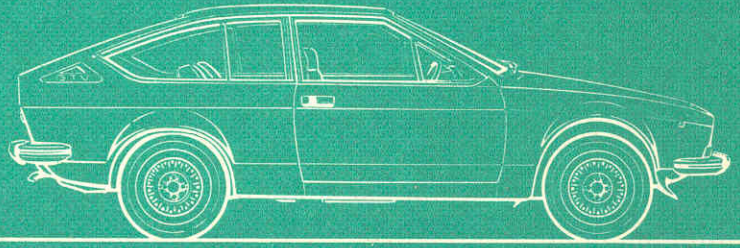
instruction book



Alfetta GT 1.6 / GTV 2000

IMPORTANT NOTICE TO OWNER

If you should have a problem or question concerning the servicing of your car, write or phone either your Selling Agent or your local Alfa Romeo Distributor. The name and address of the one nearest you appears in the "Guide to Service Network".

WARNING

Beware of the danger of carbon monoxide! Never run the engine in an enclosed space. The exhaust gases contain carbon monoxide, a deadly gas. Carbon monoxide is particularly dangerous as, being it colourless, odourless and tasteless, its presence is very difficult to detect.

The operation and maintenance instructions contained in this handbook MUST BE CAREFULLY OBSERVED by every owner who desires to get the best from this vehicle and to ensure a long life for every component. Owners are recommended, in their own interest, to entrust all maintenance and repair work to an AUTHORIZED ALFA ROMEO SERVICE STATION as such Stations are equipped with the proper tools and staffed by specially trained mechanics who are kept up-to-date by our technical literature.

ALFA ROMEO - DIREZIONE ASSISTENZA TECNICA

Features and data are approximate only; Alfa Romeo reserves the right to alter without notice any features and data given in this book. **Some of the equipment are optional extras.** Refer to **price list** for a comprehensive **list of options.**

CONTENTS

GUARANTEE

For the conditions of guarantee please refer to the «General Terms of Guarantee».

SERVICE COUPON BOOK

The **Service Coupon Book,** supplied with every vehicle, bears the conditions that govern the provision of Alfa Romeo Services and the replacement of damaged parts during the period covered by the guarantee.

The **Service Book** includes **two coupons covering certain free maintenance** during the guarantee period (lubricants, filters and/or filter elements and normal wear service items are to owner's account).
Owners must use these coupons on completion of the mileage as stated thereon.

SERVICE NETWORK

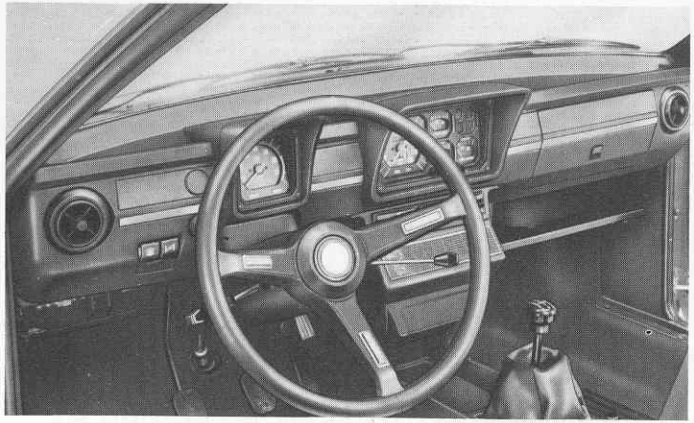
The Alfa Romeo Services in Italy and abroad are listed in the Guide supplied with every vehicle. In any event rely on your Alfa Romeo Agents who display the shield with the Alfa Romeo emblem and name.
The Alfa Romeo Services in Italy are also entered in the telephone directory under «A» Alfa Romeo.

FUEL ECONOMY HINTS

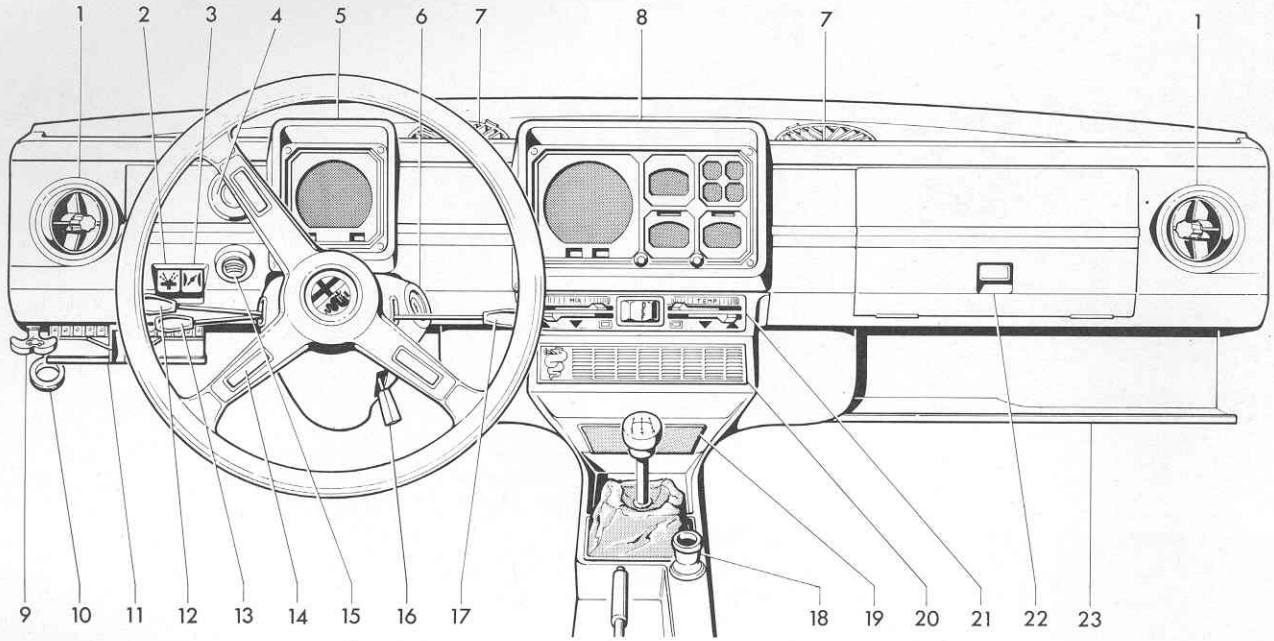
Fuel consumption is strictly dependent on ambient conditions and driving habits. However, following the suggestions given below will notably reduce petrol consumption.

- Maximum performance must not be demanded of the car when engine is cold and the use of choke must be reduced to a minimum.
- While standing still (at traffic-lights, cross roads, etc.) never race the engine uselessly.
- Drive smoothly as long as possible, without repeated hard braking and fast getaways, shifting into the higher gear consistent with traffic and road conditions.
- Do not overburden the car; it should be born in mind that loading the roof rack with bulky objects increases remarkably the car drag and consequently fuel consumption.
- If at all possible do not keep the side windows lowered; correct setting of the vent controls usually provide comfortable ventilating conditions of car's interior.
- Keep tyres inflated as prescribed (refer to inside backcover).
- If the car is equipped with an air conditioner, put the conditioner in operation only when actually needed.

Perform regular servicing at the scheduled intervals. The list of service operations is found both in the Service Coupon book and in the chapter Maintenance of this book; performing regular service is essential in ensuring a longer life to all mechanical components (thus lowering the running costs) also reducing fuel consumption.



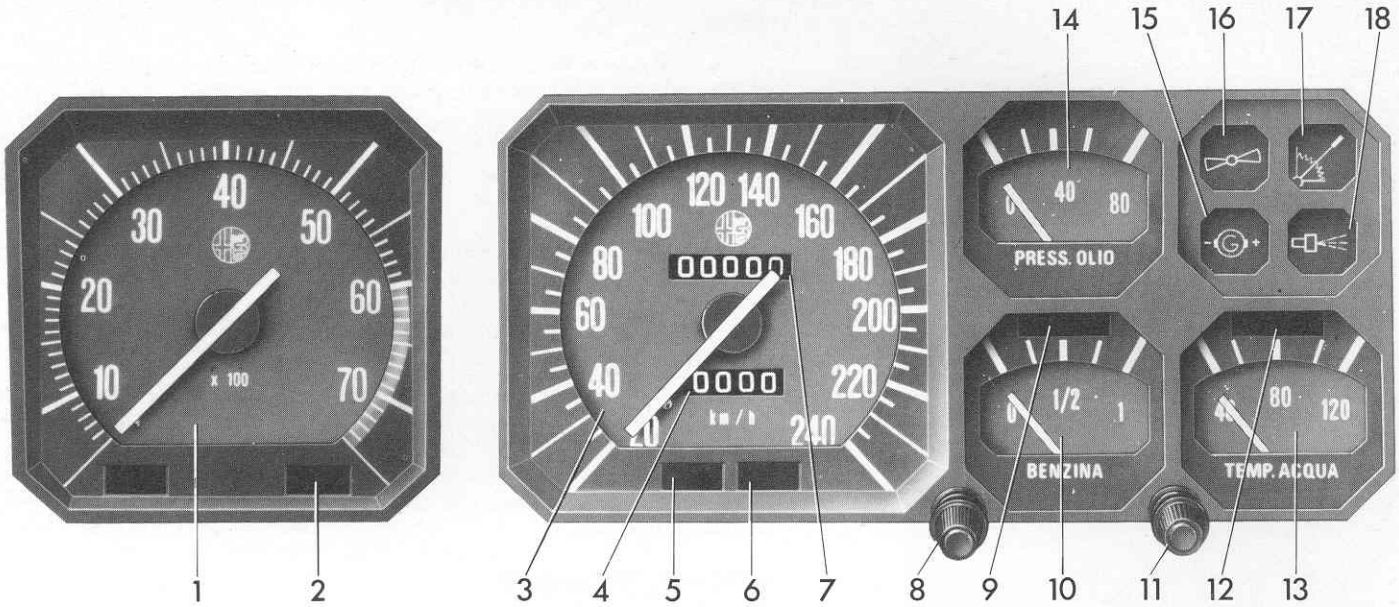
HOW TO USE YOUR CAR



CONTROLS AND INSTRUMENTS

CONTROLS

1 - Ram air vent
2 - Choke
3 - Hand throttle
4 - Road hazard light switch
5 - Tachometer
6 - Ignition switch and antitheft
7 - Windscreen demisting outlet
8 - Speedometer - Indicating instruments
9 - Bonnet catch release
10 - Bonnet emergency release
11 - Fusebox
12 - Headlamp and flashing switch
13 - Direction indicator switch
14 - Horn
15 - Heated rear window switch
16 - Adjustable wheel lever
17 - Windscreen wiper switch - Screen washer electrical pump
18 - Cigarette lighter
19 - Ash tray
20 - Provision for radio set
21 - Ventilation and heater control panel
22 - Glove compartment
23 - Parcel shelf



INSTRUMENTS

1 - Tachometer

2 - Direction indicator warning light

3 - Speedometer

4 - Trip odometer: to reset, push knob 11 and rotate it clockwise

5 - High beam warning light

6 - External light warning

7 - Odometer

8 - Dimmer for facia panel lights: to increase instrument light brilliance turn clockwise the knob.

9 - Fuel reserve warning light

10 - Fuel level indicator

11 - Trip odometer reset

12 - Coolant temperature warning light

13 - Coolant temperature indicator

14 - Oil pressure gauge

15 - Alternator warning light

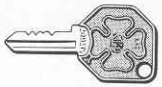
16 - Blower warning light

17 - Hanbrake and low brake fluid level warning light

18 - Choke warning light

Ignition and antitheft device key

SYMBOL .....

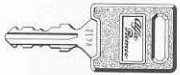


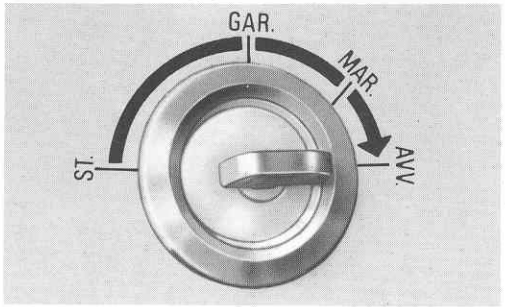
Key to doors, boot lid

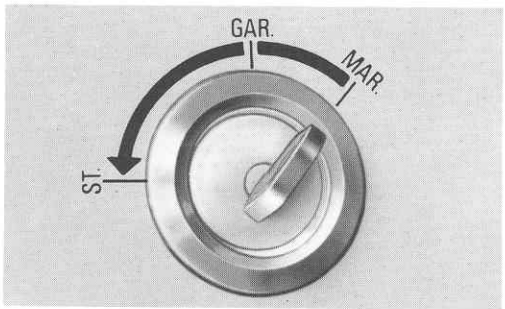
SYMBOL .....

Fuel tank filler cap

SYMBOL .....







KEYS

It is a good rule to keep a record of the symbol stamped on the key handle. When ordering duplicate keys, please quote the symbol.

STARTING THE ENGINE

Insert the key in the ignition switch and turn it clockwise to "AVV" (starting). While doing this, when the key is at "MAR" position, the alternator warning light will come on. As soon as engine starts, release the key.
If the engine fails to start, the key must be returned to "GAR" and the operation repeated.

STOPPING THE ENGINE

Return the key anticlockwise to "GAR" (garage).

IMPORTANT WARNING

Do not withdraw the key when in «GAR» position especially when the car is being towed. Further cautions about car's towing on page 24.

ANTITHEFT / STEERING LOCK

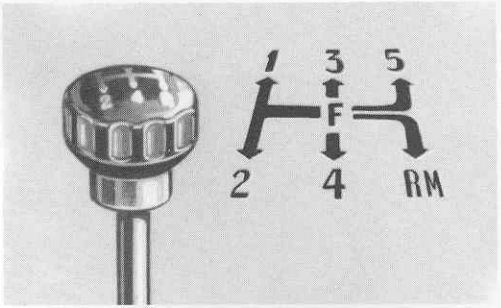
Turn the key back to ST. By withdrawing the key the steering is locked; to engage the lock properly slightly rotate the wheel in both directions.

Warning: Never withdraw the key before the car has come to a complete stop.

To release the steering lock insert the key and turn it clockwise. To help, slightly rotate the wheel in both directions.

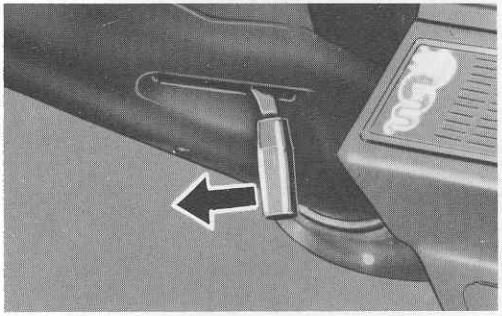
GEARSHIFT LEVER

The gear shifting diagram is shown at right.
When shifting gears, take care to depress the clutch pedal fully; this will ensure smooth operation of gearbox and save synchronizers from excessive wear.



ADJUSTING THE STEERING WHEEL

The adjustable steering wheel can be set in a position to suit your preference.
The adjustable range is about 80 mm (3 in).
Position changes can be made as follows:
- Pull the release lever toward steering wheel
- move the steering wheel to the desired position
- lock in place the wheel by pushing the lever all the way toward the facia panel.

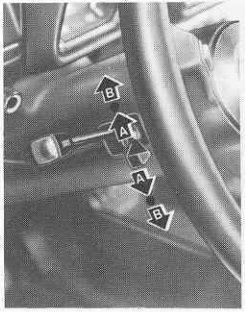


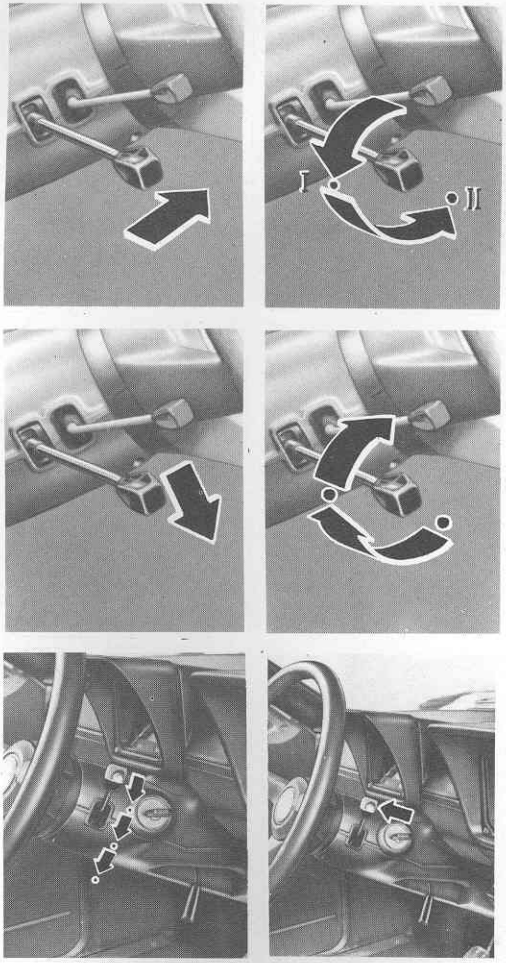
DIRECTION INDICATORS

Direction indicators are controlled by the lever shown.
Move the lever:
- up, to signal a right turn;
- down, to signal a left turn.

The green warning light on facia panel will flash on-and-off.

Note: the switch lever may be held at position A to signal either a left or a right turn and will cancel the indication immediately it is released without movement of steering wheel. When clicked into position B the switch lever holds on in fully selected position; this selection is automatically cancelled by return of steering wheel to the straight ahead position.





LIGHT SWITCH

The external lights are controlled by the lever shown.

Flashing

Pull up upon the lever knob irrespective of the position of the switch lever. Flashing is possible even when parking lights are off.

Parking lights and number plate light

To switch them on turn the knob to the first notch toward the facia panel. The green warning light in speedometer dial will light up.

Beam and dipped lights

Turn the knob forward to the second notch:
- If the lever is up, the dipped lights come on
- If on the other hand, it is down, the beam lights and the blue warning light come on (the dipped lights also stay lit).
  The movement of the lever up and down allows the light to be dipped or returned to beam.

