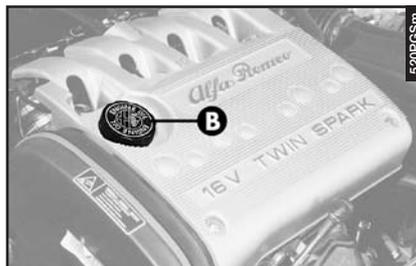


fig. 10 - 2.0 T.SPARK version

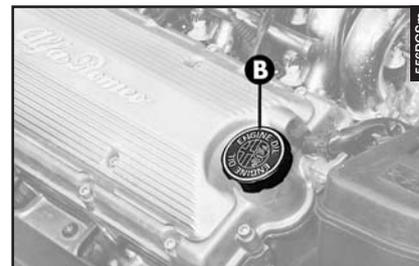


fig. 11 - 2.5 V6 24V - 3.0 V6 24V  
3.2 V6 24V versions



### WARNING

*Remember that when the engine is warm the electric fan, which is operated on the basis of the engine coolant temperature, could cut-in automatically and cause injury.*



**Never add oil with characteristics (classification, viscosity) which are different from those of the oil already in the circuit.**



### WARNING

*Never exceed the MAX level when topping up or changing engine oil. Too much engine oil would cause it to be taken in through the blow-by cylinder. For JTD versions this can rapidly increase the engine speed (no longer controllable, in this case, by releasing the accelerator pedal and moving the ignition key to STOP) and damage to the engine with the risk of seizing or fire.*

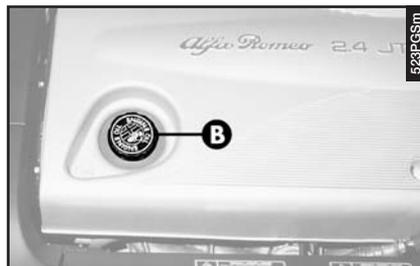


fig. 12 - JTD version

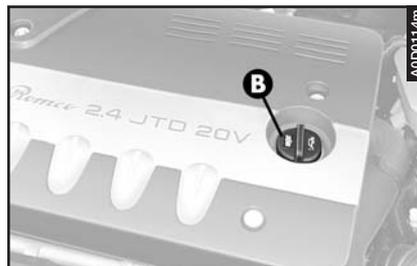


fig. 13 - JTD 20V Multijet versions

## CHECKING AND TOPPING-UP ENGINE COOLANT (fig. 14)

Periodically check that the level of fluid in the expansion tank when cold and with the car on level ground, is between "MIN" and "MAX".

If the level is too low, unscrew cap (A) on the expansion tank and top-up.



Top up only with the same fluid contained in the cooling circuit.



### WARNING

*The cooling system is pressurised. If necessary replace the cap only with another original one, otherwise the efficiency of the system could be compromised.*



### WARNING

*To avoid being burnt, when the engine is hot do not remove the cap from the expansion tank.*



The antifreeze mixture contained in the cooling circuit guarantees protection down to  $-35^{\circ}\text{C}$ .

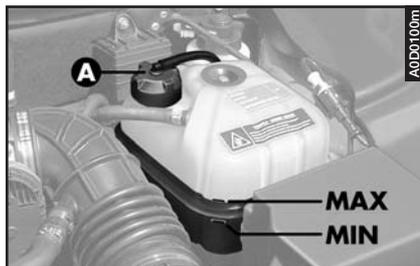


fig. 14

## CHECKING POWER STEERING OIL LEVEL

**Fig. 15:** 2.0 T.SPARK - JTD - 3.2 V6 24V versions

**Fig. 16:** 2.0 T.SPARK - JTD - JTD 20V Multijet versions

**Fig. 17:** 2.5 V6 24V - 3.0 V6 24V versions

Check that the oil in the reservoir is at the maximum level.

This operation must be carried out with the car on level ground and when the engine is stationary and cold.

On 2.0 T.SPARK, JTD and JTD 20V Multijet versions access to the reservoir is gained by removing the cover (**A-fig. 15**) after turning the fastening pins withdraw the tube (**B-fig. 16**).

Slacken the cap (**C-fig. 16-17**) and check that the level corresponds to the reference notch of the maximum level on the dipstick which is an integral part of the cap.

