VEHICLE CARE

BY APPOINTMENT TO
HER MAJESTY QUEEN ELIZABETH II
MANUFACTURERS OF DAIMLER AND JAGUAR CARS
JAGUAR CARS LIMITED COVENTRY ENGLAND

BY APPOINTMENT TO
HER MAJESTY QUEEN ELIZABETH
THE QUEEN MOTHER
MANUFACTURERS OF DAIMLER AND JAGUAR CARS
JAGUAR CARS LIMITED COVENTRY ENGLAND

BY APPOINTMENT TO
HIS ROYAL HIGHNESS THE PRINCE OF WALES
MANUFACTURERS OF DAIMLER AND JAGUAR CARS
JAGUAR CARS LIMITED COVENTRY

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FOREWORD

Jaguar Cars Limited, as manufacturers, are dedicated to the design and production of vehicles which meet the expectations of the world's most discerning purchasers.

To complement the features, systems and technology of your new vehicle we have produced this Vehicle Care Handbook. In it we have undertaken to provide information on vehicle care and maintenance to enable you to obtain lasting pleasure and reliability from your vehicle.

The Manufacturer reserves the right to vary its specifications with or without notice, and at such times and in such manner as it thinks fit. Major as well as minor changes may be involved in accordance with the Manufacturer's policy of constant product improvement.

The information contained herein applies to a range of vehicles and not to a specific vehicle. For the specification of a particular vehicle owners should consult their Jaguar Dealer.

SECTION 1

General Information

Details of the vehicle warranty are given in the 'Service Record and Warranty Book'.

When left–hand or right–hand is used in the text, this refers to the left–hand side or right–hand side of the vehicle, viewed from the rear.

Take particular note of **WARNINGS** and **Cautions** given throughout this handbook.

WARNING: Procedures which must be followed precisely to help avoid the risk of personal injury.

Caution: Procedures which must be followed precisely to reduce the possibility of damage to the vehicle and resultant risk of personal injury or inconvenience.

Warning symbols on the vehicle

On encountering the warning triangle and open book symbol (e.g. on the underside of the fuse box and protection module lids), it is important that you consult the relevant section of this handbook before touching this part of the vehicle or attempting adjustments of any kind.

Electrical Accessories

The fitting of any electrical accessory **should only** be entrusted to a Jaguar Dealer. Refer to the Electrical Accessories in SECTION 7. This information must be observed before fitting any accessories.

Regular Servicing

Each vehicle is given a full 'Pre–Delivery Inspection' to ensure that all systems function correctly and the vehicle meets its specification.

Regular maintenance and servicing is the responsibility of the owner. Jaguar Dealers will be pleased to arrange periodic servicing in accordance with the 'Service Record and Warranty Book' and 'Maintenance Schedules' booklet.

Failure to implement maintenance at the recommended intervals could result in deterioration of vehicle performance and possible infringement of regulations.

JLX 104

Jaguar Dealers

Jaguar Dealers are chosen with care. Each is dedicated to providing a Sales, Service and Genuine Jaguar Parts facility of the highest standard.

Jaguar Dealers provide full technical back–up from the factory with comprehensive training for all their technicians. All Dealers' workshops operate to the highest standard and have all the necessary approved tools and equipment essential to maintain or repair Jaguar vehicles.

The Jaguar Diagnostic System

The equipment used to assist diagnosis of faults in the electrical and electronic systems of the vehicle is unique and is only available to Jaguar Dealers. Use of this equipment will enable the Dealer to quickly trace and rectify faults in the system and ensure that only faulty components are repaired or replaced.

Caution: Severe damage to the electrical system and electronic components can occur if any attempt is made to diagnose faults in the electrical system using conventional diagnostic equipment (i.e. use of test lamps, low impedance voltmeters, etc.).

Hydraulic Fluids

The Brake Hydraulic Fluid in the master cylinder and brake operating system uses non–mineral polyglycol based brake fluid with a minimum standard of DOT 4. ONLY FLUID OF THIS TYPE AND STANDARD MAY BE USED. The master cylinder reservoir is situated on the engine compartment bulkhead adjacent to the pedal box.

WARNING: Contamination by as little as 1 per cent of the brake system fluid will cause rapid deterioration of the system seals. Ensure that the brake fluid reservoir cap is securely fitted.

Battery/Ignition Isolator Switches

Non–approved battery isolator switches, which disconnect the power supply to all electrical circuits, are **not** recommended.

Safety Warning and Caution Labels

Note: Do not remove any warning labels from the underbonnet area or inside of the vehicle.

Various warning labels are affixed within the underbonnet area:

Braking System and Clutch System (Where fitted)

The brake fluid caution symbol is moulded into the master cylinder filler cap.

Brake system warning information is moulded into the master cylinder reservoir and states:

WARNING – CLEAN FILLER CAP BEFORE REMOVING. USE ONLY DOT 4 BRAKE FLUID FROM A SEALED CONTAINER.

Power Steering System

The label is located on the reservoir filler cap and states:

WARNING.

Refer to SECTION 3 for information on topping up the power steering system.

Front Suspension Nuts

A label is located around each front suspension nut and states:

CAUTION – DO NOT REMOVE.

To avoid possible injury, do not attempt to loosen these nuts. This operation requires specialized equipment and should only be serviced by a Jaguar Dealer. Details are provided in the Service Manual.

Cooling System

The header tank label is located on the filler cap and states:
WARNING – DO NOT OPEN WHEN HOT.

JWX-224

A label is located on the fan shroud and states:
WARNING – ROTATING COMPONENTS – KEEP CLEAR.

JWX-225

JWX-226

Safety Precautions

WARNING:

1. Many liquids and other substances used in motor vehicles are poisonous and should under no circumstances be consumed and so far as possible be kept away from open wounds. These substances among others include anti–freeze, brake fluid, fuel, windscreen washer additives, lubricants and various adhesives.

2. The presence of any unusual fumes (e.g. petrol or exhaust fumes) in the passenger compartment and/or luggage compartment should be corrected immediately by a Jaguar Dealer. If you must drive under these conditions do so only with all windows fully open.

3. Any modifications to the fuel system not specifically designed for this Jaguar are prohibited. Modifications to the fuel system in some circumstances could result in a fire. All service actions must be entrusted to a Jaguar Dealer.

4. Fuel is extremely flammable. All fire precautions must be observed when working on or near fuel devices of the vehicle.

5. Alteration to the electrical system, including the fitting of accessories not specifically designed for this Jaguar will cause damage to the electrical circuits and systems of the vehicle. In some circumstances this could result in a fire. It is recommended that all accessory work be entrusted to a Jaguar Dealer.

6. No attempt should be made to repair a fuse that has blown; this may cause a fire hazard or serious damage elsewhere in the electrical circuit.

7. Do not install a fuse that exceeds the amperage for each location listed on the fuse charts (see SECTION 4). The electrical circuits may become overloaded with the possibility of a fire.

8. Avoid contact with battery acid which is both poisonous and corrosive. Acid will cause burns to the skin as well as to the eyes. In the event of skin or eye contamination, wash the affected area with water thoroughly and seek immediate medical attention when eye contact has occurred.

9. Never reverse the battery terminal connections. Always disconnect both terminals before battery charging.

WARNING: (continued)

10. **The battery produces combustible gas (hydrogen) when charging. Avoid sparks and short circuits by switching off the charger before making or breaking the terminal connections.**

11. **When disconnecting the battery connections, always disconnect the earth terminal first and reconnect last.**

12. **Do not disconnect any pipes in the air conditioning refrigeration system, unless trained and instructed to do so. A refrigerant is used which can cause blindness if allowed to contact the eyes.**

13. **FIRST AID: If refrigerant should contact the eyes or skin, wash the eyes or affected area with cold water for several minutes. Do not rub. As soon as possible thereafter, obtain treatment from a doctor or eye specialist.**

* Ensure that the vehicle is securely supported before working underneath it. **Chock the wheels as well as applying the handbrake.**
* Whenever possible use a suitable wheel–free lift when working beneath the vehicle.
  If a jack is used to support the vehicle, use axle stands carefully placed at the jacking points to provide a rigid support.
* Ensure that adequate ventilation is provided when volatile degreasing agents are being used.
* **Never** use volatile cleaning fluids under a vehicle standing over a pit. Many such fluids give off vapours which are heavier than air and dangerous to inhale.
* Wear protective overalls, ensure loose clothing (ties, etc.) are removed or covered when working adjacent to moving components (fan belts, etc.).
* Do not leave opened containers of oil, fuel, etc., about the work area. Always refit caps/seals to partially used containers when storing them for later use.
* Do not leave tools, equipment, spilt oil, etc., around or on the work area.
* Place a fire extinguisher close to the vehicle and disconnect the negative battery terminal. Do not use a naked flame (e.g. a match) to provide illumination, especially under the vehicle, or in the engine and luggage compartments. Do not smoke while working on the vehicle

Safety Precautions (continued)

* Do not apply heat in an attempt to free stiff nuts or fittings. This will cause damage to protective coatings and there is a risk of damage to electronic equipment and brake and fuel lines from conducted heat.
* Inspect power leads of any mains electrical equipment for damage, and check that it is properly earthed.

General Precautions Against Damage

* When working in the engine compartment protect the exterior paintwork by placing suitable covers over the wings and scuttle.
* To prevent soiling the vehicle interior, carry out those jobs requiring access to the passenger or luggage compartments first. If an operation involves access to the interior in the course of other work, prevent the transfer of oil and grease to seats, carpets and trim by using seat covers, carpet covers and wearing clean overalls and gloves.
* Always use a recommended service tool, where specified.
* Avoid spilling hydraulic fluid or battery acid on paintwork. Wash off with water immediately if this occurs.

Used Engine Oil

WARNING: Prolonged and repeated contact may cause serious skin disorders, including dermatitis and cancer.

Always use barrier creams. Avoid contact with the skin as far as possible and wash thoroughly after any contact. Keep oils out of reach of children.

PROTECT THE ENVIRONMENT: It is illegal to pollute drains, water courses and soil. Use authorised waste collection facilities, including civic amenity sites and garages providing facilities for the disposal of used oil, oil filters and batteries. If in doubt, contact your local authority for advice on disposal.

SECTION 2

Exterior Care

Valet Kit

A valet kit containing a selection of Car Care products is available from the Jaguar accessory range.

Washing

Do not use a dry cloth to wipe dust from the paintwork. Dust, dirt and other gritty substances are abrasive and will scratch the paintwork.

For best results, do not wash the vehicle under strong sunlight. Always allow the vehicle to cool down, especially the bonnet, after the engine has been run, before washing.

Wash the vehicle with cold or lukewarm water, never use hot water, household soap or detergents. The use of Jaguar vehicle shampoo, available from the Jaguar accessory range, will help to remove road film, dirt and insect deposits.

When using a hose, avoid directing it at full force around door and luggage compartment seals. The use of high pressure water jets on the paintwork is not recommended.

Remove the dirt using a sponge and plenty of water. Rinse off with clean water and dry using a clean, damp chamois leather.

Do not allow bird droppings or tree sap to harden on the paintwork. Remove as soon as possible with a lukewarm soap and water solution.

The aerial care procedure detailed on page 14 should be carried out when cleaning the exterior of the vehicle, to ensure smooth and reliable operation of the aerial.

Where salt mixtures are used on roads during the winter months, it is recommended that the vehicle is washed more frequently, and particularly immediately after encountering such conditions. The undersides and wheel arches must be cleaned using a high pressure water jet.

Automatic Car Wash

Regular use of automatic car washes tends to dull the lustre of the paintwork. Always turn off the radio before entering the car wash to retract the aerial.

Where a Jaguar telephone antenna (wing mounted type) is fitted, remove it before entering an automatic car wash.

The effectiveness of the windscreen wiper may be reduced after using a car wash that includes wax, therefore, switch on the windscreen wiper immediately after the car wash mechanism has stopped to remove excess water from the windscreen.

Clean the windscreen with Jaguar Screen Clean Paste to prevent a wax build up.

After using the car wash ensure that both door mirrors are correctly positioned before driving the vehicle

Removing Grease and Tar

Remove grease or tar with methylated spirit (alcohol). White spirit is also effective, but must not be applied to rubber, particularly the windscreen wiper blade

Glass Surfaces

To avoid scratching glass surfaces, **do not** clean dirty glass with **dry** paper or cloth. Use clean, warm water and a chamois leather which is reserved for glass only.

To ensure that windscreen wiper is effective, apply Jaguar Screen Clean Paste to the exterior of the windscreen. For all other glass surfaces (exterior and interior) use Jaguar glass cleaner to remove traffic film, etc. These products are available in the accessory range.

Clean the wiper blade with a mild detergent solution when you wash the windscreen. Inspect the wiper blade regularly, and renew when worn to prevent the glass becoming scratched.

Note:

1. **Do not use screen clean paste on interior glass surfaces as the powder residue will make the vehicle interior dusty.**
2. **At every service interval the exterior of the windscreen should be cleaned with Jaguar Screen Clean Paste and the wiper blade replaced (chargeable to customer).**

Use Jaguar screen wash additive in the washer reservoir, this will help to maintain a clear windscreen. Additionally, use Jaguar de–icer, ice scraper and an anti–mist wipe cloth during adverse weather conditions. All these items are available from the accessory range.

Paint Chips

Scratches and chips in the paint should be touched in before weathering action begins. The best time to detect paint chips is immediately after the vehicle has been washed.

Polishing

Certain conditions can affect the vehicle paintwork, including road dust, tar stains, salts, industrial fallout and other foreign matter. To provide maximum protection against these, it is recommended that the vehicle is polished at regular intervals using Jaguar wax polish and polishing cloth available from the accessory range.

Chromium Plating

Chromium plate is susceptible to corrosion caused by salt air, industrial smoke, and other urban conditions. Frequent washing and thorough drying of all chromium plate must be carried out.

The chromium plate can be polished and protected using Jaguar chrome polish or by coating with Jaguar wax polish available from the accessory range.

Door and Body Sill Drain Holes

Drain holes in the bottom of the doors and sills must be kept clear.

Aerial Care

The aerial care procedure should be carried out when cleaning the exterior of the vehicle, to ensure smooth and reliable operation of the aerial.

When cleaning the radio aerial, always wipe it in an upwards direction.

Occasionally use an aerial maintenance wipe cloth to lubricate the aerial.

In freezing conditions check that no ice has formed over the top of the aerial, this could prevent it from being raised causing damage to the motor.

A special aerial cleaner is available from the Jaguar accessory range.

Alloy Road Wheels

The alloy road wheels are covered with a protective coating. To prevent corrosion it is essential that this coating is not damaged.

To clean the wheels use the Jaguar alloy wheel cleaning kit and carefully follow the instructions.

The wheels should be washed at two week intervals to avoid accumulation of particles, e.g. brake dust which could become embedded in the wheel surface.

In salty conditions the wheels should be cleaned weekly.

Underbonnet Cleaning

Underbonnet cleaning by use of high pressure hose or a steam cleaner should be done by a Jaguar Dealer, as there are fuse boxes and many electronic components within the engine compartment that can be damaged by indiscriminate use of cleaning equipment.

It is particularly important to protect the traction control cable actuator (where fitted), especially when steam cleaning in sub–zero temperatures. Residual water remaining in the actuator cover area could freeze and immobilise the traction control system.

Care of the Interior

Brush and clean the interior of the vehicle each time the exterior is washed. Use a vacuum cleaner where possible and ensure complete removal of all dust from the interior and trim.

Carpets

Carpets should be brushed and vacuumed on a regular basis.

Normal marks or stains can be removed by gently scrubbing with a weak solution of soap and warm water.

For more stubborn spots, stains or ingrained dirt the Jaguar Carpet Cleaning Kit, available from the accessory range, should be used, according to the the instructions supplied with the kit.

Headlining

Dust in the headlining should be removed with a vacuum cleaner. Stains may be removed by rubbing briskly, without pressure, with a clean lint free white cloth, moistened with methylated spirit.

Leather Upholstery

Dust and dirt can penetrate the pores and creases of leather upholstery, causing the surface to wear and become brittle. Regular cleaning is essential to maintain the leather in first class condition.