The lights are extinguished by turning the knob back over the notches.

SCREEN WIPER AND WASHER PUMP

The screen wiper is controlled by a switch lever which has four positions:
- Lever up: the wiper is off.
- Lever down to the first click: intermittent operation. Wipers operate automatically through a single wipe at a pre-set time interval.
- Lever down to the second click: wiper operates at normal speed.
- Lever down to the third click: wiper operates at high speed.

To operate the electric screen washer pump move the screen wiper switch lever toward the wheel.

PRECAUTIONS

STARTING THE ENGINE FROM COLD

In winter

To facilitate starting, press the clutch pedal down fully and the accelerator through about one quarter of its stroke while at the same time operating the choke.
As soon as the engine fires release the ignition key, return choke halfway until the engine is warm and then push it in fully.

In summer

It is advisable to operate the choke even when ambient temperature is above 68°F (20°C): depress the accelerator pedal through one quarter of its stroke and turn the ignition key. When the engine has started, release the accelerator pedal; push choke in after a lapse of time not longer than 30-35 seconds.

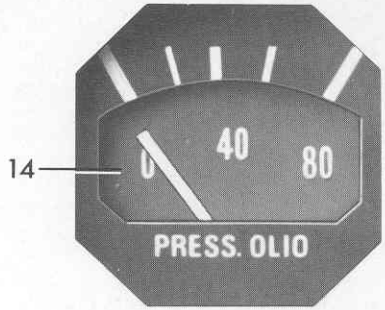
If the engine fails to start at once, do not keep turning the starting motor; wait a few minutes and try again.

Do not accelerate the engine until it has warmed up to operating temperature.

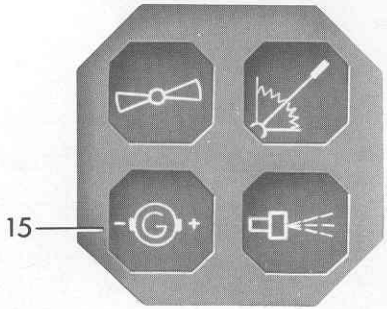
Make sure the oil pressure shown by the gauge 14 is as prescribed.

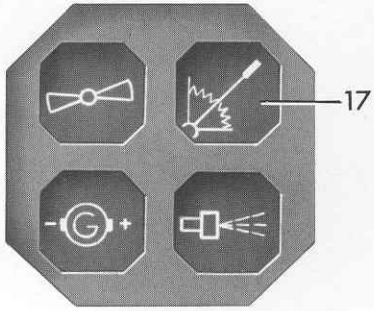
STARTING WITH HOT ENGINE

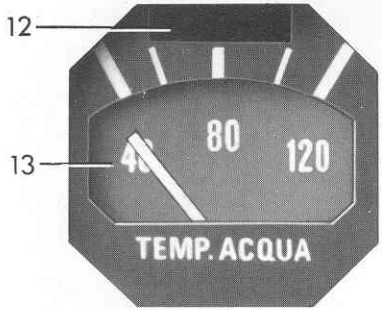
When the engine is already hot, do not use the choke. Starting will be facilitated if the accelerator is depressed about half way.



Oil pressures with hot engine		
Engine idling	minimum	5
Engine running fast	minimum	35
	maximum	45/50







Temperature °C	Temperature °F	Radiator	Reservoir	Total
− 30	− 22	1000 cc.	200 cc.	1200 cc.
− 40	− 40	2200 cc.	450 cc.	2650 cc.

WHILE DRIVING

Before pulling away, ensure the handbrake and brake fluid level warning light 17 is off; if on, push the button at the top of handbrake lever and lower it. If the warning light still remains on, check the brake fluid level (refer to page 32).

Take care not to run the engine beyond the maximum R.P.M. shown on speedometer dial with a red area.

Check the oil pressure gauge from time to time; if the pressure should fall below specified limits (see table on page 11), get the lubricating system checked by an Authorized Workshop.

Occasionally, check the coolant temperature indicator (13). Also check the coolant temperature warning light (12) on facia panel. Should the warning light come on, it is an indication of a trouble in the cooling system (engine overheating). In this case, stop the car and have the cooling system checked by an authorized Service Station.

The alternator warning light must always be off; if it comes on, stop the car as soon as possible and have the current feed circuit fault traced and remedied.

Do not coast downhill with the engine stopped; there will be no suction in the brake vacuum servo and a greater pressure will be needed with the brake pedal to obtain comparable braking effect.

WHILE PARKING

Never leave the key in the "MARCIA" position (ignition «on») to prevent battery discharge and coil damage.

Never remove radiator plug when the engine is hot but wait until the cooling system has cooled to ambient temperature.

WINTER PRECAUTIONS

The Alfa Romeo Coolant Mixture gives full protection against freezing down to -20° C (-5° F). In places where the temperature falls below -20° C, the antifreeze mixture can be made stronger by varying its concentration. To this end, a certain amount of mixture should be drained off the circuit and replaced with the same quantity of Alfa Romeo Concentrated Antifreeze. The quantities of antifreeze to be added to radiator and reservoir depending on the lowest anticipated temperature are as shown at left.

It is recommended that this operation should be entrusted to an authorized Service Station.

RUNNING-IN

To allow the various parts of the car, particularly the engine and the gearbox/differential unit, to settle in gradually, a running-in period is necessary, during which maximum performance must not be demanded of the car.

Starting from cold

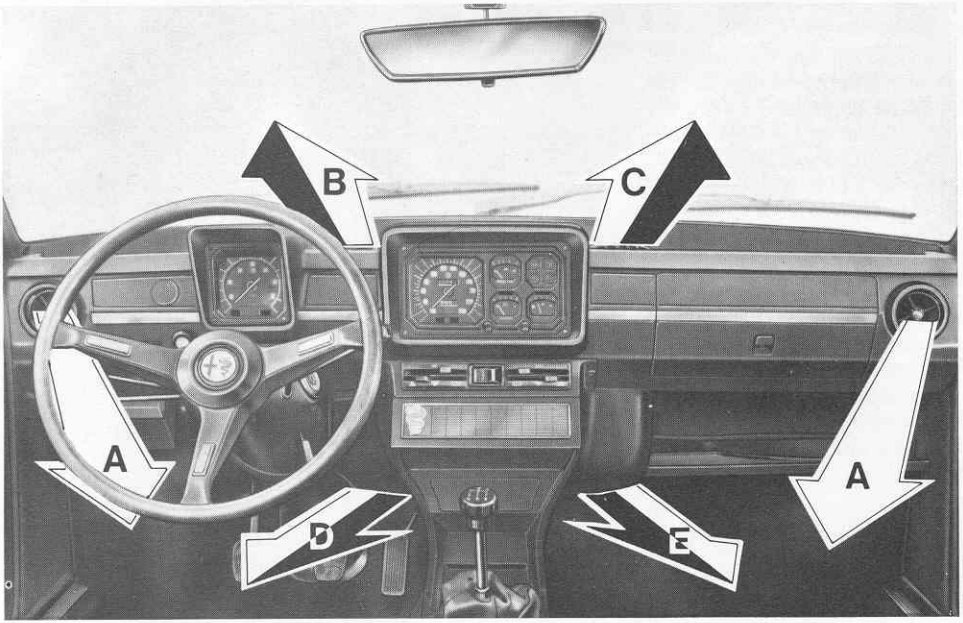
- press in choke as soon as possible;
- before driving, run engine at idle for a few minutes.

While driving

- avoid full and extended braking during the first 600 mi. (1000 km).
- do not drive at max. recommended speeds for long periods;
- never fully depress the accelerator pedal; now and then release it.

Note: The same recommendations apply also in the case of engine reconditioning involving the replacement of cylinder barrels, pistons, piston rings and bearings.

MAX. ENGINE SPEED FOR THE FIRST 900 MI (1500 Km)	
Mileage	**Max. engine r.p.m.**
Up to 300 (500 km)	3500
301 to 900 (501 to 1500 Km)	4500

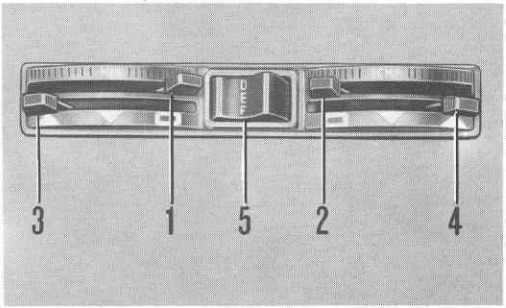


VENTILATION-DEMISTING AND HEATING

The air can be admitted to the car both through the ram ventilation outlets A and vents B,C,D,E, which also provide heating and demisting.

AIR FLOW CONTROL

The vents A at the facia sides enable to direct the flow of ram air as desired. The flow of ram air can be regulated by the knob at the centre of the vent.



Amount of air intake through driver's side vents B-D and passenger's side vents C-E can be regulated separately by the levers 3 and 4 respectively. Both levers can be positioned as follows:

- □ lever at this mark: shut
- ▼ lever at this mark: demisting, ventilation, heating. Air enters through vents B,C,D,E.
- ▲ lever at this mark: maximum demisting; air is delivered to the grilles B and C which can be rotated by hand as desired to obtain: windscreen demisting, spot demisting, windscreen and window demisting.

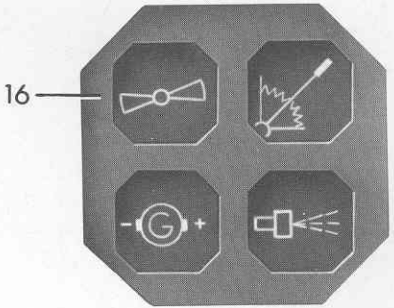
TEMPERATURE CONTROL

The temperature is adjusted by the levers 1 and 2 (see page 14, bottom left):
- Lever 1: fresh/warm air blending control
- Lever 2: heater valve control

By moving the levers from inside (blue dashes) toward the outside (red dashes) the air is gradually heated as desired up to maximum heat position.

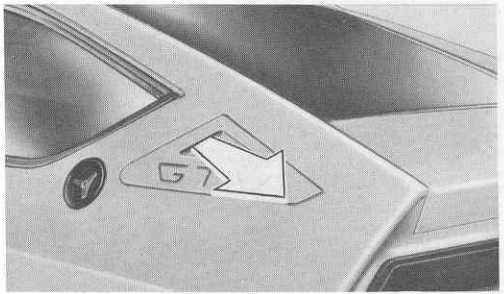
TWO-SPEED ELECTRIC BLOWER

In order to produce a satisfactory flow of air into the car at low speeds, switch on the blower with the switch 5. Warning light 16 indicates that fan is operating. Light will glow brightly on high speed position.



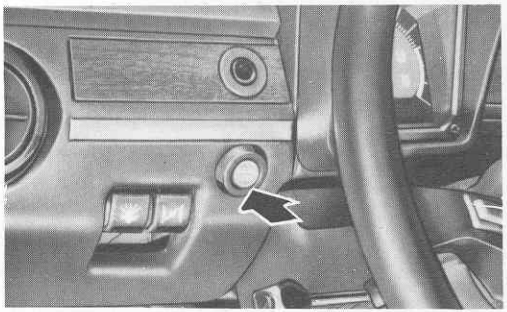
AIR DISCHARGE

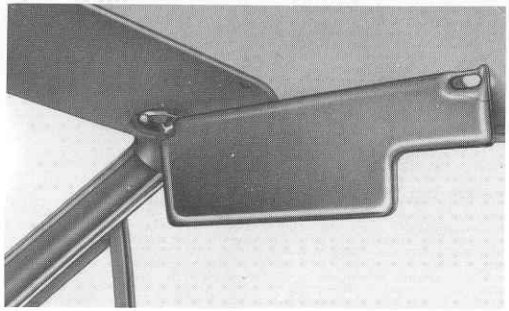
For a best ventilation, air discharge slits are provided at rear window posts.

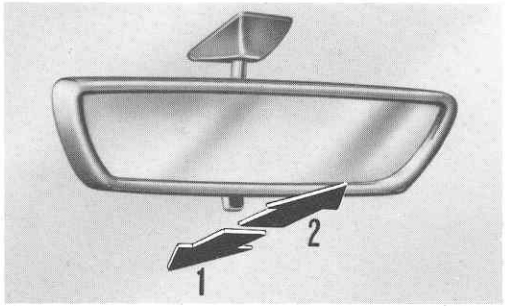


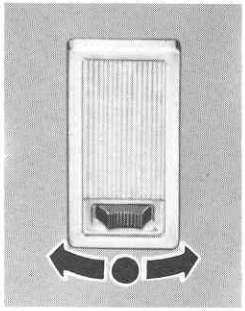
HEATED REAR WINDOW

The car is provided with an electrically-heated rear window. When switched on, the electric resistance embedded in the glass will demist it. The warning light built into the switch button indicates that the heated rear window is on.









INTERIOR

SUN VISORS

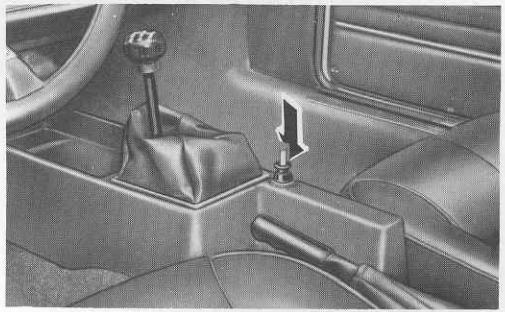
The sun visors can be moved laterally after having released them from the retainers located centrally over the windscreen.

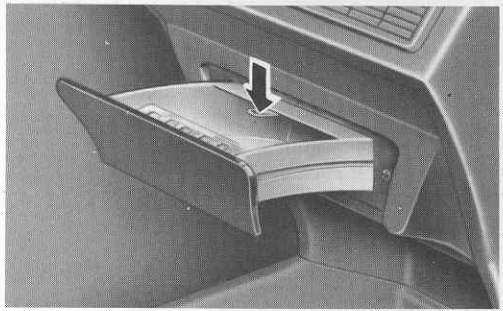
REARVIEW MIRROR

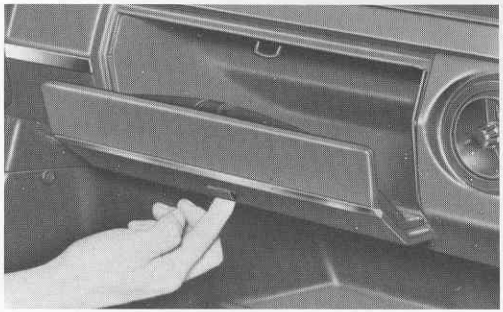
The rearview mirror has a day/night anti-dazzle device which is operated by the lever shown at left.
1 - Normal position
2 - Anti-dazzle position.

COURTESY LIGHTS

The switch in each light unit has three positions:
- one in the centre: lights always off
- two at the sides: lights always on or automatically operated when opening doors.







CIGARETTE LIGHTER

To operate press the black plastic knob fully in; when ready for use the lighter will automatically eject itself partially. A lamp at the lighter will glow when parking lights are on.

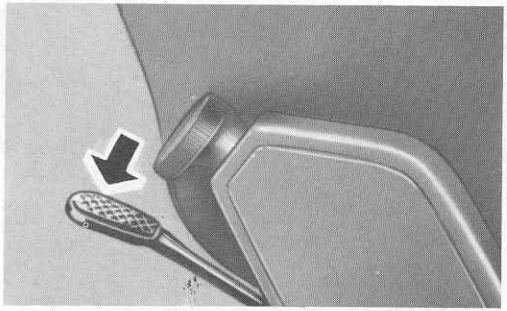
ASH TRAYS

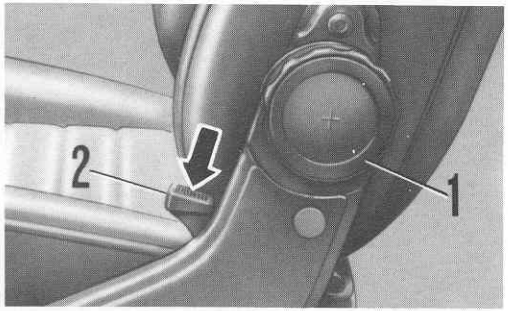
The front ash tray can be removed for emptying by pressing down the small metal spring.

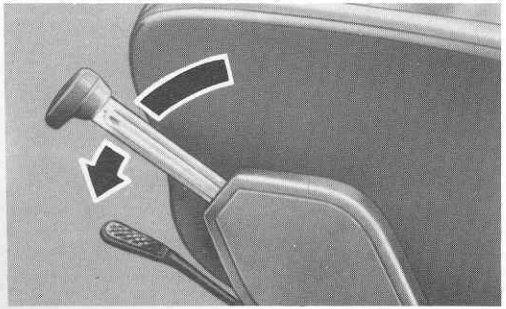
The ash tray for rear seats is located on central tunnel; to remove the ash tray, pull it upward.

GLOVE COMPARTMENT

To open, push the knob on the lid upward.







FRONT SEATS

The positioning of the front seats is controlled by the lever shown at left; by freeing the lever the seat may be moved to the position desired.

The knob 1 controls the angle of the backrest.
To facilitate access of passengers to the rear seat, the backrest may be tipped forward by releasing the lever 2.

The driver's seat is adjustable in height; withdraw the lever and move it toward the front of the car until the seat height is as desired; then, push the lever in.

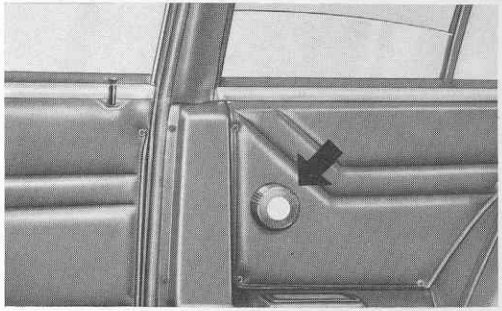
To lower the seat move the lever toward the rear of the car; for lowering, it is necessary that the occupant is seated down in seat.
The adjustable range is about 50 mm.

The front seats have vertically adjustable head restraints. This device is controlled by the knob at the side of backrest.

