

GETTING THE BEST OUT OF YOUR CAR

Reading this chapter and following the advice, recommendations and specification given in it will make it possible for you to get the best from your vehicle in terms of safety, performance, reliability and length of life.

This chapter mostly deals with procedures of a general nature.

However, in some cases, it may deal with exclusive and particular operations.

Pay close attention therefore to the information given as this will allow you to exploit your vehicle to the full.

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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".



In addition to the notes and specifications given below 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 engine 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 ignition 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 **MAR** to the **AVV** position.

PROCEDURE FOR PETROL ENGINES

With cold engine:

- 1) Engage the handbrake.
- 2) Ensure that the systems and electrical devices, especially if they absorb high quantities of energy (e.g. heated rear windscreen), are switched off.
- 3) – Versions with mechanical transmission: set the gearshift lever to neutral and fully depress the clutch without pressing the accelerator.
– Versions with automatic electronic transmission (Sportronic): make sure that the gearshift lever is at **P** and keep the brake pedal fully depressed without pressing the accelerator.
- 4) Turn the ignition key to the **AVV** position releasing it as soon as the engine starts.



Never leave the ignition key in the MAR position when the engine is switched off.

5) If the engine does not start immediately, return the key to the **STOP** position and repeat the operation

With hot engine:

- 1) Engage the handbrake.
- 2) Ensure that the systems and electrical devices, especially if they absorb high quantities of energy (e.g. heated rear windscreen), are switched off.
- 3) – Versions with mechanical transmission: set the gearshift lever to neutral and fully depress the clutch without pressing the accelerator.
– Versions with automatic electronic transmission (Sportronic): make sure that the gearshift lever is at **P** and keep the brake pedal fully depressed without pressing the accelerator.
- 4) Turn the ignition key to the **AVV** position releasing it as soon as the engine starts.
- 5) If the engine does not start immediately, return the key to the **STOP** position and repeat the procedure, slightly pressing the accelerator pedal without pumping it.

IMPORTANT If it is difficult to start the engine do not insist with extended attempts which may damage the catalyzer but contact Alfa Romeo Authorized Services.

PROCEDURE FOR DIESEL VERSIONS

- 1) Engage the handbrake.
- 2) – Versions with mechanical transmission: set the gearshift lever to neutral and fully depress the clutch without pressing the accelerator.
– Versions with automatic electronic transmission (Sportronic): make sure that the gearshift lever is at **P** and keep the brake pedal fully depressed without pressing the accelerator.
- 3) Turn the ignition key to the **MAR** position. the  warning light on the instrument cluster will turn on.
- 4) Wait for the  warning light to go off, which will depend on how warm the engine is. If the engine is very warm the turning on of the warning light may be so fast as to go by unobserved.
- 5) Turn the ignition key to **AVV** as soon as the  warning light goes off. Waiting too long would make the glow plug heating work pointless.



For versions/markets where applicable the warning light  flashes for about 30 seconds after starting the engine meaning that there is a fault to the glow plug warming system, in which case, contact Alfa Romeo Authorized Services.

IMPORTANT The electric devices that absorb much energy (air conditioner, rearscreen heating, etc.) are disengaged automatically during engine starting.

If the engine does not start at the first attempt, move the ignition key back to the **STOP** position before repeating starting.

If starting is difficult (with the Alfa Romeo CODE system efficient), do not insist with prolonged attempts.

Only use an auxiliary battery if it is noted that the cause is due to low charge of vehicle's battery. Never use a battery charger to start the engine (see "If the battery is flat" in the chapter "In an emergency").

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 is between 50 and 60°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 hard journey, it is advisable to allow the engine to "get its breath back" before switching off, running it at idle speed to allow the temperature in the engine compartment to cool down.



For vehicles equipped with turbocharger in particular and for other vehicles in general, revving the engine before switching off should be avoided.

Revvng the engine serves no purpose and consumes fuel for no reason. It may also cause damage to the bearings on the rotor.

EMERGENCY STARTING



Do not bump, tow or coast start the vehicle as this would irreparably damage the exhaust gas catalyzer.

Starting with an auxiliary battery

If the engine does not start (with the Alfa Romeo CODE system efficient), use an auxiliary battery as described in the chapter "In an emergency".

SAFE DRIVING

This paragraph supplies suggestions and indications for the correct and safe use of your vehicle in the most common situations.

In addition to this, suggestions are given concerning the main organs which ensure the safety of the vehicle and its passengers.

BEFORE DRIVING OFF

Before driving off, especially before a long journey, the following procedures should be carried out:

- Adjust the seat, steering wheel and rear-view mirrors in order to obtain a correct position for driving.
- Check that nothing can get under the foot pedals, especially under the brake pedal.
- If children are present in the car adhere to the instructions given in the paragraph "General instructions for the use of the seat belts and child restraint system" in the chapter "Getting to know your car".