Wipe the leather surfaces using a cloth moistened with warm soapy water; avoid flooding. Repeat using a clean cloth and clean water. Dry the leather and rub with a clean soft cloth.

Only use a mild non–caustic soap. **Do not** use petrol, detergents or household cleaners, as these could cause damage.

For very dirty areas, the use of Jaguar Leather Cleaner from the accessory range is recommended.

The appearance and durability of the leather will be improved using Jaguar Hide Food from the accessory range.

Woollen/Cloth Upholstery

Regular Cleaning

Weekly light vacuuming is desirable and can extend the life of the fabric.

Cleaning preserves and enhances woollen upholstery. Use Jaguar Upholstery Cleaner from the accessory range and follow the instructions exactly.

Test the upholstery cleaner solution on an inconspicuous part of the seat.

Do not over wet and avoid pressing liquids through the fabric.

Caution:

1. **Never use soap, ammonia, bleach or other cleaners intended for use on hard surfaces.**
2. **Do not use upholstery cleaner on electrical equipment, e.g. fascia switches**

Removing Stains

Should anything be spilt or dropped on the woollen fabric, the golden rule for removing the stain is speed.

Most spots can be removed if treated immediately and are not allowed to 'dry in', keep the necessary cleaning materials together in a convenient place.

Continued

Woollen/Cloth Upholstery (continued)

First mop up any excess liquid with absorbent tissue (preferably white) or absorbent cloth; scoop up dry solids with a spoon.

Most stains can be treated with one of three cleaning fluids, e.g. Jaguar Upholstery Cleaner, dry cleaning fluid or clean water.

Always work inwards from the edge of the stain to prevent spreading. Use small amounts of cleaning liquid at a time and blot between applications.

Avoid pressing liquid through the fabric. Continue until the stain has disappeared. Work slowly, patiently and thoroughly, do not rush the job. If the stain cannot be removed, get expert advice from a reputable dry cleaning organisation.

WARNING: Dry cleaning fluids may be toxic or flammable. Precautions should be taken when handling these products.

SECTION 3

Regular Checks

In the interests of safety and reliability, it is advisable to carry out the following checks at intervals suggested, and always before starting on a long journey.

Each Day

Check that there is sufficient fuel for the journey intended, particularly at night and before entering motorways.

Weekly

Tyres – Check the tyres, including the spare, for condition and pressure. See SECTION 6 for the recommended tyre pressures.

Lights – Check that all exterior lights and direction indicators function correctly and that the lenses are clean.

If any of the high mounted stop lamp bulbs (where fitted) have failed they must be replaced to ensure that the correct lamp intensity is maintained.

Engine Oil – With the vehicle standing on level ground, check the oil level and top up if necessary with oil of the correct grade, see pages 32 and 33.

Engine Coolant – With the engine cold, check the level of the coolant in the engine header tank. Any loss of fluid must be checked by a Jaguar Dealer.

Clutch Fluid – Check the level of the fluid in the clutch master cylinder (where fitted). Top up if necessary with new, unused approved brake/clutch fluid.

Brake Fluid – Check the level of the fluid in the brake master cylinder. Top up if necessary with new, unused approved brake fluid.

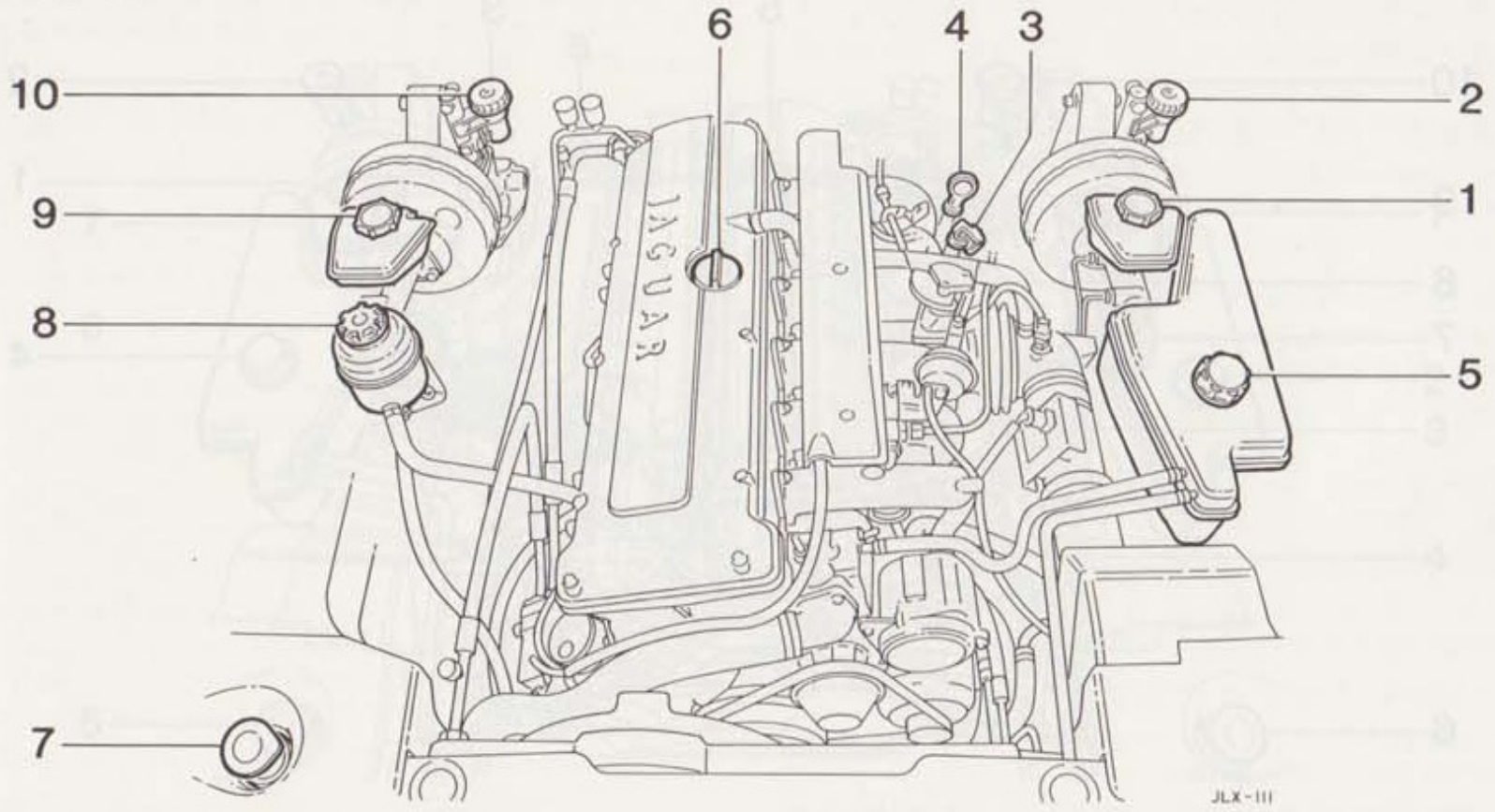
The brake fluid reservoir is initially nearly full, but the level will drop as the brake pads wear. If the level appears exceptionally low, location of the fluid leakage **must** be checked by the nearest Jaguar Dealer.

Power Steering Fluid – With the engine cold check the level of the fluid in the power steering fluid reservoir. Top up if necessary with fluid of the correct specification. Any loss of fluid should be checked by a Jaguar Dealer.

Monthly

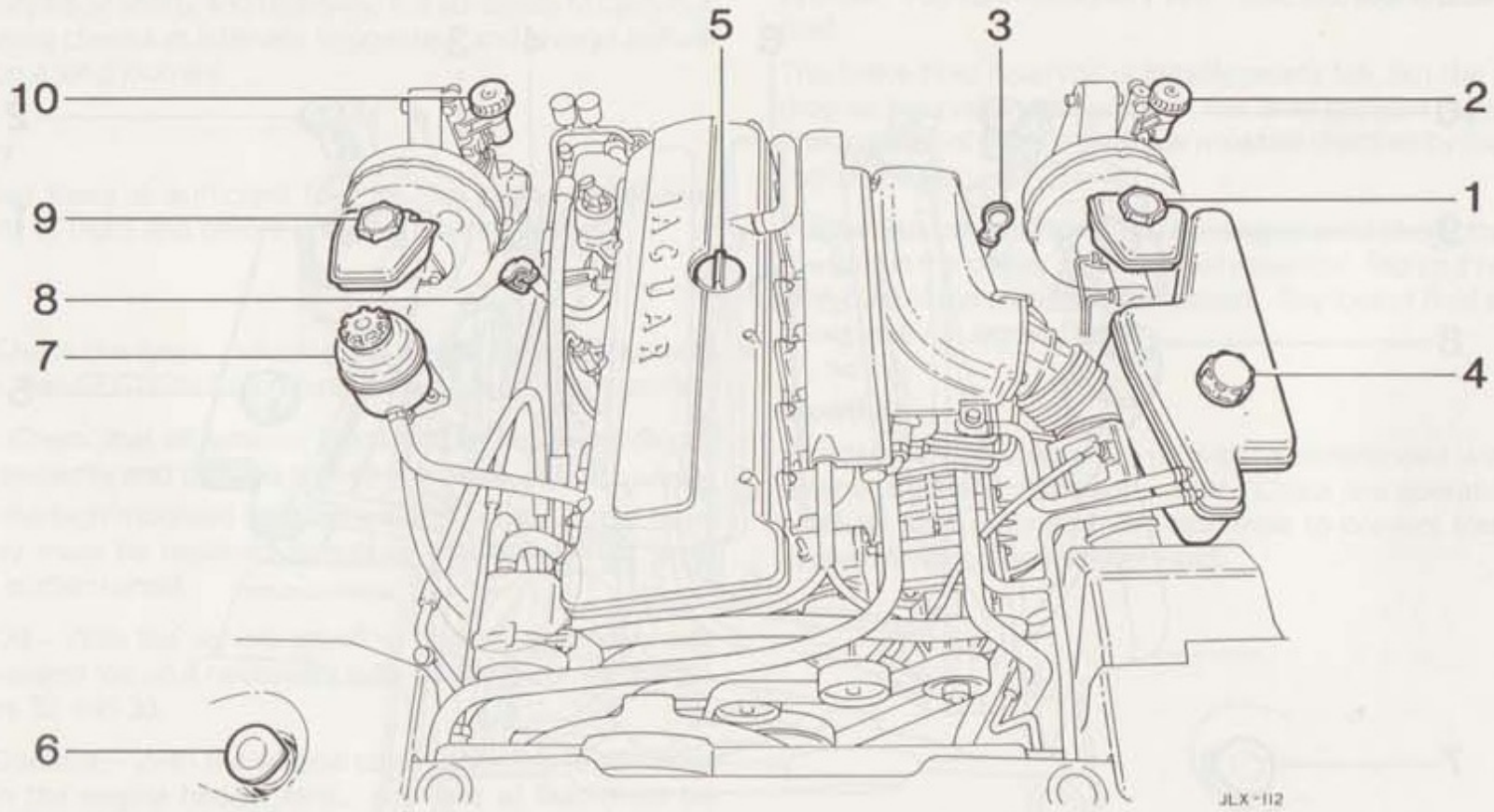
Windscreen Washer – Top up with recommended windscreen washer fluid and clean soft water. Check the operation of the washer. Use recommended additives to prevent freezing, i.e Jaguar Windscreen Washer Fluid.

Reservoir and Dipstick Locations (3.2 litre and 4.0 litre normally–aspirated)



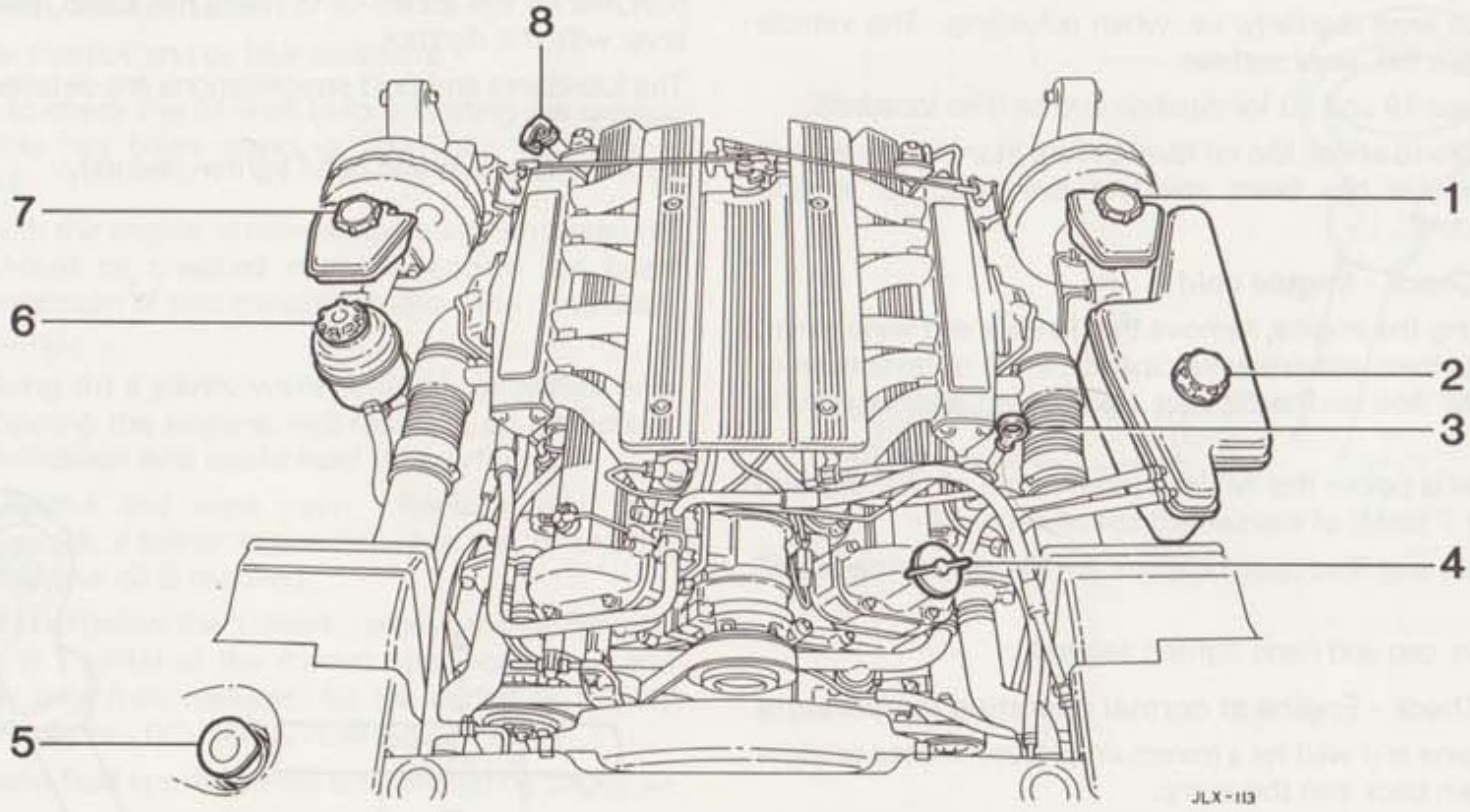
1. Brake fluid reservoir (Left–hand drive vehicles).
2. Clutch fluid reservoir (Left–hand drive vehicles).
3. Automatic transmission fluid dipstick.
4. Engine oil dipstick.
5. Coolant filler pressure cap.
6. Engine oil filler.
7. Windscreen washer reservoir.
8. Power steering reservoir.
9. Brake fluid reservoir (Right–hand drive vehicles).
10. Clutch fluid reservoir (Right–hand drive vehicles).

Reservoir and Dipstick Locations (4.0 litre supercharged)



1. Brake fluid reservoir (Left–hand drive vehicles).
2. Clutch fluid reservoir (Left–hand drive vehicles).
3. Engine oil dipstick.
4. Coolant filler pressure cap.
5. Engine oil filler.
6. Windscreen washer reservoir.
7. Power steering reservoir.
8. Automatic transmission fluid dipstick.
9. Brake fluid reservoir (Right–hand drive vehicles).
10. Clutch fluid reservoir (Right–hand drive vehicles).