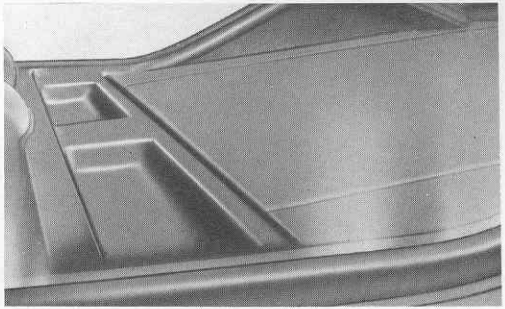
REAR SEAT

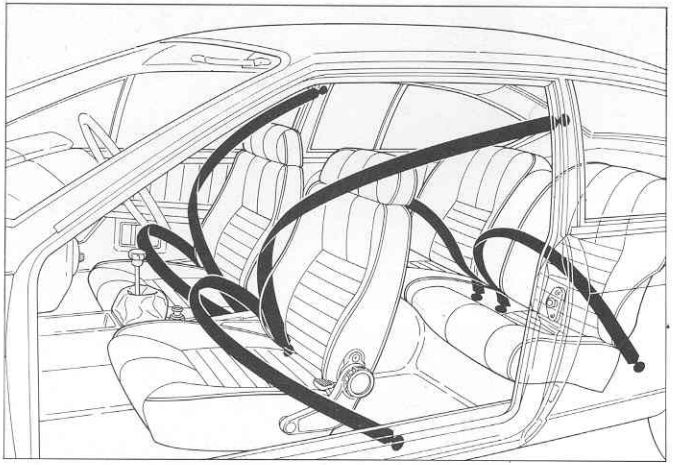
To facilitate access of passengers to the rear seat, the backrest of front seats should be tipped forward by releasing the lever on front seat (refer to preceding page).

To lift or lower the rear quarter light use the knob shown at right.



Two storage bins are provided behind rear seat backrest. Put parcels, etc. in these bins rather than on the shelf under the backlight. Such a shelf in fact, when opening the tailgate, is raised toward the front of car.





SAFETY BELTS

The car is fitted with safety belts of lap-and-diagonal harness type at the front seats and attachment provision at the rear seat. Fasten seat belts before driving off making sure they are adjusted and fit correctly.

Important note

Seat belts are designed for use by persons with the height of an adult. It should also be born in mind that seat belts should never be worn by a child seated on the knees of a passenger.
Have the seat belts checked if they show signs of wear or malfunction.

Front seat belts.

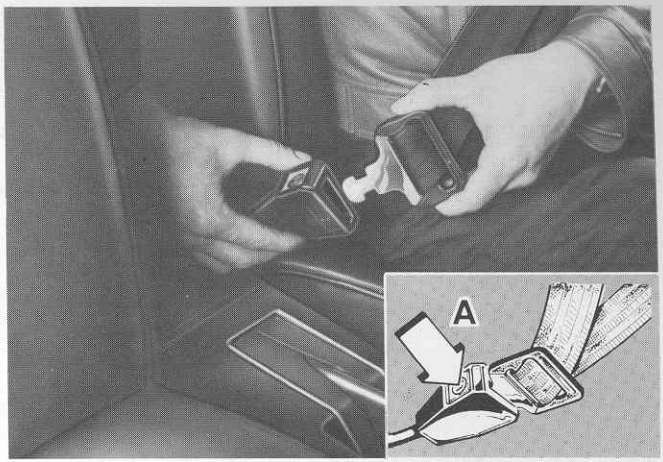
Automatic retractors are provided as standard equipment.
Connect the belt tongue to the buckle.
Ensure the buckles are firmly latched.

Usually seat belts enable the occupants to assume a comfortable seating position: however brisk movements should be avoided or the belt safety lock device will be operated.

Renew the belts that have been subjected to severe strain in a collision, even if they show no evidence of damage or defects.

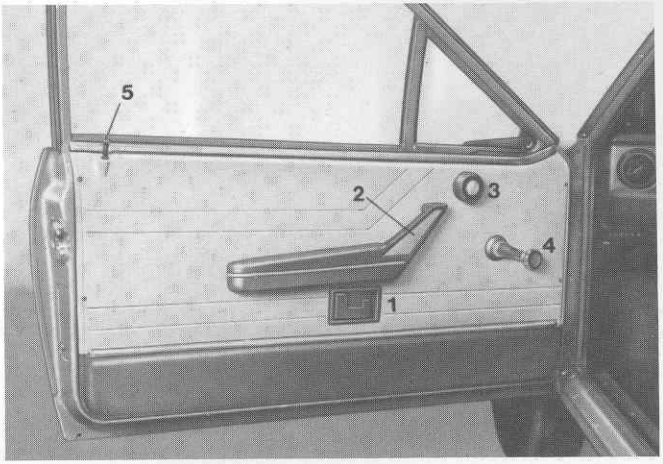
Should the belt webbing need cleaning, use only warm water and mild soap; rinse and let the belt webbing dry in the shade. Never use chemical detergents or solvents which may adversely affect the belt strength.

To unfasten the belts push the button A of buckle taking care not to let the belt twist while being rewound on its reel.
Slide belt tongue along belt to facilitate full rewinding.



Rear seat belts

Attachment provisions enable to fit lap-type belts.



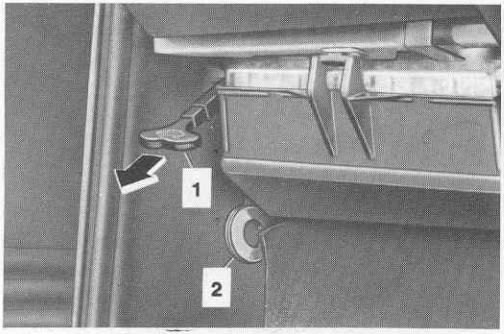
DOORS AND WINDOWS

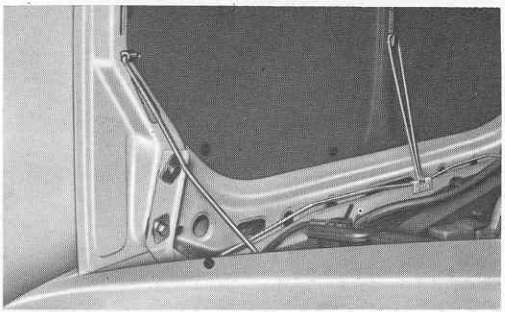
To open the door pull the lever 1 under the armrest; at the front of the armrest there is a grip 2 for pulling the door when closing from inside.

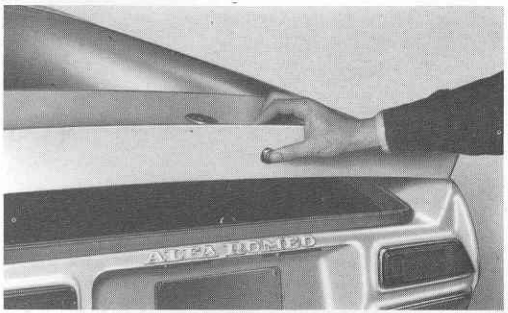
The knob 3 controls the front vent window.

To lift or lower the window act on the handle 4.

For locking the door from inside push in the button 5.







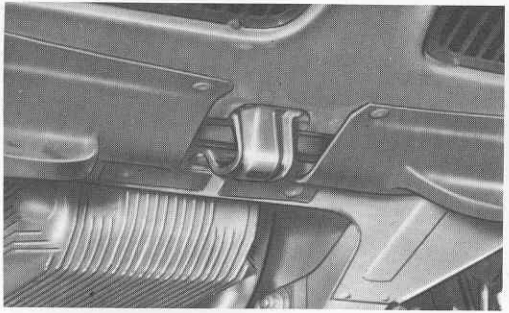
ENGINE BONNET

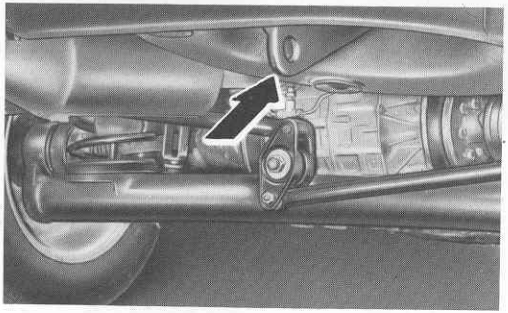
To release the catch, pull the lever 1 under the facia panel.
To release the bonnet in an emergency, pull the ring 2 shown at the illustration. To do this easier, it is advisable to remove the fusebox cover (see page 41).

After having raised the bonnet, insert the end of support rod into the lug on bonnet as shown. Prior to close again the bonnet, withdraw the support rod from lug and secure it to the suitable retainer on wing edge inside engine compartment.
Illumination of the engine compartment is by a light fixed under the bonnet. It operates automatically when the bonnet is raised and the parking lights are on.

TAILGATE

To release the tailgate press the button shown at left; lock utilizes the same key as the doors. The tailgate encompassing the whole of back window lifts automatically with the single gas-filled strut.
Never tamper with the raising strut.





TOWING AND JACKING UP THE CAR

N.B. - When towing, care should be taken that the hauling regulations in effect locally be strictly adhered to.

When taking a tow, secure the rope to the bracket at the centre of front cross-member; this bracket serves also for jacking up the car. Turn the steering lock/ignition switch key to the "GAR" position. **Important Warning - Never withdraw the key from the steering lock/ignition switch because it is possible for the steering lock to engage accidentally.**

While the car is being towed, no power assistance is available to the brake system; a substantially greater foot pedal effort will therefore be needed to obtain comparable braking effect.

When taking another vehicle in tow, secure the rope to the hole in the lug at the left underside of boot.

TYRE CHAINS

Tyre chains, to be fitted to drive wheels, should provide enough clearance to prevent possible wing interferences (max. overall tyre size: 18 mm larger each side than tyre cross section).

MAINTENANCE

ROUTINE MAINTENANCE SCHEDULE

DISTANCE COVERED	25,000	45,000	65,000	85,000	105,000	
						At the first 700/1,200 km have **Coupon A** from the service Coupon book carried out
						At the first 5/6,000 km have **Coupon B** from the service Coupon book carried out
Tick each item at the respective kilometres						Check tyre inflation pressures
						Check brake pads for wear: change as necessary
						Check battery electrolyte level and top up if necessary (more frequently in summer months)
						Check bellows of constant velocity joints and steering rods for soundness
						Check handbrake travel and adjust, if necessary
						Check contact-breaker point gap. Check ignition timing; adjust, if necessary
						Change spark plugs
EVERY 20,000 km						Check idle and fast idle (if any) speeds and exhaust emissions; adjust, if necessary
						Check level of fluid in clutch reservoir
						Change air filter
						Lubricate door & lid hinges; adjust strikers, if necessary
						Check valve clearance and timing chain tension; adjust, if necessary
						Clean carburettor jets and crankcase ventilation system backfire valve
						Check fuel system for leaks
						Inspect brake system
						Check level of fluid in brake reservoir
						Check alternator and air conditioner (if any) drive belts and adjust tension if necessary
						Check coolant level and top up, if necessary; check cooling system for leaks
						Check level of gearbox/differential oil and top up if necessary
EVERY 40,000 km						Change brake fluid-or once a year whichever comes first
						Clean fuel filter and change element
						Replace engine coolant mixture-or every two years whichever comes first
						Change alternator and conditioner (if any) drive belts
						Change gearbox/differential oil

For proper vehicle operation, it is essential that the maintenance operations listed in the schedule on the facing page be carried out and the following recommendations strictly adhered to:

EVERY 500 km (OR ON REFUELLING) CHECK:

- Engine oil level
- Coolant level
- Battery electrolyte level
- Tyre pressure

EVERY 10,000 km CHECK:

- Clutch fluid level
- Brake fluid level
- Air filter (clean it if necessary)
- Spark plugs for sound conditions
- Brake pads for wear; renew as necessary

Engine oil and oil filter change

The engine oil and oil filter element must be changed every 10,000 km (or once a year whichever occurs first); check also the lubricating system for leaks.

N.B.: Refer to the Service Coupon Book for directions on oil and filter change.

The lubricants used for the first filling, shown by plate in the engine compartment and the table "Recommended lubricants" on inside backcover, are factory tested for meeting completely the operation requirements.
These lubricants can be used both for topping up and changing (when topping up it is recommended to use exclusively the same type of oil as already filled in the engine or main unit).
In countries where the above mentioned lubricants are not available, **and when absolutely necessary,** it is possible to replace them with products of other leading makes provided that in accordance with the grades given in the table; in such a case, however, it is essential to renew all the lubricant in the circuit.

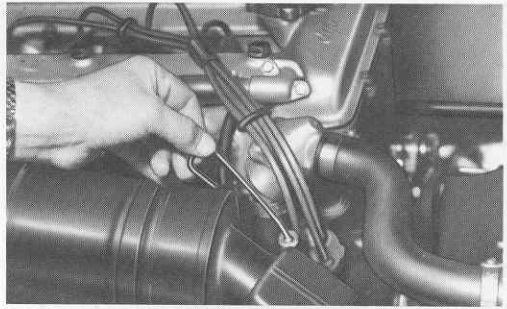
OIL LEVEL CHECKING

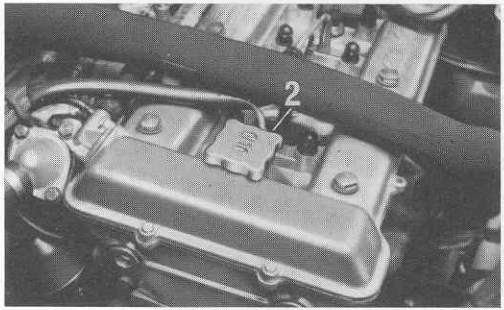
Withdraw the dipstick and clean it; then, push the dipstick all the way down into its housing to check whether oil level falls within MIN. and MAX. marks.

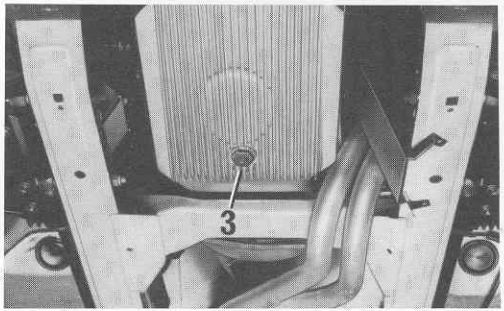
OIL CHANGE

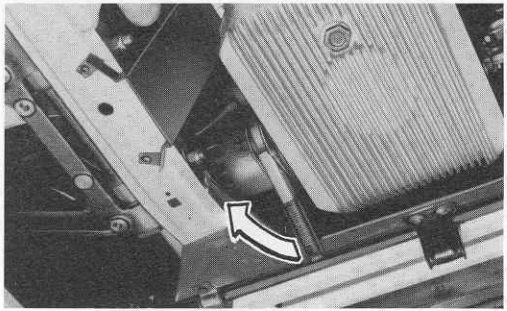
To change oil in the sump (engine warmed up) proceed as follows:

- With the engine stopped, drain off old oil thoroughly by removing the oil filler plug 2, the dipstick and the drain plug 3.
- Renew the oil filter (see next page).
- Clean drain plug and refit it.
- Refill with new oil of the prescribed type (refer to inside backcover) and refit the filler plug.
- Clean the dipstick, insert it to check that oil level does not exceed the "MAX" mark. Push dipstick all the way home.



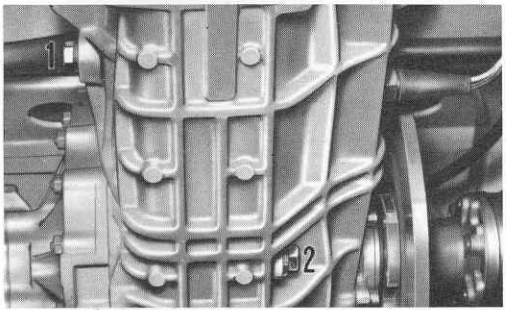






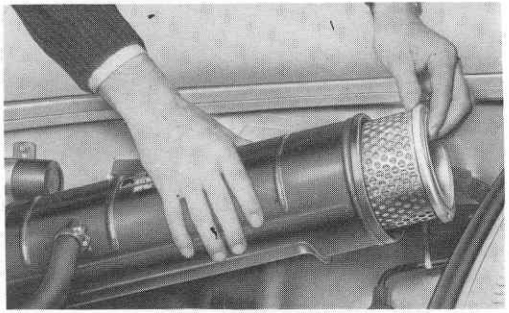
RENEWING THE OIL FILTER

Slacken the filter from the underside of car with the suitable spanner, then remove the filter.
Smear the gaskets of new filter with oil, start the new filter by hand, then tighten it securely to prevent oil leaks.



CHECKING AND CHANGING GEARBOX/DIFFERENTIAL OIL

To check gearbox/differential oil level at the prescribed intervals, remove filler plug 1; oil level should be at the edge of filler orifice.
To change oil proceed as follows (when hot):
- Drain off old oil by removing drain plug 2 and filler plug 1;
- Clean drain plug and refit it;
- Replenish with oil of the prescribed type (refer to inside backcover) through filler plug 1. Check that oil level is at the edge of filler orifice; clean filler plug and fit it.

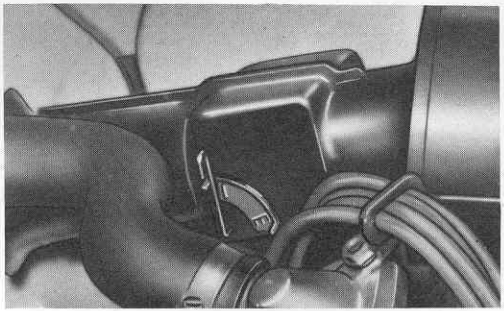


AIR FILTER

Note: refer to page 50 for Alfetta GT 1.6.

Cleaning the filter element

- Loosen the straps fastening the filter housing to the intake manifold.
- Raise the rear end of filter housing, slacken the wingnut and withdraw the element.
- Clean the element carefully from inside with low pressure compressed air.



Summer/winter adjustment

The control, operated by hand, has two positions:
- **upward** (posit. I) pre-heated air in winter.
- **downward** (posit. E) cold air in summer.