## TOPPING UP THE POWER STEERING OIL

If the level of the oil in the power steering reservoir falls below the specified level, top up only with one of the products listed in the table of “Specifications of fluids and lubricants” in the “Technical specifications” chapter as follows.

- Start the engine and allow the oil in the reservoir to settle.
- When the engine is running turn the steering wheel lock to lock a few times.
- Top up the MAX level notch and then replace the cover.

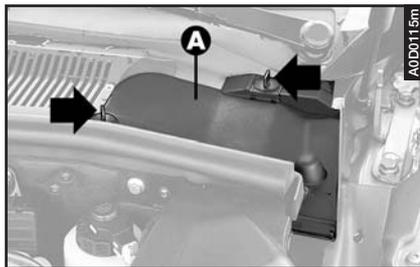


fig. 15 - 2.0 T.SPARK - JTD  
JTD 20V Multijet versions

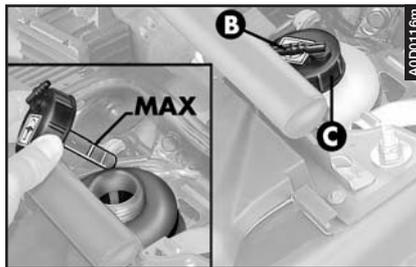


fig. 16 - 2.0 T.SPARK - JTD  
JTD 20V Multijet versions

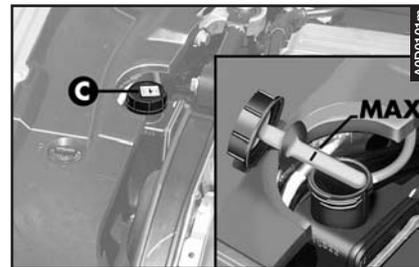


fig. 17 - 2.5 V6 24V — 3.0 V6 24V  
3.2 V6 24V versions

On 2.0 T.SPARK, JTD and JTD 20V Multijet versions insert the tube on the cap and refit the cover fastening with the three screws.



**Oil consumption is very low; if topping up again is needed shortly afterwards, have the system checked for possible leaks by Alfa Romeo Authorized services.**

**IMPORTANT** Contact Alfa Romeo Authorized Services for maintenance and repair operations.



**WARNING**

***Do not allow power steering fluid to touch hot engine parts: it is inflammable.***

**CHECKING AND TOPPING UP THE BRAKE AND CLUTCH FLUID (fig. 18)**

Check that the liquid contained in the reservoir reaches the maximum mark. When periodically topping up or changing (which should in any case be carried out every two years) only the products listed in the table of “Specifications of fluids and lubricants” in the “Technical specifications” chapter should be used.

From time to time check the instrument panel warning light by pressing cover (B) of the reservoir (A) (with the ignition key at **MAR**) the instrument warning panel light (!) should come on.

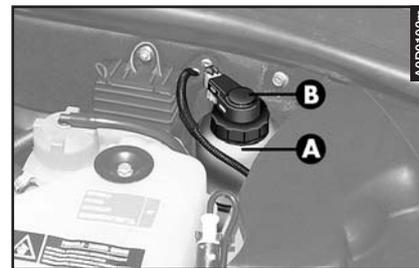


fig. 18



When the cap (B) is screwed off the reservoir ensure that the electrical connections are not disconnected. Do not allow the liquid to come into contact with painted components. If it does, wash it off immediately with water.



### WARNING

Symbol on the container indicates synthetic type brake fluid distinguishing it from the mineral kind. Using mineral type fluids damages the special rubber braking system gaskets beyond repair.



### WARNING

Brake and clutch fluid is poisonous and corrosive. In the event of contact wash the parts concerned immediately with neutral soap and water, then rinse thoroughly. See a doctor at once if the fluid is swallowed.

## CHECKING AND TOPPING UP THE WINDSCREEN/HEADLIGHT WASHER FLUID (fig. 19-20)

Access to the windscreen/headlight washer fluid reservoir, remove the cover (A-fig. 19) after turning the pins (B).

Then remove the cap (C-fig. 20) and pour the fluid in the tank until the level can be seen through the filler neck.

Then close the filler with the cap and re-fit the cover fastening with the two pins.



### WARNING

Some commercial additives for windscreen washers are inflammable. The engine compartment contains hot components which could set it on



To avoid damaging the pump motor do not use the windscreen washers when the reservoir is empty.