Reservoir and Dipstick Locations (6.0 litre V12)



1. Brake fluid reservoir (Left–hand drive vehicles).
2. Coolant filler pressure cap.
3. Engine oil dipstick.
4. Engine oil filler.
5. Windscreen washer reservoir.
6. Power steering reservoir.
7. Brake fluid reservoir (Right–hand drive vehicles).
8. Automatic transmission fluid dipstick.

TOPPING UP

Check/Top Up Engine Oil Level (3.2 litre and 4.0 litre)

Check the oil level regularly, i.e. when refuelling. The vehicle should be on a flat, level surface.

Refer to pages 19 and 20 for dipstick and oil filler locations.

It is preferable to check the oil level before starting the engine after the vehicle has been standing overnight, i.e. engine completely cold.

Overnight Check – Engine cold

Before starting the engine, remove the dipstick and wipe clean. Replace fully, then withdraw the dipstick, if the oil level is on or above the 'M' line on the dipstick (A) then no additional oil is required.

If the oil level is below the 'M' line, remove the oil filler cap and add 1 litre (1.7 pints) of the correct specification oil.

The lubricants and fluid specifications are detailed on pages 32 and 33.

Refit the filler cap and hand tighten securely.

Forecourt Check – Engine at normal operating temperature

Stop the engine and wait for a minimum of two minutes to allow the oil to drain back into the sump.

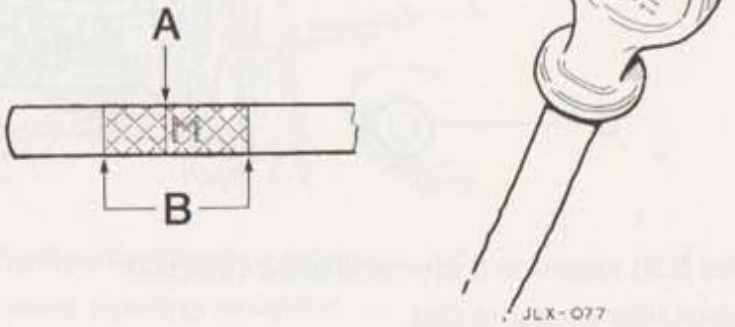
Oil level checking on a partly warm engine, or within two minutes of stopping the engine, will result in an artificially low oil level indication and could lead to overfilling.

Remove the dipstick and wipe clean. Replace fully, then withdraw the dipstick, if the oil level is on the knurled area (B) then no additional oil is required.

If the oil level is below the knurled area, remove the oil filler cap and add 1 litre (1.7 pints) of the correct specification oil, wait two minutes for the added oil to reach the sump, then recheck the level with the dipstick.

The lubricants and fluid specifications are detailed on pages 32 and 33.

Refit the filler cap and hand tighten securely.



Check/Top Up Engine Oil Level (6.0 litre V12)

Check the oil level regularly, i.e. when refuelling. The vehicle should be on a flat, level surface.

See page 21 for dipstick and oil filler locations.

It is preferable to check the oil level before starting the engine after the vehicle has been standing overnight, i.e. engine completely cold.

Alternatively, with the engine at normal operating temperature, the oil level should be checked after the engine has been stopped for a minimum of two minutes to allow the oil to drain back into the sump.

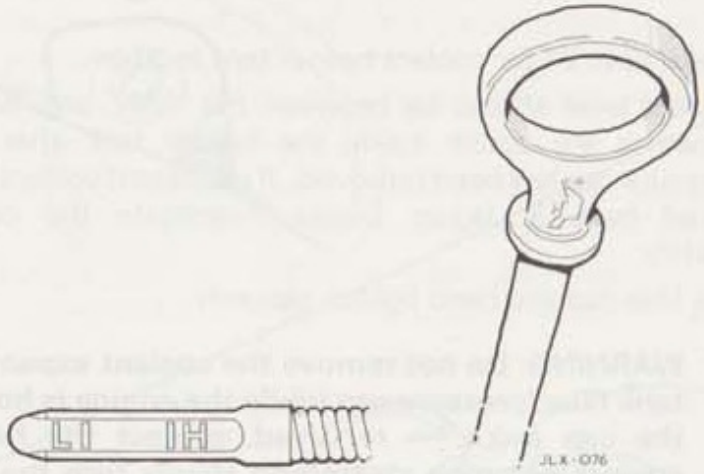
Oil level checking on a partly warm engine, or within two minutes of stopping the engine, will result in an artificially low oil level indication and could lead to overfilling.

Remove the dipstick and wipe clean. Replace fully, then withdraw the dipstick, if the oil level is between the 'H' and the 'L' marks no additional oil is required.

If the oil level is at or below the 'L' mark, remove the oil filler cap and add 1 litre (1.7 pints) of the correct specification oil and recheck. Allow time (two minutes) for the added oil to fully register on the dipstick. DO NOT OVERFILL.

The lubricants and fluid specifications are detailed on pages 32 and 33.

Refit the filler cap.



Checking Coolant Level

The coolant level must only be checked when the engine is COLD.

See pages 19 to 21 for coolant header tank location.

The coolant level should be between the 'MIN' and 'MAX' marks, which are visible inside the header tank after the filler/pressure cap has been removed. If persistent coolant loss is noticed have a Jaguar Dealer investigate the cause immediately.

Refit the filler cap and hand tighten securely.

WARNING: Do not remove the coolant expansion tank filler/pressure cap while the engine is hot. If the cap must be removed, protect the hands against escaping steam and slowly turn the cap anti-clockwise until the excess pressure can escape. Leave the cap in this position until all the steam and pressure has escaped, and then remove the cap completely.

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Topping-up

Caution: Anti-freeze will damage paintwork. Avoid spillage.

For topping up the coolant use the correct concentration of Jaguar Anti-freeze/Coolant/Corrosion Inhibitor as detailed on page 31.

Check/Top Up Windscreen Washer Reservoir

See pages 19 to 21 for windscreen washer reservoir location.

The washer reservoir contains the fluid for the windscreen washers and the headlamp power wash system (where fitted).

The reservoir filler neck can be pulled upwards to aid filling. Fill to just below the neck with Jaguar Windscreen Washer Fluid diluted with clean, preferably soft water as specified in the maker's instructions on the bottle.

Note:

1. Do not over–fill
2. Lower the neck extension with the cap open to avoid displacement of fluid.

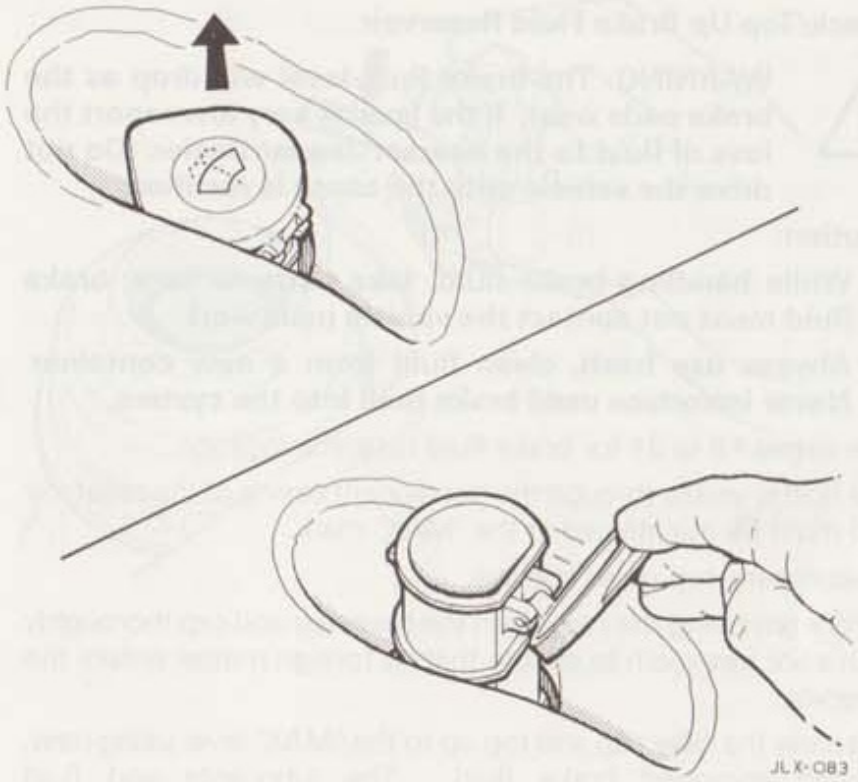
Cold Weather Precautions

To prevent damage to the pump under freezing conditions, use recommended Jaguar Windscreen Washer Fluid.

Caution:

1. **Windscreen washer fluid is toxic and in concentrated form is flammable.**
2. **Under no circumstances must cooling system anti–freeze be used, since this will damage the paintwork.**

After adding screen washer fluid to the reservoir, operate the pump until untreated water is purged from the pipes and jets.



Check/Top Up Brake Fluid Reservoir

WARNING: The brake fluid level will drop as the brake pads wear. If the level is very low report the loss of fluid to the nearest Jaguar Dealer. Do not drive the vehicle until the cause is rectified.

Caution:

1. **While handling brake fluid, take extreme care; brake fluid must not contact the vehicle paintwork.**
2. **Always use fresh, clean fluid from a new container. Never introduce used brake fluid into the system.**

See pages 19 to 21 for brake fluid reservoir location.

The fluid is visible through the translucent casing of the reservoir and must be maintained at the 'MAX' mark.

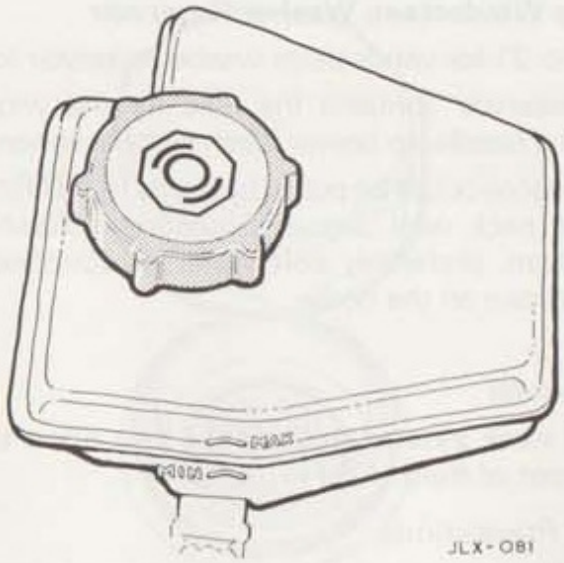
If necessary, top up as follows:

Before removing the cap, clean the reservoir and cap thoroughly with a lint free cloth to ensure that no foreign matter enters the reservoir.

Unscrew the filler cap and top up to the 'MAX' level using new, unused approved brake fluid. The lubricants and fluid specifications are detailed on page 33.

Refit the filler cap securely.

Should any brake fluid be spilt, replace the cap on the reservoir before rinsing it away, to avoid contamination.



Check/Top Up Power Steering Fluid Reservoir

Caution: It is imperative that the power steering system does not become contaminated in any way. Always dispense fluid from a fresh sealed container and clean the area around the reservoir neck both before and after topping-up. Never return drained fluid to the system.

See pages 19 to 21 for power steering fluid reservoir location.

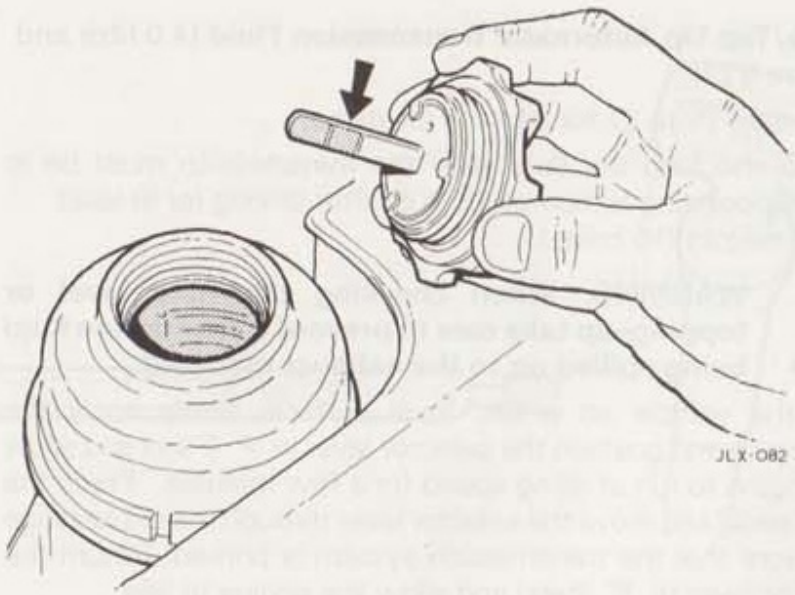
Check the fluid level when the engine is 'COLD' and the vehicle is on a flat, level surface.

Wipe clean and remove the filler cap from the reservoir; take great care to prevent any foreign matter from entering.

Check that the fluid level is between the marks on the dipstick.

If necessary, top up with the correct specification fluid, DO NOT OVERFILL. The lubricants and fluid specifications are detailed on page 33.

Should the level be very low, report the loss of fluid to the nearest Jaguar Dealer.



Check/Top Up Automatic Transmission Fluid (4.0 litre and 6.0 litre V12)

See pages 19 to 21 for dipstick locations.

Before checking the fluid level the transmission must be at normal operating temperature, e.g. after driving for at least 24 kilometres (15 miles).

WARNING: When checking the fluid level or topping–up take care to prevent transmission fluid being spilled on to the exhaust manifold.

Park the vehicle on a flat, level surface, firmly apply the handbrake and position the selector lever in 'P' (Park) and allow the engine to run at idling speed for a few minutes. Press the brake pedal and move the selector lever through the entire range to ensure that the transmission system is primed. Return the selector lever to 'P' (Park) and allow the engine to idle.

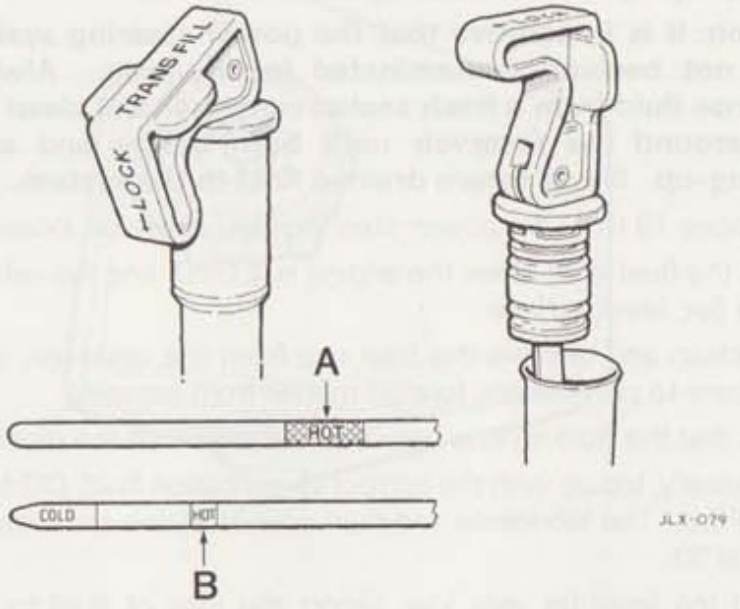
Release the 'flip–top' handle, withdraw the dipstick, wipe clean and immediately check the fluid level by replacing and withdrawing it.

4.0 litre normally–aspirated: The fluid level should be on the knurled area (A).

4.0 litre supercharged and 6.0 litre V12: The fluid level should be between the 'HOT' marks (B).

If necessary, add the correct specification fluid to bring the level to the appropriate marks on the dipstick. The lubricants and fluid specifications are detailed on page 33.

After topping–up, repeat the dipstick procedure. Be careful not to overfill. Ensure the 'flip–top' handle is snapped back into position before driving the vehicle.



Check/Top Up Automatic Transmission Fluid (3.2 litre)

See page 19 for dipstick location.

Before checking the fluid level the transmission must be at normal operating temperature, e.g. after driving for at least 24 kilometres (15 miles).

