

Scimitar GTE - SE5a

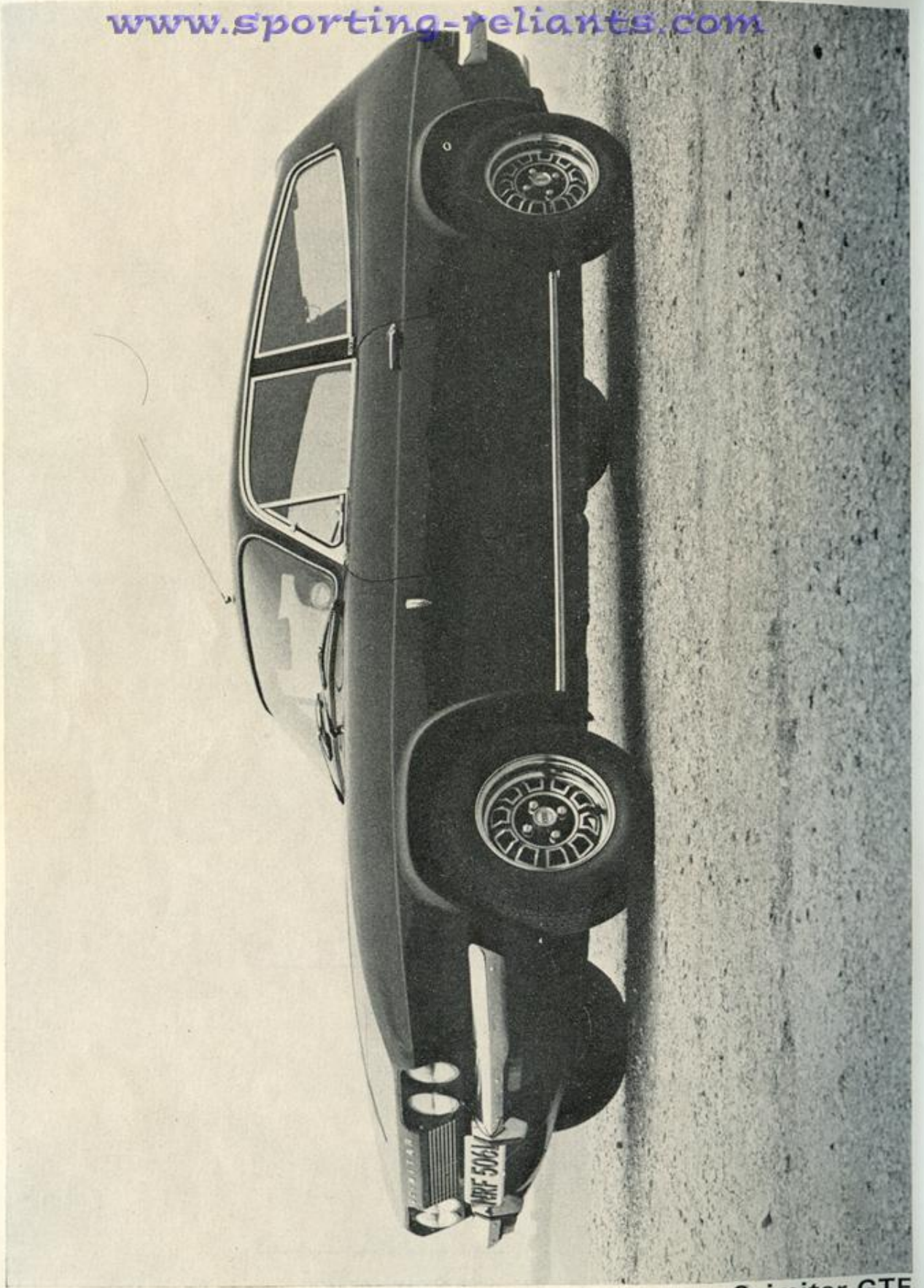
Owners Handbook



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Scimitar GTE

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The descriptions and illustrations appearing in this book are not binding. The manufacturer, therefore, reserves the right – while retaining the basic features of the models herein described and illustrated – to make at any time and without necessarily bringing this book up to date, any alteration to units, parts or accessories deemed convenient for improvement or for any manufacturing or commercial reason.

The Scimitar GTE, a high-performance car of distinction has been designed, styled and engineered to meet the most exacting requirements in performance, appointment and comfort.

Powered by an advanced design 'Vee' engine, providing maximum flexibility and ensuring a smooth and powerful performance, the Scimitar GTE is a car for the connoisseur. As its owner, you will appreciate the importance of regular routine maintenance.

This driver's handbook gives concise information on the correct running and maintenance of the Scimitar GTE.

It is not intended to be a service repair manual and should any work become necessary which is not detailed in it, owners should contact a dealer, preferably the same dealer from whom the vehicle was purchased.

Pre-delivery inspection

The pre-delivery inspection is carried out by the dealer supplying the vehicle. It is designed to ensure that the vehicle reaches you, the owner, in first class condition. Continued efficiency and economy of operation depends entirely on the care and regular maintenance it receives during its life.

Free service

You will have received with your vehicle a booklet 'The Key to Service'. In it you will find a series of service vouchers the first of which, when signed by your Scimitar Dealer, will entitle you to a free service after completing 600 miles (1,000 km).

All Authorised Dealers are under agreement to provide a full after-sales service at 600 miles. Should you reside a long distance from the Dealer from whom you purchased the vehicle, it is that Dealer's responsibility to make prior arrangements for you to have your Free service and any necessary Warranty work carried out by a Scimitar Dealer nearer to your home address. Details of the regular maintenance services are given on pages 66-70 of this handbook and vouchers for these together with the vehicle Warranty are included in the 'Key to Service' booklet.

Warranty

Matters affecting claims made under Warranty are clearly stated in the Terms of Warranty section of the Key to Service booklet. Owners should appreciate that the Warranty does not apply to defects arising in any component that has not received the essential scheduled maintenance as detailed in the Service Voucher book and on pages 66-70 of this handbook.

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Owners are strongly recommended to entrust their vehicle servicing to a Scimitar Dealer. This is essential whenever 'warranty rectification work' is involved. Authorised dealers are constantly being advised of the latest technical developments and methods of repair and replacement and are, therefore, able to provide the best servicing, advice, or information.

An Authorised Dealer also has the special facilities and equipment necessary for major repairs or long term maintenance, not usually available to the private owner.

Your Scimitar Dealer

Reliant 'R' Parts

Great care should be taken to ensure that only genuine Reliant 'R' Parts are used to maintain your vehicle. 'R' Parts are stocked by all Authorised Reliant Dealers and are subject to the same rigorous quality control standards as components used in original manufacture and have a factory backed guarantee.



An exchange scheme for many major items and assemblies is operated by our Parts Department; ask your Dealer for details.

Exchange scheme

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You should first familiarise yourself with the functions of the instruments and controls. To ensure safety and driving confidence, learn to handle them and interpret their readings quickly and easily.

The instruments are described as viewed from the driving seat.

Instruments

Revolution counter (1) Figure 1

The revolution counter is a 6,000 rpm tachometer, situated at the extreme right of the instrument panel.

Oil pressure gauge (2) Figure 1

Indicates that oil is circulating the engine under the correct pressure. When starting from cold, the gauge may show a high initial pressure, but will gradually fall to about 3.51 kg./sq.cm. (50 lb per sq. in.) for normal engine speeds as the engine temperature rises. If a very low indication is given, or the instrument shows no pressure at all, the engine should be switched off immediately and the oil level checked by means of the engine dipstick.

Water temperature gauge (3) Figure 1

Indicates the temperature of the water in the cylinder head. Normal operating temperature is 88°C (190.4°F).

Speedometer (4) Figure 1

The speedometer is calibrated up to 140 mph and incorporates a kilometre scale. Also included in the meter is a total mileage indicator (odometer), and an indicator showing the mileage covered on an individual journey. The latter is re-set to zero by a knurled trip knob located below the speedometer on the underside of the instrument panel. (5) Figure 1.

Fuel gauge (6) Figure 1

The fuel gauge operates from an instrument incorporated in the fuel tank itself and does not become operative until the ignition is either switched on, or when the ignition switch is turned to the auxiliary position. The engine should always be switched off whilst the tank is being filled, the ignition switch can be in the auxiliaries position so that the fuel gauge can be read.

Clock (7) Figure 1

The electric clock operates from the car battery, and is consequently always operating. However, it will naturally stop if the battery is disconnected for any reason. In such a case, re-set the clock as soon as the battery is reconnected; simply re-set the clock by means of the button provided. It will re-start automatically on releasing the button.

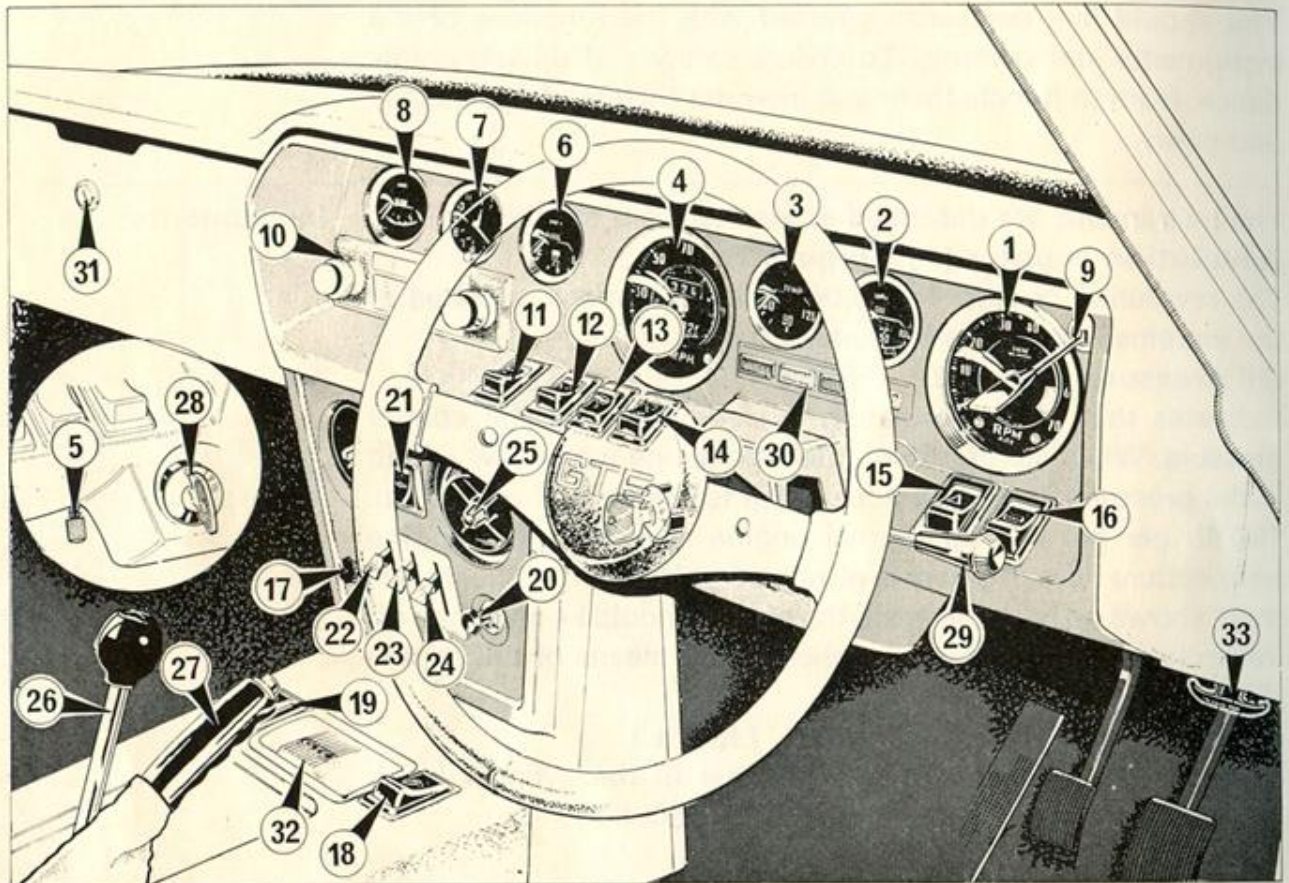


Figure 1 Fascia & controls

- | | |
|--|----------------------------------|
| 1 Revolution counter | 17 Panel lamps brightness switch |
| 2 Oil pressure gauge | 18 Fog lamp switch |
| 3 Water temperature gauge | 19 Spot lamp switch |
| 4 Speedometer | 20 Cigar lighter |
| 5 Mileage indicator re-set knob | 21 Heater fan switch |
| 6 Fuel gauge | 22 Heater distribution control |
| 7 Clock | 23 Heater ram effect control |
| 8 Ammeter | 24 Heater temperature control |
| 9 Overdrive switch | 25 Fresh air vent |
| 10 Radio or tape player | 26 Gear lever |
| 11 Combined side/tail lamp and headlamp switch | 27 Handbrake |
| 12 Windscreen wiper switch | 28 Ignition switch/steering lock |
| 13 Front and rear screen washer | 29 Multi-switch |
| 14 Rear window wiper switch | 30 Warning light band |
| 15 Hazard warning lights switch | 31 Glove box lock |
| 16 Heated rear window switch | 32 Ash tray |
| | 33 Bonnet release handle |

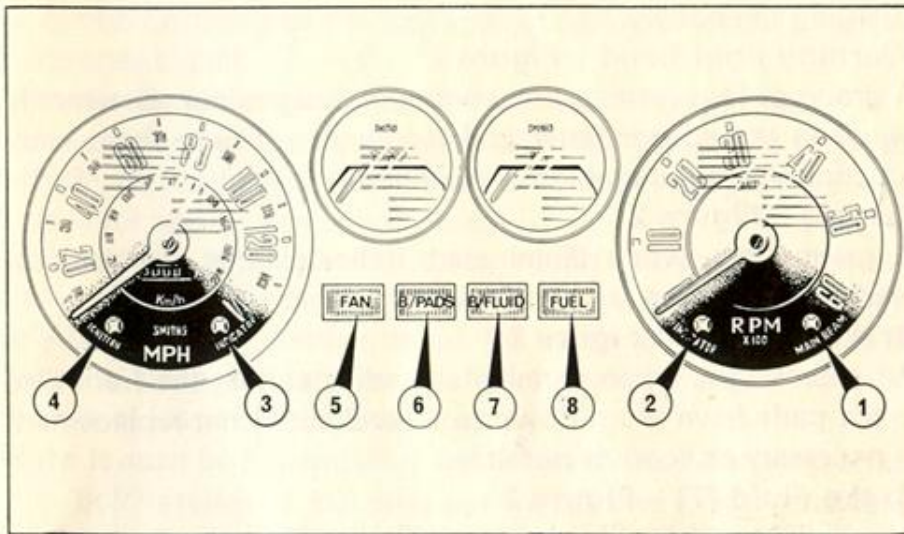


Figure 2 Warning lights

- | | |
|--------------------------------------|--------------------------------------|
| 1 Main beam warning light | 5 Radiator cooling fan light |
| 2 Right-hand indicator warning light | 6 Disc brake pad level warning light |
| 3 Left-hand indicator warning light | 7 Brake fluid level warning light |
| 4 Ignition warning light | 8 Fuel level warning light |

Battery voltage indicator (8) Figure 1

A meter graduated to indicate the battery operating voltage.

Main beam warning light (1) Figure 2

This is a blue light, located in the right-hand lower segment of the tachometer. It is illuminated when the headlight main (high) beams are on.

Right-hand direction indicator warning light (2) Figure 2

Figure 2

Indicates, by showing a flashing amber light, that the right-hand direction indicator is operating. Located in the left-hand lower segment of the tachometer.

Left-hand direction indicator warning light (3) Figure 2

Figure 2

Indicates, by a flashing amber light, that the left-hand direction indicator is operating. It is located in the right-hand lower segment of the speedometer.

Ignition warning light (4) Figure 2

Located in the left-hand lower segment of the speedometer, the ignition warning light is red, and is illuminated when the ignition is switched on. It fades out when the alternator is

charging the battery.

Warning light band Figure 2

A group of four rectangular warning lights positioned centrally between the speedometer and tachometer. These lights only function when the ignition is switched on.

Fan (5) Figure 2

A green light, when illuminated, indicates that the radiator electric cooling fan is operating.

Brake pads (6) Figure 2

An amber light, when illuminated, indicates that the front disc brake pads have worn down to a level such that replacement is necessary as soon as possible.

Brake Fluid (7) Figure 2

A red light, when illuminated indicates that the brake fluid reservoir requires the fluid level to be topped up immediately, (see page 31).

Fuel (8) Figure 2

A blue light, gives a warning, when illuminated, that the fuel tank only contains approximately 11.36 litres. (2½ galls)

Handbrake warning lights

A warning that the handbrake is 'ON' is given – by both the amber 'Brake pads' light and the red 'Brake fluid' light being illuminated when the ignition is switched on. Releasing the handbrake will extinguish both lights.

These warning lights also act as an indicator to show that the check circuits and bulbs for 'Brake pads' and 'Brake fluid' are functional.

Controls and switches

Again, switches and controls are described viewed from the driving seat.

Ignition switch/steering lock Figure 3

The combined ignition switch and steering lock, situated adjacent to the steering column on the left-hand side, is operated by a special key. The steering lock is released by inserting the key and turning it to the right. This action also maintains all the auxiliaries, including radio, fuel and temperature gauges, flashing indicators, etc., in circuit without the ignition switched on.

A further clockwise rotation of the key switches the ignition on.

Continued rotation of the key against spring pressure operates the starter circuit.

Immediately the engine starts the key should be released.

The keys for this lock, unlike the other keys supplied for your vehicle, do not have an identification number stamped on them. This is for security/anti-theft reasons.

The keys are supplied with a tag which has the key number stamped on it. It is most important that the tag is retained in a safe place, or the number noted, for future reference, as this is the **only** means of identification for your vehicle's steering lock, in case of loss or theft of the keys.

Note It must be remembered that when the key is removed the lock 'bolt' is released, but does not engage and lock the steering until the wheels are in the straight ahead position.

Overdrive switch (9) Figure 1

The overdrive mechanism is brought into operation by a simplified arrangement necessitating only the operation of a slim lever-type switch. It provides fingertip control permitting the overdrive to be brought in or out without moving the hand from the steering wheel.