- Check the operation of the horn.
- Check the operation and degree of wear of the windscreen wipers.
- Check the operation of the external lights and if necessary, clean the light units.
- Above all when driving at night, check the alignment of headlight beams before starting off.
- Check that no oil or other liquid is leaking out under the car.
- Ensure that luggage is stowed away correctly.
- Ensure that, in addition to yourself, all passengers have fastened their seat belts.
- Ensure that the handbrake is released and that the warning lights on the instrument panel do not indicate a malfunction. To avoid accidental movements of the car, disengage the handbrake keeping the brake pedal pressed.

The following should also be noted:

- Long distances should be tackled when in good health and should where possible be programmed, especially when the roads are busy.

- A light meal containing easily assimilable foods will help keep reflexes ready and aid concentration for a safe journey.



WHEN TRAVELLING

- Driving with care also means being able to predict the actions of other road users, respecting the speed limits and occupying the near-side lane on motorways.

- Use the direction indicators when changing direction.

- Switch on the external lights at sunset.

- Keep a safe distance from the vehicle in front. A “safe” distance will vary according to the speed of the vehicle, weather conditions and road-traffic conditions.

- Never drive with one hand resting on the gear lever. The involuntary movement of the gear lever which this causes, even if slight, will cause avoidable wear to the internal elements of the gearbox.

- Never drive with the gearbox in neutral.

- Do not drive with your foot resting on the clutch pedal as this habit leads to rapid wearing of the clutch.

- Do not drive for long periods without a break. During a break get out of the vehicle and move around a bit to shake off drowsiness.

- Ensure that the air in the vehicle is changed constantly using the many possibilities offered by the heating-ventilation and climate control system.



WARNING

Ensure that both yourself and your passengers are wearing their seat belts. Travelling without seat belts greatly increases the risks of serious injury or even death in the event of an accident.

– Do not coast the vehicle down hill with the engine switched off as this eliminates the engine braking effect thus requiring a greater effort on the brake pedal, on the power steering and considerably more effort on the steering wheel.

– If it is necessary to stop the vehicle following a malfunction, park off the road, switch on the hazard warning lights and set up the warning triangle to alert other road users of the presence of your vehicle. At all times comply with the current road traffic regulations.

PARKING

When the vehicle is parked, proceed as follows:

- Switch off the engine.
- Engage the handbrake.
- Engage first gear if parking the car uphill or reverse if parking the car on a sloping road. On cars with automatic gearbox set the gear lever to **P**.
- 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 possible draining of the battery, never leave the ignition key in the MAR position when the engine is not running.



WARNING

Never leave children unattended in the vehicle. Always remove the key from the ignition when leaving the vehicle and take it with you.

NIGHT DRIVING

Night driving involves a greater degree of concentration, both physical and nervous. Some suggestions concerning night driving follow:

- Drive with particular care, reducing speed if necessary especially on unlit roads.
- Maintain a greater distance from the vehicle in front than during the day as it is more difficult to judge the speed of a vehicle when only the lights can be seen.
- If you become drowsy stop the car and rest. continuing the journey when sleepy is dangerous for yourself and for others.

– Ensure that the headlights are correctly aligned: if they are too low visibility is reduced and if they are too high they may cause disturbance to other users.

– use the main-beam outside built-up areas and only when you are certain that other drivers are not disturbed by their use.

– When meeting vehicles coming in the opposite direction, switch off the main-beam and drive with the dipped-beam headlights on.

– Keep the headlights and light units clean at all times.

DRIVING UNDER ADVERSE WEATHER CONDITIONS

Rain and fog can be extremely dangerous if the style of driving is not adapted to suit these conditions. Some suggestions are given below:

- if the road is wet, the friction between wheel and asphalt is greatly reduced thus increasing the stopping distance and decreasing road holding when cornering.

Reduce speed and keep further back from the vehicle in front.

- Heavy rain and fog reduce visibility. Headlights should be switched on as the road traffic laws and common sense dictate, above all to render yourself visible to others.

- Do not drive over puddles or flooded roads at high speed as the aquaplaning phenomenon may cause you to lose control over the vehicle.

- If visibility is already reduced prevent it from worsening by ensuring that the windows do not steam up. Use the heating-ventilation controls as indicated in the chapter “Know your vehicle”.

- Check the condition of the windscreen wiper blades.

- If fog is very thick avoid travelling where possible. If travelling cannot be avoided drive with extreme care and moderate your speed. Avoid overtaking.

- If the vehicle is forced to stop owing to a malfunction or zero visibility conditions, pull off the road, switch on the hazard warning lights and if possible, the dipped-beam headlights.

MOUNTAIN DRIVING

Mountain driving requires a greater degree of concentration. Some practical hints follow:

- Before driving off check the level of fluids (engine oil, brakes, coolant) and the state of the tyres.

- When travelling down hill use the engine braking by engaging lower gears to prevent the brakes from overheating.