WARNING: When checking the fluid level or topping–up take care to prevent transmission fluid being spilled on to the exhaust manifold.

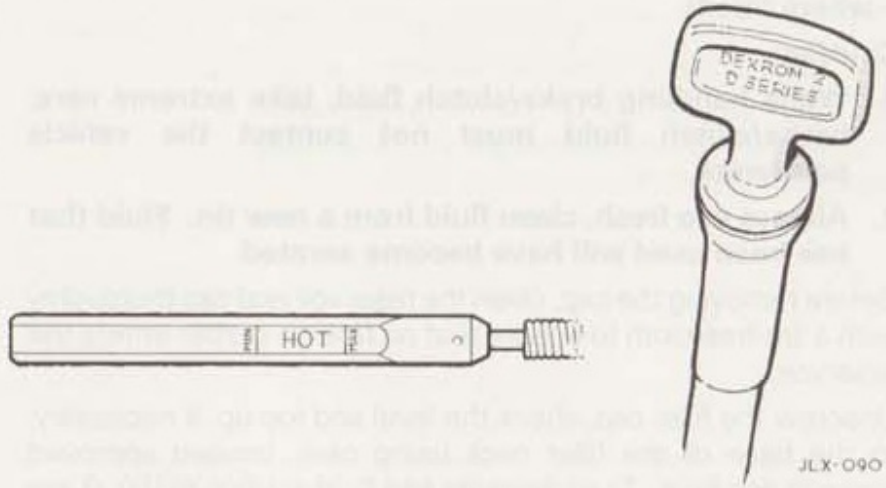
Park the vehicle on a flat, level surface, firmly apply the handbrake and position the selector lever in 'P' (Park) and allow the engine to run at idling speed for a few minutes. Press the brake pedal and move the selector lever through the entire range to ensure that the transmission system is primed. Return the selector lever to 'P' (Park) and allow the engine to idle.

Withdraw the dipstick, wipe clean and immediately check the fluid level by replacing and withdrawing it. If necessary, add the correct specification fluid to bring the level to between the 'MIN and 'MAX' marks on the 'HOT' side of the dipstick.

The lubricants and fluid specifications are detailed on page 33.

Note: The 'COLD' side of the dipstick is for Jaguar Dealer reference only.

After topping–up, repeat the dipstick procedure. Be careful not to overfill.



Check/Top Up Clutch Fluid Reservoir (3.2 litre and 4.0 litre – where fitted)

Caution:

1. **While handling brake/clutch fluid, take extreme care; brake/clutch fluid must not contact the vehicle paintwork.**
2. **Always use fresh, clean fluid from a new tin. Fluid that has been used will have become aerated.**

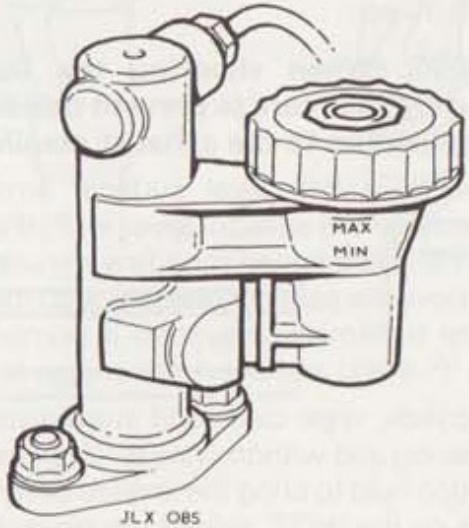
Before removing the cap, clean the reservoir and cap thoroughly with a lint free cloth to ensure that no foreign matter enters the reservoir.

Unscrew the filler cap, check the level and top up, if necessary, to the base of the filler neck using new, unused approved brake/clutch fluid. The lubricants and fluid spV6úfú6ÛFú 0 are detailed on page 33.

Refit the filler cap securely.

Should any brake/clutch fluid be spilt, replace the cap on the reservoir before rinsing it away, to avoid contamination.

If the level in the reservoir is exceptionally low then the fault should be reported to the nearest Jaguar Dealer.



Cooling System

The cooling system should be filled or topped up with a mixture of 50 per cent plain water and 50 per cent Jaguar Anti–freeze, Coolant and Corrosion Inhibitor conforming to specification ESD–M97B49–A.

This anti–freeze mixture provides frost protection for temperatures down to –36°C (–33°F).

Engine Anti–freeze

Anti–freeze, when used at the correct concentration, not only protects the engine from frost damage in winter, it also provides all year round protection against internal corrosion.

Use only anti–freeze to specification ESD–M97B49–A, inferior quality anti–freeze may be ineffective in maintaining adequate frost and corrosion protection to the cooling system.

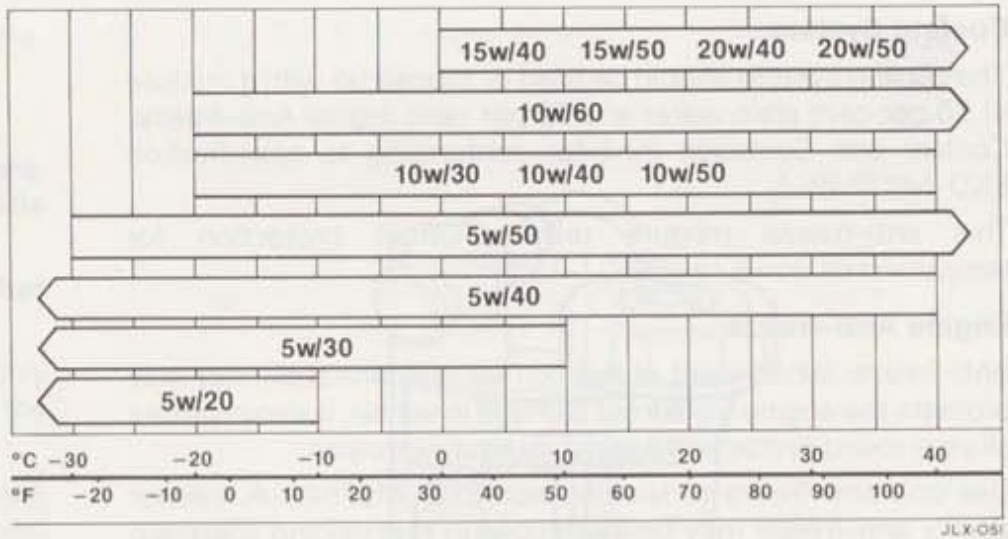
The coolant solution may remain in the cooling system for four years or 96 000 kilometres (60,000 miles), after which the cooling system should be drained, flushed and refilled.

WARNING: Do not allow anti–freeze to make contact with skin or eyes. If this should happen rinse the affected area immediately with plenty of water.

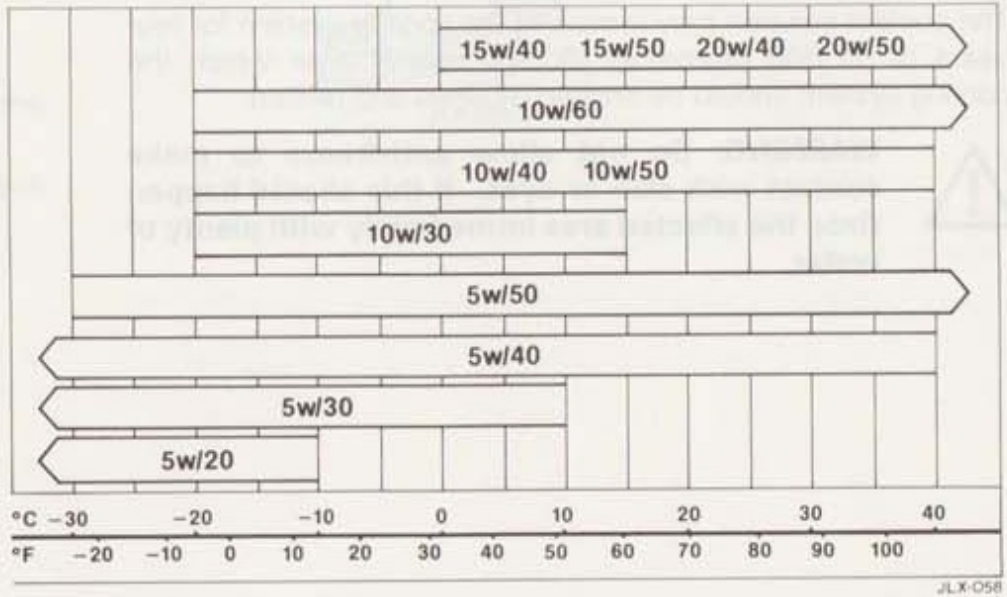
Recommended Lubricants and Fluids

The recommended lubricant and fluid specifications are listed on page 33.

3.2 litre and 4.0 litre normally-aspirated Engine Oil – Recommended S.A.E. Viscosity Range/Ambient Temperature Scale



4.0 litre supercharged and 6.0 litre V12 Engine Oil – Recommended S.A.E. Viscosity Range/Ambient Temperature Scale



Recommended Lubricants and Fluids (continued)

Component	Specification	SAE Viscosity Rating	Comments
Engine – 3.2 litre, 4.0 litre normally aspirated and 6.0 litre V12.	A.P.I. SG/CD or A.P.I. SH when available.	See chart on page 32.	
Engine – 4.0 litre supercharged.	Oil to meet both A.P.I. SH and CCMC G5, PD2.	See chart on page 32.	
Automatic Transmission.	Dexron III		
Manual Gearbox (3.2 litre and 4.0 litre).	Dexron III		
Rear Axle (Final Drive Unit):			
– Refill.	A.P.I. GL5	EP 90	Only use Shell Spirax Super 90 oil.
– Top up only.	A.P.I. GL5	EP 90	Alternative brands may be used when Shell Spirax oil is not available.
Power Assisted Steering	Dexron III.		
Grease Points	N.L.G.I. Consistency No.2.		Multipurpose Lithium Grease.
Braking System and Clutch System	Dot 4		Use Jaguar Brake Fluid. This is a non–mineral polyglycol based brake fluid.

Capacities (3.2 litre and 4.0 litre)

	Litres	Imperial Pints	U.S. Quarts
Engine refill – including filter	8,0	14.1	8.5
Automatic transmission:			
– Drain and refill – 3.2 litre	3,0	5.3	3.2
– Drain and refill – 4.0 litre normally–aspirated	4 to 5	7.0 to 8.8	4.2 to 5.3
– Drain and refill – 4.0 litre supercharged	7,3	12.9	7.7
– Top up min – max – 3.2 litre	0,25	0.4	0.26
– Top up min – max – 4.0 litre normally–aspirated	0,6	1.0	0.6
– Top up min – max – 4.0 litre supercharged	0,29	0.5	0.3
Manual gearbox:			
– Drain and refill	1,4	2.5	1.5
Rear axle (Final drive unit)	2,1	3.7	2.2
Cooling system, including reservoir and air conditioning.			
– Initial fill – 3.2 litre and 4.0 litre normally–aspirated	12,0	22.0	13.2
– Initial fill – 4.0 litre supercharged	13,5	23.8	14.3
– Drain and refill – 3.2 litre and 4.0 litre normally–aspirated	7,7	13.5	8.1
– Drain and refill – 4.0 litre supercharged	9,25	16.3	9.8
Windscreen washer reservoir	5,0	8.8	5.3

Capacities (6.0 litre V12)

	Litres	Imperial Pints	U.S. Quarts
Engine refill – including filter	10,0	17.6	10.5
Automatic transmission:			
– Drain and refill	7,3	12.9	7.7
– Top up min – max	0,29	0.5	0.3
Rear axle (Final drive unit)	2,1	3.7	2.2
Cooling system, including reservoir and air conditioning:			
– Initial fill from dry	19,2	33.7	20.2
– Drain and refill	14,5	25.5	15.3
Windscreen washer reservoir	5,0	8.8	5.3

Capacities – Fuel Tank

	Litres	Imperial Gallons	U.S. Gallons
Indicated refill capacity ('E' to 'F' on fuel gauge)	75	16.5	19.8
Unindicated capacity (Below 'E' on fuel gauge)	6	1.3	1.6
Total refill capacity	81	17.8	21.4

SECTION 4

Spare Wheel and Jacking Equipment

The spare wheel, chocks and jacking equipment are located below the luggage compartment floor panel.

To remove the spare wheel, remove the luggage compartment floor panel and unscrew the 'T' screw. Lift out the wheel.

The jacking equipment is stored under the spare wheel in a polystyrene container. The kit consists of a jack, jack ratchet handle, wheel trim/wheel nut cover remover, wheel brace and wheel chocks.

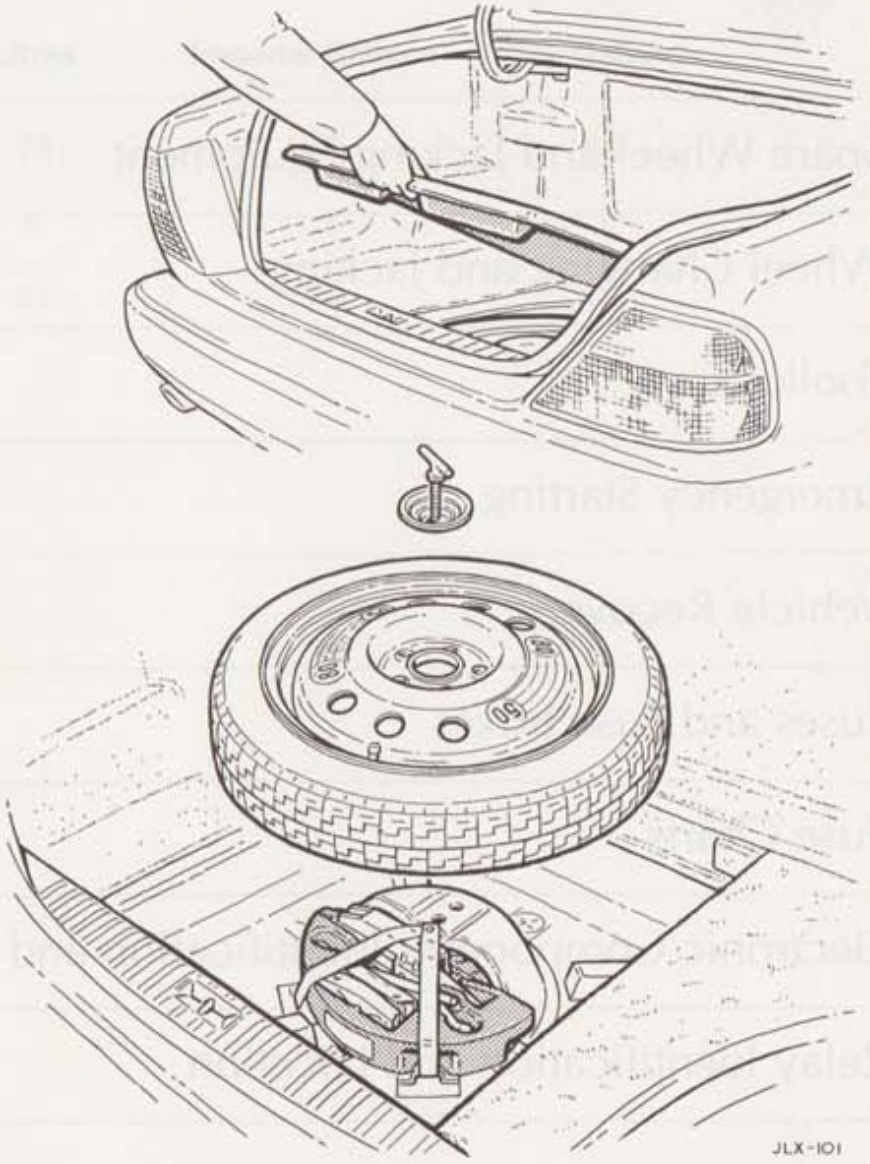
Note: Examine the jack occasionally, clean and grease the threads to ensure it is always ready for an emergency.

Temporary–use Spare Wheel

Observe the following warnings before using the wheel.