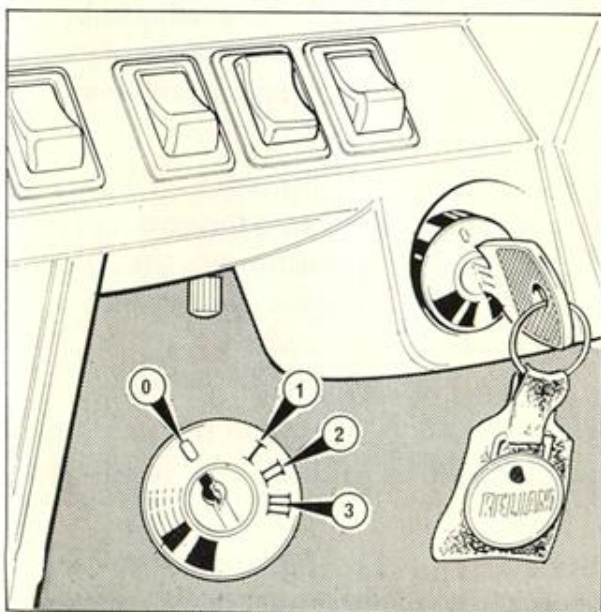


Figure 3 Ignition steering lock

- 0 Ignition off – steering locked
- 1 Steering free – auxiliaries on
- 2 Ignition on
- 3 Starter

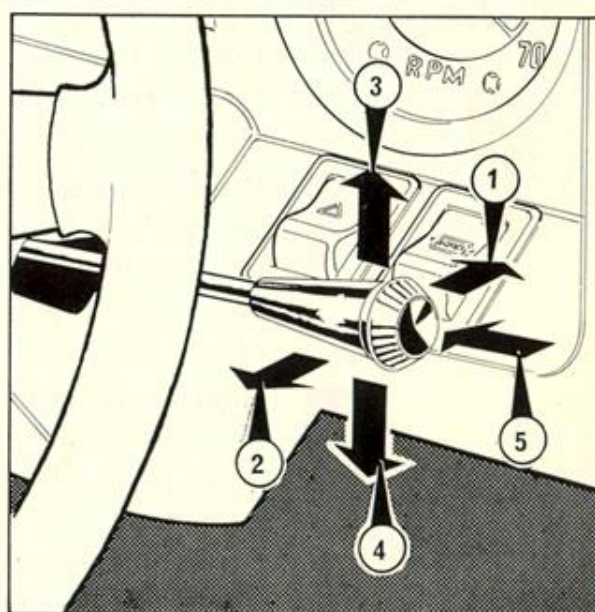


Figure 4 Multi-switch

- 1 Forward – headlamp main beam
- 2 Back – headlamp flasher
- 3 Up – left-hand indicator
- 4 Down – right-hand indicator
- 5 Press – horn

**Combined direction indicator switch/dipswitch/
headlamp flasher and horn push Figure 4**

A multi-purpose switch located on the right-hand side of the steering column. The switch has four positions thus:

- 1 Forward – Headlamp main beam
- 2 Back – Headlamp flasher
- 3 Up – Left-hand indicator
- 4 Down – Right-hand indicator
- 5 Press – Horn

Radio (10) Figure 1

The radio or radio/stereo tape player is located above the centre console. The loudspeakers are located in each door and extension speakers for the stereo tape player are situated adjacent to the rear passenger seats.

**Combined side/tail lamp and headlamp switch (11)
Figure 1**

The switch, a three position rocker type, operates the side and tail lamps and number plate lamp when pressed, further pressure switching on the headlamps.

**Windscreen wiper switch (12) Figure 1**

The two-speed wipers are operated by a three-position rocker switch. Pressing the switch once operates the wipers at slow speed. Further pressure on the switch operates the wipers at fast speed.

**Front and rear screen washer (13) Figure 1**

The dual windscreen washers are operated by a forward pressure on the rocker switch. A rearward pressure on the switch operates a single jet on to the rear window. The washer only operates whilst pressure is applied to the switch.

**Rear window wiper switch (14) Figure 1**

A rocker switch giving fast or slow operation of the single rear wiper blade. The function is identical to that of the windscreen wiper switch.

**Hazard warning lights switch (15) Figure 1**

The rocker switch operates the hazard warning device enabling indicators to flash simultaneously to give visual warning to other road users of a hazard. The indicator warning lights on the speedometer and tachometer flash in unison with the external lamps whenever the hazard device is in operation.

The warning device is connected directly to the battery circuit

and will function whenever the switch is depressed, regardless of the position of the ignition or direction indicator switch.

Heated rear window switch (16) Figure 1

The electrically heated rear window is manually controlled by the rocker switch at the extreme right-hand side of the fascia. Care should be taken not to leave the heated rear window switched on unnecessarily.

Note: The heated window only operates when the ignition switch is turned ON.



Panel lamps switch (17) Figure 1

The instruments are individually illuminated, the console panel, heater controls and switches being illuminated by two lamps situated above the panel.

The panel lamp switch incorporates a dimming control. When the switch is turned clockwise the panel lamps will be fully illuminated. If the switch is turned further, the glow is gradually reduced until the required level of illumination is reached.

The panel lamps will only operate whilst the side or headlamps are switched on.



Fog lamp switch (18) Figure 1 (optional equipment)

Situated adjacent to the ash tray on the centre console, a rocker type switch operates the fog lamp mounted below the nearside front bumper. (see also page 56)



Spot lamp switch (19) Figure 1 (optional equipment)

A rocker switch, alongside the fog lamp switch, on the central console operates the spot lamp mounted below the offside front bumper. (see also page 56)



Cigar lighter (20) Figure 1

The cigar lighter is operated by pushing the unit in. The lighter will remain in until the element is at red heat when the unit springs back automatically.

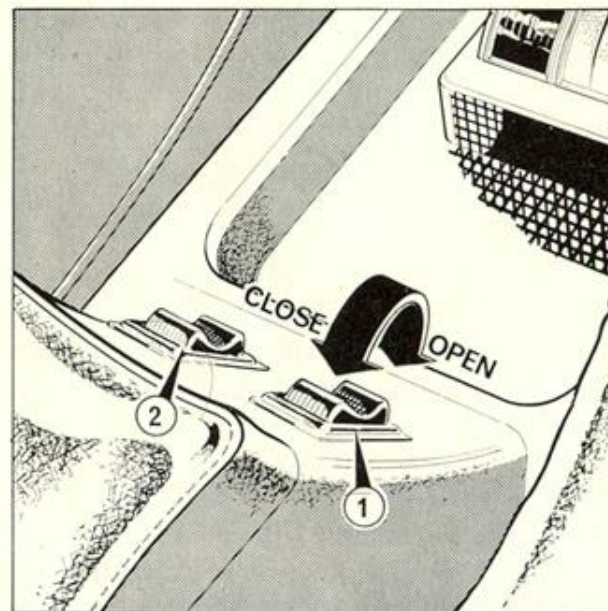
Interior lights

Two interior lamps are fitted, one over the front seats, the other at the rear of the vehicle above the rear window. The lamps are linked to door operated courtesy switches, both lamps being illuminated when either door is opened.

With the doors closed both lamps can be switched on using the switch on either lamp assembly.

Electric window switches (Optional equipment)**Figure 5**

Electrically operated windows are available as factory fitted optional equipment. The mechanisms are controlled by two switches situated on the console centre arm rest. See Figure 5. The three-position rocker type switches are pressed downwards to lower the window glass and upwards to raise the glass. Releasing the switch will stop the glass in any desired position, the spring-loaded switch returning to the off position. A thermal cut-out prevents the electric motors from overloading when the glass reaches the extreme open and closed positions. This device has the effect of preventing the mechanism from operating for approximately five seconds.



- 1 Driver's window
- 2 Passenger's window

Figure 5 Electric window switches

Heater A comprehensive heating and ventilation system is built into the vehicle and various combinations of heat and air flow are possible. Air extractors are at the rear of the vehicle to ensure complete ventilation of the passenger area. The various controls are as follows:

Controls**Booster fan switch (21) Figure 1**

The two-speed fan switch operates a booster fan in the



ventilation/heater system. Used in conjunction with the temperature control it can be used to boost cool or warm air as required.

Distribution control (22) Figure 1

The left-hand lever on the heater control panel directs air into the car at footwell or windscreen levels, or a combination of both.

'Ram effect' control (23) Figure 1

The central lever on the heater control panel progressively stops ram air entering the system from the intake at the base of the windscreen when the vehicle is moving. This control must be 'off' if the booster fan is operating when the vehicle is slow moving or stationary.

Temperature control (24) Figure 1

The right-hand lever on the heater control panel governs the temperature of the air output by blending cold and heated air.

Console air vents (25) Figure 1

Console fresh air vents are fitted, to give face level ventilation at ambient temperature. These are situated at the top of the centre console and supply fresh air controlled by the ram control or by the booster fan, when the vehicle is slow moving or stationary. The vents have adjustable and rotatable nozzles. The knurled knobs can be used to direct or adjust the air flow from the vents independently. Turning the knurled knob anti-clockwise closes the vent.

Ventilation

Footwell air vents Figure 6

These air vents enable the footwell area to be kept at a comfortable temperature in the summer months, when conventional heater/ventilation systems do not circulate fresh air to the footwell areas.

An adjustable, rotatable nozzle is fitted in the outer wall of both front footwells supplying fresh air at ambient temperature. The air flow is controlled by the ram control when moving or the booster fan when stationary. Turning the knurled knob anti-clockwise closes the vent.

Important:

Fresh air vents, both footwell and console, must be closed when using the heater. The opening of any fresh air vent will reduce the flow of heated air from the heater or demister vents.

Heater functions

The controls are progressively variable; hence any combination of temperature and distribution may be obtained by suitable manipulation of the controls.

The following are examples of the control settings that will be most commonly used:

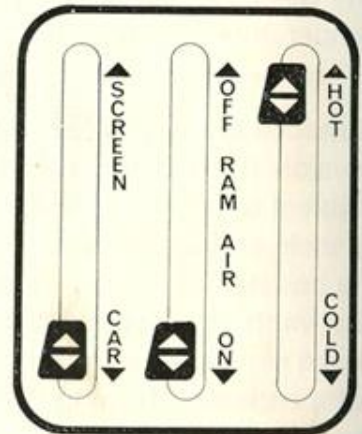
Heating system off:

- Place temperature control in the **cold** position.
- Place the central lever 'Ram air' in the **off** position.
- Booster fan **off**.

Vehicle moving at speeds over 40 mph

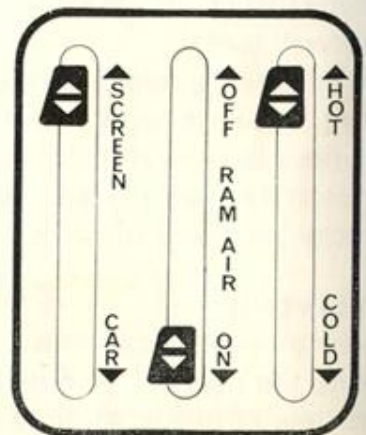
HOT air, interior – vehicle moving at speeds over 40 mph.

- Controls as shown opposite.
- Console and footwell vents **closed**.
- Use booster fan if necessary.

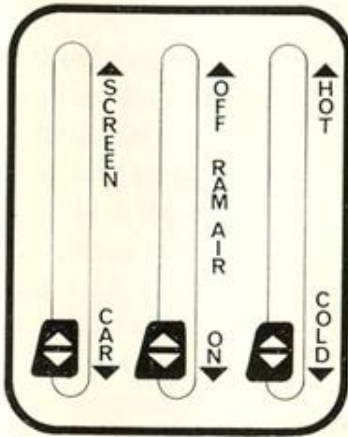


Windscreen De-frosting – vehicle moving at speeds over 40 mph.

- Controls as shown opposite.
- Console and footwell vents **closed**.
- Use booster fan if necessary.

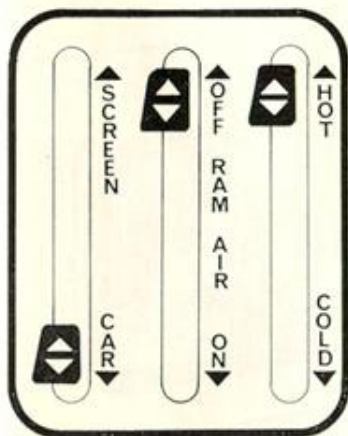


COLD air ventilation – vehicle moving at speeds over 40 mph.



- a Controls as shown opposite.
- b Console and footwell vents – adjust and direct as required.
- c Use two-speed fan if necessary.

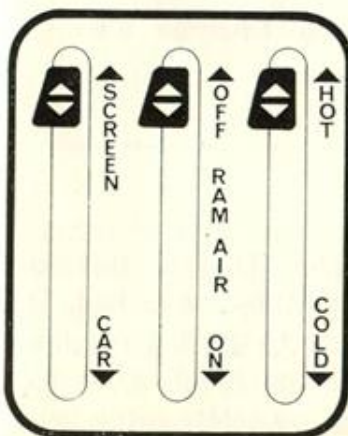
HOT air, interior – vehicle stationary or slow moving (under 40 mph).



- a Controls as shown opposite.
- b Console and footwell vents closed.
- c Booster fan **on**, use fast speed if necessary.

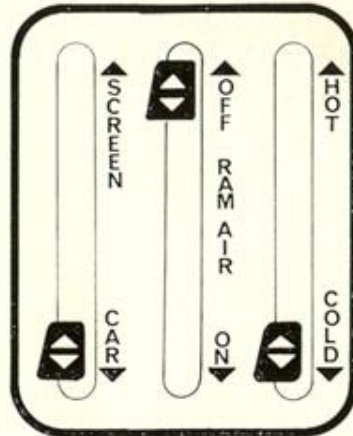
Vehicle stationary or slow moving
(Under 40 mph)

Windscreen De-frosting – vehicle stationary or slow moving (under 40 mph).



- a Controls as shown opposite.
- b Console and footwell vents closed.
- c Booster fan **on**, use fast speed if necessary.

COLD air ventilation – vehicle stationary or slow moving (under 40 mph).



- a Controls as shown opposite.
- b Console and foot well vents—adjust and direct as required.
- c Booster fan **on** – use fast speed if necessary.

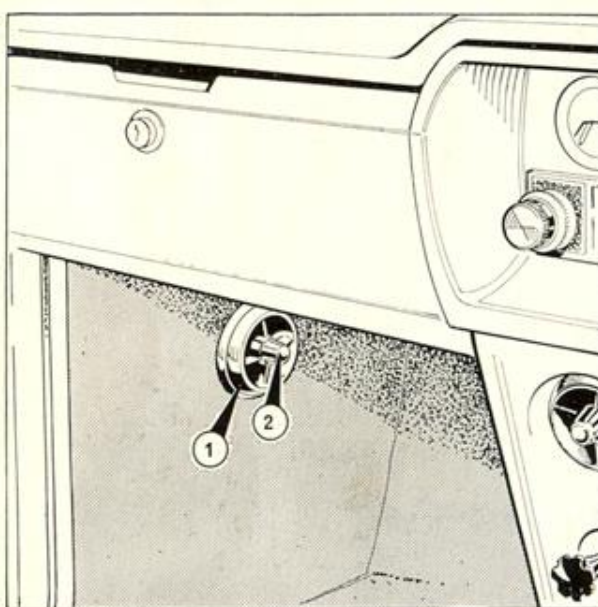


Figure 6 Footwell vents

- 1 Directional nozzle
- 2 Air flow control

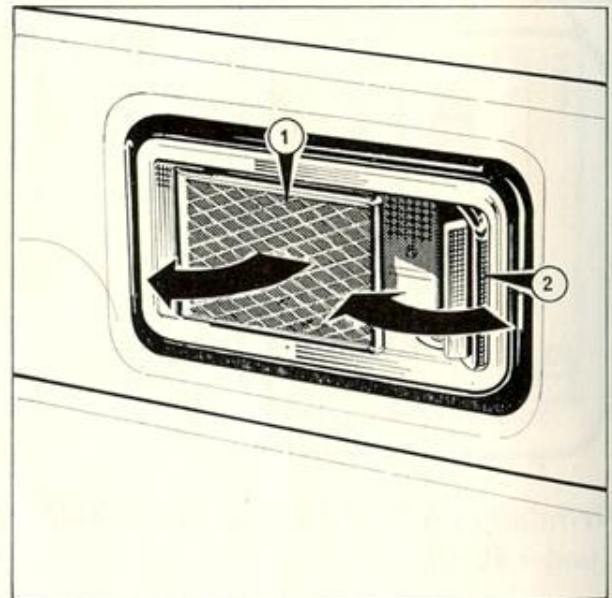


Figure 7 Interior door handle

- 1 Door handle – pull to open
- 2 Safety catch

Locks and controls on body

Door Controls

Zero torque, anti-burst locks are provided. There is therefore no need to slam the doors to ensure that they are locked. The door is unlocked from inside the vehicle by pulling the flush fitting lever (see Figure 7) of the interior door handle. The door can be locked from inside by operating the safety catch lever.

This prevents accidental opening of the door from inside and also prevents the lock mechanism operating from outside. The catch can only be operated when the door is closed.

Both doors are lockable from outside, by means of tumbler locks, and are unlocked using the same key.

The conventional mechanical window winding handle, fitted as standard equipment, raises or lowers the door window glass. Electrically operated windows are optional equipment, see page 12. Opening front quarterlight windows are secured with a safety catch. The button must be pressed fully in to release the catch on the lever before the lever can be turned to open the quarterlight.