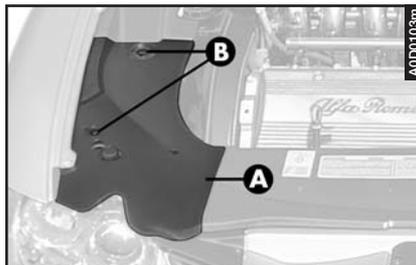


fig. 19



fig. 20



## WARNING

***Do not travel with the windscreen washer reservoir empty: the action of the windscreen washer is fundamental for improving vision.***

**IMPORTANT** When topping up use the special detergents available in the shops ensuring that they contain anticale and antifreeze properties.

If in doubt contact Alfa Romeo Authorized Services who will be able to recommend the most suitable products.

## AIR CLEANER

The air cleaner is connected to the temperature and air flow sensors which send the electrical signals needed for correct operation of the injection and ignition system to the control unit.

It must therefore always be in perfect conditions to ensure correct operation of the engine, low consumption and exhaust emission levels.



**If they are not carried out correctly and with the due precautions, the operations involving cleaner replacement described herein may compromise the safety of the car. This operation should be carried out by Alfa Romeo Authorized Services.**



**When the car is habitually driven in dusty areas, the cleaner should be changed at shorter intervals than those given in the Programmed Maintenance Schedule.**



**Any attempt to clean the air cleaner may cause serious engine damage.**

## DIESEL FILTER

### DRAINING CONDENSATION WATER



**Water in the supply circuit can seriously damage the whole injection system and cause malfunctions to engine operation. Should the warning lamp , contact as soon as possible the Alfa Romeo Authorised Service for drainage operations.**

## DUST/POLLEN FILTER

The filter mechanically/electrostatically filters the air provided that the windows are shut.

The dust/pollen filter should be checked over once a year by Alfa Romeo Authorized Service station preferably at the beginning of the summer.

If the vehicle is habitually driven in cities, motorways or on dusty roads the system should be checked over more often than specified in the Programmed Maintenance Schedule.

**IMPORTANT** If the filter is not replaced the efficiency of the climate control system may be seriously compromised.

## BATTERY

The battery (**fig. 22**) is housed on the left-hand side of the boot, protected by a cover.

On versions without navigation system and without CD player, access to the battery is gained by slackening the knob (**A-fig. 21**) and removing the battery cover.

On versions with navigation system and /or CD player, access to the battery is gained by slackening the knobs (**A-fig. 22**) and removing the cover (**B**).



fig. 21

The battery adopted is of the “Limited Maintenance” type and under normal conditions of use will not require topping up.

The level of the electrolyte solution must however be between the MIN and MAX reference marks when the vehicle is stationary on a level surface (**fig. 23**).



**The batteries contain substances which are extremely harmful to the environment. Alfa Romeo Authorized Services should be contacted when equipped to dispose of the batteries respecting both the environment and legal requirements.**



**Serious damage may be caused to the vehicle if electrical accessories are incorrectly installed. If, after purchasing your vehicle, you wish to install accessories (theft alarm, voice feature, satellite radio-navigator with antitheft function, etc.) contact Alfa Romeo Authorized Services whose qualified personnel in addition to being able to recommend the most suitable devices from Lineaccessori will determine whether it will be necessary to install a more powerful battery.**



**If the level is low, contact Alfa Romeo Authorized Services.**

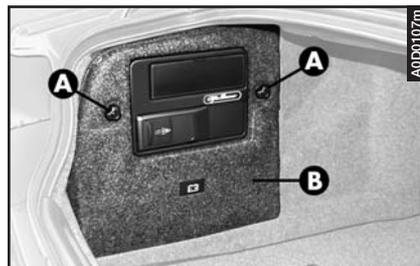


fig. 22

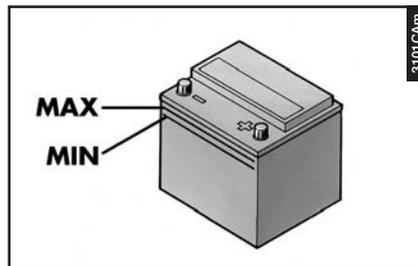


fig. 23



**If the car is to remain stationary for a long time in very cold weather, remove the battery and take it to a warm place, otherwise it might freeze.**



### WARNING

*When doing any work on the battery or near it, always wear special protective goggles.*



### WARNING

*Working with the fluid level too low damages the battery irreparably, even breaking the body and completely leaking the acid contained.*



**The wrong electric and electronic accessory installation may cause severe vehicle damages.**

## CHARGING THE BATTERY

**IMPORTANT** The description of the battery charging procedure is described only for informative purposes. This operation should be carried out by Authorized Alfa Romeo Services.