WARNING:

1. **Please note temporary–use spare wheel warning label. Adhere to instructions on the label. Failure to comply can be dangerous.**
2. **When a temporary–use spare wheel is fitted, drive with caution and replace with the specified wheel and tyre as soon as possible.**
3. **Do not fit more than one temporary–use spare wheel and tyre assembly at one time.**
4. **The temporary–use spare wheel must be inflated to 413 kPa (4,1 bar, 60 lbf/in^2).**
5. **Temporary–use spare wheel, maximum speed is 80 km/h (50 mph).**



Temporary–use Spare Wheel (continued)

When the temporary–use spare wheel is being used, stow the replaced road wheel in the luggage compartment, as follows:

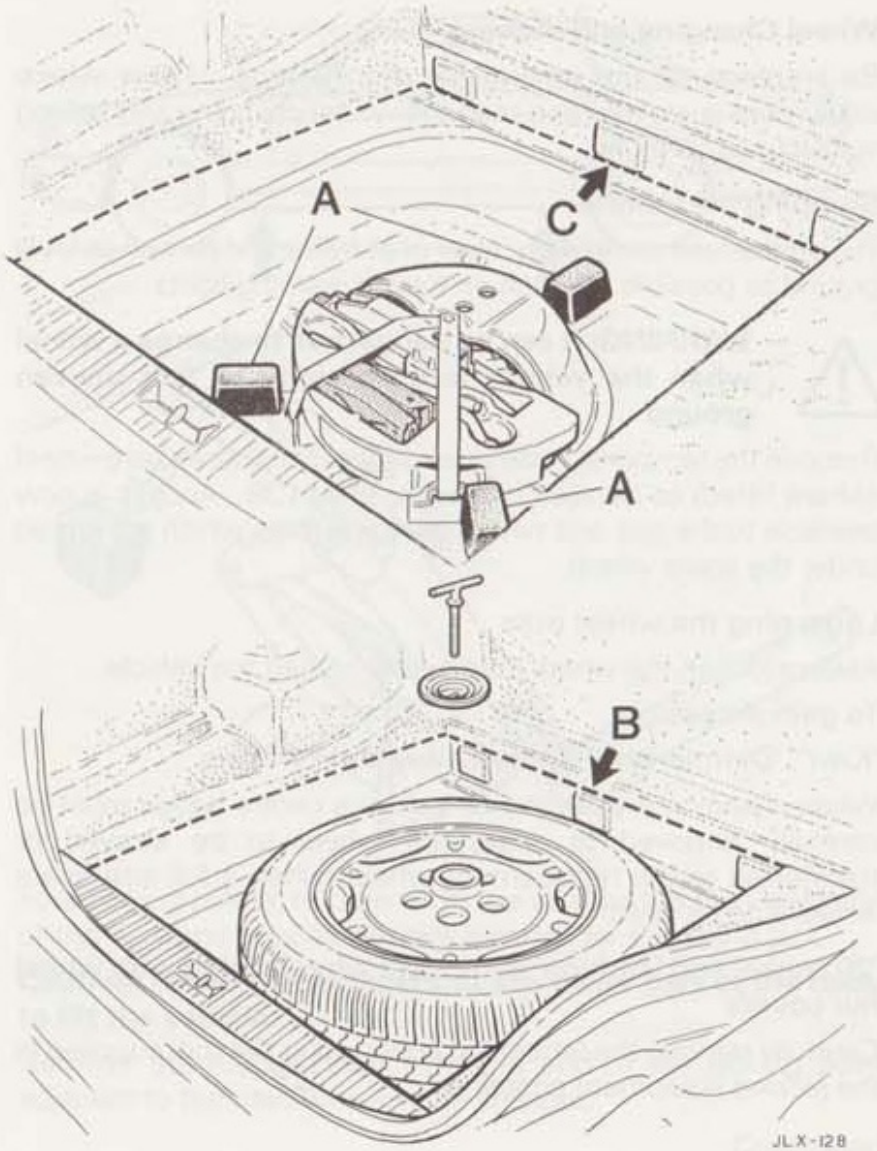
1. Remove the three rubber spacer blocks (A).
2. Remove the centre badge (see illustration on page 40) from 'Kiwi', 'Dimple' and 'Sports' alloy style wheels.
3. Place the road wheel over the jacking equipment and secure with the clamping plate and long shank 'T' screw.
4. Position the luggage compartment floor panel in the upper location slots (B).

When stowing the temporary–use spare wheel in the luggage compartment, first position the three spacer blocks (A) as shown in the illustration, then place the temporary–use wheel over the jacking equipment and secure with the clamping plate and short shank 'T' screw. Position the luggage compartment floor panel in the lower location slots (C).

Note: Maintenance information for the temporary–use spare wheel is the same as that given for normal tyres in SECTION 5.

Wheel Chocks

A pair of folding wheel chocks are stowed with the jacking equipment. These chocks are hinged and fold into a triangular chock when opened up.



Wheel Changing and Jacking

Be prepared for the emergency of a flat tyre. Know where equipment is stowed and read the wheel changing and jacking instructions carefully.

Stopping the vehicle

Pull off the road completely, clear of all traffic and park on as level ground as possible. Switch on hazard warning lights.

WARNING: It can be dangerous to change a wheel when the vehicle is on a slope or soft uneven ground.

Remove the temporary–use spare wheel or full size spare wheel (where fitted) as detailed on pages 38 and 39. Access is now available to the jack and wheel changing tools which are stored under the spare wheel.

Loosening the wheel nuts

Always loosen the wheel nuts before raising the vehicle.

To gain access:

'Kiwi', 'Dimple' and 'Sports' alloy style wheels

When changing these road wheels, the centre badge must be carefully removed to allow the wheel to be stowed or transferred to the replacement wheel (when a full size spare wheel is to be used).

'20 spoke' and 'Turbine' alloy style wheels fitted with wheel nut covers

Carefully remove the wheel nut cover using the tool supplied in the jacking equipment container.

'Steel wheel'

Carefully remove the wheel trim using the tool supplied in the jacking equipment container.

Before lifting the vehicle

WARNING: Before attempting to lift the vehicle with the jack it is advisable to use chocks on both sides of a front wheel to prevent the vehicle from rolling when it is jacked up.

Note:

1. Ensure that all passengers are clear of the vehicle and are in a safe place.
2. Ensure that the jack is on firm and level ground.
3. Firmly apply the handbrake and select a low gear (manual gearbox) or position 'P' (Park) (automatic transmission).

Using the wheel wrench, slacken but do not remove the wheel nuts.

Jacking

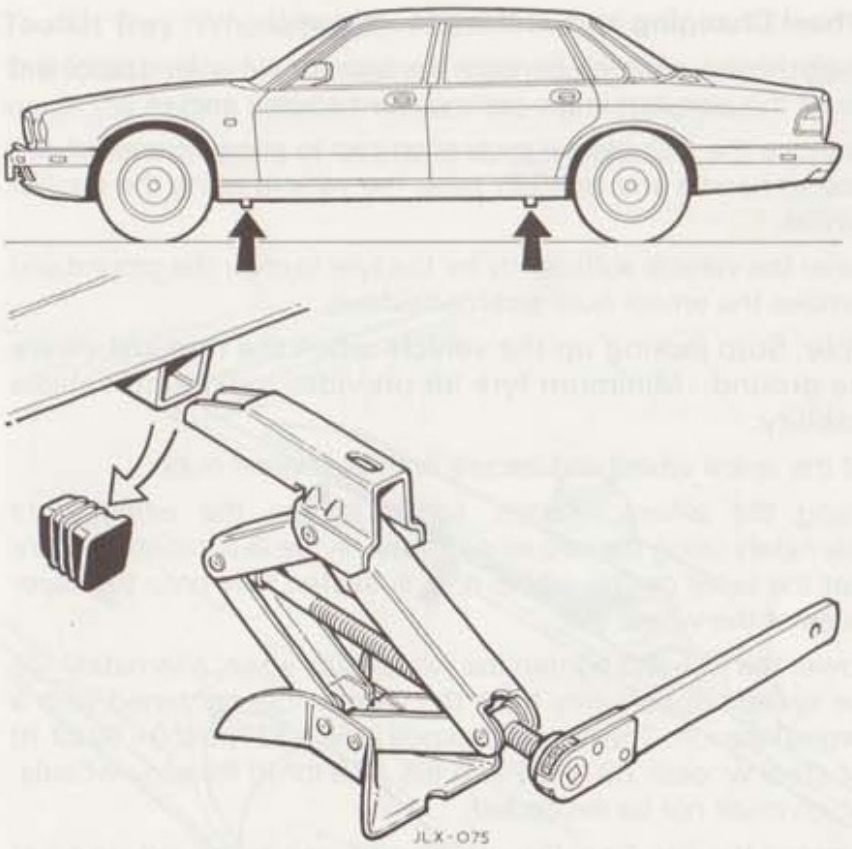
WARNING: Never work under the vehicle using only the jack as a support, always use axle stands or other suitable supports under the jacking points

Read the instruction label which is attached to the jack.

Use the jack only for lifting the vehicle during wheel changing, and only use the jack which is stored in the vehicle.

Do not start or run the engine while the vehicle is only supported by a jack.

Note: When one rear wheel is lifted off the ground neither the automatic transmission 'P' (Park) position or the manual gearbox first gear ('1') position will prevent the vehicle from moving and possibly slipping off the jack.



Four jacking points, two per side, are attached to the underside of the floor and provide positive location for the lifting jack.

Caution: Never use bumpers or any other part of the body to lift the vehicle.

Remove the rubber cover from the end of the jacking point adjacent to the road wheel to be changed.

Continued

Wheel Changing and Jacking (continued)

Place the jack squarely beneath the appropriate jacking point and insert the jack arm in the jacking point square socket.

Remove the jack plastic protection cap to allow fitment of the ratchet handle and carefully raise the vehicle using the ratchet handle.

Raise the vehicle sufficiently for the tyre to clear the ground and remove the wheel nuts and road wheel.

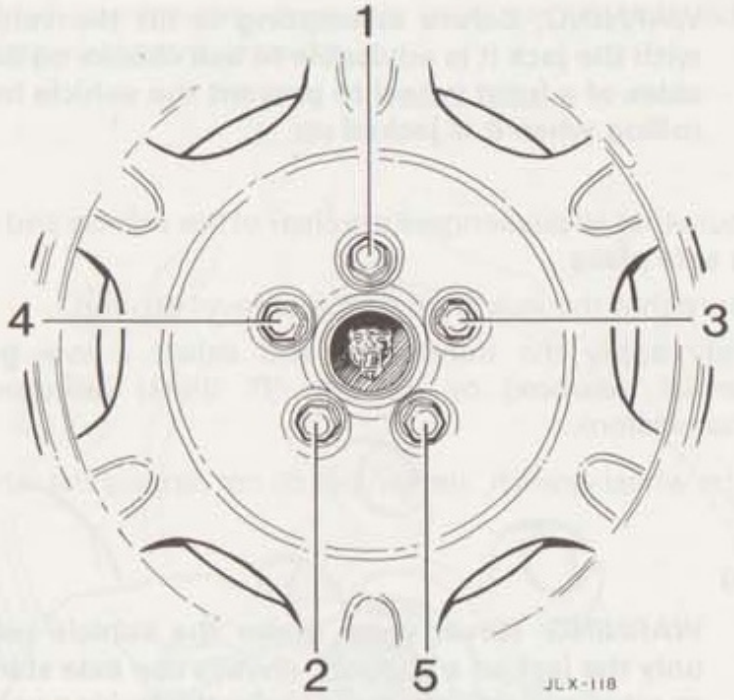
Note: Stop jacking up the vehicle when the tyre just clears the ground. Minimum tyre lift provides maximum vehicle stability.

Fit the spare wheel and secure with the wheel nuts.

Using the wheel wrench, lightly tighten the wheel nuts alternately using the sequence shown in the illustration. Ensure that the taper on the wheel nuts is seated fully onto the taper faces of the wheel disc.

Lower the jack and tighten the wheel nuts again, alternately. At the earliest opportunity have the wheel nuts tightened with a torque wrench. The required torque is 68 – 82 Nm (50 – 60 lbf.ft) for steel wheels, 88 – 102 Nm (65 – 75 lbf.ft) for alloy wheels, which must not be exceeded.

Remove the jack from the vehicle and replace the jacking point rubber cover.



WARNING: When the temporary–use spare wheel has been fitted, drive with caution and replace with the specified wheel and tyre as soon as possible.

Re–fitting wheel trim, wheel nut cover or centre badge

'Steel wheel'

Position the wheel trim on the wheel with the location peg on the back of the wheel trim inserted into the hole adjacent to the tyre valve. Push the wheel trim firmly into position.

'20 spoke' and 'Turbine' alloy style wheels fitted with wheel nut covers

Push the wheel nut cover firmly into position on the wheel.

'Kiwi', 'Dimple' and 'Sports' alloy style wheels

Press fit the centre badge into position on the wheel.

Stowing the equipment

Remove the chocks and fold flat.

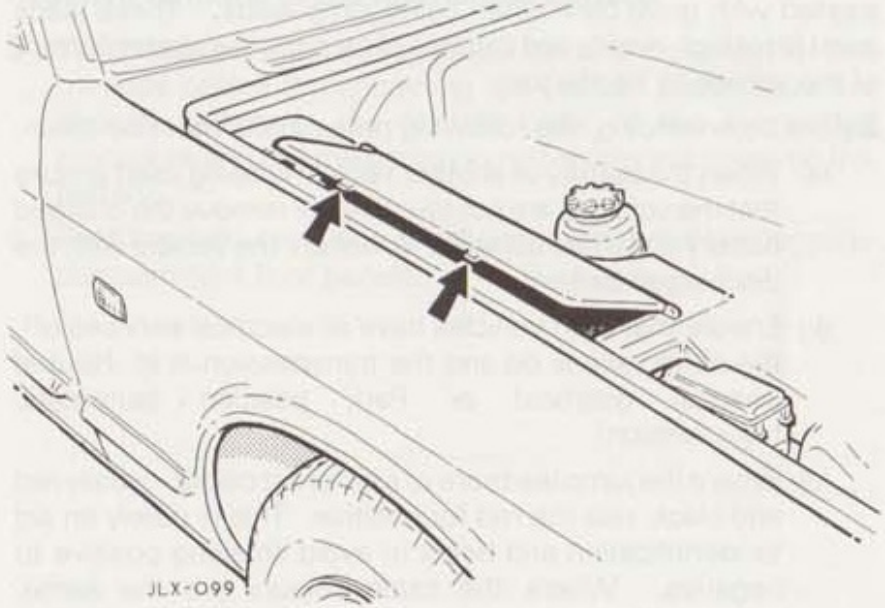
Stow the jack, wheel chocks and tools in the polystyrene container and position the container in the luggage compartment under the spare wheel location bracket.

Place the road wheel in the luggage compartment, fit and tighten the appropriate 'T' screw and clamp. Refit the luggage compartment floor panel.

Toolkit Tray (Where fitted)

The toolkit tray which contains a selection of tools and bulbs is inside the engine compartment on the right–hand side.

Press the two lugs and lift the lid to gain access.



Starting a vehicle with a Discharged Battery

Rolling Start

Note: A rolling start cannot be achieved on a vehicle with automatic transmission.

Emergency Starting Using Jump Leads

Both the booster and the vehicle's discharged battery should be treated with great care when using jump leads. These leads must be of high quality and capable of carrying the starter current of the vehicle to be started.

Before commencing, the following precautions must be taken:

(a) When the battery of another vehicle is being used ensure that the vehicles are not touching, or remove the charged battery and place adjacent to, not on, the vehicle with the discharged battery.

(b) Ensure that both vehicles have all electrical services off, the handbrake is on and the transmission is in Neutral (manual gearbox) or Park position (automatic transmission).