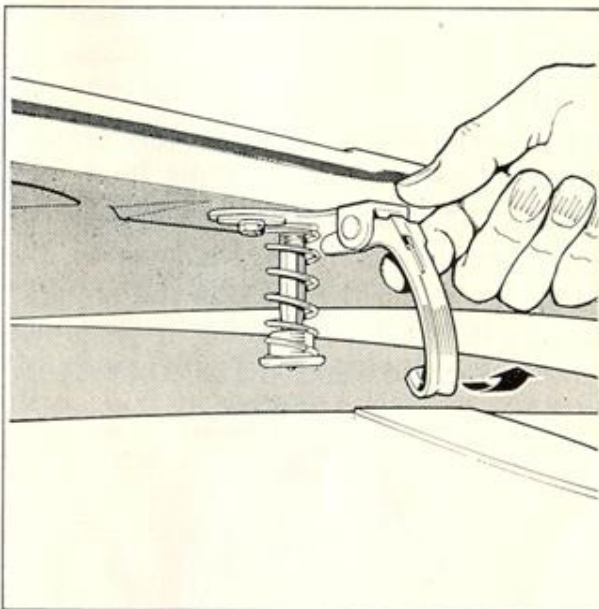


Figure 8 Bonnet release safety catch

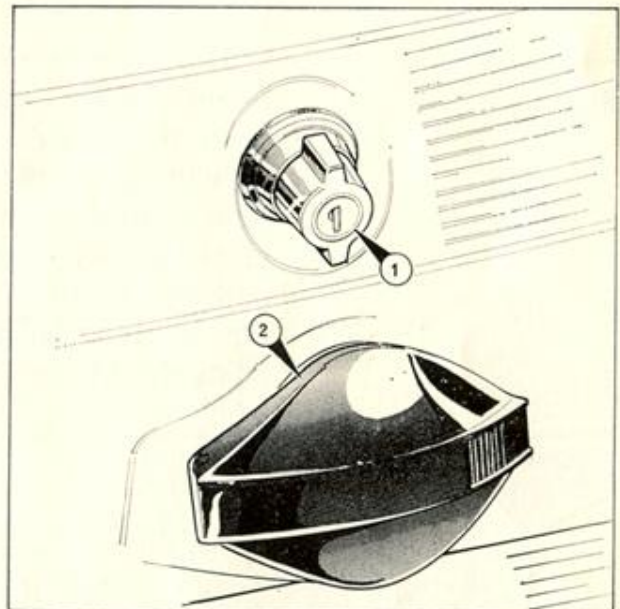


Figure 9 Rear window lock and petrol filler

- 1 Rear window lock
- 2 Petrol filler cap

Bonnet lock and release Figure 8

The bonnet is released by pulling a T-shaped handgrip which is situated immediately under the fascia, to the right of the steering column (see Figure 1). Operation of this lever unlocks the bonnet, and it will rise slightly under spring pressure. The bonnet can then be opened from outside the car. First release the safety

catch at the front of the bonnet. Raise the bonnet to its fully-open position. It is held in this position by a ratchet-type prop bar. To close the bonnet, release the holding lever on the prop bar, and lower the bonnet gently until the locking devices are contacted. Hand pressure on the bonnet will then close the locks.

Glove Compartment

On the passenger side of the fascia is the glove compartment having a drop down lid. The lock uses the same key as the opening rear window.

Hinged rear window Figure 9

To open the hinged rear window, insert the key in the lock, (1) turn it clockwise and then withdraw it. Turning the domed head in a clockwise direction releases the catch and the rear window can then be raised and will remain open in any desired position.

Seats

Front seats Figure 10

Both the driver's and passenger's seats have fore-and-aft adjustment by moving the lever located near the floor in a horizontal direction. The seats have reclining backs which can be placed in any convenient position by lifting the lever on the outboard side of the seat, adjusting the back to the required position, then depressing the lever to lock. The seat height is also adjustable by moving the rod located across the base of the seat.

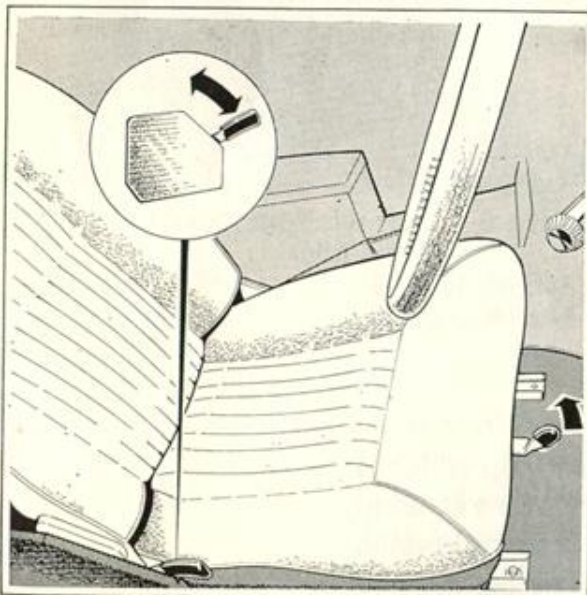


Figure 10 Front seats – adjustment

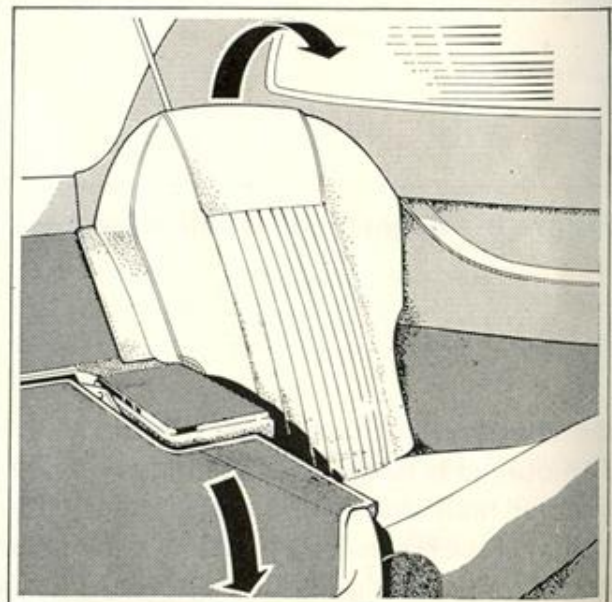


Figure 11 Rear seats

Rear seats Figure 11

The individual rear seats fold down readily to give a larger space at the rear.

Safety belts are fitted in both driver's and passenger's position to comply with the legal requirements applicable in the United Kingdom.

Safety Belts

Front Seats

The safety belts are specially designed and approved for the Scimitar GTE. Complete layout is shown in Figure 12.

With the occupant seated, the shoulder strap must pass over the outboard shoulder and diagonally across the chest for both driver and passenger. To fasten, slide the tongue into the automatic fastening device, and when locked a 'click' will be heard.

To release, press the release button and pull the tongue away (Figure 13). The inertia reel will automatically rewind the belt and eliminates stowage.

Rear Seats

Your vehicle has additional lap belts fitted as standard equipment for the rear seat passengers.

The lap belt is fastened on the inboard hip of the passenger. The belt is adjusted by means of the buckle. The buckle when lifted away from the lap belt as shown in Figure 14 will leave the strap free to run through the buckle. To tighten the belt simply pull on the free end of the strap. The belt is released by



Figure 12 Safety belt layout

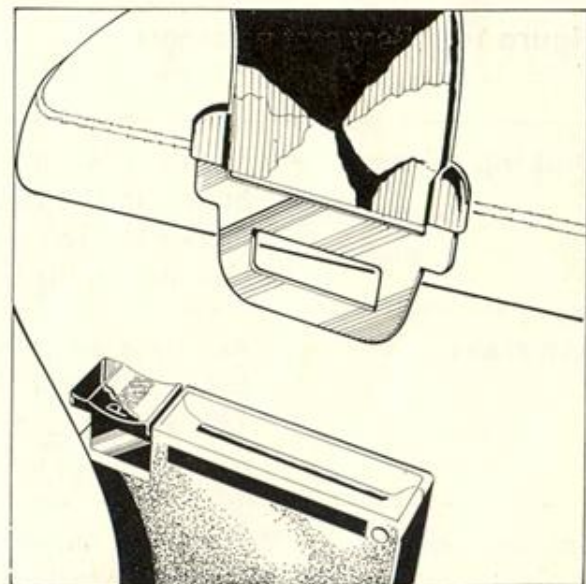


Figure 13 Safety belt release

pressure on the 'press' button of the buckle.

Cleaning:— The webbing should be lightly brushed with a mild soap and warm water; but avoid soaking and dry naturally, away from heat. **Do not** boil, bleach or dye, as this may severely reduce the effective strength of the belt.

The belt should be inspected at regular intervals for signs of severe fraying or having been cut. If these signs occur or if the belt has been severely stressed during an accident the belt should be replaced.



Figure 14 Rear seat passenger safety belt

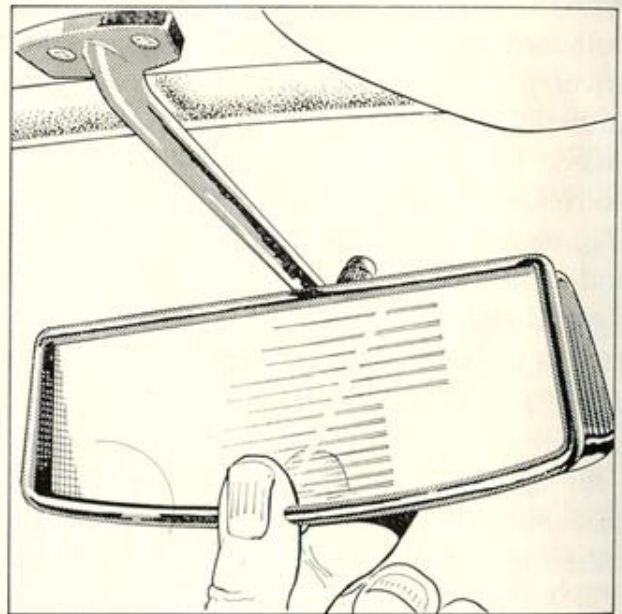


Figure 15 Dipping mirror

Dipping mirror

The driver's 'dipping' rear view mirror is dipped by pressing the button in the bottom edge of the mirror frame, as shown in Figure 15. The mirror is returned to the rear view position by pressure on the button projecting at the rear of the mirror.

Ash trays

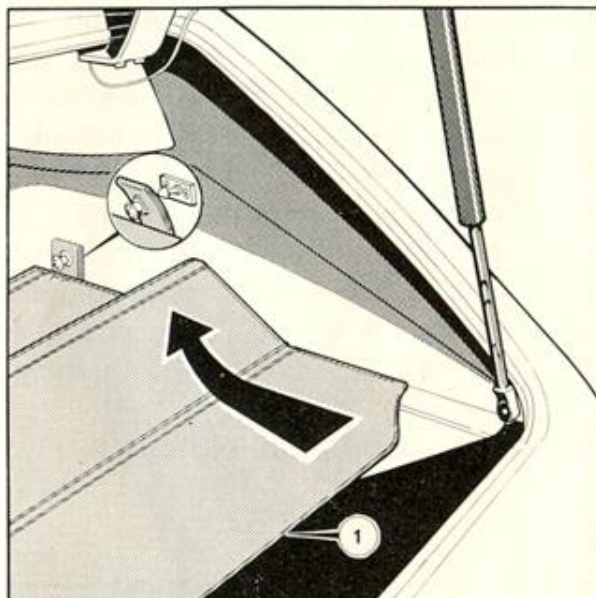
Ash trays are provided, for passengers, in the front and rear of centre armrest console.

The ash trays have hinged lids and the complete units are removable for cleaning.

Tonneau cover

The rear compartment of the vehicle, behind the rear seats, is covered to rear window level by means of a folding tonneau cover. This cover, comprising four flaps, is secured to the rear quarter

trim panels by means of peg fasteners. On raising the rear window access to the storage area below the tonneau cover can be obtained by folding up the cover the required amount. The cover can be completely removed by pulling the buttons on the fasteners to release it from the pegs on the side panels.



1 Tonneau Cover

Figure 16 Rear tonneau cover

Storage space additional to the glove compartment is provided in the centre armrest. The interior of the armrest has been designed to provide storage for tape player cartridges when a stereo tape player/radio is fitted.

Two 'valuables' compartments are provided at the rear of the vehicle. Access to these spaces is obtained after unfastening and lifting the carpet behind the rear seats.

Storage Compartments

All the foot-operated controls are situated conventionally.

Throttle pedal

The throttle pedal is located to the right of the brake pedal.

Brake pedal

The footbrake is operated by a pendant pedal actuating a hydraulic system to initiate operation of $10\frac{5}{8}$ in. disc brakes on the front wheels and 9 in. diameter drum brakes on the rear wheels. The pedal is fully adjustable at the brake master cylinder.

Clutch pedal

The clutch pedal is also of the pendant type, operating a 9 in. dry plate clutch.

Foot-operated controls

Hand controls**Handbrake**

The handbrake lever is located in a central position alongside the driver's seat. It operates on the rear brakes only. To apply the handbrake pull the handbrake lever upwards; it is retained in position by a ratchet and pawl.

To release the handbrake, pull the lever slightly upwards and at the same time press the button at the top of the handgrip. Push the lever downwards to its 'fully off' position. A handbrake warning device is fitted giving a visual warning if the handbrake is inadvertently left on, see page 8.

Gearchange (Manual & Overdrive) Figure 17 & 18

Gearchange is effected by a short lever operating through a remote control mechanism, to a four-speed synchromesh gearbox. The gear lever positions are shown in the diagram. Always ensure that the gear lever is in neutral before starting the engine.

Never attempt to engage reverse gear unless the car is stationary

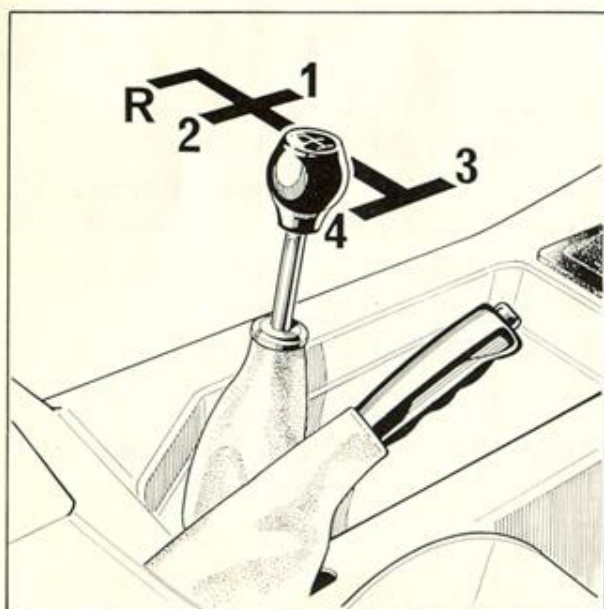


Figure 17 Gearchange positions – manual

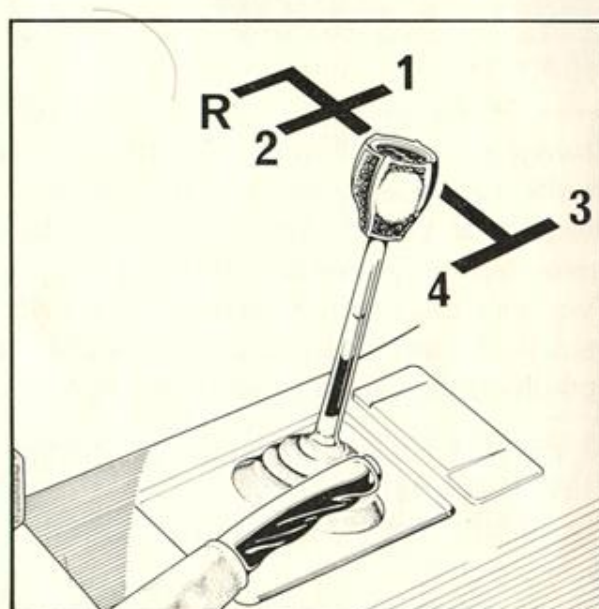


Figure 18 Gearchange positions – manual with overdrive

Gearchange (Automatic) Figure 19

The automatic gearbox provides three forward speeds, neutral and reverse.

P – Park
 R – Reverse
 N – Neutral
 D – 1st, 2nd and top
 2 – 1st and 2nd
 1 – 1st only

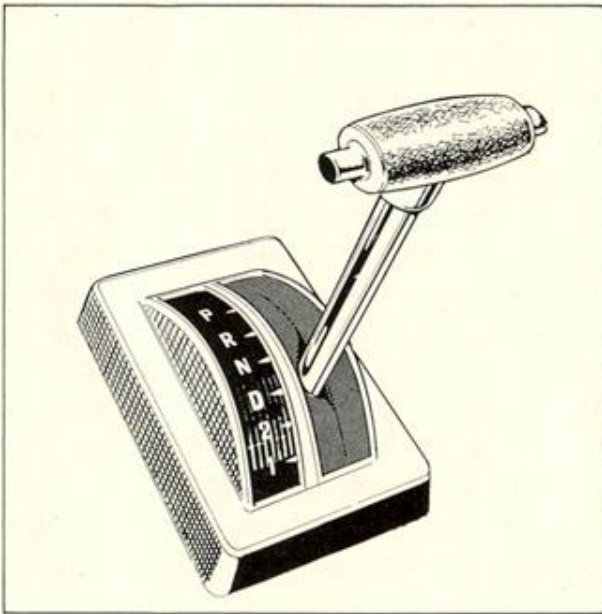


Figure 19 Gearchange positions – automatic

P – Park	D – 1st, 2nd and top
R – Reverse	2 – 1st and 2nd
N – Neutral	1 – 1st only

It is necessary to press the button on the right-hand side of the handle when moving the gear lever between the following positions:

D to R
 R to P
 P to R
 D to 2
 2 to 1

To apply the parking lock, move the lever to position 'P'. The 'R' position provides reverse ratio.

Warning: Neither 'P' nor 'R' should be engaged whilst the car is in motion. (See also page 29.)

Before starting

The careful driver will daily check the radiator water and engine oil levels, topping up if necessary. The tyre pressures and battery electrolyte level should also be checked regularly and corrected if necessary.

Before starting the engine make sure that the gear lever is in the neutral position and that the handbrake is applied.

Starting the engine

Your car is equipped with an automatic choke. Before starting the engine, first press the accelerator pedal right down. Next remove your foot from the pedal. Then start the engine by turning the ignition key fully clockwise, but release as soon as the engine fires. Once this simple operation has been carried out the engine will receive the rich mixture it requires for starting from cold. After the car has been driven a short distance the engine will warm sufficiently for the mixture to return to normal. This adjustment is automatically taken care of by the choke mechanism.

If any difficulty is experienced in starting a hot engine, the starter can be operated with the accelerator depressed. Release the accelerator as soon as the engine fires. However, the procedure mentioned above should always be used for starting from cold.

Do not race a cold engine. In order to reach normal running temperature quickly you should drive away steadily as soon as the engine has been started.

Driving overdrive

The overdrive is operative on 3rd and top gear only, and with the overdrive engaged the gear change procedure is the same as that for the conventional drive.

To engage overdrive push the switch lever on the fascia down (see Figure 1). Minimum engagement speeds are dependent on road conditions and it is essential that the car continues to run easily without sign of engine labouring.

Maximum disengagement speeds:—

Top gear 90 mph (145 kph)

Third gear 65 mph (105 kph)

Disengagement of the overdrive at speeds higher than those stated above could cause damage from 'over-revving'.