Charging should be slow at a low amp rating for about 24 hours. Charging for a longer time may damage the battery.

Charge the battery as follows:

– If the car is fitted with an alarm system, turn off the alarm with the remote control and deactivate the system turning the emergency key to “**OFF**” (see “Electronic alarm” in the chapter “Getting to know your car”).

– Disconnect the terminals of the electric system from the battery poles.

– Connect the charger cables to the battery.

– Turn on the charger.

– After charging turn off the charger before disconnecting it from the battery.

– Re-connect the terminals to the battery poles correctly.

– Turn the ignition key to **MAR** and leave it in this position for 30 seconds to 1 minute, then turn to **STOP** for about 5 to 10 seconds, after which the engine can be started.

– Remember to reactivate the alarm system (if present) turning the emergency switch to “**ON**”.



### **WARNING**

***The fluid contained in the battery is poisonous and corrosive. Avoid contact with the skin or eyes. The battery should be charged in a ventilated place away from naked flames or possible sources of sparks: danger of explosion and fire.***



### **WARNING**

***Never attempt to charge a frozen battery before thawing it, the danger of explosion exists. If it has frozen, always check that the inside elements are not broken (risk of short circuit) and that the body is not cracked, with the risk of acid coming out which is poisonous and corrosive.***

**IMPORTANT** A battery kept at below 50% of its capacity is damaged by sulphation, the capacity is reduced and starting is difficult, there is also more possibility of freezing (this can occur at  $-10^{\circ}\text{C}$ ). In the event of a prolonged stop, refer to "Vehicle inactivity".

### **USEFUL HINTS TO EXTEND THE LIFE OF YOUR BATTERY**

To avoid quickly draining the battery and to preserve its operating conditions over the course of time, carefully follow the instructions below.

- The terminals must always be tightened.
- As far as possible avoid keeping services on for a long time with the engine stopped (radio, hazard warning lights, parking lights, etc.).
- When leaving the vehicle parked in a garage, make sure that the doors, bonnet, boot and interior lids are properly shut to prevent lights from staying on.

– Before doing any work on the electric system, disconnect the battery negative terminal.

If after purchasing the car, you wish to install electrical accessories which need a permanent electrical supply (alarm, hands-free phone, radio-navigator with satellite anti-theft function, etc.) contact Authorised Alfa Romeo Services whose qualified personnel, in addition to suggesting the most suitable devices from Lineaccessori will be able to evaluate the total electrical absorption, checking whether the car's electric system is able to support the load required or whether a battery with higher capacity is necessary.

In fact, these devices continue to absorb current with the ignition key off (car parked, engine off) and may gradually drain the battery.

The total absorption of these accessories (standard and installed later) must be 0.6 mA x Ah (of the battery), as shown in the table below:

Battery	Maximum permissible loadless absorption
100 Ah	60 mA

You are also reminded that services with high current absorption activated by the user, such as bottle warmers, vacuum cleaners, cellular telephone, mini refrigerator, etc. accelerate the battery drainage process if they are powered with the engine not running.

**IMPORTANT** It should also be noted that improper branches on connectors of the electric wiring for installing additional equipment is dangerous, particularly if safety devices are involved.

## ELECTRONIC CONTROL UNITS

With normal use of the vehicle no particular precautions need to be taken.

If interventions are to be carried out on the electrical system or emergency starting the following must be heeded:

- Always switch off the engine before disconnecting the battery from the electrical system.
- If battery charging is necessary disconnect it from the electric system.
- When starting in an emergency only an auxiliary battery must be used and not a battery charger.
- Check that the polarity is correct and that the connections between the battery and the electrical system are sound.
- Before connecting or disconnecting the terminals of the 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 electrical welding is to be carried

out on the body of the vehicle the electronic control units must be disconnected or removed if the work involves the production of high temperatures.