- Never coast downhill 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 uphill 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.

WINTER DRIVING

If the temperature falls below 0°C or in the presence of snow or ice the following recommendations should be followed:

- Before driving off check that the windscreen wipers are not frozen to the windscreen.

- Remove the snow from the air intake (grille) at the base of the windscreen.

- Do not stop long on deep snow with the engine running: the snow might divert the exhaust gas carbon monoxide into the passenger compartment.

- Ensure that brakes and tyres are in perfect working order.

- Ensure that the detergent liquid located in the windscreen/headlight washers has been topped up with anti-freeze and anti-scale additives.

- Use engine braking where possible and avoid abrupt braking.

– 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.

IMPORTANT To avoid damaging tyres do not drive on bare patches of asphalt with snow chains fitted to the vehicle. In extreme cases proceed slowly and remove the chains as soon as possible. When driving on snow with snow chains fitted, it might be helpful to turn off the ASR function of the VDC system (if present): in fact, in these conditions, skidding of the driving wheels when moving off makes it possible to obtain higher traction.

BRAKES

An efficient braking system is vital to the safety of the vehicle and its passengers.

To use the brakes correctly and to improve their efficiency and limit wear the following recommendations should be followed:

– Do not drive with your foot resting on the brake pedal.

– Ensure that the brake pedal is not blocked by the mat or other objects.

– Check the efficiency of the braking system especially before long journeys.

– Check the handbrake and brake fluid minimum level warning light (ⓘ) on the instrument panel. If the ⓘ warning light comes on and stays on when the vehicle is travelling check that the handbrake is not engaged. If it is not, stop the vehicle immediately and check the level of the brake fluid. If the level is low the anomaly affecting the circuit should be rectified immediately. If the ⓘ warning light comes on when the brake pedal is pressed, this means that the front brake pads have reached the minimum permitted thickness. Have them replaced as soon as possible by Alfa Romeo Authorized Services.

– The brake fluid is hygroscopic (i.e. it absorbs humidity). To prevent the onset of braking anomalies it should therefore be replaced every two years regardless of the kilometres travelled.

SERVO BRAKE

The vehicle is equipped with a servo-braking system (active only when the engine is running). When the engine is stationary a greater effort is required to depress the brake pedal in order to obtain the same braking effect.

ANTI WHEEL-LOCK SYSTEM (ABS)

The vehicle is equipped with an ABS system with electronic braking device (EBD), the following should be heeded:

– A slight pulsing may be felt on the brake pedal caused by the intervention of the ABS system.

– The performance of the system, in terms of active safety, should not induce the driver to take unnecessary and unjustified risks.

– The conduct of the driver must always reflect weather, road and traffic conditions.

– Deceleration always depends on the degree of grip between the tyres and the road surface. Obviously road holding is

greatly reduced when there is ice or snow on the road. Under these conditions the stopping distance is increased despite the use of the ABS system.



WARNING

The ABS system does not dispense the driver from driving carefully, especially when the road is icy, snowed over or wet.



WARNING

The car is fitted with an electronic braking device (EBD). If the (ABS) and (!) warning lights turn on at the same time, this means that there is an EBD system fault; in this case violent braking may be accompanied by early rear wheel locking, with the possibility of skidding. Drive the car extremely carefully to the nearest Authorized Alfa Romeo workshop to have the system checked.



WARNING

The turning on of only the (ABS) 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 are advised to go immediately to the nearest Authorized Alfa Romeo workshop, driving in such a way as to avoid sharp braking, to have the system checked over.

BRAKE ASSIST (Brake assist in an emergency)

This system, that cannot be cut out, recognizes emergency braking on the ground of the brake pedal operation speed and allows to speed up the braking action.

On versions fitted with VDC system, Brake Assist is deactivated in the event of VDC system failure (indicated by the switching on of the relevant warning light).

VDC SYSTEM (VEHICLE DYNAMICS CONTROL):

The VDC is an electronic vehicle stability control system which, acting on the torque and braking the wheels in a differentiated manner, helps to bring the car back to the correct course in the event of loss of 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 system performance levels, in terms of active safety, should not induce the driver to run pointless and unjustified risks. Driving conduct should always be suited to the conditions of the road surface, vision and traffic. The responsibility for road safety is always and anyway the vehicle driver's concern.



WARNING

The VDC system helps the driver to keep control of the car in the event of loss of tyre grip.

The forces induced by the VDC system to control the lack of stability of the car always and anyway depend on the grip between the tyre and the road surface.

The VDC system turns on automatically when the car is started and cannot be switched off. It is however possible to cut off operation of the ASR system pressing the corresponding button on the centre console.

ASR FUNCTION (ANTISLIP REGULATION): GENERAL

The ASR system integrates the VDC system controlling the vehicle drive and coming into operation automatically each time one or both driving wheels skid.