General hints

Do not rest your foot on the clutch pedal unless you are changing gear. Do not coast downhill with the car in gear and the clutch depressed. Whatever the road or traffic conditions, always keep

the appropriate gear engaged. When travelling downhill with the engine acting as a brake, do not switch off the ignition.

To reduce the risk of skidding on slippery surfaces, apply the brakes cautiously and progressively, but on a bend under these conditions try to avoid applying the brakes. Accelerate gently, but if the car does start to skid, steer into the direction in which the car is skidding. Use the brakes sparingly, if at all, until the car is brought back into the line of travel.

Running-in is largely a matter of common sense. The aim should be to avoid imposing undue stresses on the engine and transmission during the early stages of use.

Therefore you should avoid fast starts for the first 600 miles (1,000 km), although speeds not in excess of 60 mph (96.6 kph) in top gear, 45 mph (72.4 kph) in third gear, 30 mph (48.3 kph) in second gear, and 20 mph (32.2 kph) in first gear, subject to legal speed limits, will assist in running-in. However, avoid maintaining the same engine or road speeds for long periods.

Vary your speed as much as practicable and release the accelerator now and again.

Do not allow the engine to labour, particularly when driving up steep hills; change down in good time, but bear in mind that changing down too soon can result in undesirably high engine speeds.

After the first 600 miles (1,000 km) your Reliant dealer will service your car free of charge. Correct attention at this first service will do much to ensure subsequent trouble-free motoring.

Running-in

The following information applies to all Scimitar GTE models:

Warning

- 1 When having the vehicle towed, it is important that the ignition key **MUST** be in position I. If left in position O the steering will be locked, making towing impossible.
 - 2 It is recommended that adhesive labels should not be stuck on the inside of the heated rear window as damage to the heating elements may result when attempting to remove such labels.
-

The gear positions are shown in Figure 19. Position 'D' is the position for normal automatic gear-changing; '2' is an alternative position used for starting the car in second gear. The use of gear positions is explained in the following notes.

For normal driving, move the lever to 'D', release the handbrake and depress the accelerator. The car will move off in first gear, automatically changing to second and third gears depending on car speed and accelerator pedal position. With a small throttle opening the upward changes are made at a lower speed than would be the case with a large throttle opening when maximum acceleration is provided in the indirect gears.

The gear position '2' gives automatic drive with upward and downward changes between 1st and 2nd gear. If '2' is selected when the car is moving, an intermediate downshift to 2nd gear will take place. Therefore, to avoid 'over-revving' the engine, do not select '2' when travelling at speeds much in excess of 55 mph.

'Kick-down' acceleration

When the accelerator is depressed beyond the normal wide-open position, to the kick-down position, upward changes will occur at maximum pre-set speeds. The kick-down position is reached by depressing the accelerator past a 'hard spot' which is felt in the travel of the pedal. The maximum downward change speeds are also pre-set to provide optimum performance without over-speeding the engine when overtaking or hill-climbing. From the foregoing information, it can be seen that if the driver desires, he can leave everything to the automatic gearbox and gear changes will occur at the theoretically correct moment in terms of speed and load. Obviously, however, road or traffic conditions may be such that the automatic gear change may be undesirable, and it is for this reason that the overriding controls are provided to enable the driver to enforce a gear change as and when desired. The driver should, therefore, first familiarise himself with the approximate speeds at which the automatic changes occur. These are as follows:

D Range – Up changes

	1 – 2	2 – top
Light throttle	6 – 9 mph (10 – 14 kph)	10 – 14 mph (16 – 22 kph)
Kick down (Full)	41 – 51 mph (64 – 80 kph)	71 – 80 mph (113 – 129 kph)

The driver wishing occasionally to indulge in a very fast get-away will obtain maximum vivid acceleration by allowing the automatic gearbox to make full throttle changes throughout the speed range.

Under 'kickdown' conditions down changes occur at speeds below the following:

Top to 2nd	63 – 75 mph (101 – 121 kph)
2nd to 1st	30 – 44 mph (48 – 71 kph)

To stop the car, release the accelerator pedal and apply the brakes keeping the selector at 'D'. To drive off again release the brakes and depress the accelerator.

Stopping

When the car has stopped, apply the handbrake, switch off the engine and select 'P'.

Preparatory to re-starting on a steep gradient, apply the brakes before disengaging 'P' to prevent the car from rolling; disengagement of the parking pawl will be audible.

Parking

If it is necessary to idle the engine for an extended period, i.e. when carrying out adjustments, select position 'P' and apply the handbrake.

Note: In heavy traffic conditions, when idling it is advisable, whenever practical, to select position 'N'. This will assist engine cooling and minimise wear of transmission bands.

Idling

In order to extricate the car from mud, sand or snow, employ a constant slight throttle opening and rock the car backwards and forwards by alternately selecting the 'R' and 'D' positions.

Rocking the car

If the transmission is operating satisfactorily and the fluid level is correct, the car may be towed with the selector lever at 'N' at a speed of not more than 30 mph (48 kph) over short distances. For long distance towing, the propeller shaft must be disconnected. If the transmission is inoperative, the car should be towed with a rear-end pickup or with the propeller shaft removed.

Towing the vehicle

Push or tow starting

The automatic gearbox will not allow the engine to be turned by the road wheels, therefore, 'push' or 'tow' starting is not possible.

Coasting

Avoid coasting at all times, otherwise the gearbox may suffer serious damage due to lack of lubrication.

Towing

The automatic transmission has an oil cooler fitted as standard equipment.

An additional cooling fan, crankshaft mounted, is available for use on both automatic and manual transmission models when towing is to be undertaken under very arduous conditions.

The kit comprising the fan and its associated mountings is available as an accessory.

Warning

The following information applies to all Scimitar GTE models:

- 1 When having the vehicle towed, it is important that the ignition key **MUST** be in position I. If left in position O the steering will be locked, making towing impossible.
 - 2 It is recommended that adhesive labels should not be stuck on the inside of the heated rear window as damage to the heating elements may result when attempting to remove such labels.
-

Regular routine inspection, maintenance, lubrication, and, in general, planned servicing, of your Scimitar GTE are absolutely essential to ensure trouble-free motoring and to get the best out of your car. Much of the maintenance required is a matter of common sense, is very quickly carried out, and can be done as a matter of course by the owner. Other items of maintenance require special equipment and should be carried out by your Scimitar GTE dealer, at the periods prescribed. However, neglect of even the simplest item can have serious consequences.

Of all items of servicing, lubrication plays the predominant part. Be certain to use the recommended lubricants. A chart is given on page 65.

These fall into well-classified categories:

- 1 Regular day-by-day attention
- 2 Maintenance at the first 600 miles
- 3 Maintenance at all subsequent 3,000 mile periods

Full details of the service schedules are given on page 66 of this handbook.

The following notes are only intended as a brief guide to the general requirements of routine inspection, maintenance, lubrication and adjustment. Fuller details on any point can be obtained from your Scimitar GTE dealer or direct from the Reliant Motor Company Limited.

Maintenance periods

Ensure that the car is standing on level ground, and withdraw the engine dipstick, located on the left-hand side of the engine. Wipe it with a clean rag, replace, and again withdraw. The oil level will be shown by the mark left by the oil on the lower end of the dipstick. There are two marks on the dipstick; **Max** and **Min**. Top up with the recommended grade oil to the full mark. **Note:** The distance between the **Max** and **Min** markings on the dipstick represents two pints of oil. (See lubrication chart page 65.)

You can either carry out this operation yourself or alternatively, get into the habit of having your oil level checked whenever you stop at a service station for petrol. All reputable service stations carry out this service willingly, and stock the requisite grade of oil. The total capacity is 5.0 litres (8.8 pints).

Engine oil

-
- Radiator** Remove the radiator remote header tank filler cap, and top up as necessary, until the tank is two-thirds full. Remember to top up with an anti-freeze solution as well as water, if you already have anti-freeze in the system.
The total capacity is 11.36 litres (20 pints).
-
- Tyre pressures** The pressures should be checked while tyres are cool, otherwise misleading readings may be obtained. A weekly check must be considered the absolute minimum. Ensure that all valve caps are in position. Inspect tyres for any sign of damage. Clean off any oil or grease.
The pressures, recommended by the manufacturer, should be strictly adhered to as follows:—
Front 1.69 kg/sq. cm. (24 lb/sq. in.)
Rear 1.69 kg/sq. cm. (24 lb/sq. in.)
For sustained speeds in excess of 85 mph (137 kph) pressures should be increased to 2.11 kg./sq. cm. (30 lb/sq. in.).
-
- Fuel** Check that there is ample petrol in the tank for any trip you are about to make. The petrol level is indicated on the fuel gauge, which becomes operative as soon as you switch on the ignition, or the auxiliaries. The petrol tank has a capacity of 77 litres (17 gallons). The filler cap is situated centrally at the rear of the body (2) Figure 9.
Always use a recommended petrol of the correct grade. Your engine is fitted with a high compression head. It is adjusted to run on a 97 octane fuel (British Standards four-star rating). If a lower octane fuel is used between 88 (two-star rating) and 95 (three-star rating) – retard the distributor setting 4°.
-
- Checking the battery** The battery is located in the engine compartment. Check the acid in each cell. It should cover the plates by about 6 cm to 9 cm ($\frac{1}{4}$ in. to $\frac{3}{8}$ in.). If the level has dropped below this top-up each cell.
Use distilled water. Under no circumstances should ordinary tap water be used. At the same time ensure that the

battery connections are tight. The terminals should be given a light coating of petroleum jelly. Keep the top of the battery clean. As a precautionary measure, wipe it over periodically with a rag moistened in ammonia, in order to neutralise any acid on the battery surface.

If the battery is at any time disconnected, ensure that it is re-connected with the **negative** terminal earthed.

It is a wise precaution to check the lighting system at least once a week, or before starting on a trip. This is simply a matter of operating the appropriate controls (lighting switch; dip switch; turn indicator lever and headlamp flasher; panel light switch; stop lamps), and ensuring that all lighting components are in full working order.

Lighting system

Check the contents of the windscreen washer bottle, and replenish if necessary.

Windscreen washer

Check the level of the hydraulic fluid reservoirs. The level is easily seen through the transparent reservoirs. See Figure 20.

Hydraulic fluid reservoirs



Figure 20 Hydraulic fluid reservoirs

- 1 Clutch hydraulic fluid reservoir
- 2 Brake hydraulic fluid reservoir
- 3 Warning device 'float needle'

Top-up as necessary, bringing the level to the point indicated on the reservoir casing.

Important: Top-up reservoirs only with Castrol Girling Universal Brake Fluid when necessary. Use no other fluid otherwise seals may be damaged and cause brake failure.

The brake master cylinder reservoir is fitted with a warning device which illuminates a red light on the fascia when the fluid level falls below the required level. The operation of this device can be checked by gently pressing down the float needle (3) Figure 20, which will illuminate the fascia warning light.

Before removal of the cap on either reservoir, wipe both the reservoirs themselves and the caps with a clean, dry cloth, to ensure that no dirt enters the system.

It is essential to ensure that the hydraulic fluid is uncontaminated by dirt or through any other cause.

Engine oil drain and refill

It is preferable to drain the engine when the oil is hot. To drain remove the drain plug situated at the bottom of the sump, and allow the oil to run into a suitable drain pan.

Make certain that drainage is fully completed. Then, using an approved grade of oil, first replace the drain plug and then refill through the oil filler mounted on the valve rocker cover until the level reaches the **Max** mark on the dipstick. (See Figure 21.)

The oil should be changed at 6,000 miles (10,000 km) intervals.

Gearbox oil level (Manual model & Overdrive model)

Remove filler/level plug (2) to top up the oil level (See Figure 22.)

Drain and refill the gearbox/overdrive at the first 3,000 miles service and at subsequent 6,000 miles (10,000 km) intervals and top-up at intermediate 3,000 miles (5,000 km). Ensure that the vehicle is standing on level ground and, preferably, carry out the oil change while the oil is hot, in order to ensure maximum drainage. Remove the gearbox drain plug (1) and the combined filler/level plug (2). Ensure that complete drainage has been achieved. Replace drain plug, and refill to the correct level. Replace the combined filler/level plug. Capacity of gearbox with overdrive 2.84 litres (5 pints). Capacity manual gearbox 1.98 litres (3.48 pints).



Figure 21 Engine oil level dipstick

Maintaining your automatic transmission only requires fluid for topping up. Periodic fluid changes are unnecessary and not normally recommended. At 3,000 miles (5,000 km) and thereafter every 6,000 miles (10,000 km) check the fluid level, topping up if necessary.

Checking of the fluid level **must** be carried out as follows:

With the engine running at idle (ie approx. 600 rpm) at normal operating temperature and with hand and footbrake firmly applied, select each selector position several times. Select the 'P' (park) position and switch off the engine. Check fluid level after wiping the dipstick. This operation must be performed within a maximum of two minutes after switching off the engine. The location of the dipstick is shown in Figure 23. Topping up is effected via the dipstick tube using a filler tube.

At 39,000 miles (65,000 km) and thereafter every 36,000 miles (60,000 km) adjust the intermediate band.

Adjust the low and reverse bands as required.

Gearbox oil level (Automatic)



Figure 22 Gearbox oil level and drain plugs

- 1 Drain plug
- 2 Combined filler/level plug



Figure 23 Automatic transmission fluid dipstick

Important

Automatic transmission fluid to Ford Motor Company Specification M2C-33-F must be used for topping-up purposes. See the recommended list on page 65.

Steering unit

All steering connections are checked under the 'After-Sales, servicing arrangement. The steering unit is of the rack and pinion type, friction damped. The unit contains 0.189 litres (one-third pint) SAE 90 hypoid gear oil and should not require attention unless the rubber gaiters are damaged. The gaiters should be inspected for wear at every 3,000 miles (5,000 km) service.

Rear axle

To drain, the plug is removed, together with the combined level and filler plug. To refill, the drain plug is replaced, and the axle is replenished through the level/filler plug. Capacity 1.1 litres (2 pints). Checking the oil level and topping up is readily effected by means of the combined filler/level plug. Change oil every 9,000 miles (15,000 km).

Cylinder head bolts

Cylinder head bolts are examined and tightened under 'After-Sales' arrangement. If it is necessary for you to tighten the

cylinder head bolts yourself, ensure that the operation is carried out in the sequence shown in the accompanying illustration. It is important, also, to avoid over-tightening. Employ a torque wrench. Tighten bolts in the following stages in the sequence shown in Figure 24.

Cylinder head bolt tightening sequence

Tighten the bolts in the following stages in the sequence shown:

Stage 1 2.17 – 4.15 kg m (20 – 30 lb ft)

Stage 2 7.02 – 7.60 kg m (50 – 55 lb ft)

Wait 10 – 20 minutes after Stage 2.

Stage 3 8.98 – 9.67 kg m (65 – 70 lb ft)

Stage 4 Re-tighten all bolts to 8.98 – 9.67 kg m
(65 – 70 lb ft)

when the engine has been run for approximately 10 – 15 minutes and is at normal operating temperature.

The cylinder head bolts should be undone in the reverse order to that shown for assembly.

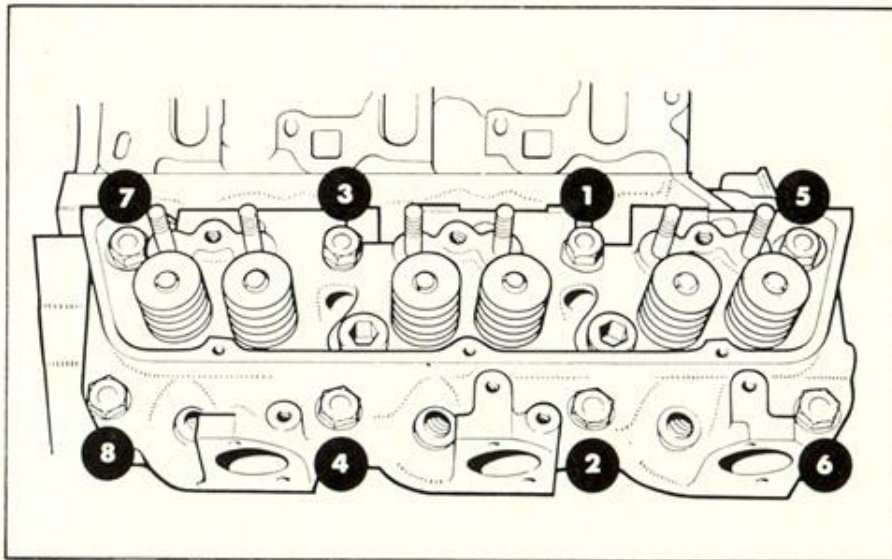


Figure 24 Cylinder head bolt tightening sequence

The inlet manifold is an aluminium casting mounted on the cylinder heads between the Vee and thus forms a cover for the tappet chamber. The gasket is of a composition type material with cork inserts at each end to form an oil-tight joint between the manifold and the front and rear walls of the cylinder block tappet chamber. When fitting the manifold tighten the bolts progressively in the sequence shown in Figure 25 as follows:—

Manifold bolts

0.41 – 0.83 kg m (3 to 6 lb ft) torque

0.83 – 1.52 kg m (6 to 11 lb ft) torque

1.52 – 2.21 kg m (11 to 16 lb ft) torque

Re-tighten all bolts to 1.80 – 2.21 kg m (13 to 16 lb ft) torque when the engine is at the normal operating temperature after first re-tightening the cylinder head bolts.

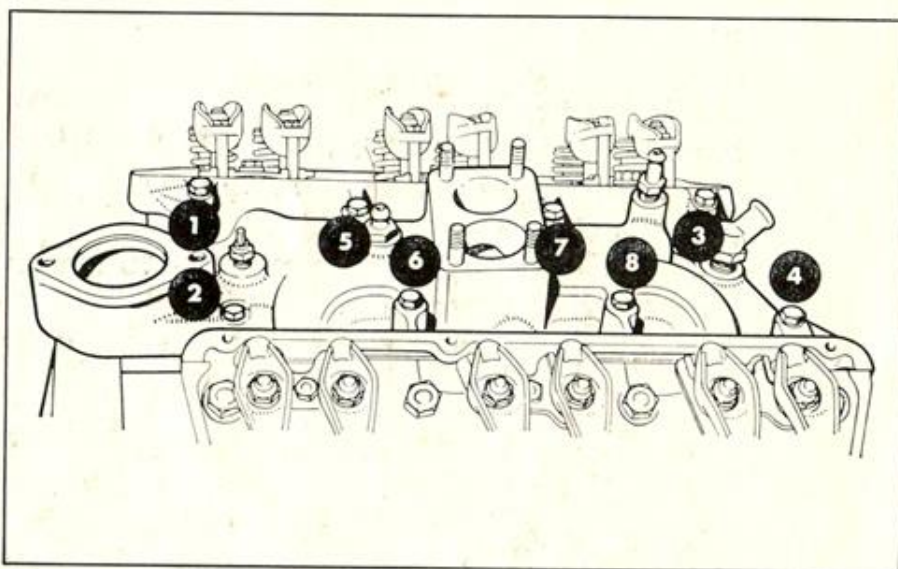


Figure 25 Manifold bolt tightening sequence

Valve clearance

The clearances should be checked when the engine is hot, preferably while the engine is running. The specified clearance is:– Exhaust 0.50 mm (0.020 in) hot.