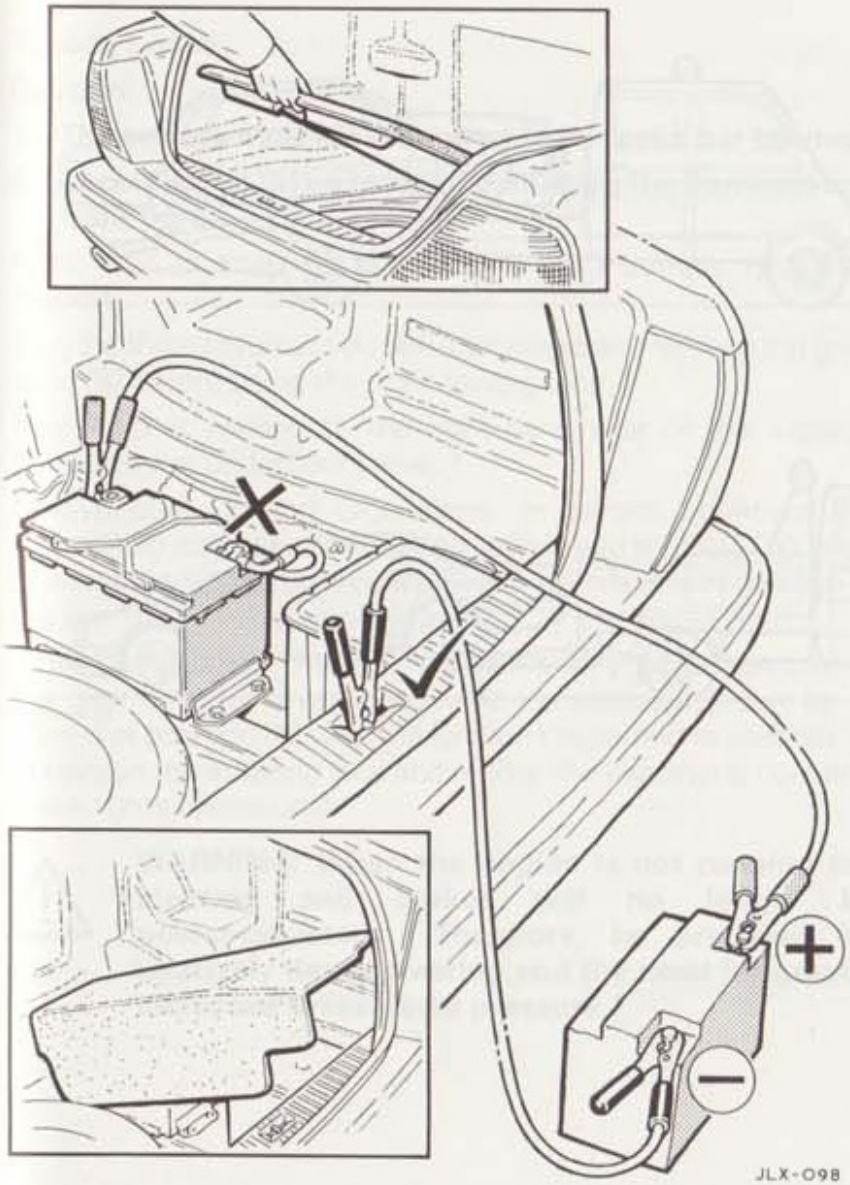
(c) Where the jump leads are of a different colour, usually red and black, use the red for positive. This is purely an aid to identification and helps to avoid crossing positive to negative. Where the cable colours are the same, separate the cables and avoid crossing the polarity.

Caution:

1. **If using a jump start vehicle, under no circumstances should the vehicles come into contact with each other, since this could establish an earth connection, which may cause sparks and damage.**
2. **Do not run the jump start vehicle's engine when boost starting a Jaguar vehicle. If the jump start vehicle's engine is running and the jump leads are disconnected, damage to the Jaguar vehicle's electrical system will result.**
3. **The booster battery voltage must not exceed 12 volts.**

The procedure outlined must be followed **exactly**, being careful not to cause sparks.

1. Apply the handbrake and select Neutral (manual gearbox) or Park (automatic transmission). Turn off all electrical services.
2. First remove the left–hand side luggage compartment floor panel, then the right–hand side floor panel.
3. Attach one end of one jump lead to the positive terminal of the **booster battery** and the other end of the same cable to the positive terminal of the discharged battery. **Do not allow the vehicles to come into contact with each other.**



4. Attach one end of the remaining negative cable to the negative terminal of the **booster battery** and the other end to an earth point on the vehicle being started (see illustration), at least 305 mm (12 inches) from the discharged battery, and to prevent arcing ensure that a good connection is made.

Caution: Do not connect the negative cable directly to the negative terminal of the discharged battery.

5. When started, allow the engine to run at idling speed for five minutes before disconnecting the cables. Disconnect the booster battery in the reverse order to the connecting procedure and clip the battery positive terminal cover on the battery.
6. Refit the right–hand side and then the left–hand side luggage compartment floor panels.

Vehicle Recovery

The preferred vehicle recovery method is by using a flat bed transporter or rear suspended tow. The front and rear towing loops are primarily for emergency use when towing for SHORT DISTANCES, e.g. removing the vehicle if it is causing an obstruction or winching the vehicle onto a recovery transporter.

Transporting

If the vehicle is being transported on a trailer or vehicle flatbed transporter, the handbrake must be applied, the wheels chocked and (if fitted with automatic transmission) the gear selector lever moved to position 'N' or 'D' but NEVER to 'P'.

There are four transporter tie-down brackets on the vehicle underbody. Do not attach tie down hooks to the towing loops.

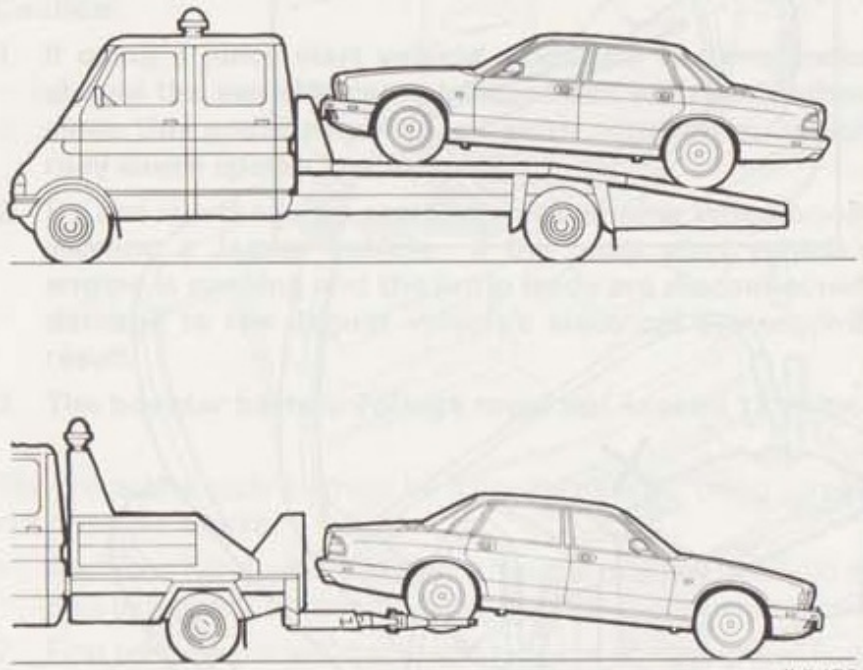
Suspended Towing

Ensure that the recovery team follow these instructions:

Do not tow with sling-type equipment since damage to the bodywork may result.

Caution: Do not front suspend tow vehicles with automatic transmission.

1. Remove the key from the ignition switch.
2. Raise the vehicle using a 'spectacle frame' type lifting device where a cradle is positioned under each rear wheel as indicated.



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Towing Loops

Caution:

1. **The towing eyes are not suitable for 'solid bar towing'.**
2. **Care must be taken to avoid damaging the bumpers and front apron.**

Front loop is attached to the right–hand bumper mounting bracket.

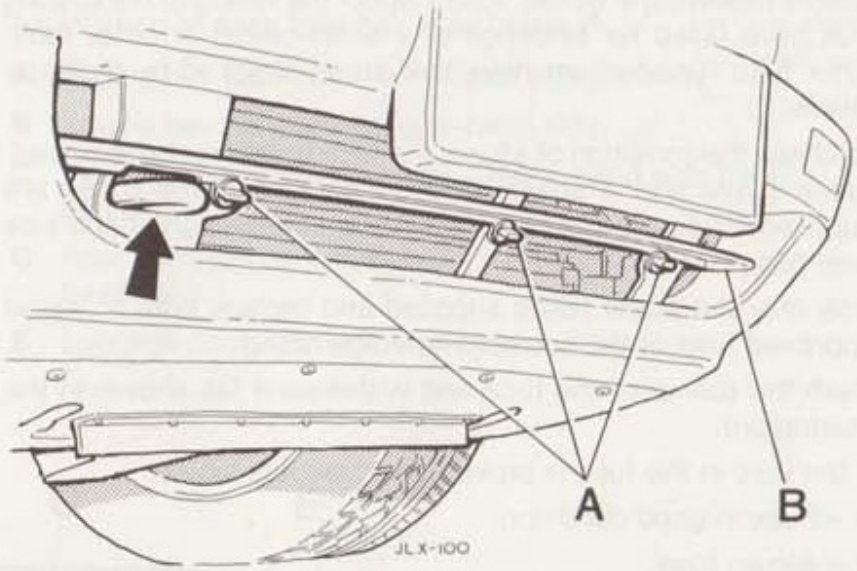
Turn the three fasteners (A) anti–clockwise and remove the grille vane (B) before using the front towing loop.

Rear loop is welded to the right–hand side of the luggage compartment underfloor panel.

Always obey towing regulations: In certain countries the registration number of the towing vehicle and an 'ON TOW' sign or warning triangle must be displayed in a prominent position at the rear of the vehicle being towed.

When being towed, the vehicle's gear lever (manual gearbox) or the gear selector lever (automatic transmission) must be in neutral or position 'N' with the ignition key turned to position 'II' to release the steering lock and render the indicators, horn and brake lights operational.

WARNING: When the engine is not running the steering and brakes will no longer be power–assisted. Therefore, be prepared for relatively heavy steering and the need for greatly increased brake pedal pressure.



Vehicles with automatic transmission may be towed for SHORT DISTANCES (maximum 0.8 kilometres/0.5 miles) with the gear selector lever in position 'N' provided a speed of 48 km/h (30 mph) is not exceeded.

Vehicles with defective Automatic Transmission

The vehicle must be towed with the rear wheels clear of the ground (see suspended towing, page 46).

Fuses

Fuse failure is signalled by an inoperative circuit.

Before renewing a 'blown' fuse inspect the wiring of the circuits that have failed for evidence of a short–circuit or other fault. After fuse replacement have the circuit checked by a Jaguar Dealer.

To check the condition of a fuse, the fuse must first be removed. Spare fuses and a special tool for removing the fuses are supplied inside the engine compartment on the right–hand side (see page 50).

Use only the spare fuses supplied and replace with a Jaguar approved fuse of the correct amperage rating.

Push the tool onto the fuse and withdraw it (as shown in the illustration).

If the wire in the fuse is broken, the fuse has blown.

A = Fuse in good condition.

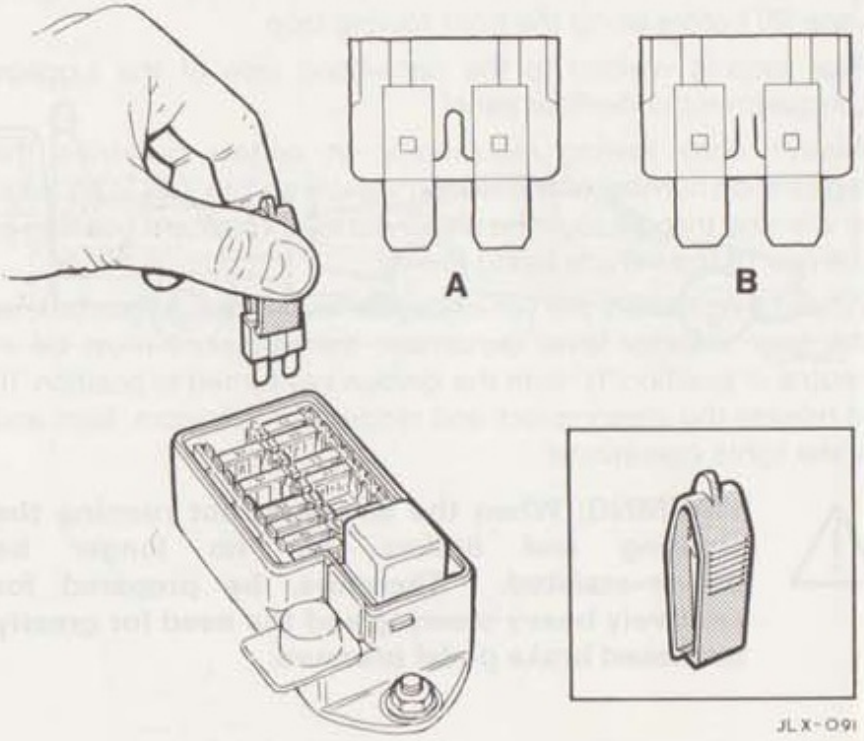
B = Blown fuse.

When renewing a fuse, make sure the new fuse is the correct rating (amperage). Fuses are colour coded according to the amperage and the rating is also marked on each fuse.

A list of protected circuits and fuse ratings is given on the fuse allocation chart (Master Label) which can be found on the underside of the lid which covers the spare fuses, they are also detailed on pages 52 to 56.

Fuses are colour coded to identify amperage as follows:

TAN	5 amp
RED	10 amp
LIGHT BLUE	15 amp
YELLOW	20 amp
CLEAR	25 amp
LIGHT GREEN	30 amp



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WARNING:

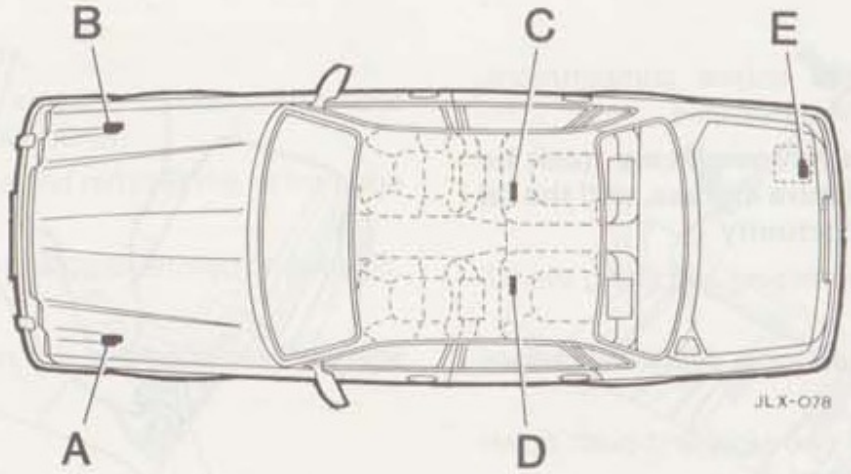
1. **Do not install a fuse of a different amperage for each location listed on the fuse charts, the electrical circuits may become overloaded with the subsequent possibility of a fire.**
2. **No attempt should be made to repair a fuse that has blown, this may cause a fire hazard or serious damage elsewhere in the electrical circuit.**

Fuse Box Locations

There are five separate fuse boxes fitted to the vehicle, each one containing fuses protecting a different groups of circuits.