### WARNING

*If additional systems are to be installed on the vehicle the danger of incorrectly taking branches from the electrical wires cannot be emphasized too strongly especially if devices essential to the safety of the vehicle and its occupants are involved (ignition, injection, ABS ...). The incorrect installation of radio systems, electronic theft alarms, radiotelephones etc. can interfere with the electronic control units and compromises the warranty cover. For these interventions we recommend that you contact Alfa Romeo Authorized Services. The loadless absorption of all the accessories installed in the after market must not exceed 20 mA (reading with the vehicle stationary).*

## SPARK PLUGS

If the engine is running unevenly have the spark plugs checked by Alfa Romeo Authorized Services.



**The spark plugs must be changed at intervals given in the Programmed Maintenance Schedule. Only use spark plugs of the specified type (see table of “Fuel Supply and Ignition” in the “Technical specifications” chapter): if the thermal grade is inadequate, or the foreseen life is not guaranteed inconveniences may result.**

**IMPORTANT** On 2.0 T.SPARK engine removing the spark plug caps requires the use of a special tool which avoids damage: therefore for this operation you are recommended to contact Authorized Alfa Romeo Services.

## WINDSCREEN WIPER BLADES (fig. 24)

Periodically clean the wiper blades and ensure that they are not damaged. If the rubber blades are bent or worn in parts they should be replaced, as follows:

— Press the tab **(B)** of the blade catch spring and push the blade towards the base of the arm **(A)**.

— When the catch spring has been freed from the curved top of the arm, withdraw the blade from the arm through the slot.

— Insert a new blade passing it through the curved top of the arm **(A)** through the slot.

— Lift the blade to clamp tab **(B)** of the coupling spring with the curved top of the arm.

**IMPORTANT** The blades may differ according to the versions. In any case, follow the instructions provided in the packs available as spares from Alfa Romeo Authorized Services.

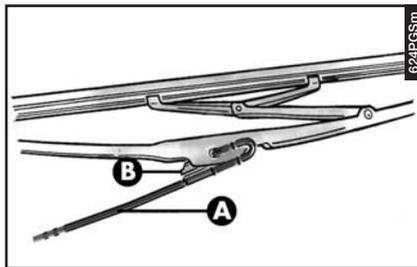


fig. 24

## SPRAY JETS

Make sure that the windscreen and headlight washer jets deliver a jet of fluid which is adequate and correctly directed.

If the spray devices are not working check that the supply circuit is not blocked. If necessary unclog the nozzles using a needle.

## BODYWORK

### PROTECTION FROM ATMOSPHERIC AGENTS

Alfa Romeo employs manufacturing technologies which are designed to protect the bodywork against chemical corrosion caused by various factors, for example:

- atmospheric pollution.
- Salty air and humidity (coastal areas, hot-humid climates).
- Road surfaces covered with salt and de-icing products during the winter.

To further increase resistance against corrosion the following procedures have been adopted:

- painting system and paint products which render the vehicle particularly resistant to corrosion and abrasion.
- Wide use of sheet metal which is extremely resistant to corrosion.
- Spraying of the underbody, engine bay, wheel arches and boxed parts with suitable products which adhere strongly to the metal parts and have a high protection capability.

— Application of enamels with greater resistance to atmospheric pollutants.

— Adoption of “open” boxed parts to prevent condensation from triggering corrosion from the inside.

The underbody is treated with the application of a special protective material.

If this protective layer requires restoration the exhaust system, lambda probe and catalytic converter must be left free of any wax, oil, plastic and/or inflammable product.

This should therefore be carried out by Alfa Romeo Authorized Services.

## RECOMMENDATIONS TO PRESERVE THE BODYWORK

Particular care should be taken to ensure that residual deposits of industrial dust, tar spots, dead insects etc. do not remain on the bodywork.

Where possible do not park under trees as, during certain seasons, residues, buds and leaves containing chemical substances which are harmful to the paint may fall onto the vehicle.

When topping up ensure that petrol, lubricating oil, brake fluid, liquid for the cooling system, battery electrolyte solution etc. is not splashed onto the bodywork.

If this should occur however, clean the area immediately and wash the vehicle as soon as possible.

## 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 by a specialised workshop to avoid the formation of rust.

Normal paint maintenance consists in washing at intervals depending on the conditions and environment of use.

For example:

- in areas with high atmospheric pollution.
- Roads sprayed with salt.
- Parking under trees that release resinous substances.

It is wise to wash the car more frequently.