Inlet 0.35 mm (0.013 in) hot.

To adjust, turn rocker retaining nut in a clockwise direction to reduce and anti-clockwise to increase clearance.

Adjust valves in the following order and ensure that the correct clearance is used in relation to exhaust and inlet valves.

Valves open	Valves to adjust
1 and 6	7 (in) and 10 (ex)
8 and 11	4 (in) and 5 (ex)
2 and 3	9 (in) and 12 (ex)
7 and 10	6 (in) and 1 (ex)
4 and 5	11 (in) and 8 (ex)
9 and 12	2 (in) and 3 (ex)

The distributor incorporates automatic timing control and operates from a 12-volt ignition coil. The ignition timing is checked and re-set if necessary; the sparking plugs are examined and adjusted if necessary, and the distributor contact breaker points are examined and, if required, re-set; all within the 'After-Sales Service' schedule.

The contact breaker gap setting should be such that, when the

Distributor Adjustments

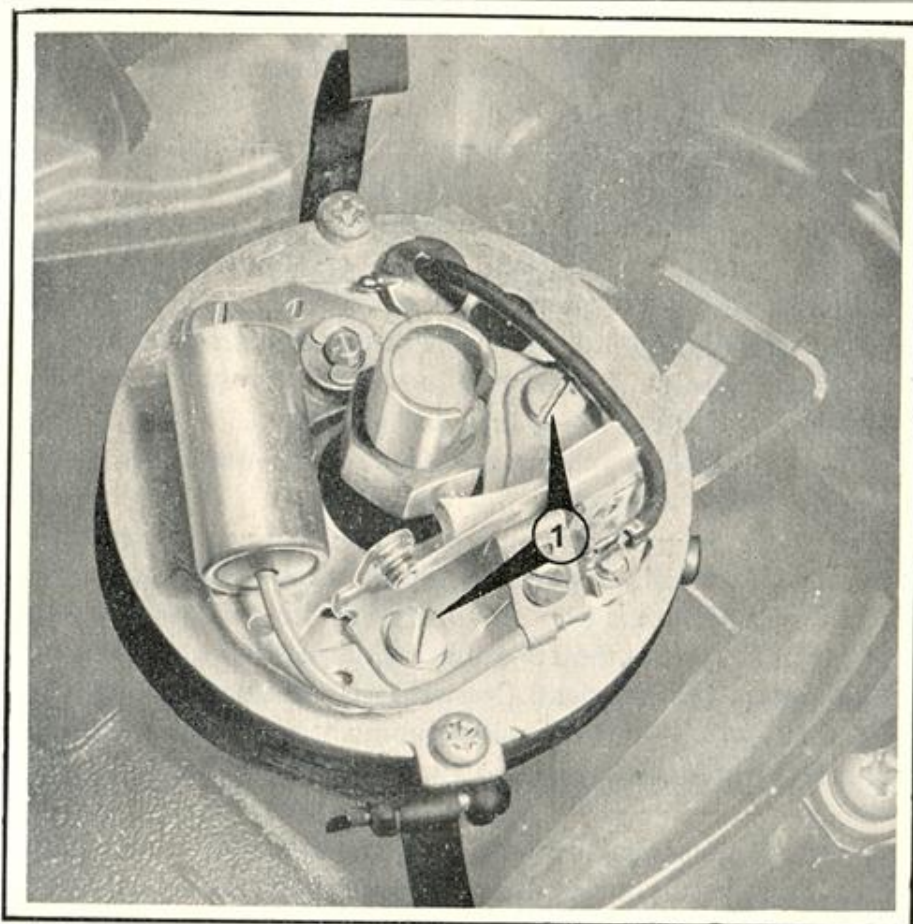


Figure 26 Distributor adjusting screws

1 Adjusting screws

contact breaker heel of the moving contact is on the highest point of the cam, there is a gap of 0.64 mm (0.025 in.). This is effected by slackening the two locking screws on the fixed contact and moving it until the correct gap is obtained, using a feeler gauge. Tighten the locking screws securely. See Figure 26. Re-check the gap to ensure that it has not been varied during locking. Re-adjust if necessary.

The contact breaker points should be checked and adjusted every 6,000 miles (10,000 km).

Check the condition and alignment of the points and fit a new set if the contacts are worn or burnt. Contacts showing a greyish colour and only slight signs of pitting need not be renewed.

Points which have become dirty or contaminated with oil or grease should be cleaned with a stiff brush and carbon tetrachloride.

When refitting the rotor arm ensure that it fits squarely on the cam spindle with the slot and lug in line. Press the rotor into position so that the lower face abuts the cam.

Check that the high tension leads are securely retained and then refit the distributor cap.

Distributor lubrication

Remove the distributor cap by releasing the clips. Apply one or two drops of engine oil to the felt wick situated within the end of the cam spindle. Smear a thin film of lithium base grease on the contact breaker cam. **Caution:** Do not over-lubricate any part of the distributor, otherwise lubricant may reach the breaker contacts, resulting in burning and difficult starting.

Timing the ignition Figure 27

Time the distributor so that when the timing mark on the crankshaft pulley is adjacent to the appropriate timing pointer (10° BTDC) with No. 1 cylinder on compression, the distributor points are just opening and the rotor is pointing towards No. 1 high tension pick up in the distributor cap.

Brake adjustment Figure 28

Servicing at the 600 mile 'After-Sales' check includes a functional examination of the braking system, adjustment of brakes; and bleeding the hydraulic system if necessary.

No servicing is required for the front disc brakes.

To adjust the rear drum brakes. Chock the front wheels and jack up the rear wheels. With the handbrake released, ensure that the brake drums are cold. Turn the square-headed adjuster

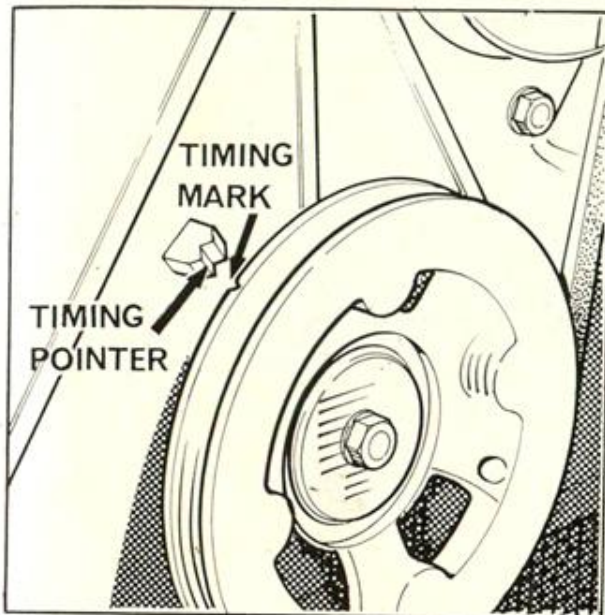


Figure 27 Timing marks

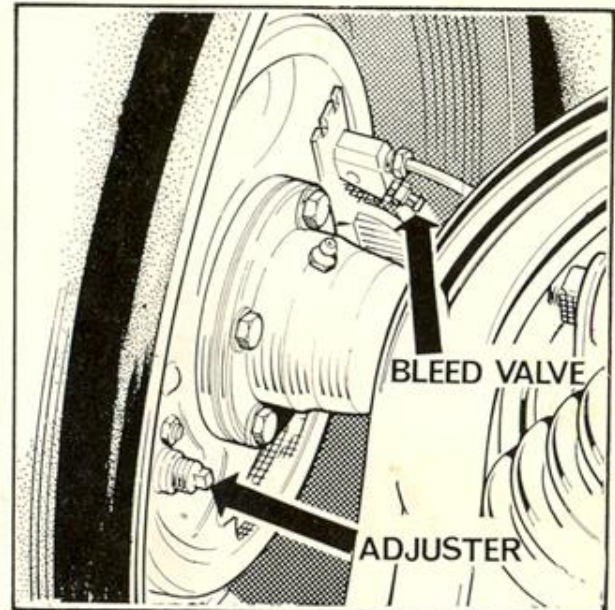


Figure 28 Rear brake adjusters

at the rear of the back plate in a clockwise direction, until resistance is felt. Then slacken the adjuster until the wheel rotates freely. Two clicks are normally sufficient. Spin the wheel as rapidly as possible and apply the brakes hard, in order to centralise the shoes in the drum.

Carry out this operation on both rear wheels.

For detailed instructions on bleeding the hydraulic system, see page 48.

Testing the clutch pedal free movement, and the carrying out of any adjustment necessary, are also included in the 'After-Sales' schedule for the 600 mile period.

Pull the clutch pedal hard against the back stop and retain with a block of wood, or any suitable alternative.

From underneath the vehicle slacken the adjuster locknut and take up any slack in the system by pulling the adjuster end of the cable conduit forward. Then turn the adjusting nut until the specified clearance, 3.15 to 3.65 mm (0.12 to 0.14 in) between the nut and the cable bush collar is obtained, and then lock the adjusting nut.

Remove the block of wood from the clutch pedal and operate the pedal twice, ensuring that the pedal is fully depressed in

Clutch cable adjustments
(manual models)

each operation. Measure the movement from the 'rest' to the back stop position which should be approx. 10.16 – 15.24 mm (0.4 – 0.6 in).

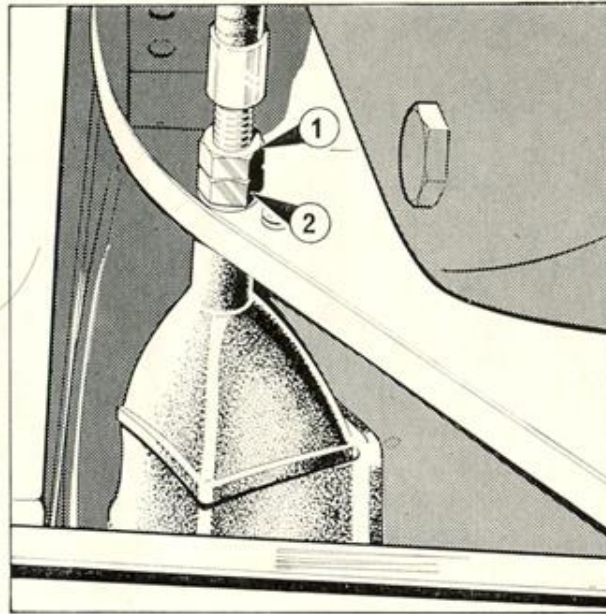


Figure 29 1 Clutch cable adjuster locknut
2 Adjuster

Clutch adjustments
(overdrive models)

When the clutch mechanism is correctly adjusted, there should be just perceptible clearance between the pedal push rod and the master cylinder piston; clearance of 1.6 mm ($\frac{1}{16}$ in.) between the clutch release arm and the operating cylinder push rod; and the pedal should return to its stop without any sign of hesitation. All adjustments can be quickly checked at the clutch pedal. Very slight movement of the pendant-type pedal should be sufficient to take up the initial clearance between push rod and master cylinder piston.

There should be approximately $\frac{1}{2}$ to $\frac{3}{4}$ in. free travel before the clutch begins to be released.

To adjust, disconnect the release arm spring; slacken the operating rod locknut; and turn the domed adjusting nut. Turning in a clockwise direction increases the free movement; turning anti-clockwise reduces it. Ensure that the locknut is fully tightened, and re-engage the return spring.

Run the engine allowing it to warm up. To adjust the slow-running, screw in the throttle stop screw (2) until a fast idling speed is obtained, then turn the volume control screw (1) in or out until the engine runs evenly, ensuring that both screws are turned simultaneously and in equal amounts.

Re-adjust the throttle stop screw if the engine is running too fast, followed by further re-adjustment of the volume control screws (1). These operations should be repeated until the idling speed is satisfactory.

**Adjustment of
carburettor slow
running
Figure 30**

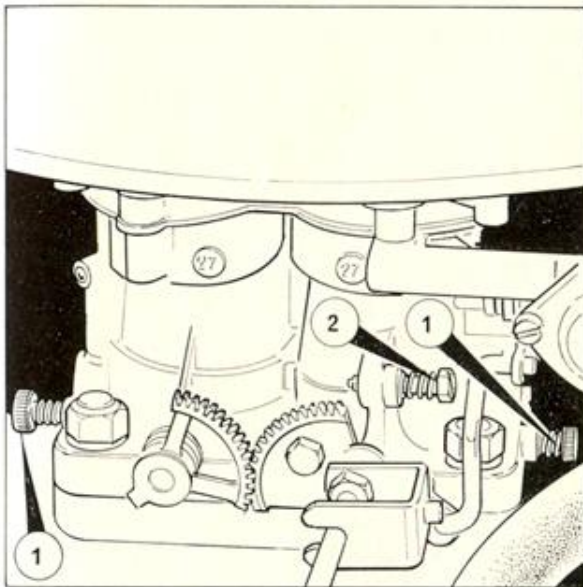


Figure 30 Carburettor adjustment screws

1 Volume control screws
2 Throttle stop screw

Sparking plugs

The sparking plugs on the new engine are Autolite AGR 22 and should be set to a gap within a range of 0.59 to 0.70 mm (0.023 to 0.028 in.).

Front wheel tracking

The toe-in, camber and castor angles should be checked at the same time as the car is in for 'After-Sales' servicing, since specialised equipment is necessary in order to carry out this operation accurately.

Your Scimitar toe-in adjustment should be from zero to 1.6 mm ($\frac{1}{16}$ in).

Camber angle 0° to $\frac{1}{2}^{\circ}$ positive

Castor angle $2^{\circ} 40'$ positive

Engine oil filter

The engine oil filter is of the full flow cartridge type, which is completely discarded when dirty.

To fit a new filter, first remove the sump drain plug and allow oil to drain and replace the plug. Unscrew the filter in an anti-clockwise direction and discard completely. Clean the mounting pad and screw the new filter on to the insert until the gasket just contacts the mounting pad, then tighten half a turn.

Refill the engine with new oil of the grade specified on page 65.

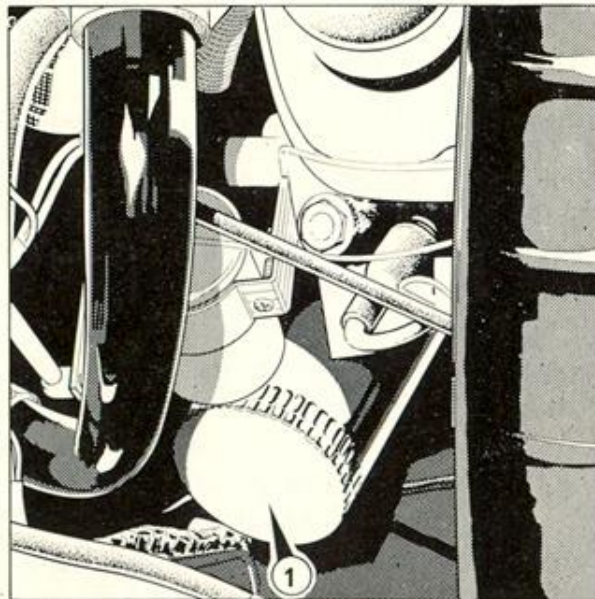
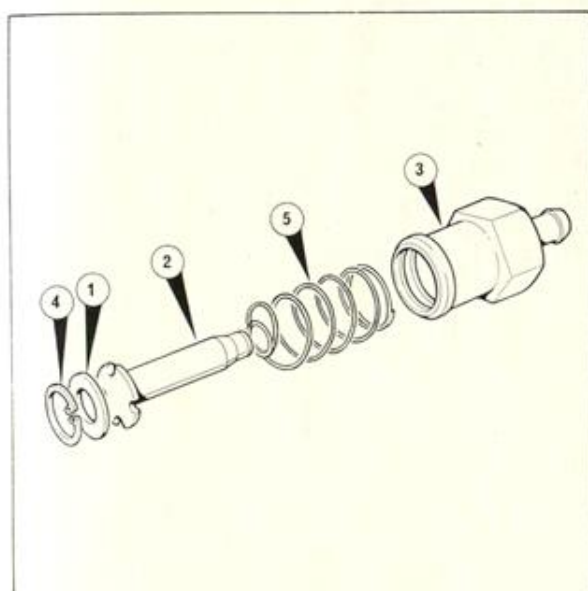


Figure 31 Engine oil filter
1 Filter

The gauze filter in the oil filler cap should be cleaned at the first 3,000 miles (5,000 km) and thereafter every 6,000 miles (10,000 km) or whenever the engine oil is changed.



- 1 Valve seat
- 2 Valve
- 3 Body
- 4 Circlip
- 5 Valve spring

Figure 32 Emission control valve

The emission control valve should be cleaned at the first 3,000 miles (5,000 km) and thereafter every 6,000 miles (10,000 km) or whenever the engine oil is changed.

To remove the emission control valve disconnect the hose and pull the valve out of its grommet in the right-hand rocker cover. Do not try to run the engine with the hose disconnected from the control valve, as the fuel mixture strength will be excessively weakened. Dismantle the valve by removing the circlip (4) and extract the valve seat (1) valve (2) and spring (5). Wash the components in petrol to remove any sludge or lacquer that may be present. Reassemble the components in the reverse order to removal and refit the circlip. Push the valve back into its grommet in the rocker cover and reconnect the hose.

Emission control valve

Figure 32

Free movement of 13 mm ($\frac{1}{2}$ in) measured midway between alternator and engine pulley. If required adjust by slackening the alternator front lower mounting bolts and the front adjusting bolt. Move the unit to give the correct amount of tension and re-tighten the bolts.