The location of each fuse box is as follows:

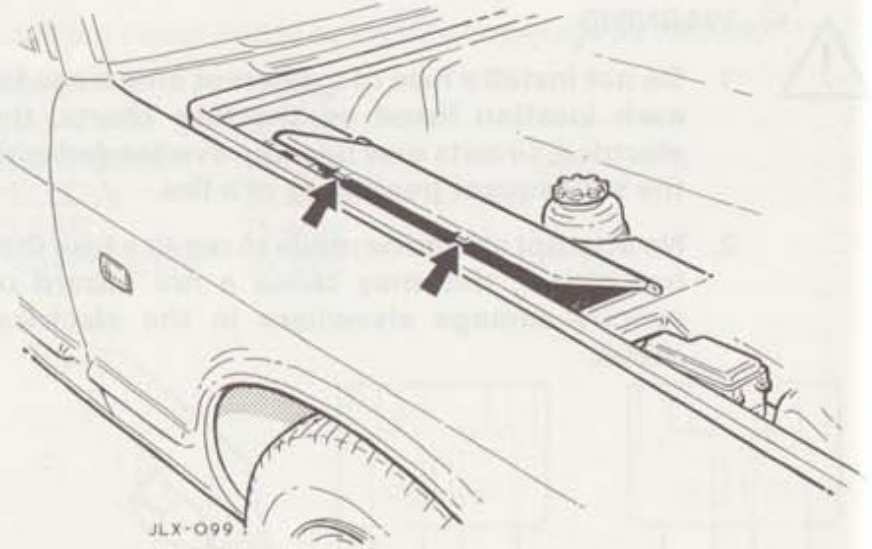
- **A** Engine bay fuse box – Left–hand side.
- **B** Engine bay fuse box – Right–hand side.
- **C** Rear compartment fuse box – Right–hand side heelboard.
- **D** Rear compartment fuse box – Left–hand side heelboard.
- **E** Luggage compartment fuse box.



Spare Fuse Location

The spare fuses and special tool for removing the fuses are positioned inside the engine compartment on the right–hand side.

Press the two lugs and lift the lid to gain access to the fuses.



Engine Bay Fuse Boxes

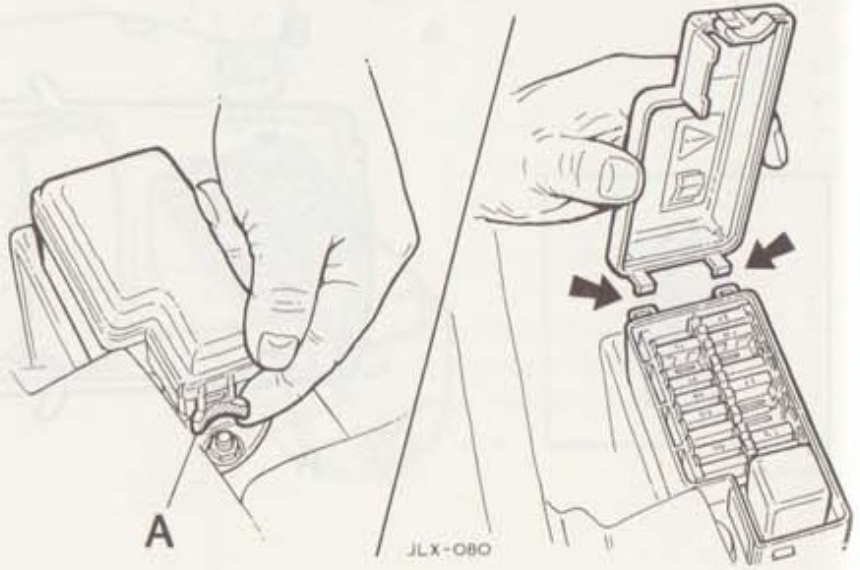
Two fuse boxes are located in the engine compartment, right–hand and left–hand side inner wing valance.

Caution: When the fuse box lid is removed, care must be taken to protect the box from moisture ingress, and the lid is to be refitted at the earliest opportunity.

Remove the fuse box cover by compressing and lifting the 'U' shaped latching mechanism (A).

A list of protected circuits and fuse ratings is detailed on pages 52 and 53.

Position the fuse box cover into the two slots and push down until the latching mechanism is engaged.



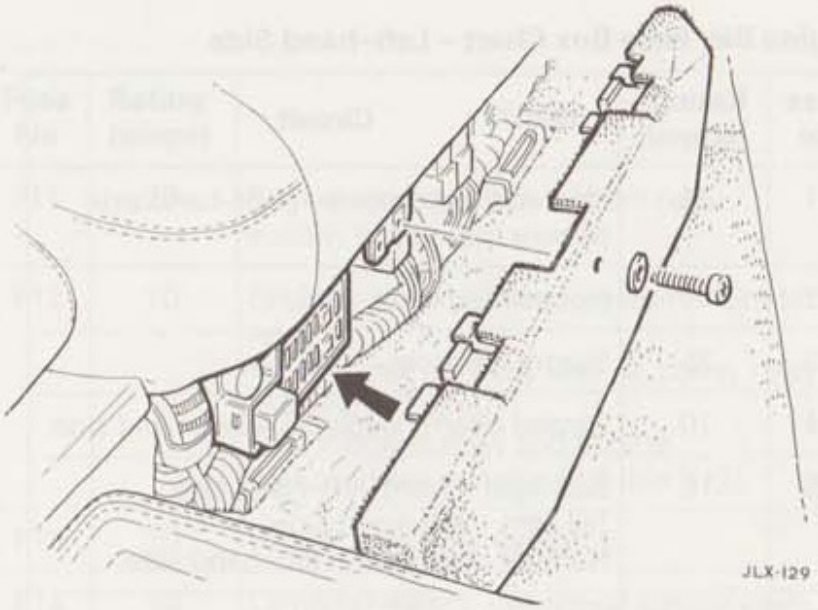
Rear Compartment Fuse Boxes

Two fuse boxes are located behind the right–hand and left–hand side heelboard trim panels below the rear seat.

To detach the heelboard trim panel, remove the crosshead screw and washer and pull the heelboard panel forwards.

A list of protected circuits and fuse ratings is detailed on pages 54 and 55.

To refit the heelboard panel, first insert the top of the panel up under the seat pan, then push the bottom of the panel in until the screw and washer can be inserted into the captive nut and tightened securely.



Luggage Compartment Fuse Box

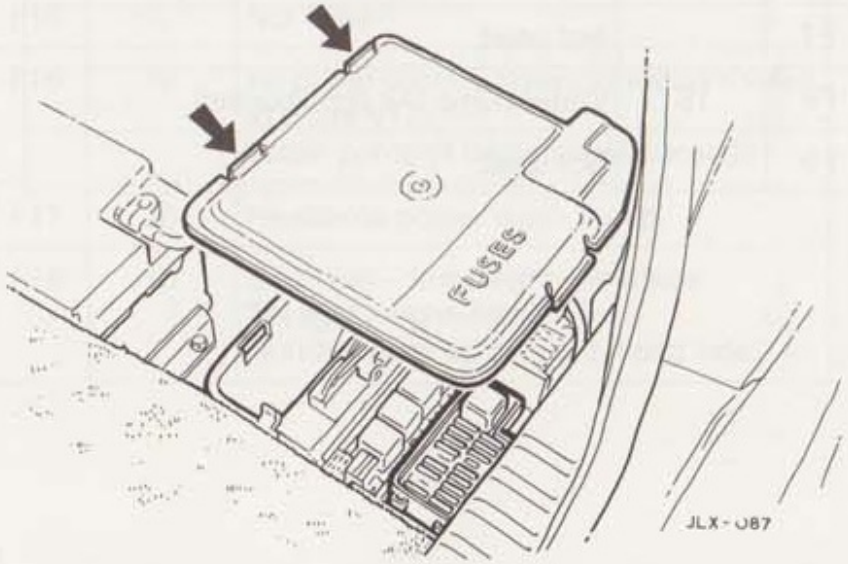
First remove the left–hand side luggage compartment floor panel, then the right–hand side floor panel.

Press the two plastic retaining clips and remove the lid from the electrical carrier box.

A list of protected circuits and fuse ratings is detailed on page 56.

Refit the electrical carrier box lid.

Refit the right–hand side and then the left–hand side luggage compartment floor panels.



Engine Bay Fuse Box Chart – Left–hand Side

Fuse No	Rating (amps)	Circuit
F1	25	Heated front screen – right–hand side (where fitted).
F2	–	Not used.
F3	25	Starter solenoid.
F4	10	Dipped beam headlamp – left–hand side.
F5	10	Side light – front left–hand side. Tail light – left–hand side. Number plate light – left–hand side.
F6	20	Windscreen wiper system.
F7	–	Not used.
F8	15	Water pump (Air conditioning).
F9	–	Not used.

Fuse No	Rating (amps)	Circuit
F10	10	Horn 1.
F11	30	Cooling fans (Series/Parallel).
F12	–	Not used.
F13	–	Not used.
F14	10	Horn 2.
F15	25	Heated front screen – left–hand side (where fitted).
F16	–	Not used.
F17	30	Cooling fans (Parallel).
F18	10	Front fog lamps.

Engine Bay Fuse Box Chart – Right-hand Side

Fuse No	Rating (amps)	Circuit
F1	–	Not used.
F2	15	Main beam headlamp – right-hand and left-hand side.
F3	–	Not used.
F4	10	Dipped beam headlamp – right-hand side.
F5	–	Not used.
F6	5	Engine management system ECM.
F7	25	Air pump (3.2 and 4.0 litre – where fitted), Ignition coils (6.0 litre V12).
F8	10	Air conditioning clutch, Security sounder.
F9	–	Not used.
F10	5	Alternator, Air conditioning clutch, Windscreen wash/headlamp power wash heaters and relays, Breather heater relay (3.2 and 4.0 litre).
F11	20	Engine management system relay supply, Injectors.
F12	10	Engine management system, Starter relay. Ignition coil sensing and air pump relay (3.2 and 4.0 litre). Fuel injection relay and engine management sensing (6.0 litre V12).
F13	10	Windscreen washer pump.
F14	10	Lambda heaters, Idle speed control valve.
F15	–	Not used.
F16	10	Air pump control, Solenoid vacuum valve (6.0 litre V12), Water pump (4.0 litre supercharged).
F17	30	Headlamp power wash pump.
F18	10	Side light – front right-hand side. Tail light – right-hand side. Number plate light – right-hand side.

Rear Compartment Fuse Box Chart – Left–hand Side Heelboard

Fuse No	Rating (amps)	Circuit
F1	10	Rear fog guard lights.
F2	10	Heated door mirrors, Instrument illumination dimmer.
F3	20	Seat motors – right–hand side.
F4	20	Seat motors – right–hand side.
F5	10	Instrument pack.
F6	5	Seat ECM's, Low power door switch pack.
F7	30	Anti–lock braking system (ABS) pump (via ECM).
F8	10	Direction indicator – front left–hand side. Direction indicator – rear left–hand side. Side repeater flasher – left–hand side.
F9	20	Cigar lighters.

Fuse No	Rating (amps)	Circuit
F10	5	Speed (cruise) control (where fitted).
F11	20	Air conditioning blower motor – left–hand.
F12	5	Instrument pack.
F13	15	Steering column – electric power tilt/axial operation (where fitted).
F14	10	Automatic transmission ignition supply.
F15	30	Window lift (front and rear) – left–hand side.
F16	5	Anti–lock braking system (ABS) ignition supply.
F17	10	Electrochromatic mirror (where fitted). Reverse lights.
F18	10	Air conditioning supply.

Rear Compartment Fuse Box Chart – Right–hand Side Heelboard

Fuse No	Rating (amps)	Circuit
F1	15	Central door locking, Deadlocking (where fitted).
F2	5	Gearshift interlock ECM, Centre console switch pack, Interior lighting switch, Mirror movement
F3	20	Seat motors – left–hand side.
F4	20	Seat motors – left–hand side.
F5	5	Automatic transmission ECM.
F6	10	Stop lights
F7	30	Anti–lock braking system (ABS) control (via ECM).
F8	10	Interior lights.
F9	25	Front seat heaters (where fitted).
F10	5	Jaguar portable diagnostic unit (PDU), Fuel pump relay coil.
F11	20	Air conditioning blower motor – right–hand.
F12	10	Air conditioning, Seat ECM's, Mirror heaters relay, Power assisted steering.
F13	10	Direction indicator – front right–hand side. Direction indicator – rear right–hand side. Side repeater flasher – right–hand side.
F14	10	Mirrors, Heated rear window, Cigar lighter, Rear lighting control module, High mounted stop lamp (where fitted) Rear seat control (where fitted).
F15	30	Window lift (front and rear) – right–hand.
F16	10	Windscreen wiper system, Front screen heaters,Water pump relay, Headlamp levelling (where fitted), Clock.
F17	15	Airbag.
F18	15	Sunroof (where fitted).

Luggage Compartment Fuse Box Chart

Fuse No	Rating (amps)	Circuit
F1	25	Power amplifier – radio/cassette and compact disc player (where fitted).
F2	5	Luggage compartment lights.
F3	20	Rear seat movement (where fitted).
F4	10	Security system.
F5	10	Body processor module (BPM).
F6	10	Jaguar portable diagnostic unit (PDU), Radio telephone (where fitted).
F7	30	Fuel pump.
F8	15	Luggage compartment remote release, Aerial, Radio/cassette and compact disc player memory feed.
F9	20	Rear seat movement (where fitted).

Fuse No	Rating (amps)	Circuit
F10	5	Radio/cassette and compact disc player control relay.
F11	25	Caravan/Trailer module.
F12	5	Accessories and telephone control relay,
F13	10	Accessories.
F14	5	Mirror foldback (where fitted).
F15	25	Heated rear window.
F16	5	Airbag warning.
F17	15	Rear seat heaters (where fitted).
F18	–	Not used.

Electronic Components Identification and Location

Control Modules (CM)	Location
Anti–lock braking system and traction control.	In the engine compartment below anti–lock braking system modulator.
Engine management system.	Right–hand side footwell in front of 'A' post, behind cover.
Automatic transmission TCM.	Behind passenger knee bolster.
Speed (cruise) control.	Behind passenger knee bolster.
Airbag (SRS) diagnostic.	Behind passenger knee bolster, below the airbag module.
Body processor module for central locking, etc.	Behind passenger knee bolster.
Air conditioning.	Right–hand side of air conditioning unit.
Power steering microprocessor.	Left–hand side footwell on 'A' post, behind cover.

Control Modules (CM)	Location
Seat and mirror memory.	Mounted inside driver's and front passenger's seat.
Sunroof.	Roof panel console.
Rear bulb failure.	Luggage compartment inside electrical carrier box.
Security ECM.	Left–hand side upper wheel arch in luggage compartment below fuel filler pipe.

Relay Identification and Location

The following charts identify and give locations for the various relays which control the vehicle's electrical services.

These individual relays plug into the vehicle's harness and have different colours for identification purposes, except the underbonnet relays.

Note:

1. 3.2 and 4.0 litre vehicles fitted with a heater system only, the air conditioning clutch relay position has an empty case.
2. 4.0 litre and 6.0 litre V12 vehicles not fitted with air injection, the air pump relay position has an empty case.
3. 3.2, 4.0 litre and 6.0 litre V12 vehicles not fitted with headlamp power wash, the power wash relay position has an empty case.