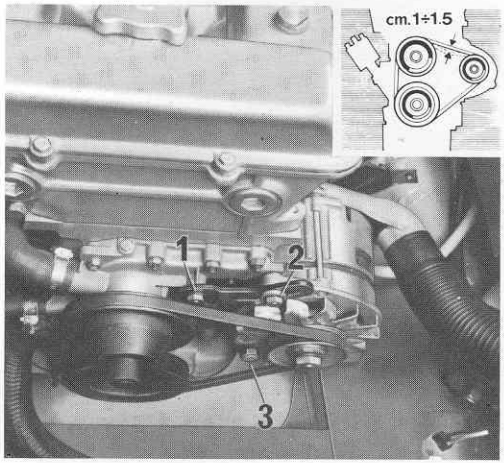
ALTERNATOR AND WATER PUMP DRIVE BELT

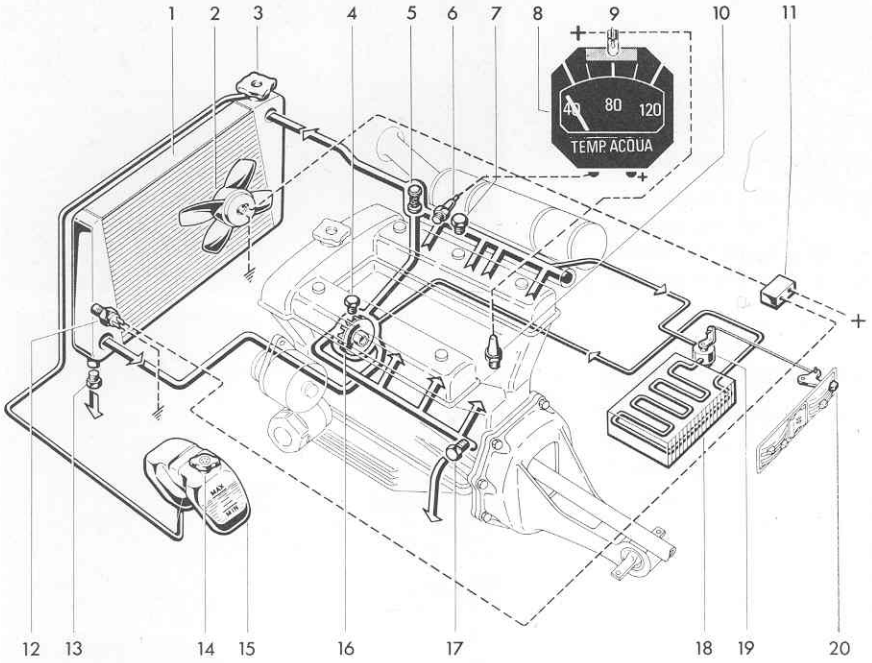
Belt tension adjustment

The tension is correct when on pressing the belt down the amount of play is approximately ½ in. (10-15 mm).
To tighten the belt unscrew the nuts 1 and 2 on the adjusting arm and bolt 3. Move the alternator outwards to increase belt tension and retighten nut 2; re-check the belt tension.
Tighten bolt 3 and nut 1.

Changing the belt

Slacken nut 2, bolt 3 and nut 1.
Move the alternator inward and remove the old belt. Fit the new belt to the three pulleys and move the alternator outward until belt tension is as specified. Then, securely tighten nut 2 and check belt tension; tighten bolt 3 and nut 1.



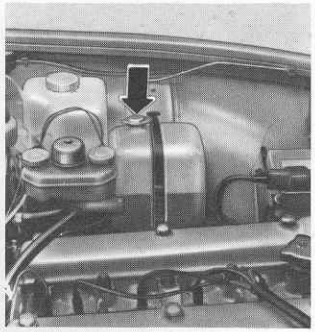


COOLING SYSTEM

1 Radiator
2 Electric fan
3 Radiator filler cap
4 Air bleed screw on pump
5 Thermostatic valve
6 Water thermometer sender
7 Air bleed screw on manifold
8 Coolant thermometer
9 Coolant temperature warning light
10 Thermal switch for coolant temperature warning light
11 Electric fan relay
12 Electric fan thermal switch
13 Radiator drain plug
14 Tank filler plug
15 Header tank
16 Pump
17 Cylinder block drain plug
18 Heater
19 Heater valve
20 Temperature control lever

The cooling circuit is of the sealed type with a header tank. The coolant, kept in circulation by pump 16 cools down the engine then flows to the thermostatic valve 5. Hence, according to the temperature, the coolant is sucked by the pump either from the thermostatic valve or the outlet line of the radiator 1. At the prescribed intervals, or every two years whichever comes first, get the Alfa Romeo coolant mixture renewed. This operation, or the strengthening of the mixture required by an ambient temperature lower than -20° C (refer to page 12) should be entrusted to an **authorized Service Station.**

Occasionally, check level of coolant in the tank: this should be done **exclusively with a cold engine** as with a hot engine the level may increase remarkably, even after stopping the engine.



The level of mixture in the tank should never fall below the minimum nor exceed the maximum level.

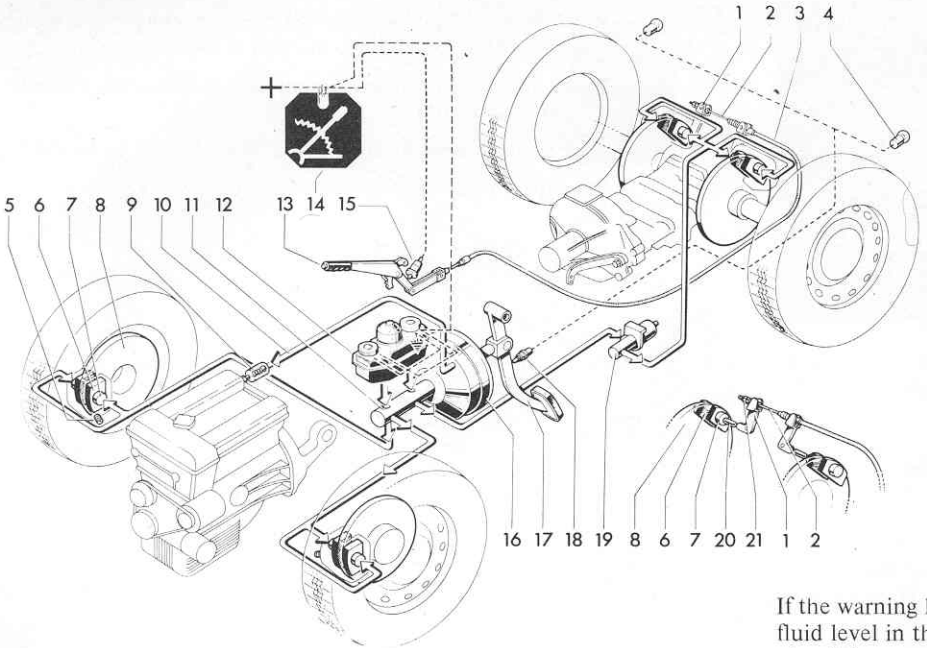
To top up, add (to the tank only) **Alfa Romeo Coolant Mixture** drawn from suitable containers available by Alfa Romeo Service Stations.

DRAINING AND REPLENISHING THE SYSTEM

(refer to the illustration on page 30).

Never remove radiator cap when engine is hot

- Remove filler cap 3 from radiator and the air bleed screw 7 from manifold; turn on the heater valve 19 by shifting the lever 20 to red marks.
- Remove filler plug 14 from tank 15 and detach tank-to-radiator adapter; let liquid drain off.
- Unscrew the radiator drain plug 13, remove the drain plug 17 from crankcase and let liquid drain off. Reinstall drain plugs 13 and 17.
- Reconnect the pipe from tank 15 to the radiator.
- Open the air bleed screw 4 on pump.
- Pour coolant mixture through filler port until coolant escapes from bleed screw 4 ; then close this screw and again add coolant until it escapes from screw 7 on manifold.
- With the bleed screw 7 opened start the engine and keep it running for a few seconds in order to bleed air completely.
- Close the bleed screw 7 and add mixture to radiator filler port until full.
- Add mixture also to tank until "MAX" level is reached.
- Put caps on tank and radiator filler ports.



BRAKE SYSTEM

1 Handbrake pad operating lever
2 Handbrake cable
3 Handbrake cable sheath
4 Stop light bulb
5 Air bleed screw
6 Friction pads
7 Pistons
8 Discs
9 Check valve on vacuum port
10 Vacuum pipe
11 Tandem master cylinder
12 Fluid reservoir with tell-tale switches
13 Handbrake lever
14 Handbrake and low brake fluid level warning light
15 Switch for handbrake warning light
16 Vacuum servo
17 Pedal
18 Stop light switch
19 Pressure regulator
20 Handbrake pad push rods
21 Adjuster

The brake unit consists of a dual hydraulic braking system. Each one of the separate circuits, front and rear, is servo assisted.

The valve (19) inserted in the rear brake circuit, regulates the pressure between front and rear brakes to provide balanced braking action.

Warning: the pressure regulator must never be tampered with.

The handbrake warning light (14) on facia panel will also alert you if the level of brake fluid in the reservoirs fall below the minimum. If the warning light comes on, check first whether the parking brake is fully released.

If the warning light is still on, stop the car and check the brake fluid level in the reservoirs; if it is too low, check the relevant circuit for possible failure.

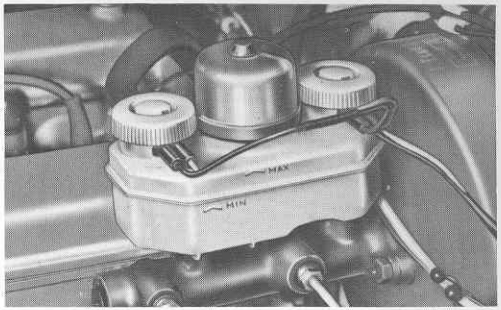
The handbrake is mechanically operated. It is correctly adjusted when the wheels become locked as the lever (13) is drawn through four/six notches.

Important warning - In case of accident or damage to the chassis check that the brake vacuum servo is undamaged, since even slight superficial body damage may seriously impair the operation of the brakes.

Important note: Should the car be operated usually on either hilly or dusty areas and/or with sporting driving practice, a more frequent inspection of brake pads is advisable.

BRAKE FLUID RESERVOIR

Care should be taken to prevent the level of fluid in the reservoir from falling by more than a quarter below the maximum level.
Renew the brake fluid at the prescribed periods (at least once a year). For renewal or topping up, it is absolutely essential to use only the specified fluid drawn from freshly opened sealed containers.
When adding fluid, leave the strainer in place so as to filter the fluid.



CLEANING INSTRUCTIONS

Flushing the circuit

Should flushing of the brake circuit be required, use exclusively fluid of the specified type.
Caution - Compressed air or alcohol must on no account be used to dry a flushed system.

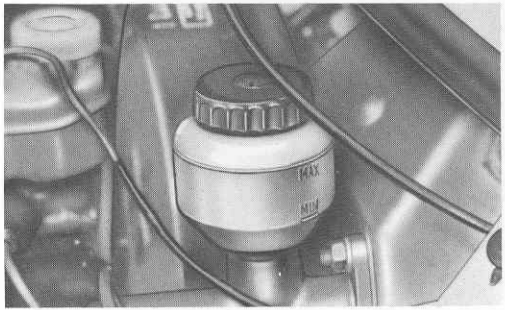
Cleaning the outside

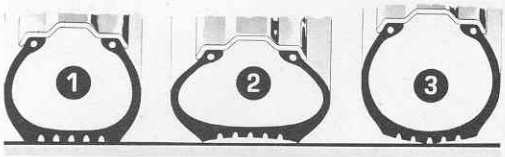
To clean the outside of brake assemblies use suitable detergents mixed with hot water; then thoroughly dry all components with compressed air. Never use gasoline, trichloroethylene or similar solvents.
When cleaning the underside of the car, it is advisable to mask off the brakes to avoid damaging the brake components.
While servicing the car, be careful not to let lubricants come in contact with the discs and friction pads.

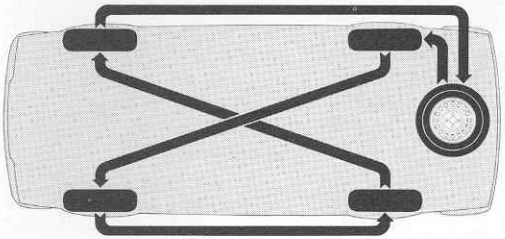
CLUTCH FLUID RESERVOIR

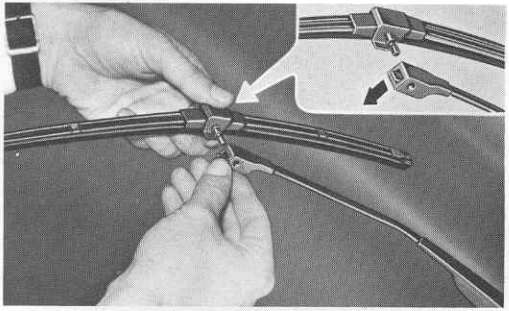
At the prescribed intervals check level of fluid in clutch reservoir. It should be between MIN. and MAX. marks.

Clutch and disc brake fluid	
ALFA ROMEO	ALFA ROMEO std. no. 3681.69905
Agip	F. 1 BRAKE FLUID Super HD
ate	«S»









WHEELS

TYRES

For inflation pressures refer to inside backcover.

1) Correct

The tyre gives optimum performance, the tread works over its entire width, thus ensuring uniform tyre wear and long life.

2) Too low

The tyre will overheat, the sides of the tread will wear quickly and the tyre plies will tend to separate.

3) Too high

Riding comfort will be reduced, and the tyre will suffer from excessive wear in the centre of the tread and vulnerability to knocks.

INTERCHANGE OF ROAD WHEELS

To ensure even and uniform tyre wear and long tyre life, front and rear wheels and the spare should be changed over regularly and accordingly to the diagram shown. After changing reinflate tyres as specified; refer to inside backcover for pressures.
Road wheels should be interchanged approximately every 5000 km.

BALANCING

Each wheel, complete with its tyre, is statically and dynamically balanced at the factory. Whenever a tyre is changed, the wheel must be rebalanced. It should be remembered that unbalanced wheels cause unstable steering, abnormal steering gear wear and uneven tyre wear.

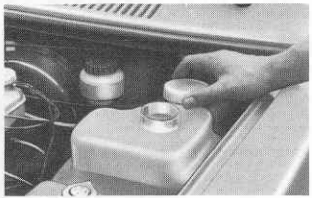
BODY MAINTENANCE

CHANGING SCREEN WIPER BLADES

To withdraw the blade, lower the small lever at the arm end. To refit the blade insert the pin into the support until the lock engages.

SCREEN WASHER LIQUID

Occasionally, check lever of liquid in screen washer container and replenish if necessary.
If the container is empty, do not persist in operating the washer or the electric pump will be damaged.
In winter, never add water.



WASHING THE CAR

The body should be washed frequently, depending on the use of the car, the environmental conditions and the state of the roads.
Avoid washing the car in the sun and proceed as follows:

- first flush the car all over with jets of water to remove the dust;
- prepare a solution of suitable detergent in water (2% by weight);
- with the solution and a sponge wash down the whole body;
- rinse thoroughly with plenty of water;
- dry with compressed air, if possible, then with chamois leather.

Grease, oil and tar stains may be removed from the paintwork by applying petrol to the stained area, and then rubbing with a dry cloth.

POLISHING

To put fresh gloss on the paintwork, polish once or twice a year with a suitable polish.
Do not use petrol or solvents on rubber mouldings and weatherstrips. When refuelling or lubricating, be careful not to splash petrol or brake fluid on the paintwork.

CLEANING THE WINDOWS

Use only a very soft cloth or chamois leather for cleaning the windscreen and windows. If the panes are very dirty, use windscreen washer fluid or water mixed with alcohol.

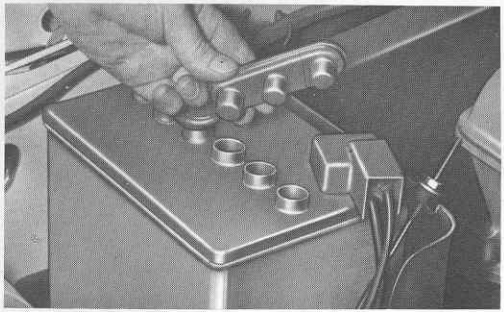
UPHOLSTERY

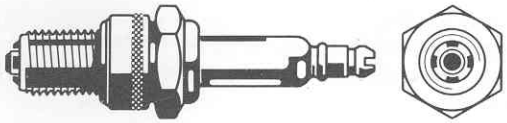
Periodically clean the inside upholstery using a vacuum cleaner if possible.
To remove oil and grease stains, use diluted ammonia on the cloth parts and neutral soap on the leatherette.
Use trichloroethylene or neutral soap to remove stains from the carpets.

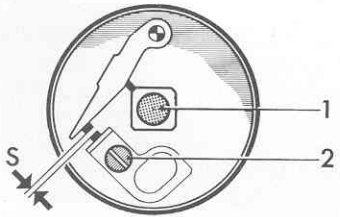
LAYING THE CAR UP

If the car will be left unused for any length of time the following protective steps should be taken:

- Empty the fuel tank, the fuel pump and the carburettor float chamber;
- clean the fuel filter;
- inject a little engine oil into the cylinders through the spark plug holes and rotate the crankshaft by hand several times in order to spread a film of oil over the cylinder walls;
- remove the battery, store it away from frost, and recharge it once a month; never allow it to become fully discharged or plate sulfation will result;
- jack up the car, clean the tyres and slightly deflate them; if tyres are removed, dust them internally (and their tubes) with talcum powder; store them in a dark and airy but dry place;
- dust the seats and upholstery with moth preventive;
- cover the car with a dust sheet. To avoid serious damage to the paintwork, do not use polyvinyl-type tarpaulins.







ELECTRICAL EQUIPMENT

BATTERY

The battery water level should be more than 3/16" (4-5 mm) above the plates. When filling up the battery, use only distilled water; never add acid. Make sure that terminals are tight and are sufficiently coated with pure vaseline. Furthermore, the following should be born in mind:

- When recharging the battery, completely disconnect it from the system.
- Never reverse the battery polarity or the diodes will be damaged.
- When electric weldings are carried out on car, disconnect battery making sure the positive terminal is properly insulated. **The engine must be stopped.**

ALTERNATOR

The alternator requires special care.