'V' Belt tension

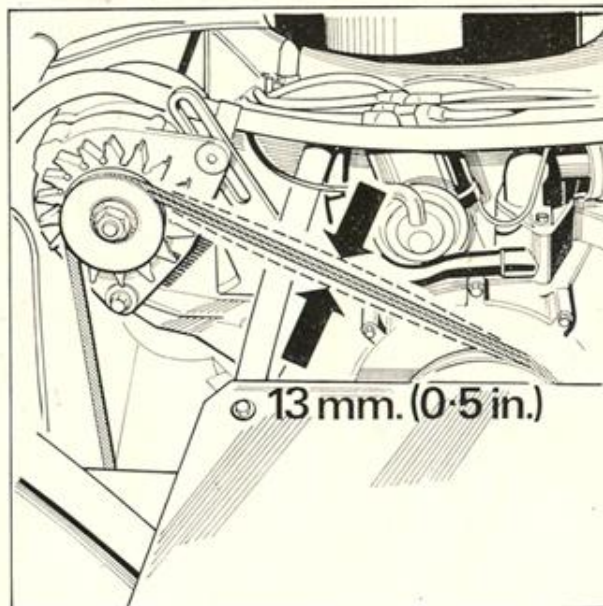


Figure 33 'V' belt tension

Air cleaner
Figure 34

To clean the paper element, remove the top cover and withdraw the element. Hold the element vertically and gently tap against a smooth surface until dirt and dust are dislodged. The paper element should be renewed every 12,000 miles (20,000 km). A re-designed air cleaner has been fitted to the new engine. The air cleaner has two angled air intakes, one of which is adjacent to the exhaust manifold. It is intended that the lever is moved to the 'Winter' position, drawing warm air from the manifold in winter conditions. The summer and winter positions are shown in Figure 34.

Fuel pump filter
Figure 35

The filter should be cleaned every 3,000 miles (5,000 km), as follows:

Mark the upper and lower body to ensure correct re-alignment during assembly. Pull the pipe from the pump inlet tube, remove the screw and lift off the sediment bowl. Remove the seal and filter and clean in petrol, blow out with air line.

Replace the filter, seal and sediment bowl, securing with the screw, ensuring correct alignment.



Figure 34 Air cleaner

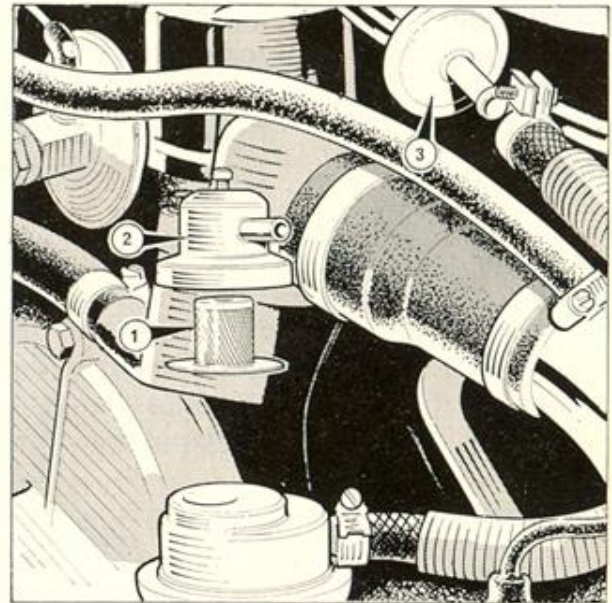


Figure 35 Fuel pump filter and fuel line filter

- 1 Pump filter
- 2 Pump upper body
- 3 Fuel line filter

This filter, located between the pump and carburettor, has an arrow indicating the fuel flow direction. Remove the filter from the fuel line and blow through with an air line in reverse direction to the indicated fuel flow. The filter should be cleaned every 3,000 miles (5,000 km).

In-line fuel filter
Figure 35

At 3,000 miles (5,000 km) intervals, the rear brake linings should be examined for wear. First remove the road wheels. Then remove the rear brake drum to check the condition of the linings.

Rear brakes

At the same time as the rear brake linings are being checked, examine the brake hydraulic cylinders. If there are any visible signs whatever of leakage past the seals, contact your authorised dealer immediately. The seals will probably require renewing. Refit the brake drums. Check the movement of the brake pedal. Adjustment of the rear brakes automatically affects the handbrake.

Brakes – hydraulic fluid cylinders

Handbrake adjustment

To take up superfluous movement, jack up both rear wheels and lock the shoes by means of the handbrake adjusters provided, with the handbrake in the **off** position. Adjust the cable length by means of the cable adjuster until all slack is taken out of the linkage. Release the adjusters until the wheels turn freely. Check the handbrake to ensure that it is now in required adjustment.

The handbrake operates mechanically and is quite independent of the hydraulic system. It is applied by means of a cable and compensating linkage mounted on the rear axle casing. It operates the rear brakes through levers incorporated in the back plates.

Front brakes

The 270 mm (10.82 in) disc brakes fitted to the front wheels, require no manual adjustment, since they are automatically self-adjusting. However, the brake pads should be inspected every 3,000 miles (5,000 km), in order to determine the amount of lining wear.

To examine the brake pads, remove the road wheel and measure the distance between the contact face of the disc and the adjacent face of the brake pad support plate to which the lining material is attached.

Ask your authorised dealer to renew the pad if measurement of the pad lining shows that the thickness of the linings has been reduced to no less than 3.18 mm ($\frac{1}{8}$ in.). The correct pads having the warning light indicators incorporated are only available from Reliant dealers.

Bleeding the hydraulic system

Bleeding – elimination of air from the hydraulic system – should only be necessary when any part has been disconnected or damaged; or if the fluid level in the reservoir has fallen so low that air has been introduced into the master cylinder.

The procedure can be carried out readily by your Scimitar dealer. If you carry out the operation yourself, an assistant will be needed.

- 1 Top up the supply tank and ensure that all hydraulic connections are secure.
- 2 Fit a bleed tube over the left-hand rear wheel cylinder bleed valve with the free end of the tube immersed in a clean glass jar containing clean **Castrol Girling Universal Brake Fluid**.

- 3 Unscrew the bleed valve about three-quarters of a turn. Your assistant should now operate the brake pedal. The operation of the brake pedal is important. The pedal should be pushed down hard through the full stroke, followed by three short rapid strokes and then the pedal should be allowed to return quickly to its stop with the foot right off.

This action should be repeated until the air is dispelled at each bleed screw. Always remove the floor mat or any other object which may obstruct the full stroke of the pedal.

Spare wheel and lifting jack

The spare wheel is located in the engine compartment. Unscrew the retaining bolt to remove. (See Figure 36).

Wheels and tyres

An additional tool kit has been included in your vehicle. The additional tools, in a separate tool roll, comprise a dual purpose screwdriver, 7" pliers, 3 open end spanners and an adjustable spanner.

Tool kit

The tools, held in a tool roll, are located in the front of the spare wheel compartment. The vehicle jack operating handle, held secure by two clips, is also located beneath the spare wheel. See Figure 37.

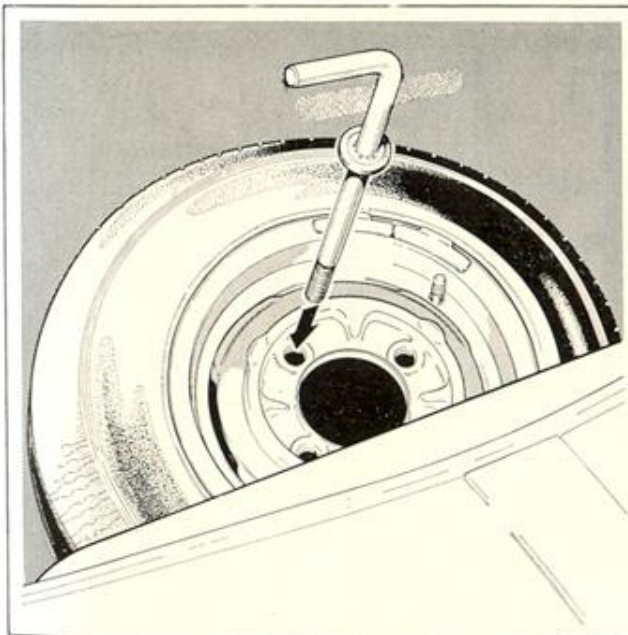


Figure 36 Spare wheel retainer



Figure 37 Tools

- 1 Tool Roll
- 2 Jack handle

Wheel Changing

The tyre manufacturers recommend that, if wheels are changed around, then changes should be made at intervals no greater than 3,000 miles (5,000 km), but best results are obtained if the tyres are left in the position first fitted. If wheel changes are undertaken, it is advisable only to change tyres from side to side on the same axle and **not diagonally**.

Care must be taken to replace the wheel trims with the rubber washers, chrome plastic washers and wheel-nuts in the correct order.

The wheel-nuts used with the optional alloy wheels have captive washers and a special wheel brace is supplied.

Ensure that the vehicle is on level ground and that the handbrake is applied before jacking up.

The recommended jacking points are indicated in the chassis diagram (Figure 38). The jack has a peg that locates in holes provided in the chassis at these points.

Never work under the vehicle when it is raised on a jack, unless a proper chassis stand is used to support the vehicle.

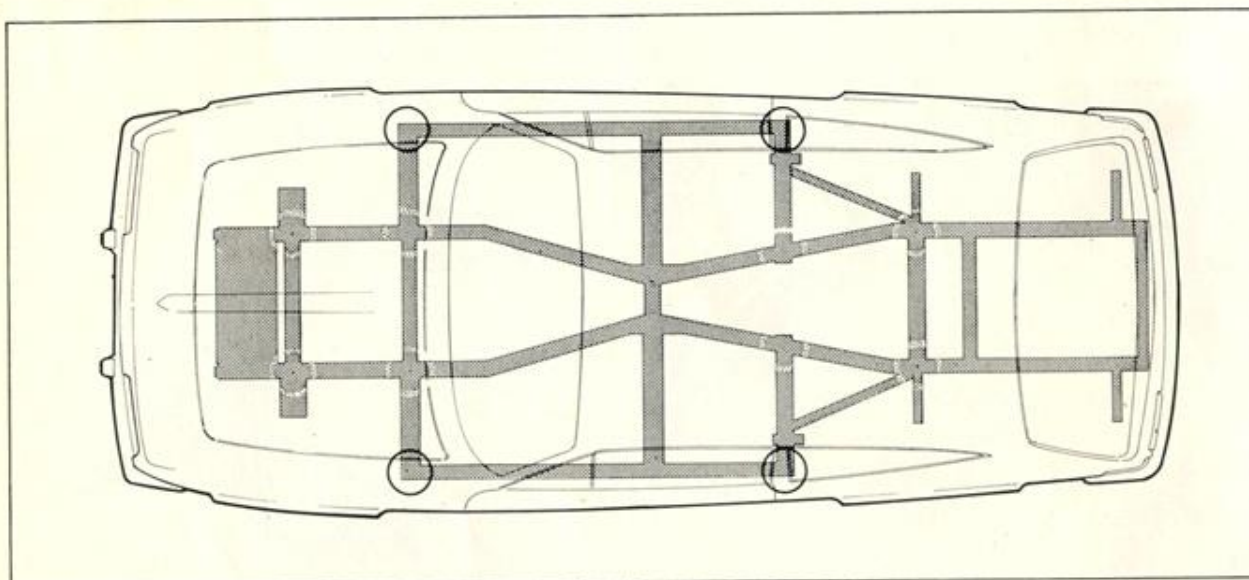


Figure 38 Jacking points

Cooling system

The pressurised cooling system incorporates a radiator mounted in front of the engine and a remote header tank. The use of pressurisation allows the engine to operate at slightly higher temperatures without boiling. Remember this when you remove the cap from the header tank. Turn it slowly, or if the system is very hot, allow it to cool first, otherwise you may be scalded. Frost precautions:— Protect the system by using a recommended anti-freeze mixture to BS 3151 or 3152 (see page 65). Ensure that it is mixed in the recommended proportion. Test the solution periodically, or ask your authorised dealer to do so. Top up the system as necessary, being careful to use the solution in the correct proportion. It is not necessary to drain the anti-freeze during summer months as the solution contains inhibitors to prevent rust from forming in the water passages.

The remote header tank is approximately two-thirds full when the coolant is at the correct level.

Under no circumstances use a salt solution as an anti-freeze medium

Anti-freeze solution gives rise to greater danger of seepage through inadequate joints. After anti-freeze has been added, therefore, it is always a wise precaution to re-examine the hoses, clamps, and cylinder head, for any signs of leakage. Total capacity of system 11·34 litres (20 Imp pts).

Fuses

The fuse block is situated on the left-hand side of the engine compartment at the rear of the battery.

To change a fuse, lift off the cover and replace the blown fuse. If a fuse blows repeatedly a circuit fault is indicated. If you cannot trace the source, consult your dealer.

Fuse ratings

The fuse box has the circuit function protected by each fuse indicated on the cover. The fuses vary in value depending on the circuit protected. The correct fuse ratings are as follows:

1 – 2	35 amps	Battery control
3 – 4	25 amps	Hazard warning
5 – 6	10 amps	Side and tail lamps RH
7 – 8	10 amps	Side and tail lamps LH
9 – 10	10 amps	Panel lamps
11 – 12	Spare	– not headlamps as indicated on cover
13 – 14	25 amps	Headlamp – main outer
15 – 16	15 amps	Headlamp – RH dip
17 – 18	15 amps	Headlamp – LH dip
19 – 20	35 amps	Screen wiper motor (50 amps if electric windows fitted)
21 – 22	50 amps	Ignition control
23 – 24	25 amps	Heater motor

Alternator

The only attention the alternator is likely to require is the occasional changing of the commutator brushgear.

Dirty commutators can be cleaned by holding a petrol-moistened cloth (ensure that it is non-fluffy) lightly against the commutator, while the latter is rotated.

A badly scored commutator will require the attention of your dealer. Brushes that are too worn to allow the spring to hold them firmly against the commutator should be replaced.

Wipe away any dirt or oil which may collect around the slip ring end cover ventilating apertures

The bearings are packed with grease during assembly and do not require attention.

Note

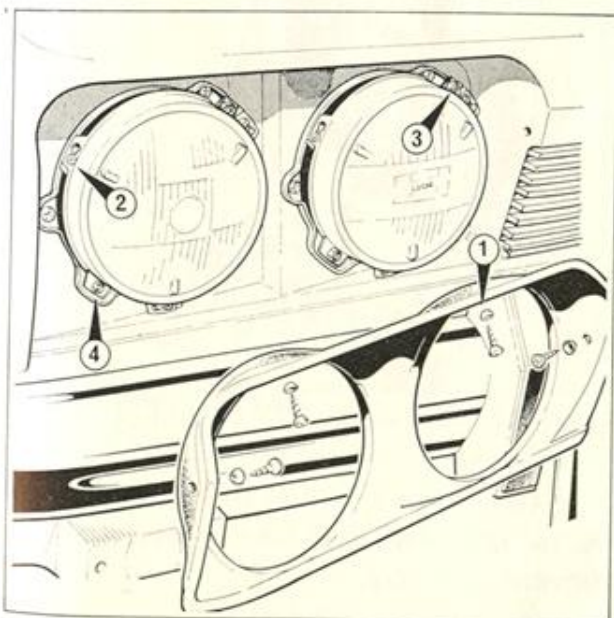
Serious damage can occur to the alternator if the following points are not observed:

- 1 Ensure that the negative terminal of the battery is earthed.

Reversed cable connections will burn out the alternator diodes.

- 2 Never earth the output (B +) terminal of the alternator. It should be connected directly with the battery positive terminal.
- 3 Always disconnect the battery earth cable at the battery before removing the alternator or its connecting wires. Serious damage to the wiring harness and the alternator can result from accidentally earthing the output terminal.
- 4 Never attempt to operate the alternator with the output lead between the battery and output terminal disconnected. A very high voltage will develop which could burn out the rotor or damage the diodes.
- 5 When the battery is to be re-charged in the car, disconnect both battery cables before connecting a charger.

Access is gained by removing the four cross headed screws securing the lamp unit cowl as shown in Figure 39 (1). **Headlamps**
The twin headlamps are of the 'sealed beam type', the filament in each light unit being sealed between the lens and reflector. Replacement of the light unit is necessary in the event of filament failure.



- 1 Bezel securing screws
- 2 Headlamp retaining screws
- 3 'Horizontal' beam adjusting screw
- 4 'Vertical' beam adjusting screw

Figure 39 Headlamps

To remove the sealed beam unit slacken three screws (2) Figure 39, press the rim inwards and turn it counter-clockwise to enable it to be lifted over the screw heads. Release the light unit by pulling the adaptor from the rear of the unit. Do not disturb the beam aiming screws. Install a new unit by reversing the foregoing procedure.

Maximum efficiency is obtained and discomfort to other road users is prevented, if the lamps are correctly adjusted ensuring that the beam is not projected above the horizontal particularly when the vehicle is fully laden.

The headlamps should be set so that the main driving beams are parallel with the road surface. If adjustment is required remove the headlamp cowl.

Horizontal adjustment is obtained with the top 'beam adjusting screw' (3) Figure 39 and vertical adjustment with the bottom screw (4) Figure 39. Take the advice of your dealer on when to check and adjust your headlamp beams.

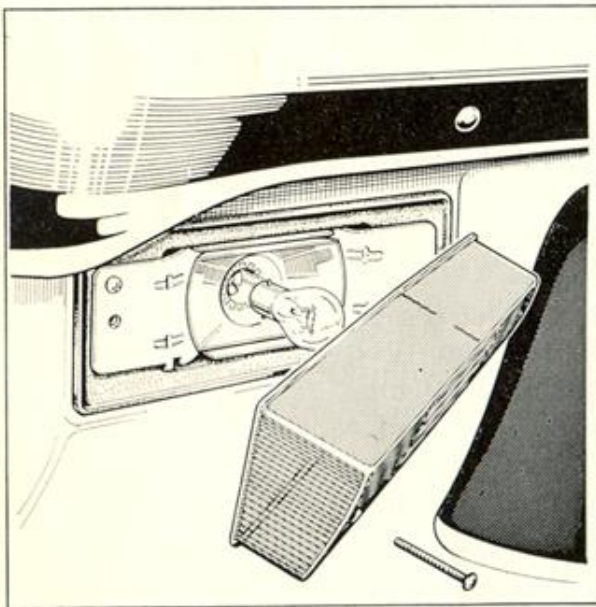


Figure 40 Front indicator lamp

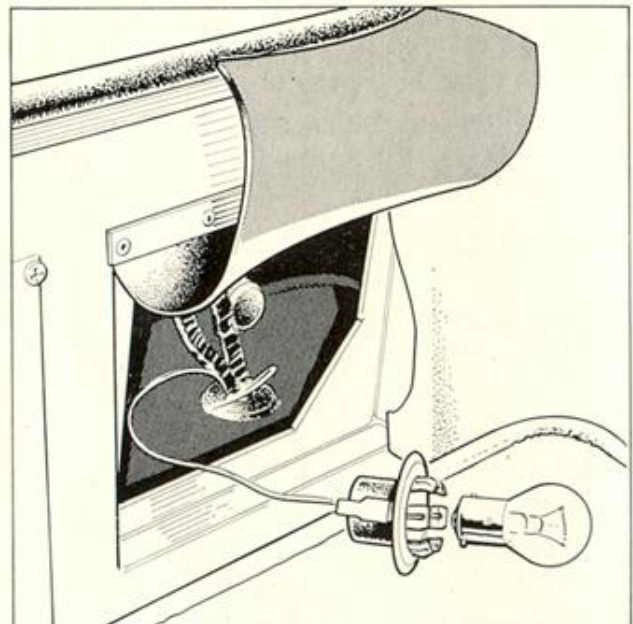


Figure 41 Access to rear lamp bulbs

Flashing front indicators

The glass is retained by two screws. When replacing a bulb remove the two screws, the glass can then be removed and the bulb replaced in the conventional way.