POWER STEERING

The hydraulic power steering is only active when the engine is running. If the engine is switched off greater effort will be required to turn the wheel.

As the steering system is a mechanical organ which is closely tied to driving safety, the vehicle should be stopped and Alfa Romeo Authorized Services contacted if an anomaly is detected.

IMPORTANT Keep the steering wheel turned at the end of its stroke, in both directions, only for the strictly indispensable time.

WINDOWS

Do not apply stickers or similar adhesives to the windows as these may distract the driver and block his vision.

WINDSCREEN WIPER BLADES

The windscreen wiper blades should be checked periodically. Dirty or worn blades greatly reduce visibility. The windscreen and windows should be cleaned regularly and grease, dirt and tar removed. In this way the life of blades will be extended considerably.



When changing the wiper blades follow the instructions contained in the package which is available as a spare part and read the indications given in the "Car maintenance" chapter of this booklet.

Before operating the windscreen wipers, remove snow or ice from the windscreen and check that the wiper blade is not frozen to the windscreen. Use an antifreeze product if necessary.

Do not operate the windscreen wipers on dry glass.

WHEELS



WARNING

The jack should only be used when changing a wheel; Do not work under the vehicle when this is only supported using the jack.



WARNING

While the specified dimensions remain unchanged, for travelling safety and correct operation of the VDC, ASR and ABS systems the tyres must absolutely be of the same brand and type on all wheels, in perfect conditions and above all of the specified type and brand.



WARNING

On cars fitted with tyres 215/55 R16 (), 225/45 R17, 235/40 R18 and spare wheel with tyre 215/55 R16 (*), since the spare wheel is different from the standard wheels, observe the instructions for use given below. (*) For versions/markets where applicable tyres 205/55 R16.*

The wheels (rims and tyres) installed in the factory are those which are most suited to the characteristics of the vehicle and guarantee the greatest degree of safety and comfort under all normal driving conditions.

Before replacing the rims or tyres installed on your vehicle consult the table indicating the permitted types given in the "Technical specifications" chapter of this manual or contact Alfa Romeo Authorized Services.

The original rim-tyre match should be followed when changing tyres.

SPARE WHEEL

Cars fitted with steel rims and tyres 215/55 R16 (*) have spare wheel identical with the standard wheels. Cars fitted with aluminium alloy rims and tyres 215/55 R16 (*), 225/45 R17 and 235/40 R18 have the spare wheel with steel rim and tyre 215/55 R16 (*).

(*) For versions/markets where applicable tyres 205/55 R16.

IMPORTANT (when using a spare wheel different from the other wheels of the car)

- The spare wheel should only be used in an emergency.
- Use of the spare wheel should be kept to a minimum. Do not drive at speeds of over 80 km/h.
- The car will handle differently when the spare wheel is fitted. Avoid sudden acceleration or braking, sharp corners and fast bends.
- Check at regular intervals that spare wheel pressure is equal to 2.7 bar (2.7 kg/cm²).

– Two or more spare wheels should never be used together. Have the wheel changed repaired and refitted as soon as possible.

Rims

The bolts should be tightened to a torque of 86 Nm (8.8 kgm).

Tyres

The tyres installed on the vehicle are of the tubeless type and do not have an inner tube. To obtain the greatest degree of comfort, safety and length of life of the tyres, the following recommendations should be observed.

– With new tyres do not drive at full speed until the first 100 km have been reached.

– Before entering a tight bend, even if the vehicle permits it, reduce speed.

– Avoid sharp acceleration and unnecessary braking.

– Do not travel for long periods at sustained high speed especially on rough roads.

– Have the wheels balanced and the front and rear axles set correctly.

– Avoid hitting the side walls of the tyres, for example when parking.

– Never tamper with the valve on the tyre.

– Do not insert anything between the rim and the tyre.

– If the rim is bent, have it replaced.

– In the event of an abnormal drop in the tyre pressure replace the wheel and have it checked.

– When balancing the wheels use the counterweights which are specifically designed for tubeless tyres. To balance light alloy rims only Alfa Romeo original weights should be used.

– The tyre pressure, including that of the spare wheel must reflect the indications given in the “Technical specifications” of this manual.

– Have the tyres checked periodically to ensure that they are not damaged in any way.

– Second-hand tyres of unknown origin or over 6 years old must only be used in emergencies and with great care.

– Inner tubes must not be fitted to tubeless tyres.

– Avoid parking the vehicle on the edge of a step or other irregularities in the road surface.

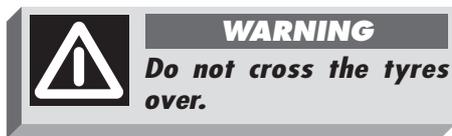
– Have the tyre tread checked periodically and replace when the legal minimum is reached.

IMPORTANT Some types of tyres are fitted with wear indicators. As soon as these wear indicators appear on the tyre tread, the tyres must be replaced.