- It should not be tampered with.
- Never disconnect the battery terminal of the alternator-to-battery cable while the engine is running.
- Avoid overloading the alternator bearings (refer to page 29).
- It is recommended to entrust any inspection or repair work to Authorized Workshops.

SPARK PLUGS

At the prescribed intervals change the sparking plugs or test them for proper operating conditions.

No routine adjustment is necessary of the gap between the electrode and points.

Spark plug make and type are LODGE 2HL.

The spark plugs should be tightened when cold to a torque of 18-25.3 lb-ft (2.5-3.5 kgm); lubricate the threads before fitting.

IGNITION DISTRIBUTOR

At the prescribed intervals: check with a feeler gauge the contact-breaker points for correct gap. Adjust by means of screw 2 if necessary.

GT 1.6: S = .0118 to .0157 in. (.30-.40 mm) for BOSCH distributor
.0165 to .0189 in. (.42-.48 mm) for MARELLI distributor

GTV 2000: S = .0137 in. (.35 mm) for BOSCH distributor
.0145 to .0169 in. (.37-.43 mm) for MARELLI distributor

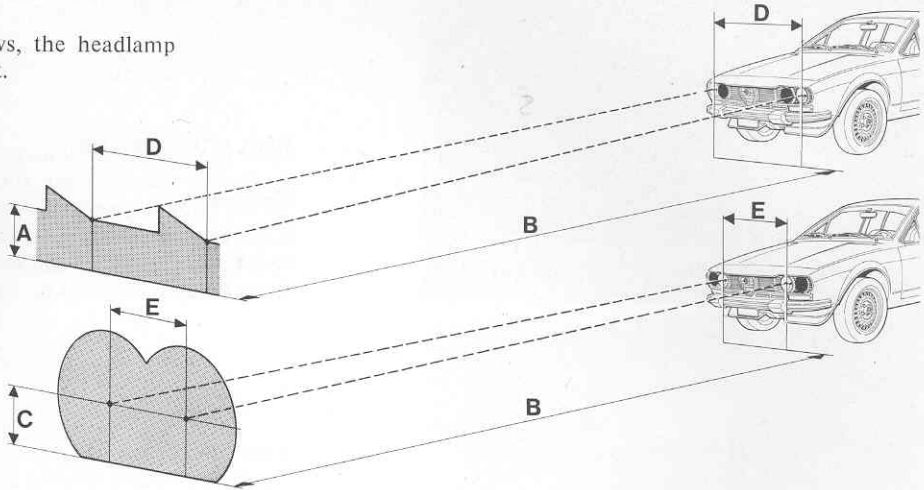
Occasionally, soak the felt 1 with oil.

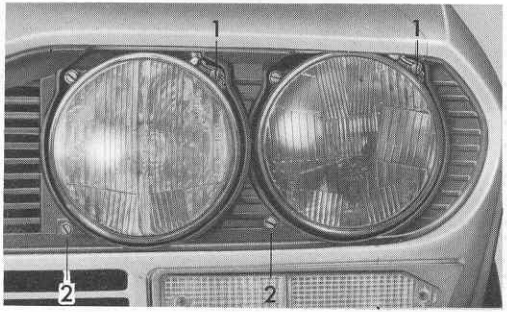
SETTING THE HEADLAMP BEAMS

For safety's sake and to avoid infringing laws, the headlamp beams should be kept at the correct alignment.

A = 45 cm = 17.7 in.
B = 10 m = 33 ft.
C = 45 cm = 17.7 in.

N.B. - The dimensions at the diagram meet Italian regulations. Abroad, beams should be set according to local regulations.



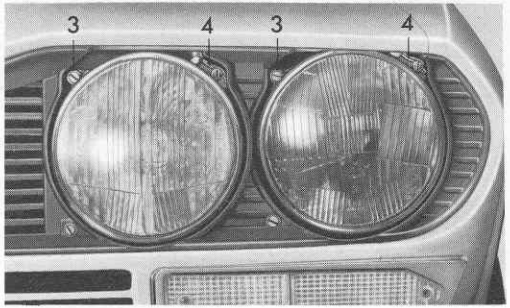


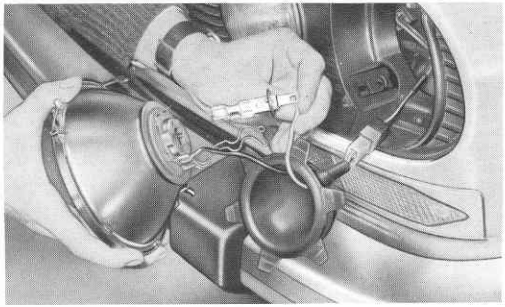
Therefore in case of doubt, or mainly whenever repairs to body and suspensions are performed or headlamp bulbs changed, have the headlamp alignment checked by a workshop equipped with the necessary testing equipment.

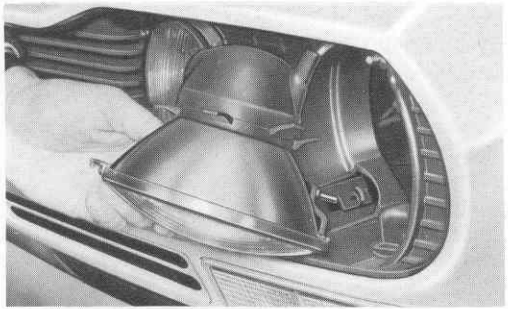
In an emergency, the headlamp aiming can be tested by checking that the dimensions of beam patterns are as shown at the diagram. The car being checked should be unladen, on a level surface and at a distance B from a vertical screen; the tyre inflation pressures should be as specified.

The distance between centrelines of beam patterns should be the same as that between headlamp centrelines.

Should beam setting require correction, act on the adjusting screw 1 for horizontal adjustment and screw 2 for vertical adjustment.







REPLACING BULBS

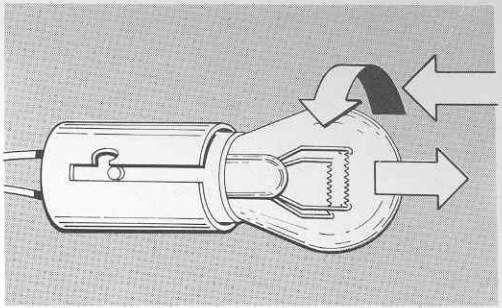
Headlamps

Unscrew the securing screw 3 and free the fastener 4 from adjusting screw seat. Take care not to disturb the adjusting screw setting.
Remove the headlamp by tilting it upward.

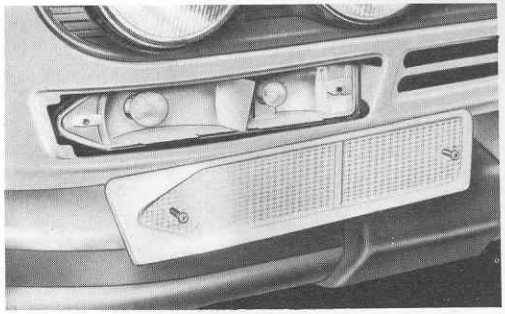
Take the rubber protection off the headlamp, release the retainers securing the bulbs and remove the bulb.
Fit the new bulb to the headlamp and secure it in place with the retainers.
Never touch with the fingers the glass of the halogen bulbs. Always remove possible fingerprints with alcohol before fitting the bulbs.
Fit the feed wire connector to the bulb socket and re-install rubber protection to headlamp.

On refitting, take care that lamp dowel seats properly in the housing bottom, then tighten screw 3 and fit fastener 4 to adjusting screw seat.

The illustration shows the removal of the headlamps at right side.
The headlamps at the left are symmetrical.

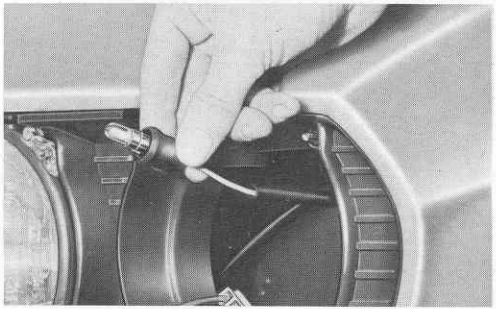


Note: the bulbs of front direction indicators and parking lights, side direction indicators, tail stop and parking lights, tail direction indicators, reverse light and number plate light have bayonet-type mounts. To remove the bulbs, it is therefore necessary to press the bulb in, rotate it anti-clockwise and then withdraw it. For fitment, reverse the order of removal



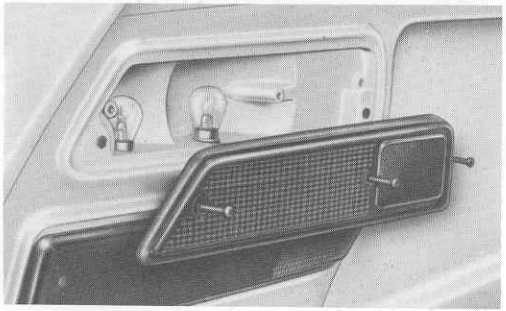
Front direction indicators and parking lights

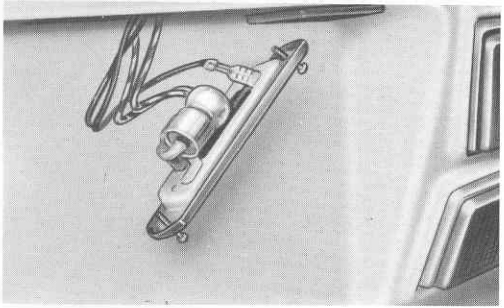
Slacken the lens attaching screws and remove the lens.
Renew the bulb and refit lens.

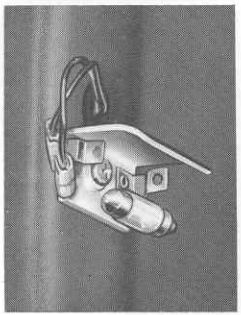


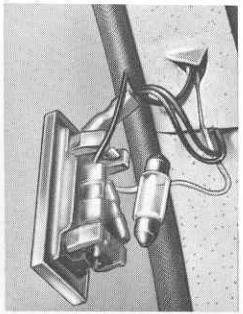
Side direction indicators

Remove the outer headlamp (refer to preceding page). From inside, snap the bulb socket off the lens; renew the bulb and refit the socket to the lens. Re-install the headlamp.









Tail direction indicators, reversing, parking and stop lights

Slacken the screws securing the lens and renew the bulb. Refit lens.

Number plate lights

Illumination of number plate (and of inside of luggage boot when parking lights are on) is by two bulbs located in two separate housings.
To renew the bulb, slacken the housing attaching screws and remove housing. Then, refit it.

Engine compartment light

Remove bulb and change it.

Courtesy lights

Snap off the light unit. Replace the bulb.

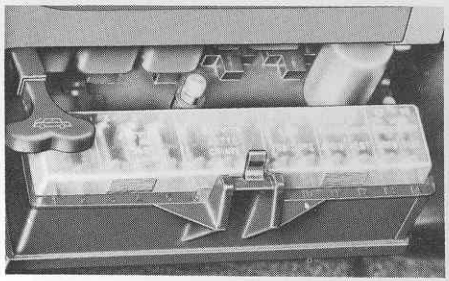
FUSEBOX

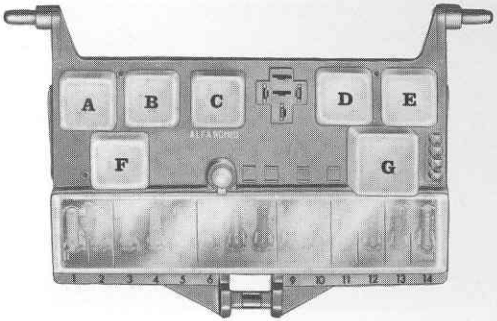
To open the box apply pressure downward.
On opening the cover a light comes on (when the engine is running or the ignition switch is in "ON" position) to facilitate inspection and tracing of blown fuses.
Four spare fuses are provided at the right side of fusebox. The fuses are coded according to their ampere rating as follows:
8 Amp. fuses: black colour
16 Amp. fuses: green colour
Should one or more fuse need replacement, **it is essential to replace them with new ones having the same ampere rating** otherwise very serious damage may result.

The circuits protected by fuses, identified by item numbers (both on fusebox and cover) are as listed below:

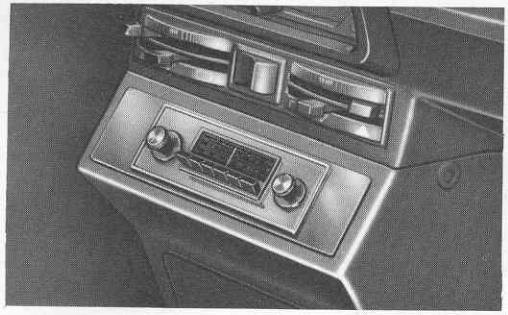
1 Heated rear screen 16A
2 Engine cooling fan 16A
3 Hazard lights 16A
4 Stop lights 8A
5 Courtesy light 8A
6 Screen wiper - Cigar lighter - Reversing lights 8A
7 Instruments and indicating devices - Engine fan and heated rear screen relays 8A
8 Direction indicators 8A
9 R.H. front and L.H. rear parking light - Engine compartment light - R.H. number plate light 8A
10 L.H. front and R.H. rear parking light - Parking lights warning and instrument lights - L.H. number plate light 8A
11 L.H. low beam 8A
12 R.H. low beam 8A
13 L.H. high beam and high beam telltale 8A
14 R.H. high beam 8A

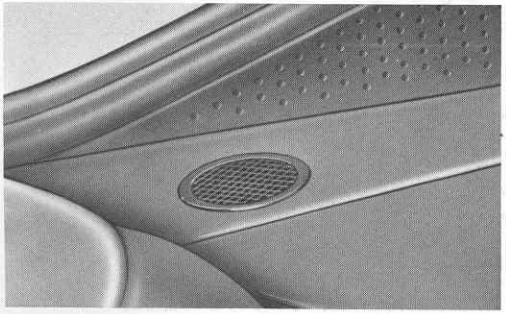
The following circuits are not protected by fuses: Starting motor - Alternator - Regulator - Coil-Horns - Horn relay - Engine cooling fan.
On opening the cover a light will come on (when the engine is running or the ignition switch is in "ON" position) to facilitate inspection and tracing of blown fuses.
Four spare fuses are provided at the right side of fusebox. The fuses are color coded according to their ampere rating as follows:





8 Amp. fuses: black colour
16 Amp. fuses: green colour
Should one or more fuses need replacement, **it is essential to replace them with new ones having the same ampere rating** otherwise very serious damage may result.
In one-unit with the fusebox there are: at the front, in addition to fuses, the direction indicators relay (location G), the blower relay (location D), heated rear window relay (location C), engine fan relay (location B), and horn relay (location A). On A/C equipped cars two further relays are provided (location E and F).





RADIO INSTALLATION

Provision is made for the installation of the radio equipment.

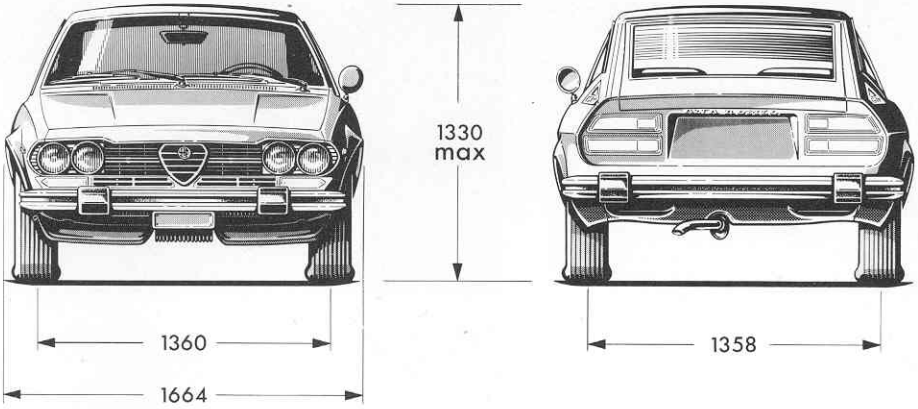
For the radio set the location is:

- in the console.

For the speakers:

- at the doors: drill holes through the trim panel.
  Remove rubber plug and pass wires through hole in door.
- at the sides of backshelf: remove the trim panels and cut openings in them according to the outline marked on panels themselves, fit speakers and re-install the trim panels.

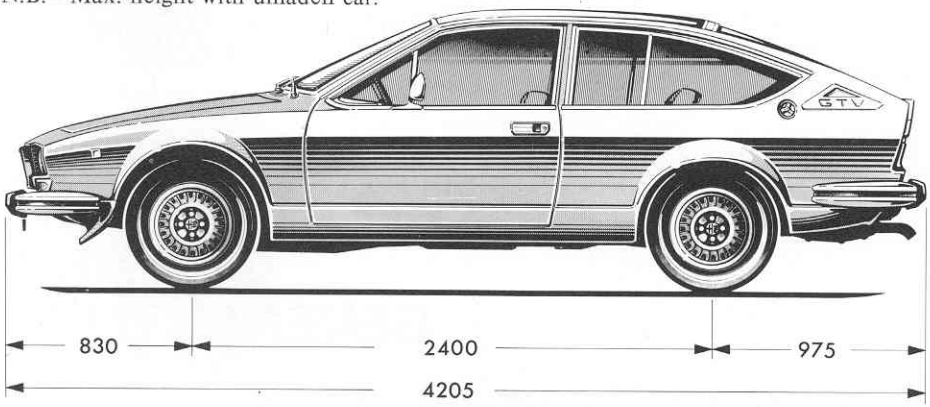
GTV 2000
GENERAL DATA



4205 = 165.5 in.
2400 = 95 in.
1664 = 65.5 in.
1360 = 53.6 in.

1358 = 53.5 in.
1330 = 52.4 in.
975 = 38.4 in.
830 = 32.7 in.

N.B. - Max. height with unladen car.