The stop/tail lamp, rear indicator lamp and reversing lamp are all contained within the one unit. The lamp glasses are not removable. Access to the bulbs for replacement is from inside the vehicle as follows:

Combined rear lamp unit

Remove the rear trim panel secured by five cross headed screws. Care should be taken when lifting the panel over the window catch. Access to the bulb holders is through the ventilation flaps, see figure 41. The bulb holders are of the push-in type and can only be inserted when located correctly, ensuring the bulb is properly aligned.

All three bulbs are of the bayonet fitting type, the stop-tail bulb having offset pins.

The bulb of either interior lamp is easily replaced by removing the two screws securing the chrome bezel and lens. The bulb is of the festoon type.

Interior lamps

The cover is secured by a single screw (1) which, when removed allows access to the bulbs for replacement purposes. See Figure 42.

Rear number-plate illumination lamp

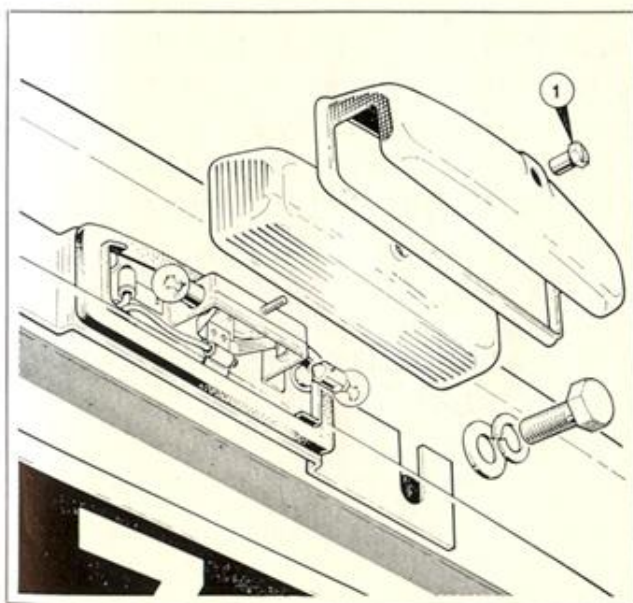


Figure 42 Number plate lamp bulbs

Bulb types and ratings	Headlamp (inner) Main beam	Sealed beam unit 5 $\frac{3}{4}$ in. dia. Single filament type 12V, 75 watt (standard equipment) Quartz-Halogen 5 $\frac{3}{4}$ in. dia. 12V, 55 watt (optional equipment)
	Headlamp (outer) Dipped beam	Sealed beam unit 5 $\frac{3}{4}$ in. dia. Double filament type 12V, 37·5/60 watt (standard equipment) Quartz-Halogen 5 $\frac{3}{4}$ in. dia. 12V, 55 watt (optional equipment)
	Side light-pilot	12V, 5 watt. Capless
	Direction indicators	12V, 21 watt. Single centre contact
	Stop/Tail lights	12V, 21/5 watt. Small bayonet offset pin
	Reversing lights	12V, 21 watt. Single centre contact
	Bonnet light	12V, 6 watt. Miniature centre contact
	Interior lights	12V, 6 watt. Festoon type (38 x 10 mm)
	Warning lamps and panel lamps	12V, 2·2 watt. Miniature Edison Screw, single contact
	Clock	12V, 2 watt. Single contact BA7S
Centre console light	12V, 2·4 watt. Single contact BA7S	

Use of Fog and Spot Lamps (Optional Equipment)

The legal requirement for the use of the fog and spot lamps as fitted to your vehicle as optional equipment, or when fitted to the manufacturers instructions, is as follows:

The matched pair of auxiliary fog and spot lamps can be used instead of the obligatory headlamps in fog or falling snow, but in no other circumstances.

i.e. During the hours of darkness when the road lighting conditions are such that side lights and dipped beam headlamps are required then the headlamps may be replaced by both the fog and spot lamps only in conditions of fog or falling snow.

For optimum results from the receiver it is advisable to ensure that the aerial mast is kept clean, and that the sliding sections are occasionally lubricated with a light oil or upper cylinder lubricant. Should the overall quality and sensitivity of the receiver show a noticeable deterioration, or should interference become excessive, do not immediately suspect the receiver. The fault is more often with the installation, and all leads and suppressors should be checked. The suppression equipment fitted is rigorously tested and will withstand extremes of temperature and vibration. An engine in a poor state of tune can produce vibratory conditions sufficient to damage the suppressors. This will cause an increase in engine interference, and should be remedied immediately.

BBC Service Areas	Radio 4 (Home Service)	Station guide
Radio 1 (popular music)	London	330/202 m
247 m Medium Wave	West of England	285/206 m
Radio 2 (Light Programme)	North of England	434/261 m
1500 m Long Wave	Northern Ireland	224 m
Radio 3 (Third Programme)	Midland	276 m
Radio Three is obtainable in	Welsh	341 m
Central and Southern England	Scottish	371 m
on 464 m elsewhere on 194 m Medium Wave		

The smaller knob on the left-hand control not only switches the Radio **on** and **off** but also governs the volume. The larger control on the left-hand knob varies the bass and treble tones. Either long or medium wave stations may be tuned with the right-hand control knob, or by depressing the push button of the required station which can be pre-set. (Figure 43.)

Radio only receiver

To change from the medium to long wave depress the extreme right-hand push-button and then tune to the station required.

Push-button setting

Any four medium-wave band stations and one long-wave station may be pre-set for automatic selection by means of the push-button controls. To set a push-button for a medium wave band station first switch on the radio and then depress one of the four medium-wave buttons. Tune in accurately with the

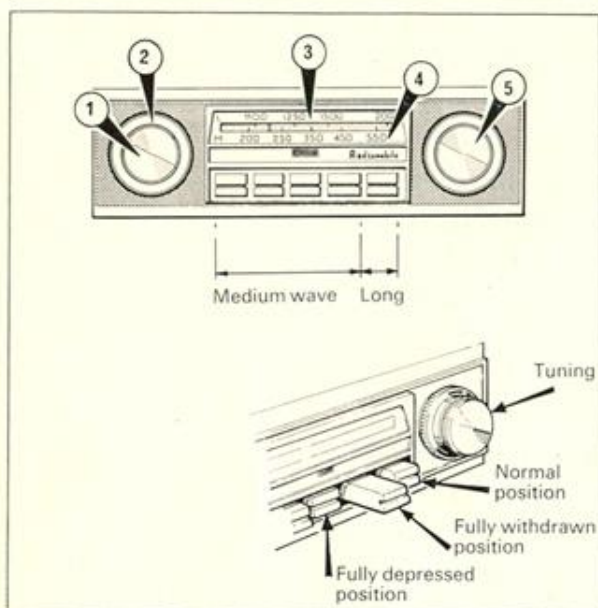


Figure 43 Radio

- 1 On/off – tone
- 2 Volume
- 3 Long-wave scale
- 4 Medium-wave scale
- 5 Tuning

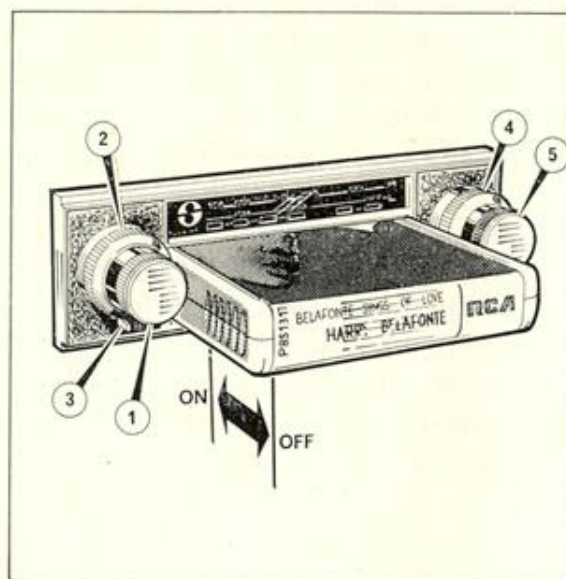


Figure 44 Stereo tape cartridge player/radio

- 1 Volume – radio on/off
- 2 Balance
- 3 Tone
- 4 Waveband selector
- 5 Radio tuning – tape programme selector (push-in)

manual tuning knob to the required station, fully withdraw the depressed medium-wave push-button (Figure 43) and then push this button in to lock the tuning.

When each push-button has been set in this way it is only necessary to depress the correct push-button to obtain the station desired. To pre-set the long-wave band push-button, carry out the above instructions, using the extreme right-hand push-button.

Stereo tape cartridge player/radio

This tape player is designed to play 'Stereo-8' magnetic tape cartridges, which provide up to 1 hour and 20 minutes of stereo music. The 8 track cartridges each have 4 programmes recorded on a pair of tracks on the tape giving left and right hand channels. The continuous loop cartridge plays endlessly, automatically switching from programme to programme. The programme can also be changed manually.

Operation of tape player

Upon inserting a cartridge and pushing it all the way in, the cartridge will start to play. An indicator light will show which

programme has been selected.

The unit is automatically switched off by pulling the cartridge out approx. 1 inch. See Figure 44.

After inserting a cartridge a slight delay may be noticed before the programme is heard. This is due to a special circuit designed to mute the output until the tape speed is running correctly.

Volume control (1)

Volume is adjusted using the smaller left-hand control knob.

Balance control (2)

Usually the knob should be left in its central position, where a slight 'click' location will be felt. Rotation of the knob to left or right will increase the volume of the left or right-hand speaker respectively.

Tone control (3)

The rotary lever control below the left-hand knob gives three degrees of treble cut when turned anti-clockwise.

Push-button programme selector (5)

To change the cartridge programme push in and release the smaller right-hand knob; an indicator light shows the selected programme.

On/off radio control (1)

To turn the radio on and off, the left-hand smaller knob should be pushed in and released. However, if a cartridge has been inserted, the radio will not turn on unless the cartridge is pulled out approximately 1 inch. See Figure 44.

Once the cartridge is pushed in all the way, the tape will start playing, automatically switching off the radio.

Waveband selector (4)

The larger right-hand knob, a two position switch, selects the waveband required. An indicator light shows the selected waveband.

Radio tuning control (5)

Rotating the smaller right-hand knob moves a sliding pointer which indicates the wavelength to which the set is tuned.

Note: It is important that when turning off the ignition if the tape player has been playing, the cartridge should be withdrawn approx. 1 inch. If the cartridge is not withdrawn, possible damage to the tape drive wheel mechanism could be caused resulting in poor subsequent performance of the unit.

Operation of radio

Stereo tape cassette player/radio

The stereo cassette player/radio is equipment on which you can play the cassettes which you have recorded yourself or any of the pre-recorded tapes available with a large variety of programmes and with various playing times.

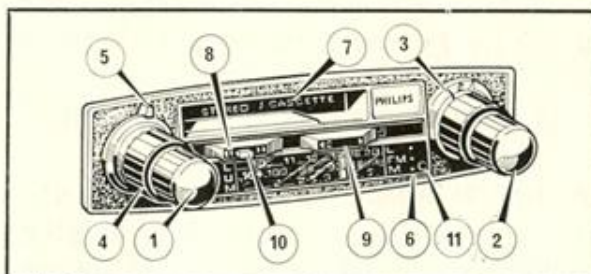


Figure 45 Stereo tape cassette player/radio

- | | |
|---------------------------------|----------------------------------|
| 1 On-off/volume control | 7 Cassette aperture |
| 2 Waveband/preselection control | 8 Fast wind/rewind key |
| 3 Preselector indicator | 9 Cassette ejector/play back key |
| 4 Tone control | 10 Playback stop button |
| 5 Balance control | 11 Aerial trimmer screw |
| 6 Waveband indicator codes | |

Operation of cassette player (see Figure 45)

Inserting and removing cassettes

Slide the cassette with its full reel facing you and the aperture to the right-hand side into the cassette compartment (Figure 45). The tape is now ready for use, playing side 1. When side 1 has been played or completely reeled, the cassette can be turned round and side 2 played. The cassette is removed by pushing key 9 to the left.

Playback

Insert the cassette and switch on the unit with knob 1. Push start key 9 to the right. Adjust volume – Knob 1, tone – knob 4 and balance – knob 5.

Tone and balance controls

The tone control is of the combined bass/treble variety – knob 4. When the knob is in the equal bass – equal treble position, a notch will be felt. The proportion of treble to bass response is reduced by turning the knob anti-clockwise and that of bass to treble by turning the knob clockwise. Balance is achieved by altering the relative volume of one loudspeaker to the other, and this can be adjusted by turning the balance control 5.

Stop, fast wind and rewind

Playback is stopped by pushing key 9 to the left or depressing button 10, which also has the effect of switching over to radio reception. The set will automatically change over to radio reception at the end of the tape. During cassette playback the

tape can be wound on or rewound, at high speed, by pushing key 8 to the right or to the left and holding that position. Again at the end of the tape the radio is automatically switched on.

If the tape is wound or rewound during radio reception the key 8 will remain in the selected position and need not be held in place. Fast wind, in this case, is stopped by depressing button 10.

Cassette storage: Keep cassettes in their own boxes. Storage space is provided in the centre console armrest. Do not expose cassettes to heat or the direct rays of the sun and keep them away from magnetic objects.

Manual tuning

Switch the set on and adjust the volume with knob 1. Select the desired waveband by depressing knob 2 one or more times, as required, until the colour on the indicator 3 is the same colour code as the waveband you want – 6. Tune in to the station required on the selected waveband by rotating knob 2.

Pre-selector

The radio has an ingenious pre-selection system, the procedure is as follows:

Switch on and select the desired waveband as described for 'manual tuning'.

Now tune in accurately to the desired station.

Each time the waveband colour and this particular figure are shown on the indicator after depressing knob 2 you will receive the station thus pre-selected.

Silent tuning between the wavebands ceases to operate when switching from position 6 to 1 using the indicator button 2, this produces a noise indicating that you have reached position 1. Tuning to any desired station in the waveband concerned is possible in each of the indicator positions.

Tone and Balance

The tone control functions on radio reception as on cassette playback. The volume of one loudspeaker relative to the other can be adjusted using the balance control.

Aerial adjustment

The aperture 11 in the bottom right-hand corner of the dial is for adjusting the aerial. However, the aerial has already been adjusted at the installation and the adjustment should not be changed.

Radio

The body fitted to the Scimitar GTE is manufactured from glass fibre. This is a completely inert material impervious to weather conditions and highly resistant to impact damage. Severe impact will not dent the material, it will crack or shatter, still retaining its original form. Repairs can be carried out quite easily, and require no skilled labour such as panel beating.

Washing

Avoid using a dry cloth to wipe the bodywork. Dust is an abrasive and if removed in this way, will scratch polished surfaces.

Wash the car frequently with plenty of running water and a clean, soft sponge. When all dirt is removed, sponge off and dry with a clean, damp chamois leather. Never wash or polish the car under a hot sun.

Chromium plating

Frequent washing and thorough drying is recommended, especially in winter months when there is a likelihood of corrosion through contamination with road salts.

Polishing

Traffic film can be removed and the original brilliance may be restored using a reputable non-abrasive cleaner and polish. The frequency at which polishing is necessary will depend upon local driving conditions.

Interior

Use a vacuum cleaner where possible to remove dust and dirt from the vehicle interior.

Wash upholstery with lukewarm, non-caustic soapy water. Do not use detergents or household cleaners as these may cause damage. Rinse and dry thoroughly.

Wipe fascia and instrument panel, door casings, etc., with a damp cloth only.

Wax or other polishes should not be used inside the car.

Lubricating nipples are situated at the upper wishbone ball joints at (1) see Figure 46 and at the lower trunnions (1) Figure 47. Apply three or four strokes of the grease gun every 3,000 miles (5,000 km).

The rear axle hub bearings should be greased at 600 miles (1,000 km) and thereafter at every 3,000 miles (5,000 km), three strokes of the grease gun are sufficient, see (9) Figure 48. Two lubricating nipples are located on the handbrake cable linkage, two strokes of the grease gun every 3,000 miles (5,000 km) see (10) Figure 48.

At 12,000 miles (20,000 km) the front hubs should be removed and the bearings inspected. The bearings should be washed out and repacked with grease, the hubs replaced and adjusted.