Alfa Romeo markets a complete series of products specifically designed for the care and cleanliness of its vehicles (shampoo, wax, touch-up paint stick, stain remover, polish etc.).

The characteristics of these products are compatible with the type of paint, gaskets and trim of all Alfa Romeo vehicles.

The application of these products should however be carried out by Alfa Romeo personnel who will be able to guarantee the best results and avoid problems which may compromise the bodywork warranty cover.



**Detergents cause water pollution. The car should therefore be washed in areas equipped for the collection and purification of the liquid used in the washing processes.**

To correctly wash the car, proceed as follows:

- 1) Spray the vehicle with a low pressure jet of water.
- 2) Pass a sponge moistened with a light detergent solution (2-4% shampoo in water) over the bodywork rinsing the sponge frequently.
- 3) Rinse well with water and dry with a jet of air or chamois leather.

When drying off take particular care to cover the less visible parts like the bonnet and boot lids and around the headlights where water may stagnate.

The vehicle should not be taken to an enclosed area immediately but left in the open so that the residual water can evaporate.

Do not wash the vehicle after it has been left in the sun or when the bonnet is hot as this may alter the shine of the paintwork.

Plastic parts must be cleaned in the same way as the rest of the vehicle. Specific products need only be used when dirt is particularly resistant.

**IMPORTANT** Bird droppings must be washed off immediately as the acid contained in them is particularly aggressive.

To better protect the paint, occasionally polish with special products (silicone wax) which leave a protective layer on the body.

## WINDOWS

Use specific products to clean the windows. Clean cloths should be used to avoid scratching or altering the transparency of the glass.



**The inside of the rear windscreen 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. Contact a specialised workshop to have this done.



**Detergents cause water pollution. The car should therefore be washed in areas equipped for the collection and purification of the liquid used in the washing processes.**

**IMPORTANT** The vehicle should be washed with the engine cold and the ignition key turned to **STOP**. After washing make sure that the various protections (e.g. rubber caps and recess covers) have not been damaged or removed.



For washing the engine compartment, you are recommended to use **"FULCRON"** available in Alfa Romeo Lineaccessori. In any case, only use soda-free detergent solutions preferably alkalined with metasilicates.

After washing the engine compartment it must be accurately rinsed with a specific operation and dried. In fact the normal passage of the body washing tunnel is unable to rinse the engine compartment adequately.

## INTERIOR FITTINGS

Periodically check that water is not trapped under the carpets (due to water dripping off shoes, umbrellas etc.) which could cause oxidation of the sheet metal.

### CLEANING SEATS AND CLOTH PARTS

— For the seats and parts in fabric (velvet, suede, etc.) dust may be removed using a soft brush.

— To remove grease stains specific products may be used closely following the manufacturer's instructions.

— For more accurate cleaning, rub the seats with a sponge moistened with a solution of water and neutral detergent in the proportions stated on the package.

## CLEANING LEATHER PARTS

— Remove dried on dirt with a chamois leather or a lightly moistened cloth without pressing too hard.

— Remove liquid and grease stains with a dry absorbent cloth without rubbing. Following this wipe with a soft cloth or chamois leather moistened with water and neutral soap.

If the stain persists use specific products in accordance with the instructions for use.



**Never use spirit or alcohol-based products.**



### **WARNING**

***Never use inflammable products such as fuel oil ether or rectified petrol. The electrostatic charges generated by rubbing when cleaning may cause fire.***

## PLASTIC PARTS

Should it be necessary to remove dust, dirt, etc. from the surface of the light units (and/or direction indicators) only use a solution of neutral soap and water and a soft cloth.

Absolutely never use chemical solvents and/or petroleum derivatives such as petrol, methylated spirits, ammonia, acetone, etc. which could spoil the material and reduce its transparency, adversely affecting travelling safety.

For internal plastic parts use specific products to preserve the appearance of the components.



**Never use spirit or petrol to clean the glass on the instrument panel.**



### WARNING

***Do not keep aerosol cans in the car. There is the risk they might explode. Aerosol cans must never be exposed to a temperature above 50°C. The temperature inside the car might go well beyond that figure when exposed to the sun's rays.***

## I.C.S. MASK AND CENTRAL CONSOLE

Remove finger prints with common alcohol-free water and surfactants glass detergent. Rub surfaces with a clean cotton rag moistened with detergent.