SPECIFICATION

ENGINE

Number and layout of cylinders		4 in line
Bore and stroke	mm	84x88.5
	in.	3.31x3.48
Total displacement	cc	1962
	cu. in.	120
Max power (at 5,400 r.p.m.)	DIN	BHP 130 (96 Kw)

CHASSIS

Min. turning circle	mm	10100
		33 ft 1 in.
Number of seats		4
Tyres		185/70 HR 14
Kerb weight (full tank)	kg	1080
	lb.	2379
Boot capacity	dm^3	370
	cu. ft.	13
Towing gross weight	kg	1000
	lbs	2202

PERFORMANCE (with **41 : 10** final drive)

AFTER RUNNING IN maximum speeds						
1st	2nd	3rd	4th	5th	Rev.	
28	**46**	**68**	**89**	over **122**	**36**	mph
45	74	109	143	over **195**	58	kph

The maximum speeds indicated should not be exceeded or mechanical damage may result. The performances given are related to the use of the vehicle in normal travelling conditions in Central Europe.

VALVE TIMING

intake valves	Opening	(before TDC)	48°
	Closing	(after BDC)	67°
exhaust valves	Opening	(before BDC)	60° 20'
	Closing	(after TDC)	41° 20'

VALVE CLEARANCE (cold engine)

Intake: .400 - .450 mm
Exhaust: .450 - .500 mm

IGNITION ADVANCE

Static: 6°/8° BTCD at idle (mark F)
Maximum: 35°/38° at 5100 r.p.m. (M mark)

FRONT WHEEL TOE OUT

Toe-out as measured on a 14.4 in (365 mm) dia circle: 0.04 in. (1 mm ± 1 mm) (with car under static load).

CARBURETTOR SETTING

Caution: the idling mixture adjusting screws on carburettors are Factory sealed; **never tamper with these screws.** Possible adjustments must be performed by Alfa Romeo Authorised Workshops.

Idle speed: 850-1000 rpm
Fast Idle: 1450-1750 rpm

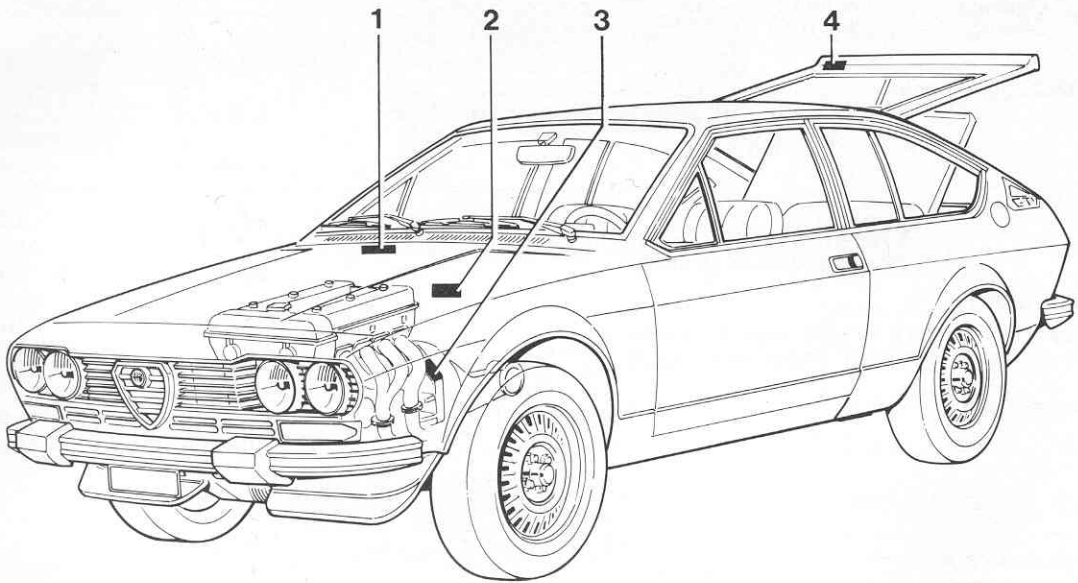
TRANSMISSION RATIOS (41 : 10 final drive)

Speed	Gearbox	Overall
1st	3.30 : 1	13.53 : 1
2nd	1.956 : 1	8.019 : 1
3rd	1.345 : 1	5.414 : 1
4th	1.026 : 1	4.206 : 1
5th	0.833 : 1	3.415 : 1
REV.	2.62 : 1	10.58 : 1

Setting	Dellorto* DHLA 40 H	Solex* C 40 ADDHE/27
Main jet	1.50	1.325
Main air metering jet	2.10	1.45
Idling jet	0.58	0.55
Idling air metering jet	2.20	1.50
Choke jet	0.80	1.40
Accelerator pump jet	0.35	0.45
Venturi	32	32

*These carburettors are alternative equipment.

IDENTIFICATION



Identification plates or metal stamping are located as follows:

On bulkhead panel

1 Chassis serial no. (metal stamped);
2 Identification plate (car model & type approval number).

On crankcase (exhaust side)

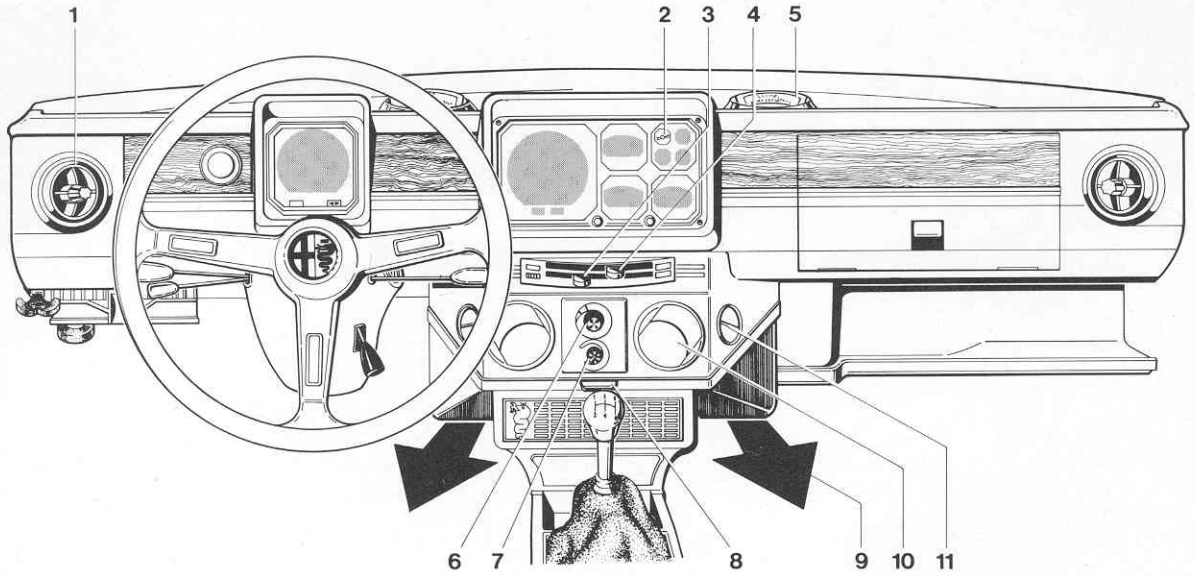
3 Engine no. (metal stamped on rear cover joining flange).

Inside liftgate

4 Finish plate (paint type & make).

On contacting the Factory or a Member of our Service Organization please state: car model, chassis no., registration date, distance covered and car's purchase data.

AIR CONDITIONER EQUIPPED VERSION



CONTROLS AND LOUVRES

1 Ram air vent
2 Blower warning light
3 Heater temperature lever
4 Ventilation & volume direction lever
5 Air outlets for ventilating, heating, demisting and conditioning
6 Blower control knob
7 Air conditioning control knob
8 Lever controlling outlet (9)
9 Lower outlet for heat/vent & conditioning
10 Adjustable vent for heat/vent & conditioning
11 Side outlet for heat/vent & conditioning

As optional extra, the car may be equipped with a factory installed air conditioning unit which combines air conditioning, heating, ventilating and defrosting in one efficient system.

AIR CONDITIONING

Warning: prior to start the engine, make certain the conditioner is turned off (control 7 fully anti-clockwise) to avoid overloading the battery.
Start engine before engaging the air conditioning system. For air conditioning, outlets 5, 9, 10 and 11 are used.

Before turning on the system:

- close windows and ram air vents 1
- make sure the heater temperature lever 3 is in closed position (blue marker) or the conditioner efficiency will be impaired;
- slide the lever 3 to INT position so that outside air cannot enter;
- open outlets 11
- turn the control 6 to engage the blower speed position as desired
- turn the air conditioning control 7 clockwise to the desired temperature range of cooling.

N.B. To open outlet 9 push lever 8 upwards.

VENTILATING

In addition to the direct intake of ram air through vents 1, it is possible to increase the ventilation of car interior (even with quarter lights and window closed) by engaging the blower fan to provide a flow of outside air through the outlets 5, 9, 10, 11. Before switching on the fan make sure:

- the air conditioning control 7 is turned off;
- the heater temperature lever 3 is in closed position (blue marker);
- then slide the lever 4 as desired from INT (closed) to EXT (maximum intake of outside air).

HEATING

For heating air enters the car through outlets 5, 9, 10, 11.

Before operating the heat system:

- close ram air vents 1;
- make sure the air conditioning control 7 is in off position;
- move the temperature lever 3 as desired from off position (blue marker) to maximum heat position (red marker);
- move lever 4 as desired from INT (interior ventilation from blower speeds), to EXT (maximum intake of outside air).

N.B. When outlets 5 are fully closed all the air is directed to the outlets 9, 10 and 11; when closed the air is directed partially to the windscreen and to the floor. The same is obtained by controlling the opening of lower outlet 9 by means of lever 8.

DEMISTING

Direct the round air outlet grilles 5 of the air conditioning, ventilating and heating system to obtain:

- windscreen demisting
- spot demisting
- windscreen and window demisting.

Then:

- close outlets 9 and 10
- turn on the conditioner.

N.B.
The combined heat and air conditioning system may be used to accelerate demisting and prevent lowering too much the temperature of car's interior. To do so, move the temperature lever 3 as desired from off position (blue marker)to maximum heat position (red marker).

When operating in such blend position, always turn the heat system off prior to switching off the conditioning system. Otherwise, the windows will immediately become fogged.

BLOWER

The blower fan has three speeds and may be switched on to produce a satisfactory flow of air when the car is standing or to increase the ventilation of the car interior at low travelling speeds.

To switch on the fan turn the control 6 clockwise through click positions as desired; fan speed increases past each click thus augmenting the amount of air flowing through outles 5, 9, 10, 11.

The warning light 2 indicates that the blower fan is operating and glows brighter as the fan speed increases.

MAINTENANCE

Caution: should the conditioner be left unused for long periods (e.g. in winter months) it should be advisable to turn it on once a week for a few minutes to keep the components properly lubricated.

Once a year, preferably when the warmer season comes, have the air conditioning system tested for low charge by an Alfa Romeo Dealer; if necessary, the system should be recharged and the compressor oil topped up.

Occasionally:

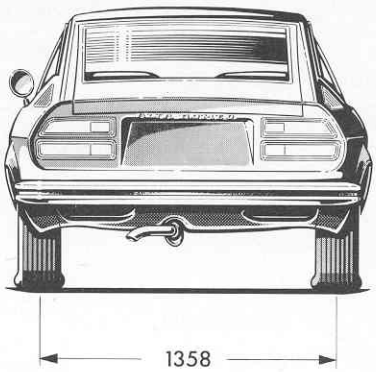
Check tension of compressor drive belt. The tension is correct when, on pressing the belt down, the amount of play is about 10 mm. To adjust, slacken the bolt securing the tensioner and move the tensioner as required. Retighten the bolt.

Clean the condenser; if cleaning is performed with jets of air or water, make sure to direct the jet so as not to strike too hard the radiating fins.

IMPORTANT NOTE

To prevent engine from stopping at low speeds (when idling or on queues) the idle speed must be adjusted with the air conditioning system engaged.

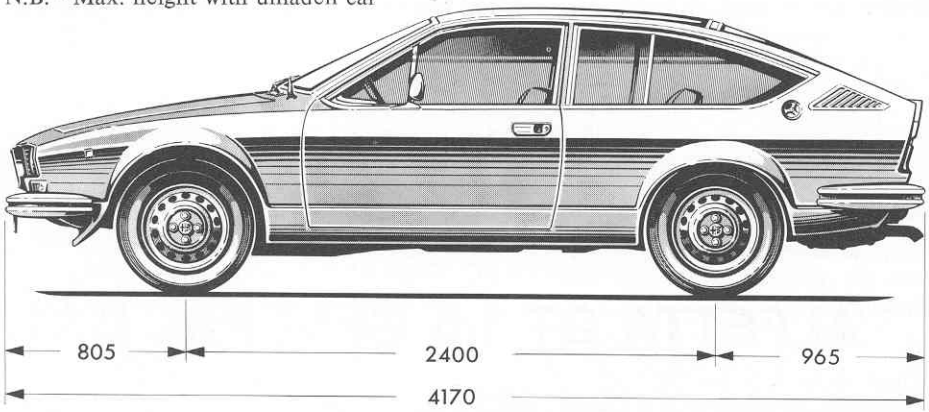
ALFETTA GT 1.6 GENERAL DATA



4170 = 164.2 in
2400 = 95 in.
1664 = 65.5 in.
1360 = 53.6 in.

1358 = 53.5 in.
1330 = 52.4 in.
965 = 38 in.
805 = 31,7 in.

N.B. - Max. height with unladen car



SPECIFICATION

ENGINE

Number and layout of cylinders			4 in line
Bore and stroke		mm	78x82
		in.	3.07x3.22
Total displacement		cc	1570
		cu. in.	97
Max power (at 5,600 r.p.m.)	DIN	BHP	109 (80 kW)

CHASSIS

Min. turning circle	mm	10100
		33 ft 1 in.
Number of seats		4
Tyres (alternative)		165 SR 14 / 185/70 HR 14
Kerb weight (full tank)	kg	1040
	lb.	2290
Boot capacity	dm^3	370
	cu. ft.	13
Towing gross weight	kg	1000
	lbs	2202

PERFORMANCE (with **43: 10** final drive)

AFTER RUNNING IN maximum speeds						
1st	**2nd**	**3rd**	**4th**	**5th**	**Rev.**	
28	**47**	**68**	**90**	**112,5**	**36**	mph
45	75	109	145	180	57	kph

The maximum speeds indicated should not be exceeded or mechanical damage may result. The performances given are related to the use of the vehicle in normal travelling conditions in Central Europe.

VALVE TIMING

intake valves	Opening	(before TDC)	33° 54'
	Closing	(after BDC)	57° 54'
exhaust valves	Opening	(before BDC)	57° 14'
	Closing	(after TDC)	21° 14'

VALVE CLEARANCE (cold engine)

Intake: .0187 - .0197 in. - (.475-.500 mm)
Exhaust: .0206 - .0216 in. - (.525-.550 mm)

IGNITION ADVANCE

Static: 6°/8° BTCD at idle (mark F)
Maximum: 35°/38° at 5100 r.p.m. (M mark)

FRONT WHEEL TOE OUT

Toe-out as measured on a 14.4 in (365 mm) dia circle: 0.04 in. (1 mm ± 1 mm) (with car under static load).

TRANSMISSION RATIOS (43 : 10 final drive)

Speed	Gearbox	Overall
1st	3.30 : 1	14.19 : 1
2nd	2.00 : 1	8.60 : 1
3rd	1.37 : 1	5.89 : 1
4th	1.04 : 1	4.47 : 1
5th	0.83 : 1	3.57 : 1
REV.	2.62 : 1	11.26 : 1

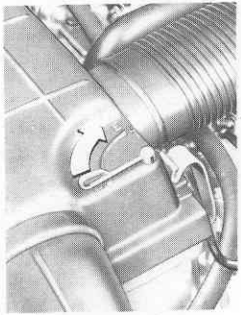
CARBURETTOR SETTING

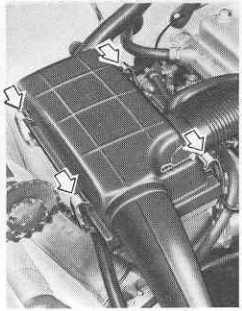
Setting	Dellorto* DHLA 40 G	Solex* C 40 ADDHE/15	Weber* 40 DCOE 106/107
Main jet	1.32	1.27	1.32
Main air metering jet	2.20	1.50	1.80
Idling jet	0.55	0.57	0.55
Idling air metering jet	2.20	1.67	Four 1.10 Holes F 21-55 W
Choke jet	0.80	1.40	F 9-85 (1.50)
Accelerator pump jet	0.33	0.45	0.30
Venturi	32	30	30

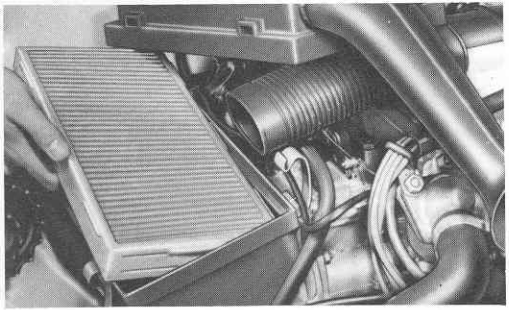
Idle speed: 850-1000 rpm

Caution: the idling mixture adjusting screws on carburettors are Factory sealed; **never tamper with these screws.** Possible adjustments must be performed by Alfa Romeo Authorised Workshops.

* These carburettors are alternative equipment.







AIR FILTER

Summer/winter adjustment

Operate the control by hand to position it foreward (posit. I) for pre-heated air in winter, rearward (posit. E) for cold air in summer.

Cleaning the filter element

Loosen the straps fastening the filter cover to the intake manifold. Disconnect the hot air duct from filter cover, raise the cover and withdraw the element. Clean the element carefully with low pressure compressed air blown through from the bottom (top and bottom sides of element are marked on the element itself).
Fit the element into the filter so that side with the metal net is at the bottom. Connect the air duct to the filter cover adapter. Fit cover to filter properly and secure it with the straps. Care should be taken not to alter the setting of summer/winter selector lever.