Periodically check that the tyres are not showing signs of irregular tread wear. If they are, contact Alfa Romeo Authorized Services who will eliminate the cause of irregular wear.

Tread wear increases the danger of aquaplaning on wet surfaces.

To ensure uniform wear between the tyres on the front axle and those on the rear axle, the tyres should be switched around every 10,000 - 15,000 km keeping the tyres on the same side of the vehicle to avoid inverting the direction of rotation (**fig. 1**).



Note for one way tyres: There are arrows on the side of one-way tyres indicating the direction of rotation. When a wheel is changed (for example after a puncture, the direction of the arrow on the spare wheel might not coincide with the direction of rotation of the wheel to be changed. Even in these conditions the tyre is still safe but you are advised to have the tyre repaired and refitted as soon as possible, because top performance is obtained when all the wheels turn in the direction of the arrow.

Tyre pressure and wear

The correct tyre pressure will not only ensure that your tyres last longer but will also make your vehicle safer as they have a direct influence over road holding.

The pressure of each tyre, including that of the spare tyre should be checked regularly and always before a long journey.

The tyres should be checked when cold using a pressure gauge and inflated to the pressure given in the chapter "Technical specifications".

Incorrect tyre pressure causes tyre wear (**fig. 2**):

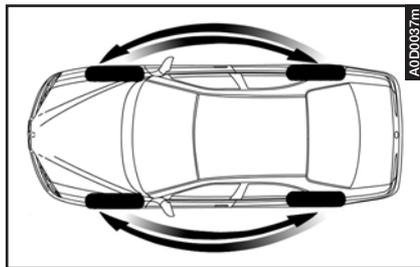


fig. 1

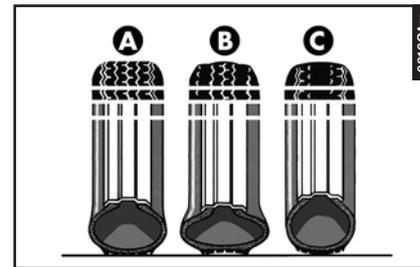


fig. 2

A - Normal pressure: tread uniformly worn.

A correct pressure will ensure a longer life for your tyre and improve performance as the tread will then be working along the entire width of the tread and wear will be more uniform.

These conditions also lead to:

- better road holding of the vehicle
- easier and more precise steering
- reduced fuel consumption due to a lower resistance against the rolling of the tyre.

B - Insufficient pressure: tread worn more along the edge.

Low tyre pressure will cause irregular wearing of the tread (greater along the sides) and cause the tyre to overheat which could lead to parts of the tyre breaking off and cause damage to the shell of the tyre itself.

This type of damage could lead to sudden loss of pressure or cause the tyre to burst.

C - Excessive pressure: tread worn more towards the centre.

Overinflating the tyres leads to:

- irregular wearing of the tread, concentrated more towards the centre of the tread
- a reduction in the level of comfort
- a greater vulnerability of the tyre to knocks

IMPORTANT When the vehicle is being used the pressure increases naturally. In exceptional cases when checking tyre pressure when hot, do not reduce the pressure.

Wheel balancing

Each wheel together with its tyre is balanced, both statically and dynamically, in the factory. When the tyres are replaced the wheels must be rebalanced to prevent vehicle instability, wearing of the components of the steering system and irregular tyre wear.



When balancing wheels made of light alloy only original Alfa Romeo counterweights should be used.

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.

WARNING 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.

SNOW CHAINS

Use of snow chains should be in compliance with local regulations. Snow chains should only be applied to the drive wheels (front). The sport connotation of the vehicle requires the use of specific types of snow chain. Alfa Romeo Authorised Services should first be contacted before purchasing or using snow chains. Check the tension of the chain after the first few dozen metres have been driven.

IMPORTANT When driving on snow with snow chains fitted, it might be helpful to turn off the ASR function of the VDC system (if present): in fact, in these conditions, skidding of the driving wheels when moving off makes it possible to obtain higher traction.



Snow chains can be fitted only on wheels with 6.5J x 16" rims and 215/55 R16 tyres or 7.5J x 17" rims and 225/45 R17 tyres.
(* Pour versions/marché lorsqu'il est prévu pneus 205/55 R16.



Drive at a moderate speed when snow chains have been fitted to the wheels. Avoid potholes, steps and pavements, and do not drive for long stretches on snow-free roads, otherwise you risk damaging the tyres, suspension and steering.

ECONOMY AND ENVIRONMENT-FRIENDLY DRIVING

How you use and how you drive your vehicle directly influence fuel consumption and environmental impact.

By following a few simple guidelines and without incising on the "liveliness" of the vehicle, it is possible to avoid damaging the environment and often, at the same time, to limit fuel consumption.

The following helpful suggestions will allow you to save in running costs and reduce harmful emissions.