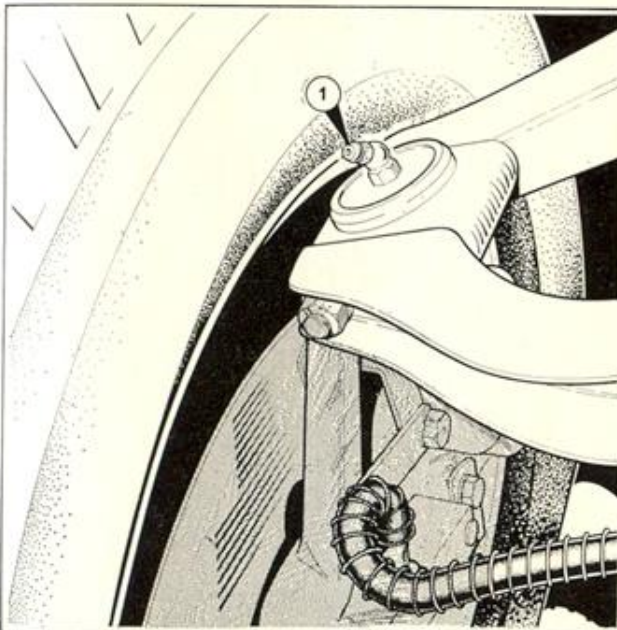


Figure 46 Upper wishbone ball joint

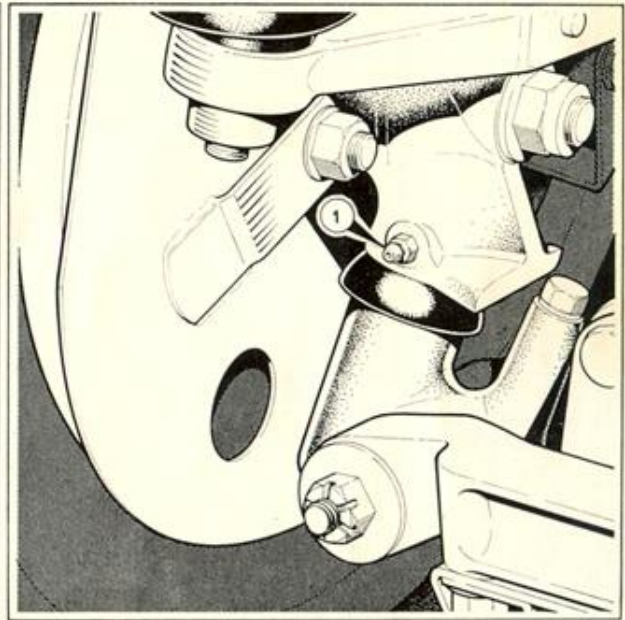


Figure 47 Lower trunnion

Key to Figure 48

1 Front hub	Repack	page 63
2 Upper wishbones & lower trunnions	Grease	page 63
3 Engine oil filler cap	Oil	page 45
4 Engine oil filter	Renew	page 43
5 Brake master cylinder	Top-up fluid	page 33
6 Clutch master cylinder	Top-up fluid	page 33
7 Automatic transmission	Top-up fluid	page 35
8 Gearbox	Oil	page 34
9 Rear wheel bearings	Grease	page 63
10 Handbrake cables	Grease	page 63
11 Rear axle	Oil	page 36

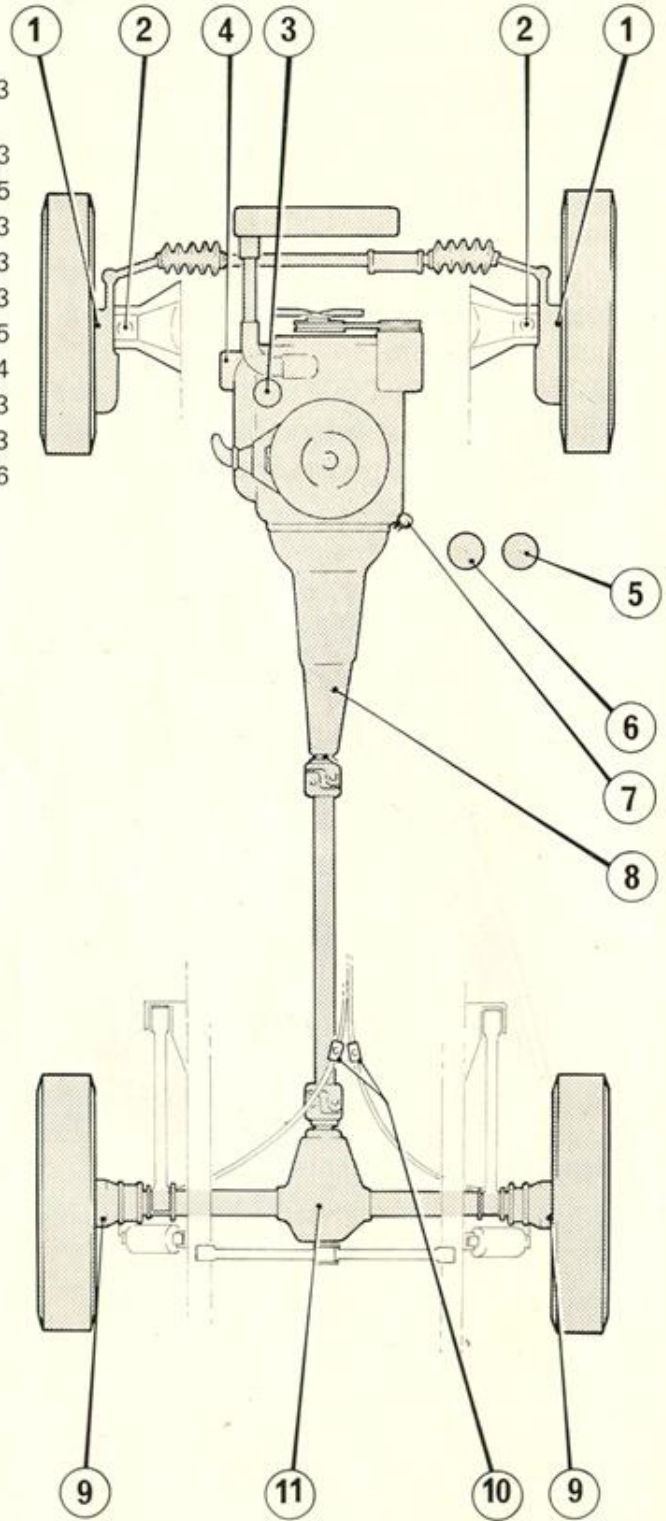


Figure 48 Lubrication points

Lubrication chart (Not listed in order of preference) (British Isles)

	BP	Castrol	Duckhams	Esso	Mobil	Petrofina	Shell	Texaco
Engine	Super Viscostatic 20W/50 10W/40*	GTX Castrolite*	Q. 20-50 (all temps. U.K.) 10/30 10/50 *	Esso Uniflo Esso Extra 20W/50 Esso Extra 10W/30*	Mobiloil Super or Mobiloil Special 20W/50 Mobiloil Super 10W/50*	Fina Supergrade 20W/50 or X.100 20W Fina Supergrade 10W/30*	Super motor oil 20W/50 or X.100 20W Super motor oil 10W/30*	Havoline Motor Oil 20W/50 Havoline Motor Oil 10W/30*
Gearbox	BP Gear Oil SAE 80 EP	Castrol Hypoy Light	Hypoid 80	Esso gear oil GX 80	Mobilube HD 80	Fina Pontonic MP SAE 80	Spirax 80 EP	Multi-gear lubricant EP 80
Rear axle	BP Gear Oil SAE 90 EP	Castrol Hypoy	Hypoid 90	Esso gear oil GX 90/140	Mobilube HD 90	Fina Pontonic XP90/140	Spirax 90 EP	Multi-gear lubricant EP 90
Rear wheel bearings and front hub	Energrelase L2	Castrol LM Grease	LB 10 Grease	Multi-purpose grease H	Mobilgrease MP or Mobilgrease Super	Fina Bentex A3	Retinax A	Marfak all purpose grease
Chassis	Energrelase L21M	Castrol MS3	LBM 10 Grease	Multi-purpose grease (Moly)	Mobilgrease MP or Mobilgrease Super	Fina Marson LM2	Retinax AM	Molytex Grease 2
Automatic Transmission fluid	Autran B	TQF	Q-matic	A T F	ATF 210	Purfimatic 33F	Donax T7	Texamatic 6991 Type F
Important: Brake and Clutch fluid reservoirs	Castrol Girling UNIVERSAL brake and clutch fluid must be used.							
Anti-freeze Smiths Bluecol	BP Anti-freeze	Castrol Antifreeze	Duckhams Universal Antifreeze	Esso Antifreeze	Mobil Permazone	Thermidor Antifreeze	Shell Antifreeze	Regent PT Antifreeze

*Oils marked thus are suitable for use in temperatures below + 32°F (0°C)

Service schedules

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Daily and weekly attention

Check engine oil level – daily
 Check radiator level – daily
 Check battery electrolyte level – weekly
 Check levels of hydraulic fluid reservoirs – weekly
 Check tyre pressures – weekly

At first 600 miles (1,000 km)

Top-up engine oil
 Top-up gearbox/overdrive oil
 Top-up automatic transmission fluid
 Drain and refill rear axle oil
 Lubricate throttle linkage, handbrake linkage, door and rear window locks, and bonnet safety catch pivot
 Top-up battery
 Top-up radiator
 Top-up windshield washer reservoir
 Top-up hydraulic fluid reservoirs
 Tighten cylinder head and manifold bolts to correct torques
 Check and adjust valve clearances
 Adjust 'V' belt tension
 Examine and adjust distributor points
 Clean sediment from fuel filter and pump
 Check brakes
 Check front wheel bearing adjustment
 Check rear hub nuts
 Check wheel nuts
 Correct tyre pressures
 Check front suspension retaining bolts
 Check front wheel toe-in, also rear wheel to front wheel alignment
 Check door operation and adjust (where necessary)
 Check operation of controls, instruments, lights, horn and windshield wiper, etc.
 Check battery connections
 Check for water or oil leaks
 Road or roller test and adjust carburettor and ignition if required

Oil or grease all lubrication points	At first 3,000 miles (5,000 km) or three months (whichever is reached first)
Change engine oil and fit new oil filter	
Change gearbox/overdrive oil	
Top-up automatic transmission fluid	
Top-up rear axle oil level	
Check front suspension retaining bolts	
Check boot type gaiters on steering joints and renew if suspect	
Check front brake pads and rear brake shoes	
Check handbrake cable adjustment	
Check and adjust clutch (cable operated type only)	
Lubricate distributor	
Lubricate bonnet safety catch	
Lubricate all linkages	
Lubricate door and rear window locks	
Top-up master cylinder reservoirs	
Clean and adjust sparking plug gaps	
Examine distributor points and adjust, clean coil and distributor cap	
Clean sediment from fuel filter and pump	
Clean oil filler cap	
Clean emission control valve	
Clean air cleaner element	
Check and adjust valve clearance	
Adjust 'V' belt tension if required	
Check battery connections, test battery condition and top-up as necessary	
Top-up radiator	
Top-up windshield washer reservoir	
Correct tyre pressures if necessary	
Reposition road wheels (see page 50)	
Check instruments and lights and align if necessary	
Road or roller test and adjust carburettor and ignition if required	

Oil or grease all lubrication points	At 6,000 miles (10,000 km) or six months (whichever is reached first)
Top-up engine oil	
Top-up gearbox/overdrive oil	
Top-up automatic transmission fluid	
Top-up rear axle oil level	
Check front suspension retaining bolts	
Check boot type gaiters on steering joints and renew if suspect	
Check front brake pads and rear brake shoes	
Check handbrake cable adjustment	

Check and adjust clutch (cable operated type only)
 Lubricate distributor
 Lubricate bonnet safety catch
 Lubricate all linkages
 Lubricate door and rear window locks
 Top-up master cylinder reservoirs
 Clean and adjust sparking plug gaps
 Examine distributor points and adjust, clean coil and distributor cap
 Clean sediment from fuel filter and pump
 Clean oil filler cap
 Clean air cleaner element
 Check and adjust valve clearance
 Adjust 'V' belt tension if required
 Check battery connections, test battery condition and top-up as necessary
 Top-up radiator
 Top-up windshield washer reservoir
 Correct tyre pressures if necessary
 Reposition road wheels (see page 50)
 Check instruments and lights and align if necessary
 Road or roller test and adjust carburettor and ignition if required

**At 9,000 miles
 (15,000 km)
 or nine months
 (whichever
 is reached first)**

Oil or grease all lubrication points
 Change engine oil and fit new oil filter
 Change gearbox/overdrive oil
 Top-up automatic transmission fluid
 Drain and refill rear axle oil
 Check front suspension retaining bolts
 Check boot type gaiters on steering joints and renew if suspect
 Check front brake pads and rear brake shoes
 Check handbrake cable adjustment
 Check and adjust clutch (cable operated type only)
 Lubricate distributor
 Lubricate bonnet safety catch
 Lubricate all linkages
 Lubricate door and rear window locks
 Top-up master cylinder reservoirs
 Clean and adjust sparking plug gaps
 Examine distributor points and adjust, clean coil and distributor cap

Clean sediment from fuel filter and pump
Clean oil filler cap
Clean emission control valve
Clean air cleaner element
Check and adjust valve clearance
Adjust 'V' belt tension if required
Check battery connections, test battery condition and top-up as necessary
Top-up radiator
Top-up windshield washer reservoir
Correct tyre pressures if necessary
Reposition road wheels (see page 50)
Check instruments and lights and align if necessary
Road or roller test and adjust carburettor and ignition if required

Oil or grease all lubrication points	At 12,000 miles
Top-up engine oil	(20,000 km)
Top-up gearbox/overdrive oil	or twelve months
Top-up automatic transmission fluid	(whichever
Top-up rear axle oil level	is reached first)
Check front suspension retaining bolts	
Check boot type gaiter on steering joints and renew if suspect	
Check front brake pads and rear brake shoes	
Check handbrake cable adjustment	
Check and adjust clutch (cable operated type only)	
Lubricate distributor	
Lubricate bonnet safety catch	
Lubricate all linkages	
Lubricate door and rear window locks	
Top-up master cylinder reservoirs	
Examine distributor points and adjust, clean coil and distributor cap	
Clean sediment from fuel filter and pump	
Clean oil filler cap	
Replace air cleaner element	
Check and adjust valve clearance	
Adjust 'V' belt tension if required	
Check battery connections, test battery condition and top-up as necessary	
Top-up radiator	

Top-up windshield washer reservoir
Correct tyre pressures if necessary
Reposition road wheels (see page 50)
Check instruments and lights and align if necessary
Remove front hub and disc assemblies, wash out bearings, repack with grease, replace and adjust
Check front wheel toe-in, also rear wheel to front wheel alignment
Change sparking plugs
Road or roller test and adjust carburettor and ignition if required

**Hydraulic brake
and clutch systems**

Change fluid in hydraulic brake and clutch systems every eighteen months. Change seals every three years or 36,000 miles (60,000 km), whichever is reached first.

Number of cylinders	6 60° Vee	Engine
Bore of cylinders	93.670 mm (3.6878 in.)	
Stroke of crankshaft	72.42 mm (2.851 in.)	
Cubic capacity	2994 cc (182.7 cu. in.)	
Compression ratio	8.9:1	
Valve clearance (hot)		
– Inlet	0.35 mm (0.013 in.)	
– Exhaust	0.50 mm (0.020 in.)	

Brake horse power (max)	135 net at 5,500 rpm	Performance data
Torque (max)	23.8 kg m net (172 lbs ft) at 3,000 rpm	

Pump type	Eccentric bi-rotor or sliding vane	Lubrication (Engine)
Oil filter	External full flow pressure relief type	
Oil pressure	3.16 to 3.51 kg/sq cm (45 to 50 lb/sq in.)	

Contact breaker gap	0.64 mm (0.025 in.)	Ignition system
Spark plugs – type	Autolite AGR22 (14 mm)	
– gap	0.59 to 0.70 mm (0.023 to 0.028 in.)	
Firing order	1 (R) 4 (L) 2 (R) 5 (L) 3 (R) 6 (L)	
Ignition timing (static)	10° before TDC	

Pressurised radiator, with remote header tank, water pump with thermostatic heat control and electric cooling fan with thermostatic control	Cooling system
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Cap pressure	0.703 kg/sq cm (10 lb/sq in.)	Radiator
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Carburettor	Weber 38 DGAS	Fuel system
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Air cleaner		Paper element type
Fuel pump	Type Pressure	Mechanical AC Delco 0.25 to 0.35 kg/sq cm (3½ to 5 lb/sq in.)
Clutch	Type Operation	Single dry plate 228.6 mm (9 in.) dia. diaphragm spring Hydraulic – pendant pedal
Transmission	'Manual' model Type Control Gear Ratios	Four forward gears and reverse, synchromesh on all forward gears. Centre floor mounted remote control. 1st 2nd 3rd 4th 3.163:1 1.95:1 1.412:1 1:1 Reverse 3.346:1
	'Overdrive' model Type Control Gear Ratios Overdrive Ratio	Four forward gears and reverse, synchromesh on all forward gears Centre floor mounted remote control 1st 2nd 3rd Top 3.163:1 1.95:1 1.412:1 1.00:1 Reverse 3.346:1 0.778:1 on 3rd and top
	'Automatic' model Type Ratios	3 speed epicyclic gearbox with hydro-kinetic torque converter 1st 2nd 3rd Reverse 2.393:1 1.450:1 1.00:1 2.094:1
Rear axle	Type Ratio	Hypoid, spiral bevel, semi-floating 3.07:1 manual 3.31:1 overdrive 3.31:1 automatic

System	Vacuum servo assisted	Brakes
Type – Front	270 mm disc (10.82 in.)	
– Rear	228.6 mm × 19.1 mm drum (9 in. × 1.75 in.)	
Handbrake	Lever-type handbrake operating rear brakes	

Front	Independent through wishbone, coil spring and telescopic damper units	Suspension
Rear		
	Coil spring and telescopic damper units to axle located by parallel trailing arms. Transverse location by Watt linkage	

Type	Rack and pinion	Steering
Castor angle (Static laden)	2° 40'	
Camber angle (Static laden)	0° to ½°	
Steering axis inclination (KPI)	9° to 8½°	
Toe-in	0 to 1.66 mm (0 to 1/16 in.)	
Turning circle	10.972 m (36 ft)	

Wheelbase	2,528 mm (99½ in.)	Chassis data
Track – Front	1,403 mm (55¼ in.)	
– Rear	1,349 mm (53⅛ in.)	
Ground clearance (minimum)	139 mm (5½ in.)	

Overall length	4,333 mm (171 in.)	Exterior dimensions
Width	1,638 mm (64½ in.)	
Height	1,320 mm (52 in.)	

Kerb	1,142 kg (2,620 lb)	Weight
Max towing weight	1,016 kg (20 cwt)	

Capacities	Engine (incl. filter)	5.00 litres (8.8 Imp pts)
	Gearbox	
	– manual model	1.98 litres (3.48 Imp pts)
	– overdrive model	2.84 litres (5 Imp pts)
	Rear axle	1.1 litres (2.1 Imp pts)
	Cooling system (including heater)	11.34 litres (20 Imp pts)
	Fuel tank	77 litres (17 Imp gals)

Electrical system	Battery	Lucas type D11/13 – 12 volt
	Control box	Lucas 4TR Silicon semi-conductor
	Alternator	Lucas 17 ACR Max output 35 amps charging voltage 13.5

Wheels	Size	5½J pressed steel 5½J composite – alloy with steel rims (optional equipment)
	Tyre size	185×14 Cinturato HR

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