TOWING BAR INSTALLATION DIRECTIONS

This model can haul a trailer (whose gross weight is as stated under "General data: Specification" pages 44 and 52) when fitted with a suitable towing bracket.
The towing bracket meets the relevant regulations and standards and should be fitted to the car body according to the directions outlined below.
Towing bracket components may vary in size or location, provided the attachment points to car frame and the dimensional arrangement of bracket remain unchanged.
A support for attaching the electrical connection to the trailer electrical system should be installed in the most suitable position.
For mechanical connection between towing bracket and trailer tongue, the following should be used:
Ball hitch "ISO 50" type (CUNA Std. NC 138-30).

ELECTRICAL SYSTEM

For electrical connection a 12 volt, 7 way connector (CUNA Std. NC 165-30) should be used.
When linking up the connector to the car's wiring harness the following precautions should be observed:

- Make sure that wires do not interfere with the exhaust pipe.
- Fit grommets to the holes for passage of wires.
- The direction indicator circuit has to be modified to accept and additional load of two 21-watt lamps.
- Earth together the car and trailer by means of the 7 way connector (use 2.5 sq. mm gauge wire).

Excluding the standard signalling devices, one 15 W-lamp for trailer inside lighting and an electrically-operated brake (which should be fed directly from the battery via a wire not less than 2.5 sq. mm in gauge), the vehicle equipment circuits (such as blower, refrigerator, internal lighting, etc.) must not be connected to the car's electrical system.

BRAKES

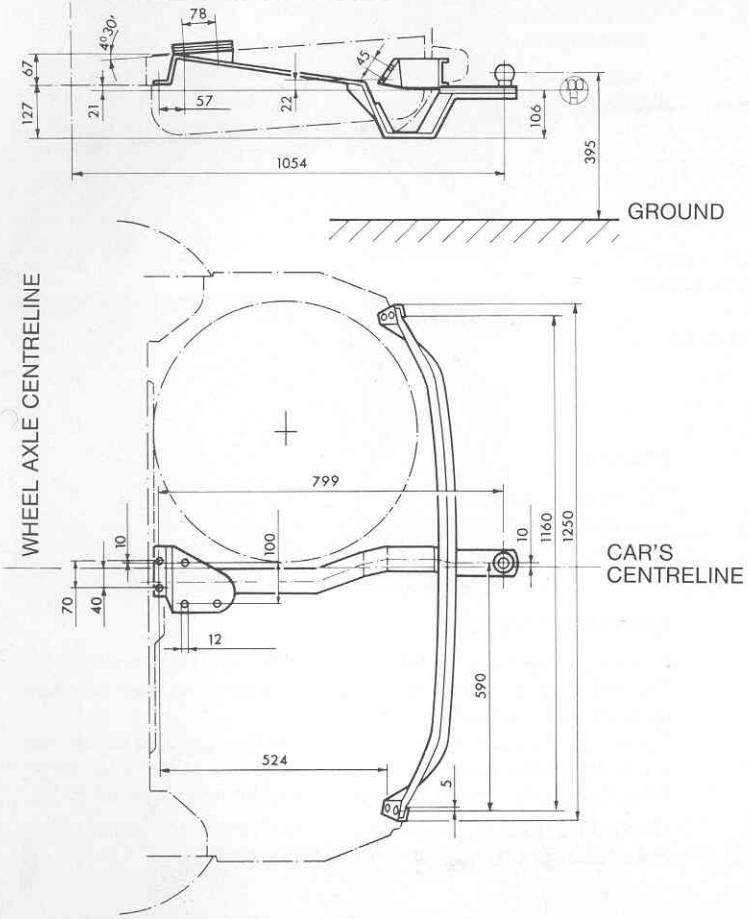
The trailer's braking system must be fully independent from the car's hydraulic brake system which must in no way be tampered with.

IMPORTANT NOTICE

The car/trailer unit should comply with the local regulations. **The trailer gross weight is the actual trailer gross load including all accessories and cargo loads.**
Therefore, it should be advisable before departing to check that the trailer gross weight does not exceed the prescribed limits. In any event, the trailer tongue load should never exceed 50 Kg.

Note: Alfa Romeo incurs no responsibility for towing bar installation not complying with the specified data.

ATTACHMENTS TO BODY



WIRING DIAGRAM FOR CONNECTION TO TRAILER

5 – Connectors

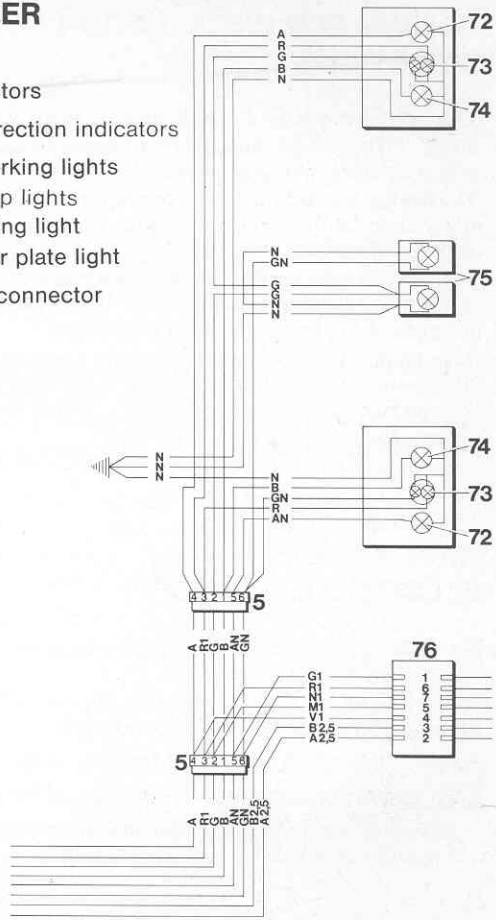
72 – Rear direction indicators

73 – Rear parking lights and stop lights

74 – Reversing light

75 – Number plate light

76 – 7-way connector



ELECTRICAL EQUIPMENT ITEMS

Alfetta GT 1.6 / GTV 2000

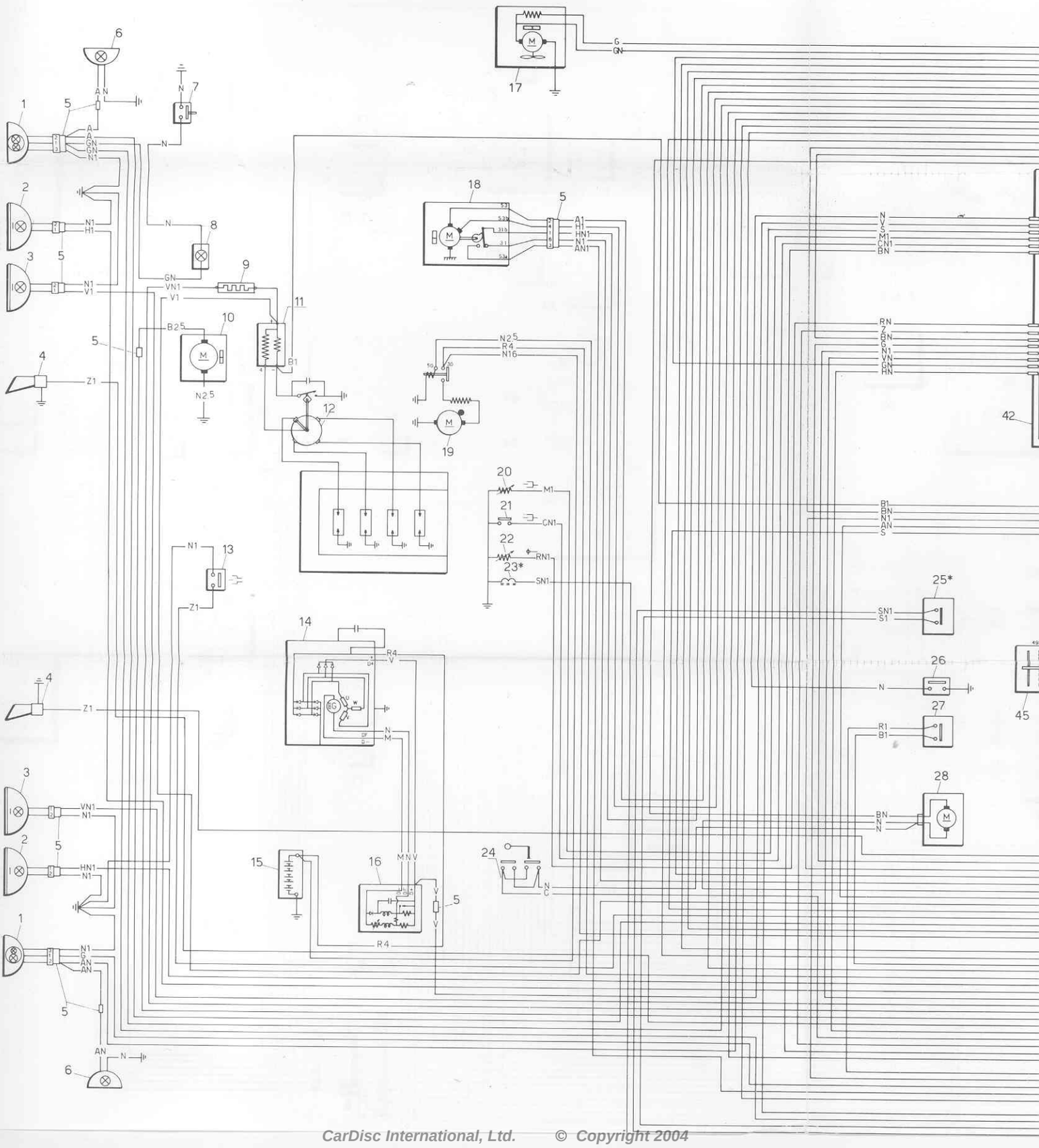
CABLE COLOUR CODE

A	blue	**R**	red	**CN**	orange/black
B	white	**S**	pink	**GN**	yellow/black
C	orange	**V**	green	**HN**	grey/black
G	yellow	**Z**	violet	**RN**	red/black
H	gray	**AB**	blue/white	**SN**	pink/black
M	brown	**AN**	blue/black	**VN**	green/black
N	black	**BN**	white/black		

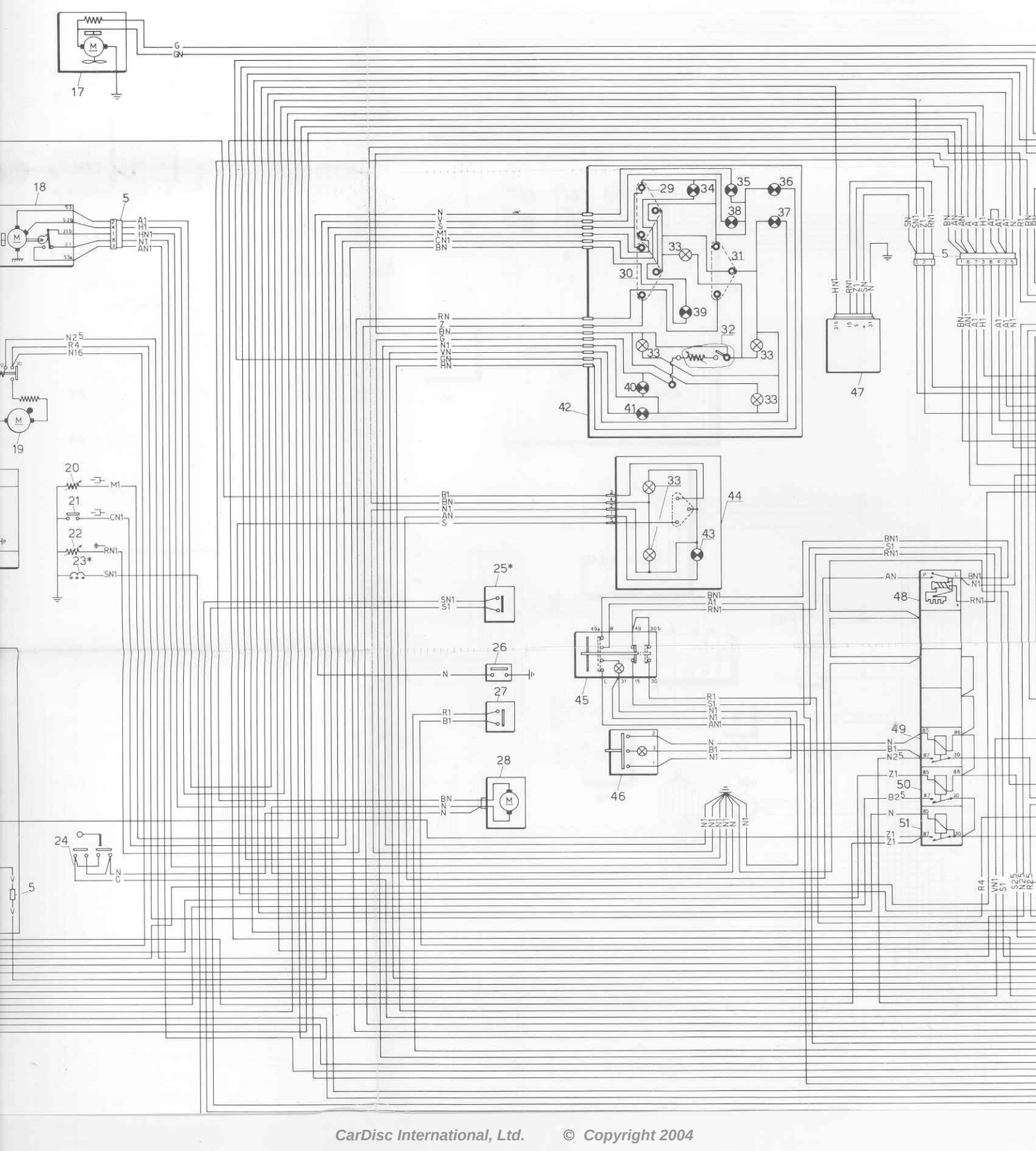
The figure following the colour code on the diagram shows the wire gauge in mm^2. The wire gauge is 0.5 mm^2 unless otherwise stated.

N.B. - Items marked thus (*) are fitted to GTV 2000 only.

1 - Front parking lights and direction indicators bulb 5/21 W
2 - Headlamp low beam bulb 55 W halogen (outer lamps)
3 - Headlamp high beam bulb 55 W halogen (inner lamps)
4 - Horns
5 - Junction boxes and connectors
6 - Side direction indicator bulb 4 W
7 - Engine compartment light switch
8 - Engine compartment light bulb 5 W
9 - Ballast resistor
10 - Electric fan
11 - Coil
12 - Distributor
13 - Thermal switch for electric fan
14 - Alternator
15 - Battery 12 V - 60 Ah
16 - Voltage regulator
17 - Blower motor (two speed)
18 - Windscreen wiper (two speed)
19 - Starting motor
20 - Coolant thermometer sender
21 - Thermal switch for coolant temperature tell tale
22 - Oil pressure gauge sender
23 - Fast idle solenoid*
24 - Low brake fluid level tell-tale switch
25 - Fast idle switch (at clutch pedal)*
26 - Choke warning light switch
27 - Stop light switch
28 - Screen washer pump
29 - Coolant thermometer
30 - Fuel level gauge
31 - Oil pressure gauge
32 - Instrument light dimmer
33 - Instrument light bulb 1.2 W
34 - Coolant temperature tell tale
35 - Choke warning light bulb 1.2
36 - Handbrake and low brake flui
37 - Blower warning light bulb 1.2
38 - Alternator warning light bulb 1
39 - Fuel reserve warning light bu
40 - Parking light warning bulb 1.
41 - High beam warning light bulb
42 - Instrument panel
43 - Direction indicator warning li
44 - Electronic tachometer
45 - Road hazard light switch (tell
46 - Heated rear window switch (t
47 - Intermittent wipe timer
48 - Direction indicator & hazard
49 - Heated rear window relay
50 - Fan relay