GENERAL CONSIDERATIONS

Vehicle maintenance

The conditions of the vehicle are an important factor which affects fuel consumption as well as driving tranquillity and the life of the car itself. For this reason, care should be given to maintenance, having the checks and adjustments given in the scheduled maintenance programme carried out (see ... spark plugs, idle speed, air/fuel oil filter, timing).

Tyres

Check the tyre pressure at least every 4 weeks: if the pressure is too low, consumption increases as resistance to rolling is higher. It should also be underlined that in these conditions, tyre wear increases resulting in poor handling and lower safety.

Useless loads

Do not overload the boot (especially in town), as this will heavily affect fuel consumption and stability of the vehicle.

Roof rack/ski rack

Remove the roof rack or ski rack immediately after use. These accessories lower air drag and adversely affect consumption levels. For particularly bulky loads the use of a trailer is preferable.

Electric services

Use electric devices only for the necessary time. Rearscreen heating, additional headlights, wipers and the heater fan consume a considerable amount of energy, increasing the need for current and fuel consumption (up to +25% in the urban cycle).

Climate control system

The climate control system is a further load that weighs considerably on the engine inducing higher consumption levels (on average up to +20%). Outside temperature permitting, preferably use the air vents.

Spoilers

The use of spoilers that have not been certified by Alfa Romeo can adversely affect air drag and fuel consumption.

DRIVING STYLE

Starting

Do not warm the engine stationary at idle speed or high speed: in these conditions the engine warms much more slowly, increasing consumption and emissions. It is therefore advisable to move off immediately and slowly, avoiding high speeds. This will warm up the engine more quickly.

Pointless manoeuvres

Avoid revving the engine when waiting at traffic lights and before switching the engine off. This, like revving before changing gear, serves absolutely no purpose on modern cars and increases consumption and emission levels.

Gearshifting

As soon as the road and traffic conditions permit it, engage a higher gear. The use of a low gear to obtain lively accelerating increases fuel consumption.

In the same way, incorrect use of a gear increases consumption, emission and engine wear.

Top speed

Fuel consumption increases considerably with the speed of the car: it is helpful to observe that passing from 90 to 120 km/h consumption increases by + 30%. Also maintain the most uniform possible speed, avoiding superfluous braking and accelerating which cost fuel while increasing emission levels. You are therefore advised to adopt a “smooth” driving style, trying to anticipate manoeuvres to avoid imminent danger and respect safety distances to avoid having to slow down abruptly.

Acceleration

Violent accelerating bringing the engine to high rpm has a considerable adverse effect on consumption and emission levels; it is wise to accelerate gradually without exceeding the maximum permissible torque.

CONDITIONS OF USE

Cold starting

Brief and frequent cold starts do not allow the engine to reach the optimum operating temperature. This leads to a significant increase in consumption (from +15% up to +30% in the urban cycle) and in the emission of pollutants.

Traffic situations and road conditions

Rather high consumption levels are linked with heavy traffic situations, for example in slow-moving queues with the frequent use of low gears or in big towns with many traffic lights.

Also winding mountain roads and rough roads adversely affect consumption levels.

Halts in the traffic

During prolonged halts (e.g. level crossings) it is advisable to switch the engine off.

PROTECTING EMISSION REDUCING DEVICES

The correct operation of the anti-pollution devices not only guarantees respect for the environment but also has a great influence on vehicle performance.

These devices should be kept in good condition to permit economical and ecological use of your vehicle.

The programmed Maintenance Schedule should be carefully followed.

For petrol engines, only unleaded fuel should be used.



If starting is difficult, do not insist with prolonged attempts. Do not push, tow or coast start the vehicle: these may all damage the catalysts.

Use an auxiliary battery to start the vehicle in an emergency.

If the engine is not “running smoothly” when the vehicle is travelling, reduce the request for performance to a minimum and contact Alfa Romeo Authorized Services as soon as possible.

When the fuel reserve warning light comes on fill up as soon as possible. A low fuel level may cause an irregular supply to the engine with inevitable increase of the exhaust gas temperature.

When travelling downhill for long stretches slightly rev the engine every now and again. This action will extend the life of the catalyzer.

Never run the engine, even as a test, with one or more spark plugs disconnected.



WARNING

During normal operation the catalytic converter reaches high temperatures. Do not therefore park the vehicle over inflammable materials (grass, dry leaves, pine needles etc.): fire hazard. Do not install other heat shields and do not remove the existing ones on the catalyst and on the exhaust pipe. Do not spray anything on the catalyst, lambda sensor and exhaust pipe.



WARNING

The failure to follow these rules may cause a fire hazard.

TOWING TRAILERS

GENERALITIES

The vehicle can be used to tow trailers after a suitable tow hook has been fitted. Alfa Romeo retails a tow hook which fulfils the safety and legal requirements. This tow hook should be fitted by Alfa Romeo Authorized Services which will ensure a better result and avoid problems arising which may jeopardise the body-work warranty cover.



WARNING

The ABS system with which the car is fitted does not control the trailer braking system. Particular care is therefore necessary on slippery surfaces.



WARNING

Under no circumstances should the hydraulic braking system of the vehicle be tampered with to control the brakes of the trailer.

The trailer's braking system must be separate from the vehicle's hydraulic system.

The vehicle-trailer match must conform to the specifications of the road-traffic laws.

Towing weight refers to the overall weight of a fully loaded trailer including all accessories and personal belongings. To avoid sanctions the overall weight of a fully loaded trailer should be checked to ensure that it does not exceed the limits given in the log book.

The vertical loading on the ball hook should not in any case exceed the limits specified in the "Technical specifications" section.

When hooking up a caravan or trailer check that the maximum towable weights (given in the log book) and the maximum load permitted on the vehicle's tow hook (given on the label applied to the structure of the trailer), are above or equal to the overall weight and loading on the towing eye.

WARNINGS AND SUGGESTIONS

Some indications concerning driving with a trailer are given below:

- Install the specific rear-view mirrors as specified by law.
- Remember that when towing a trailer steep inclines are harder to climb.
- When travelling down hill engage a low gear rather than constantly using the brake.
- Drive within the permitted speed limits for vehicles with trailers. In any case the maximum speed should never exceed 100 km/h.

INSTALLING TOW HOOK

(fig. 3)

The chart shows the attachment points for fixing the tow hook to the body.

These points must not be changed irrespective of the shape and size of the hook. For mechanical connection the following must be used:

– “ISO 50” 2nd category ball hook (CUNA Table NC 138-40)

– 2nd category ball eyelet model “CUNA 502” (CUNA Table NC 438-40)

The tow hook structure must be fastened in the points shown by the symbol  with a total of 12 M10 screws.

The inner plate (1) should be at least 4 mm thick.

The side plates (2) should be at least 5 mm thick.

The fastening points (3) must be fitted with a spacer with a 25 mm diameter and 6 mm thickness.

IMPORTANT It is compulsory to fasten a label of suitable size and material (clearly visible) at the height of the hook ball with the wording:

MAX. LOAD ON BALL 60 kg.



WARNING

After assembly, the fastening screw holes should be sealed to prevent the infiltration of exhaust gas.

ELECTRICAL CONNECTIONS

The attachment for the trailer wiring connections are to be applied to the tow hook support in the most suitable position.

For the electrical connections a 13 pole, 12V connection must be used.

For vehicle-trailer electrical connections contact Authorized Alfa Romeo Services.



Do not connect any trailer services (fan, fridge, etc.) to the vehicle's electrical system.

Apart from the electrical branches taken off for the obligatory signalling devices, the vehicle's electrical system can only be connected to the supply cable for an electric brake and to the cable for internal light, though not above 15W, in the trailer.

The electric brake must be directly supplied by the battery through a cable with a cross-section of over 2.5 mm².