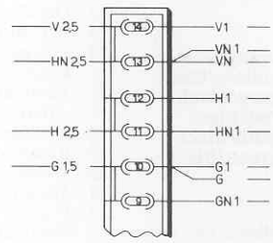


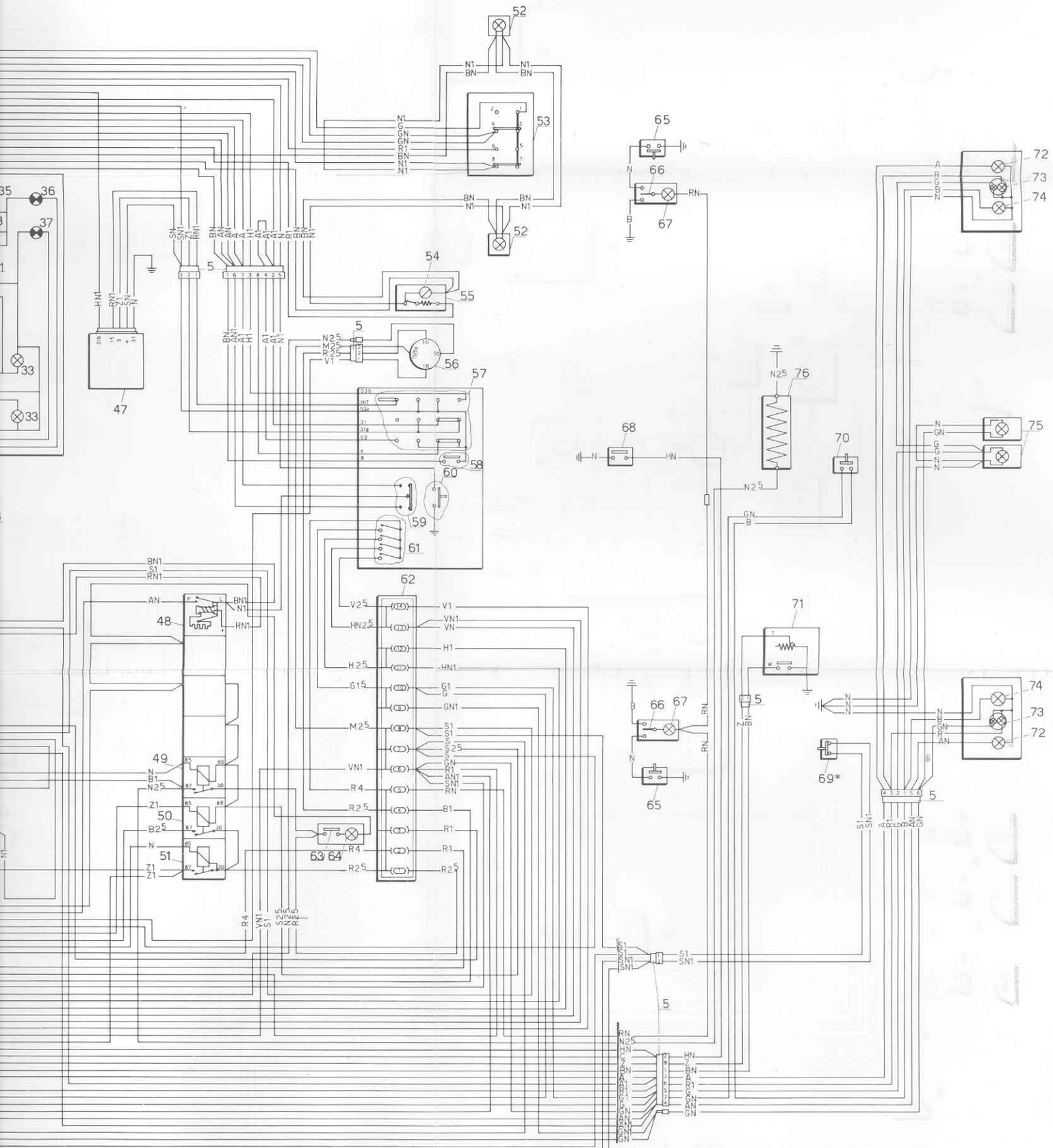
1 - Front parking lights and direction indicators bulb 5/21 W
2 - Headlamp low beam bulb 55 W halogen (outer lamps)
3 - Headlamp high beam bulb 55 W halogen (inner lamps)
4 - Horns
5 - Junction boxes and connectors
6 - Side direction indicator bulb 4 W
7 - Engine compartment light switch
8 - Engine compartment light bulb 5 W
9 - Ballast resistor
10 - Electric fan
11 - Coil
12 - Distributor
13 - Thermal switch for electric fan
14 - Alternator
15 - Battery 12 V - 60 Ah
16 - Voltage regulator
17 - Blower motor (two speed)
18 - Windscreen wiper (two speed)
19 - Starting motor
20 - Coolant thermometer sender
21 - Thermal switch for coolant temperature tell tale
22 - Oil pressure gauge sender
23 - Fast idle solenoid*
24 - Low brake fluid level tell-tale switch
25 - Fast idle switch (at clutch pedal)*
26 - Choke warning light switch
27 - Stop light switch
28 - Screen washer pump
29 - Coolant thermometer
30 - Fuel level gauge
31 - Oil pressure gauge
32 - Instrument light dimmer
33 - Instrument light bulb 1.2 W
34 - Coolant temperature tell tale bulb 1.2 W
35 - Choke warning light bulb 1.2 W
36 - Handbrake and low brake fluid level tell-tale bulb 1.2 W
37 - Blower warning light bulb 1.2 W
38 - Alternator warning light bulb 1.2 W
39 - Fuel reserve warning light bulb 1.2 W
40 - Parking light warning bulb 1.2 W
41 - High beam warning light bulb 1.2 W
42 - Instrument panel
43 - Direction indicator warning light bulb 1.2 W
44 - Electronic tachometer
45 - Road hazard light switch (tell-tale in pushbutton 1.2 W)
46 - Heated rear window switch (telltale in pushbutton 1.2 W)
47 - Intermittent wipe timer
48 - Direction indicator & hazard light flasher
49 - Heated rear window relay
50 - Fan relay
51 - Horn relay
52 - Heater control panel light bulb 1.2 W
53 - Blower motor switch
54 - Cigar lighter illumination bulb 1.2 W
55 - Cigarette lighter
56 - Ignition and starting switch
57 - Windscreen wiper switch
58 - Electric screen washer pump switch
59 - Direction indicator switch
60 - Horn control switch
61 - Parking lights, headlamps and flashing swi
62 - Fusebox
63 - Fusebox light switch (usually open)
64 - Fusebox light bulb 4 W
65 - Courtesy light microswitch on door jambs
66 - Courtesy light toggle switch in light unit
67 - Courtesy light bulbs 5 W
68 - Handbrake warning light switch
69 - Fast idle switch (at gearbox)*
70 - Reversing light switch
71 - Fuel level sender with telltale switch
72 - Rear direction indicator bulb 21 W
73 - Rear parking and stop lights bulb 5/21 W
74 - Reversing lights bulb 21 W
75 - Number plate light bulbs 4 W



51 - Horn relay
52 - Heater control panel light bulb 1.2 W
53 - Blower motor switch
54 - Cigar lighter illumination bulb 1.2 W
55 - Cigarette lighter
56 - Ignition and starting switch
57 - Windscreen wiper switch
58 - Electric screen washer pump switch
59 - Direction indicator switch
60 - Horn control switch
61 - Parking lights, headlamps and flashing switch
62 - Fusebox
63 - Fusebox light switch (usually open)
64 - Fusebox light bulb 4 W
65 - Courtesy light microswitch on door jambs
66 - Courtesy light toggle switch in light unit
67 - Courtesy light bulbs 5 W
68 - Handbrake warning light switch
69 - Fast idle switch (at gearbox)*
70 - Reversing light switch
71 - Fuel level sender with telltale switch
72 - Rear direction indicator bulb 21 W
73 - Rear parking and stop lights bulb 5/21 W
74 - Reversing lights bulb 21 W
75 - Number plate light bulbs 4 W

VARIANT DETAIL FOR EXPORT EXCEPT FRANCE AND BELGIUM





ELECTRICAL EQUIPMENT ITEMS FOR A/C EQUIPPED CARS

Alfetta GT 1.6 / GTV 2000

CABLE COLOUR CODE

A	blue	R	red	CN	orange/black
B	white	S	pink	GN	yellow/black
C	orange	V	green	HN	grey/black
D	yellow	Z	violet	RN	red/black
H	grey	AB	blue/white	SN	pink/black
M	brown	AN	blue/black	VN	green/black
N	black	BN	white/black		

The figure following the coulor code on the diagram shows the wire gauge in mm². The wire gauge is 0.5 mm² unless otherwise stated.

N.B. - Items marked thus (*) are fitted to GTV 2000 only.

1 - Front parking light and direction indicators bulb 5/21 W
2 - Headlamp low beam bulb 55 W halogen
3 - Headlamp high beam bulb 55 W halogen
4 - Horns
5 - Junction boxes and connectors
6 - Side direction indicator bulb 4 W
7 - Engine compartment light switch
8 - Engine compartment light bulb 5 W
9 - Ballast resistor
10 - Electric fan
11 - Coil
12 - Distributor
13 - A/C blower fan
14 - Thermal switch for electric fan
15 - Electromagnetic clutch
16 - Thermal switch for electromagnetic clutch
17 - Alternator
18 - Voltage regulator
19 - Blower motor
20 - Windscreen wiper
21 - Starting motor
22 - Coolant thermometer sender
23 - Thermal switch for coolant temperature tell tale
24 - Oil pressure gauge sender
25 - Fast idle solenoid*
26 - Low brake fluid level tell-tale switch
27 - Instrument panel
28 - Tachometer
29 - Coolant thermometer
30 - Fuel level gauge
31 - Oil pressure gauge
32 - Instrument light dimmer
33 - Instrument light bulb 1.2 W
34 - Coolant temperature tell tale
35 - Choke warning light bulb 1.2
36 - Handbrake and low brake flui
37 - Alternator warning light bulb
38 - Blower warning light bulb 1.2
39 - Fuel reserve warning light bu
40 - Parking light warning bulb 1.2
41 - High beam warning light bulb
42 - Direction indicator warning li
43 - Resistance for controlling the
44 - Choke warning light switch
45 - Road hazard light switch (tell
46 - Stop light switch
47 - Fast idle switch (at clutch ped
48 - Screen washer pump
49 - Heated rear window switch (t
50 - Intermittent wipe timer
51 - Direction indicator flasher
52 - Relay for A/C blower fan and
53 - A/C relay
54 - Heated rear window relay
55 - Fan relay
56 - Horn relay

ction indicators bulb 5/21 W
5 W halogen
55 W halogen

tors
b 4 W
switch
bulb 5 W

fan

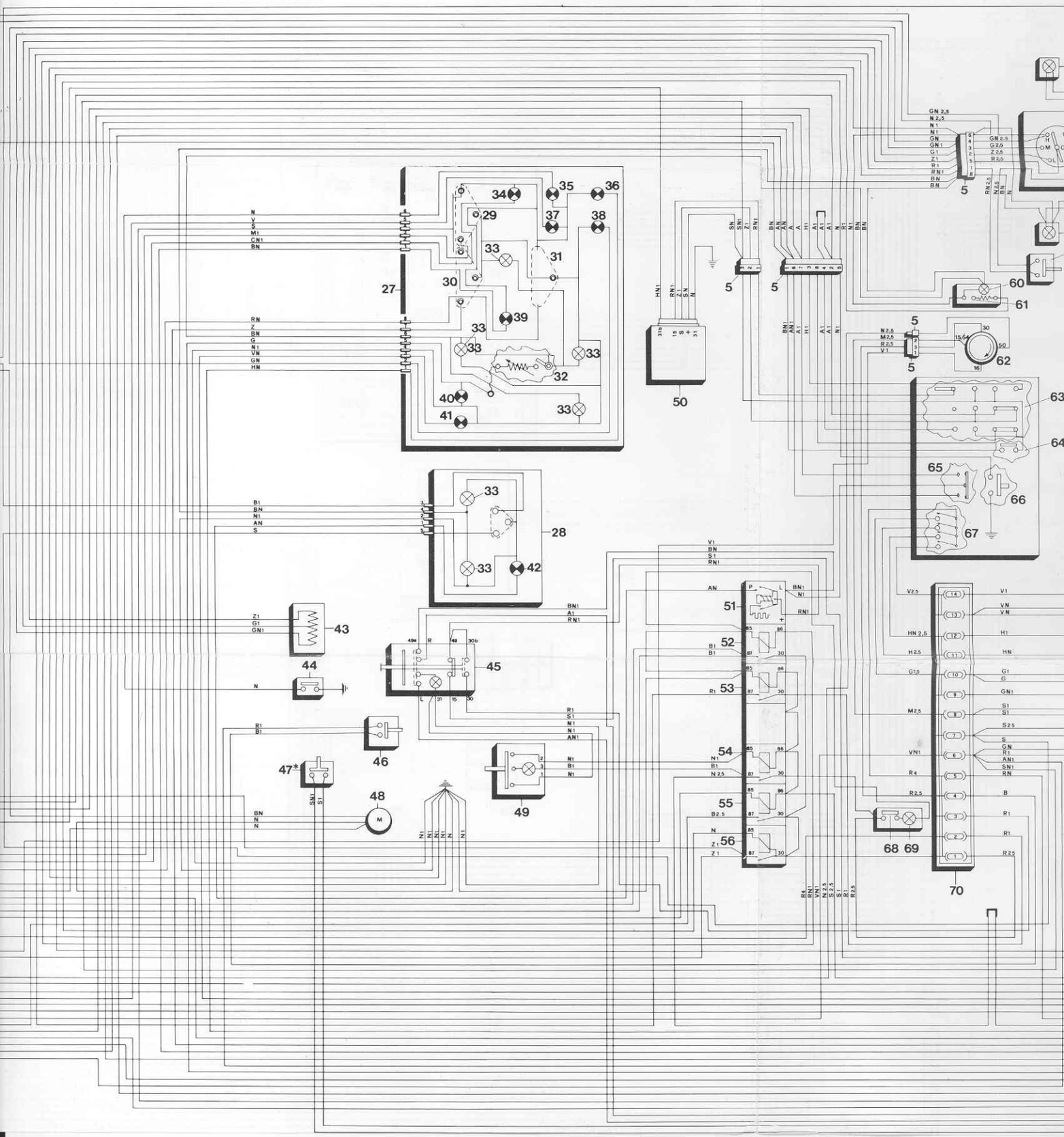
nagnetic clutch

er
temperature tell tale

le switch

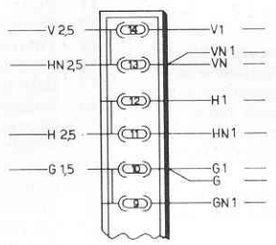
29 - Coolant thermometer
30 - Fuel level gauge
31 - Oil pressure gauge
32 - Instrument light dimmer
33 - Instrument light bulb 1.2 W
34 - Coolant temperature tell tale bulb 1.2 W
35 - Choke warning light bulb 1.2 W
36 - Handbrake and low brake fluid level tell-tale bulb 1.2 W
37 - Alternator warning light bulb 1.2 W
38 - Blower warning light bulb 1.2 W
39 - Fuel reserve warning light bulb 1.2 W
40 - Parking light warning bulb 1.2 W
41 - High beam warning light bulb 1.2 W
42 - Direction indicator warning light bulb 1.2 W
43 - Resistance for controlling the A/C blower fan speed
44 - Choke warning light switch
45 - Road hazard light switch (tell-tale in pushbutton 1.2 W)
46 - Stop light switch
47 - Fast idle switch (at clutch pedal)*
48 - Screen washer pump
49 - Heated rear window switch (telltale in pushbutton 1.2 W)
50 - Intermittent wipe timer
51 - Direction indicator flasher
52 - Relay for A/C blower fan and electromagnetic clutch
53 - A/C relay
54 - Heated rear window relay
55 - Fan relay
56 - Horn relay

57 - Heater control panel light bulb 1.2 W
58 - Blower motor switch
59 - A/C thermostat
60 - Cigar lighter illumination bulb 1.2 W
61 - Cigarette lighter
62 - Ignition and starting switch
63 - Windscreen wiper switch
64 - Electric screen washer pump switch
65 - Direction indicator switch
66 - Horn control switch
67 - Parking light, headlamp and flashing switch
68 - Fusebox light switch (usually open)
69 - Fusebox light bulb 4 W
70 - Fusebox
71 - Courtesy light microswitch on door jambs
72 - Courtesy light toggle switch in light unit
73 - Courtesy light bulbs 5 W
74 - Handbrake warning light switch
75 - Battery 12 V-66 Ah
76 - Heated rear window
77 - Reversing light switch
78 - Fuel level sender with telltale switch
79 - Fast idle switch (at gearbox)*
80 - Rear direction indicators bulb 21 W
81 - Rear parking and stop lights bulb 5/21 W
82 - Reversing lights bulb 21 W
83 - Number plate light bulbs 4 W



57 - Heater control panel light bulb 1.2 W
58 - Blower motor switch
59 - A/C thermostat
60 - Cigar lighter illumination bulb 1.2 W
61 - Cigarette lighter
62 - Ignition and starting switch
63 - Windscreen wiper switch
64 - Electric screen washer pump switch
65 - Direction indicator switch
66 - Horn control switch
67 - Parking light, headlamp and flashing switch
68 - Fusebox light switch (usually open)
69 - Fusebox light bulb 4 W
70 - Fusebox
71 - Courtesy light microswitch on door jambs
72 - Courtesy light toggle switch in light unit
73 - Courtesy light bulbs 5 W
74 - Handbrake warning light switch
75 - Battery 12 V-66 Ah
76 - Heated rear window
77 - Reversing light switch
78 - Fuel level sender with telltale switch
79 - Fast idle switch (at gearbox)*
80 - Rear direction indicators bulb 21 W
81 - Rear parking and stop lights bulb 5/21 W
82 - Reversing lights bulb 21 W
83 - Number plate light bulbs 4 W

VARIANT DETAIL FOR EXPORT EXCEPT FRANCE AND BELGIUM



RECOMMENDED LUBRICANTS

PART	Grade	Commercial equivalents		
		Agip	Shell	IP
Engine	SAE 10 W/50 API SE	AGIP Sint 2000 SAE 10 W/50	SHELL Super Motor Oil 10 W/50	IP Super Motor Oil 10 W/50
Gearbox differential unit	SAE 80 W/90 API GL-5	AGIP F. 1 Rotra MP SAE 80 W/90	SHELL Spirax 80 W/90 HD	IP Pontiax HD SAE 80 W/90
Front wheel bearings	NLGI 2/3	AGIP F.1 Grease 33 FD	SHELL Retinax AX	IP Auto Grease FD

SAE – Society of Automotive Engineers
API – American Petroleum Institute
NLGI – National Lubricating Grease Institute

In the event the above lubricants would not be available refer to the directions given about «lubricants» on page 27.

TYRES

Inflation pressure when cold Kg/cm²
(Under all conditions)

165 SR 14 (GT 1.6 Only)	front	rear
(with 5 1/2 J x 14" rims) CEAT Veltro CONTINENTAL Conti TT 714 GOOD YEAR G 800 S PIRELLI CN 54	1,6	1,8
PIRELLI P3	1,8	1,8
KLEBER COLOMBES V10	1,6	2,1
FIRESTONE Cavallino Sport 200	1,7	1,8
MICHELIN ZX	1,8	2,0
KLEBER COLOMBES V12	1,7	2,0
FIRESTONE S1	1,7	1,8

185/70 HR 14	front	rear
(with 5 1/2 J x 14" rims) CEAT Veltro CONTINENTAL GOOD YEAR G 800 Grand Prix 70 MICHELIN XVS FIRESTONE HS1	1,7	1,8

CAPACITIES

	Imp.	Metric
Cooling system		
Alfa Romeo coolant mixture . .	1.8 gals	8 lt.
Fuel		
Tank capacity	12.3 gals	56 lt.
Fuel reserve	1.8 gals	8 lt.
For best engine performance the use of premium grade fuel (octane rating not less than 98 R.O.N.) is advised.		
Oil		
Engine (sump and filter):		
when full*	5.5 qts	5.500 kg
danger level	3.8 qts	3.850 kg
Gearbox/differential unit . . .	2.5 qts	2.570 kg
* This quantity is that needed for regular changing. The total amount of oil in the circuit (sump, filter and passages) is	5.9 qts	5.915 kg

ALFA ROMEO.- DIREZIONE ASSISTENZA TECNICA - CENTRO DIREZIONALE - 20020 ARESE (MI)
DIASS - Public. N. 2814 - 5/80 - 1.500 - Printed in Italy - Brugora

DIREZIONE ASSISTENZA TECNICA