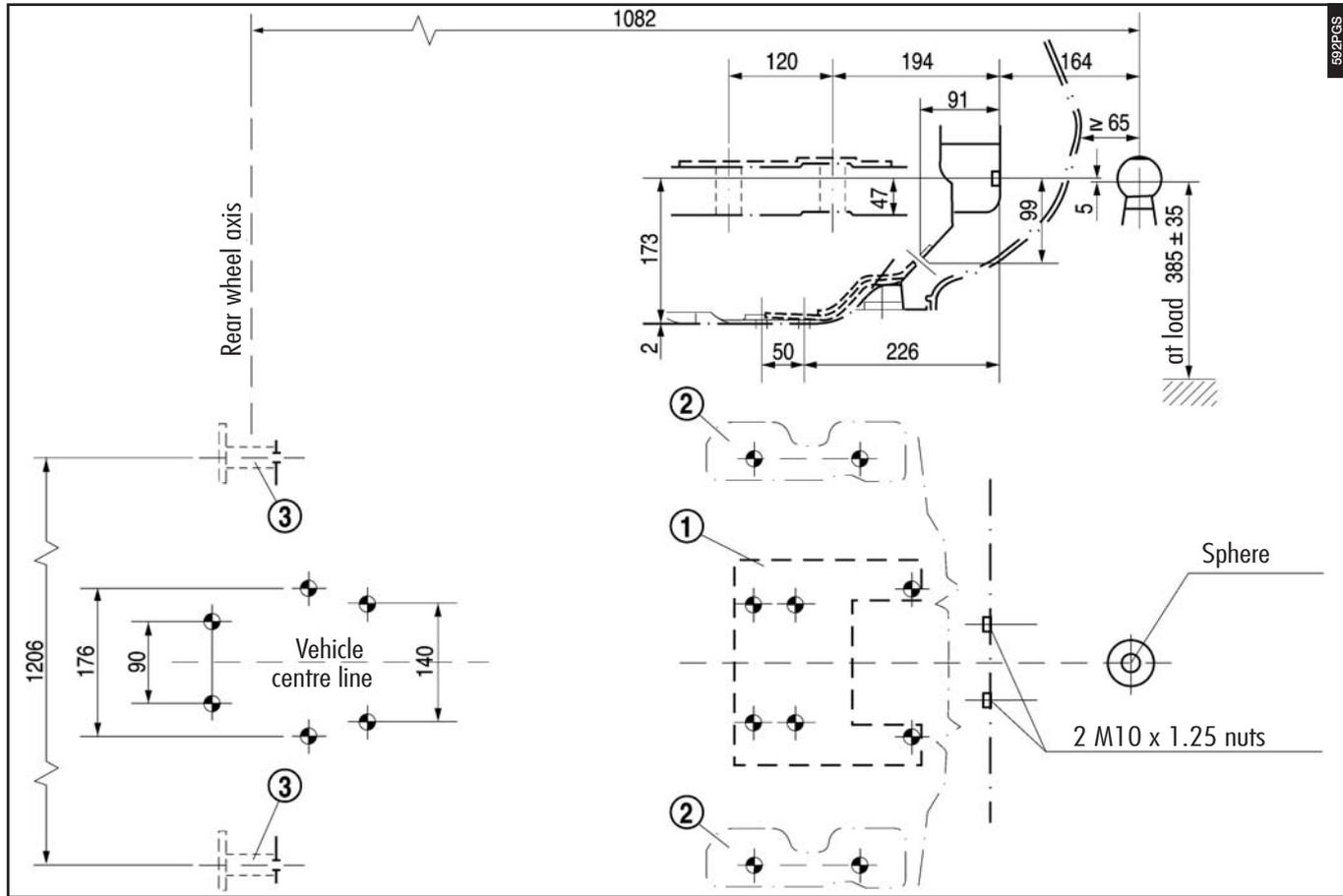


fig. 3

VEHICLE INACTIVITY

If the vehicle is to be left inactive for long periods the following precautions should be noted:

- House the vehicle under a cover in a dry and possibly ventilated place.
- Engage a gear.
- Release the handbrake.
- Clean and protect the paintwork by applying silicon wax.
- Cover the rubber windscreen wiper blades with talcum powder and raise them off the glass.
- Open the windows slightly.
- Cover the vehicle with a cloth or perforated plastic cover. Do not use compact plastic covers which prevent the humidity on the surface of the vehicle from evaporating.
- 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.

- Switch off the alarm system (if fitted) with the remote control, then deactivate it with the emergency key.

- Disconnect the terminals from the battery poles (negative pole first) and check the battery charge. When the vehicle is in storage, this check should be carried out once a month. If the no-load voltage is less than 12.5V, recharge the battery.

REMOVING FROM STORAGE

Before using your vehicle after a long period of inactivity the following operations should first be carried out:

- Do not dust the outside of the vehicle.
- Visually check that there are no leaks (oil, brake and clutch fluid, engine coolant etc.).
- Replace the engine oil and filter.
- Check:
 - Gearbox-differential oil level
 - Brake-clutch fluid level
 - Level of engine coolant fluid.

- Check the air cleaner and replace if necessary.

- Check tyre pressure and ensure that they are not damaged, cracked or cut. If they are they must be replaced.

- Check the state of the drive belts in the engine bay.

- Connect the cables of the battery after checking that the charge is adequate.

- Re-activate the alarm system, if fitted, using the emergency key.

- With the gear lever in neutral start the engine and allow the engine to run for a few seconds whilst repeatedly pumping the clutch pedal.



WARNING

This operation must be performed in the open. The exhaust gases contain carbon monoxide which are highly toxic and lethal.

– Check that the various devices (headlights, direction indicators etc.) are working correctly.

IMPORTANT In order to perform these operations correctly refer to the relative subjects in the chapter “Car maintenance”.

ACCESSORIES PURCHASED BY THE OWNER

RADIO TRANSMITTERS AND CELLPHONES

Radio transmitters (e.g. CB radios) cannot be used inside the vehicle, unless you use a separate aerial mounted outside the vehicle.



WARNING

The use of CB radios or similar inside the passenger compartment (without an outside aerial) produces electromagnetic RF fields; if these are amplified by the resonance inside the passenger compartment, they may not only result in a potential health hazard, or poor functioning of the electronic system such as engine control unit, ABS/EBD control units, etc. fitted to the vehicle, but also put the safety of your vehicle in jeopardy.

The transmission and reception efficiency of this equipment may also be affected by the shielding effect of the vehicle's body.

USEFUL ACCESSORIES

Independently of current legal obligations, we suggest keeping the following in the car (**fig. 4**):

- first aid kit containing a non alcoholic disinfectant, sterile gauze, bandage roll, plasters, etc.
- torch;
- rounded scissors;
- work gloves.



fig. 4