Location	Functions	Case Colour
In the engine compartment behind left–hand headlamp assembly.	Starter motor solenoid.	Black
	Air conditioning water pump.	Black
	Windscreen wiper fast/slow.	Black
	Windscreen wiper motor on/off.	Black
	Dipped beam headlamp – Left–hand side.	Black
	Front fog lamps.	Black
In the engine compartment behind right–hand headlamp assembly.	Air conditioning clutch (see note 1).	Black
	Engine management system control (3.2 and 4.0 litre).	Black
	Air pump (4.0 litre vehicles with air injection) (see note 2).	Black
	Ignition coil (6.0 litre V12)	Black
	Fuel injection main relay (6.0 litre V12)	Black
	Air pump (6.0 litre V12 vehicles with air injection) (see note 2).	Black
	Dipped beam headlamp – Right–hand side.	Black
	Main beam headlamp – Right–hand and left–hand side.	Black

Relay Identification and Location (continued)

Location	Functions	Case Colour
In the engine compartment on the right–hand side inner wing valance.	Headlamp power wash (see note 3).	Black
	Windscreen washer.	Black
In the engine compartment inside the right–hand side fuse box.	Ignition.	Blue
In the engine compartment inside the left–hand side fuse box.	Horn.	Blue
Left–hand side footwell on front 'A' post, behind cover.	Front heated windscreen – Right–hand side.	Blue
	Front heated windscreen – Left–hand side.	Blue
On seat panel below the driver's seat.	Seat height (Manual seat adjustment only).	Violet
	Seat height (Manual seat adjustment only).	Violet
	Seat heater (Manual seat adjustment only).	Blue
On seat panel below the passenger's seat.	Seat height (Manual seat adjustment only).	Violet
	Seat height (Manual seat adjustment only).	Violet
	Seat heater (Manual seat adjustment only).	Blue
In the passenger compartment behind the left–hand side heelboard.	Fuel filler flap lock.	Violet
	Door guard lights.	Blue
	Door dead locking – Front right–hand and rear left–hand (Not available in Japan).	Violet
	Door dead locking – Front left–hand and rear right–hand (Not available in Japan).	Violet
	Door locking.	Violet
	Door unlocking.	Violet

Relay Identification and Location (continued)

Location	Functions	Case Colour
In the passenger compartment right–hand side heelboard fuse box.	Ignition.	Blue
In the passenger compartment left–hand side heelboard fuse box.	Ignition.	Blue
In the passenger compartment behind the right–hand side heelboard.	Door mirror heater.	Blue
	Cigar lighter.	Blue
	Air conditioning isolate.	Blue
	Right–hand air conditioning/heater blower fan – High speed.	Blue
	Right–hand air conditioning/heater blower fan.	Blue
	Left–hand air conditioning/heater blower fan – High speed.	Blue
	Left–hand air conditioning/heater blower fan.	Blue
Below gear selector 'J' gate.	Gear–shift interlock (Automatic transmission only).	Blue
	Keylock interlock (Automatic transmission only).	Blue
In the luggage compartment adjacent to the battery.	Supplementary fuel pump (4.0 litre supercharged and 6.0 litre V12).	Blue
In the luggage compartment electrical carrier box.	Luggage compartment release.	Violet
	Heated rear screen.	Blue
	Fuel pump.	Blue
	High mounted stop lamp (where fitted).	Blue
	Auxiliary positive feed (fitted inside fuse box).	Blue
	Accessory socket (where fitted).	Blue

SECTION 5

Regular Servicing

Each vehicle is given a full 'Pre–Delivery Inspection' to ensure that all systems function correctly and the vehicle meets its specification.

Regular maintenance and servicing is the responsibility of the owner. Jaguar Dealers will be pleased to arrange periodic servicing in accordance with the 'Service Record and Warranty Book' and 'Maintenance Schedules' booklet.

Failure to implement maintenance at the recommended intervals could result in deterioration of vehicle performance and possible infringement of regulations.

Tyres

Tyres of the correct type and dimensions, with correct cold inflation pressures are an integral part of every vehicle's design. Regular maintenance of tyres contributes not only to safety, but to the designed function of the vehicle. Road–holding, steering and braking are especially vulnerable to incorrectly pressurised, badly fitted or worn tyres.

Tyres of the correct size and type but of different make have widely varying characteristics. It is therefore recommended that Jaguar approved tyres (see SECTION 6: Wheel/Tyre Data) are fitted to all wheels.

Australia only: Australian legislation requires every vehicle to display a tyre recommendation placard in an accessible location, giving information specific to the vehicles wheel and tyre equipment.

Tyre Size, Type, Pressures

The tyre pressures recommended (See SECTION 6:Tyre Data) provide optimum ride and handling characteristics for all normal operating conditions. The pressures should be checked, and correctly set, if necessary, once per week. This should be done with the tyres cold. Tyre temperatures and pressures increase when running. Bleeding a warm tyre to the recommended pressure will result in under–inflation which may be dangerous.

A slight natural pressure loss occurs with time. If this exceeds 14 kPa (0,14 kg/cm^2, 0,14 bar, 2 lbf/in^2) per week, the cause should be investigated and rectified.

In compliance with German Road Traffic Law the size of the wheel rims is stamped or cast on all wheels.

It is an offence in the United Kingdom and certain other countries to drive a vehicle with tyres that are not inflated in accordance with the vehicle's proper use.

A vehicle fitted with winter tread tyres must only be driven at speeds below the figure moulded into the tyre's side–wall. If no figure is shown, drive only at moderate speed.

Tyre Repair

It is recommended that damaged tyres are discarded and new tyres fitted. They must not be repaired in view of the high performance capability of the vehicle.

Wear

All tyres fitted as original equipment include tread wear indicators (TWI) in their tread pattern. When the tread has worn to a remaining depth of 1,6 mm (0.063 inch) the indicators appear at the surface as bars which connect the tread pattern across the full width of the tyre.

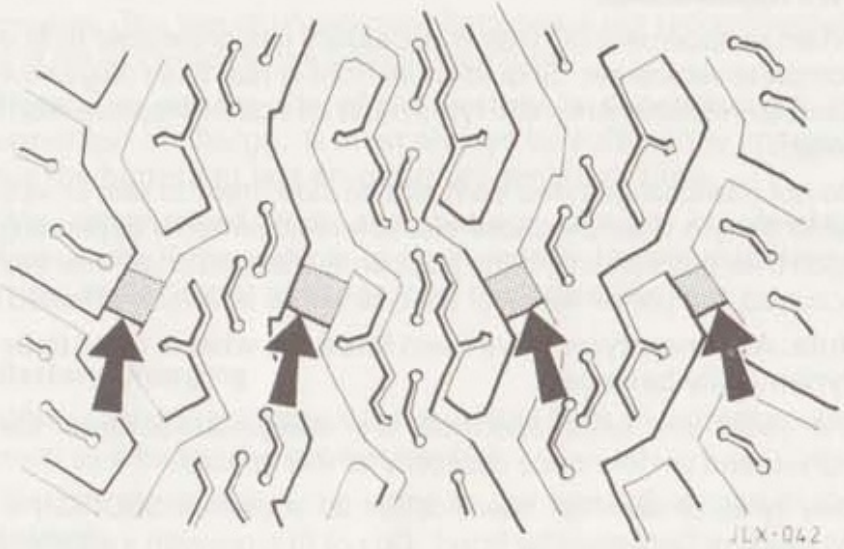
It is illegal in the United Kingdom and certain other countries to continue to use tyres after the tread has worn to less than 1,6 mm (0.063 inch) over three quarters of the width and the entire circumference of the tyre.

It should be noted that the properties of many tyres alter progressively with wear. In particular the 'wet grip' and aquaplaning resistance are gradually but substantially reduced. Extra care and speed restriction should therefore be exercised on wet roads as the effective tread depth diminishes.

Incorrect wheel alignment will accelerate tyre wear. Fins on the inner or outer edges of the tread pattern are caused by excessive toe–in or toe–out respectively. As fins may also be caused by high cornering speeds or road camber, it is advantageous to have the cause detected by having the wheel alignment checked.

Tyre Use After Vehicle Storage

After a long period of a vehicle standing, tyres may become locally distorted with a flat area. This will cause an uneven ride for a few miles until the tyres have warmed up and the 'flat' rounds off.



Damage

Excessive local distortion can cause the casing of a tyre to fracture and may lead to premature failure. Tyres should be examined especially for cracked walls, exposed cords, etc. Flints and other sharp objects must be removed from the tyre tread; if left in they may work through the cover. Clean off any contamination by oil or grease using a suitable cleaner.

Caution: Do not use paraffin (kerosene), which has a detrimental effect on rubber.

Tyre Replacement

When replacement of tyres is necessary it is preferable to fit a complete vehicle set. Should either front or rear tyres only show need for replacement, new tyres must be fitted to replace worn ones.

Do not interchange tyres from side to side, front to rear or vice versa as tyre wear produces characteristic patterns depending upon their position and, if the position is changed after wear has occurred, the performance of the tyre will be adversely affected.

Note: After new tyres have been fitted the wheels need to be dynamically balanced.

The radial ply tyres specified are designed to meet the high-speed performance capability of this vehicle.

Only tyres of identical specification as shown in SECTION 6: Wheel/Tyre Data must be fitted. Do not fit tyres with a different tread pattern, size or speed rating.

Winter (Snow) Tyres

The tyres fitted as original equipment are designed with a rubber mixture, tread pattern and width specially suited for high speeds in normal road conditions, but they are less suitable during extremes of low temperatures, snow and ice. The use of winter tyres will considerably improve the vehicle's handling during these conditions.

Winter tyres must be used in vehicle sets, i.e. fitted on all four wheels, see SECTION 6: Tyre Data for recommended tyres and tyre pressures.

Snow Chains

Snow chains of the recommended type may only be fitted to rear wheels. Contact your Jaguar Dealer for details and availability of approved snow chains.

The maximum speed when using snow chains is 48 km/h (30 mph).

Remove the snow chains immediately the roads are clear of snow.

Ensure the fitting instructions supplied with the snow chains are kept in a safe place, i.e. the Vehicle Care literature pack.

Care of Alloy Road Wheels

The alloy road wheels are covered with a protective coating. To prevent corrosion it is essential that this coating is not damaged.

When removing or fitting tyres always advise the tyre fitter to treat the alloy wheels with great care and to only use equipment with spigot or stud hole clamping. The equipment must not have any moving parts which contact the wheel, and tyre levers must not be used.

Always ensure that the wheel nuts are fully seated before finally tightening the nuts in alternate sequence.

Battery

A low maintenance battery specifically designed for use with this vehicle is fitted in the luggage compartment

Under normal operating conditions the battery requires minimal maintenance. However, in hot weather conditions it is advisable to check the battery electrolyte levels at regular intervals.

WARNING:

1. **The cell plugs and vent pipe must be in place at all times when the battery is in the vehicle. Failure to fit, or incorrect fitting of these items could be potentially hazardous.**
2. **To avoid injury do not use an open flame or cause an electric spark when checking the battery. Hydrogen gas generated by the battery is flammable and may explode.**
3. **Do not let battery acid come into contact with skin or eyes. If you get electrolyte in your eyes or on your skin, immediately rinse with cold water and consult a doctor.**

Caution:

1. **Switch off current before disconnecting battery terminals and always disconnect the earth terminal first and reconnect last.**
2. **Do not let battery acid come into contact with painted surfaces or fabric.**

The exterior of the battery should be occasionally wiped clean to remove any dirt or grease.

If a new battery is to be fitted, it must be the same type as the original. The use of unapproved batteries is not recommended and could invalidate the vehicle warranty.

Note: The service life of the battery is dependent on its condition of charge. It must always be sufficiently charged for the battery to last an optimum length of time.

We recommend that the battery charge is checked frequently if the vehicle is used mostly for short distance trips, or if it is not used for long periods of time.

Battery Charging

When charging the battery in the vehicle from an outside source such as a trickle charger ensure that:

The charge voltage is the same as the nominal voltage of the battery.

The charger positive (+) lead is connected to the positive (+) terminal of the battery.

The charger negative (–) lead is connected to the negative (–) terminal of the battery.

If a high–speed battery charger is used then the battery must be completely removed from the vehicle.

If it is essential to disconnect the battery, refer to Battery Lead Disconnection on page 66.

Check/Top up battery electrolyte

First remove the left–hand side luggage compartment floor panel, then the right–hand side floor panel.

Unscrew the six cell plugs. Inspect the electrolyte level. This should be 4 to 9 mm (0.15 to 0.35 inch) above the top of the plates. If necessary, top up with distilled water.

Replace the six cell plugs.

Refit the right–hand side and then the left–hand side luggage compartment floor panels.

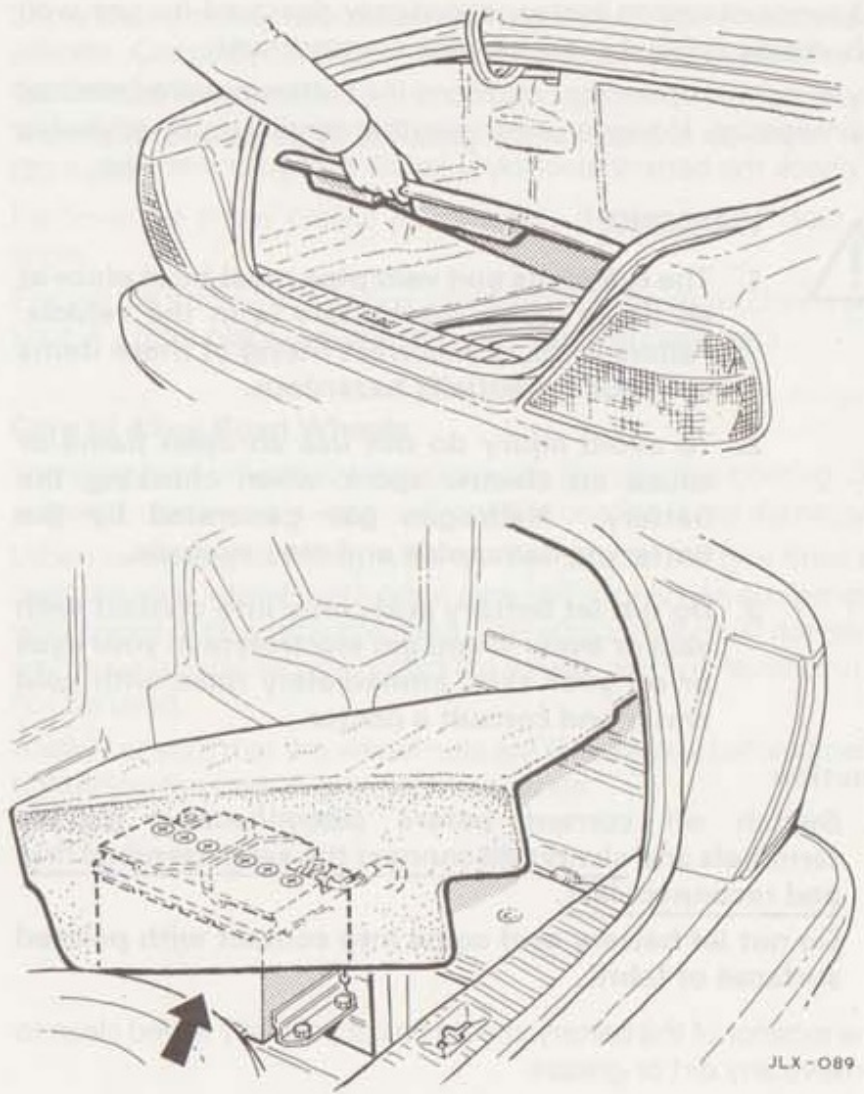
Battery Lead Disconnection

To gain access to the battery, first remove the left–hand side luggage compartment floor panel, then the right–hand side floor panel.

Caution:

1. **Under no circumstances should a battery be disconnected whilst the ignition circuit is live, as permanent damage to the instrument pack may occur.**
2. **Disconnect the negative lead (earth terminal) first.**
3. **Ensure the power fuse module is not damaged when disconnecting the positive lead.**

Unclip the battery positive terminal cover and slacken the pinch bolts (10 mm spanner required). Disconnect the negative battery lead first, then disconnect the positive battery lead.



Battery Lead Connection

Caution: Ensure the power fuse module is not damaged when connecting the positive lead.

Note: Do not overtighten pinch bolts.

Connect the positive lead, tighten the pinch bolt and clip the positive terminal cover on the battery.

Connect the negative lead and tighten the pinch bolt.

When the battery is reconnected and the ignition switch is turned to position 'II' the instrument pack odometer will initially display an erroneous odometer reading, i.e. ------.

This figure will remain displayed until the bulb check sequence has been completed. When the warning lights go off, the odometer will show the correct recorded mileage/distance.

This is a normal function of the instrument pack following battery reconnection.

Refit the right–hand side and then the left–hand side luggage compartment floor panels.

The radio cassette player display will indicate 'code'. The radio will not operate until you have re–entered the correct security code. Refer to the Sound System Handbook.

Clean and Grease Battery Connections.

Disconnect the battery leads as detailed in battery lead disconnection.

Clean the battery posts and coat post bases with petroleum jelly.

Reconnect the battery leads as detailed in battery lead connection.

Alternator

To prevent damage to the alternator, do not run the engine while the battery or any of the charging circuit cables are disconnected.

The alternator has polarity–sensitive components that may be irreparably damaged if subjected to incorrect polarity. Ensure that the battery earth lead is always connected to the battery negative terminal.

Bulb Changing

It is important that only Jaguar bulbs of the type specified on page 78 are used when renewing bulbs.

Before removing failed bulbs, switch off the ignition and light switches.

Headlamp – Bulb Replacement

Open the bonnet.

Where necessary, displace air cleaner intake pipes to help gain access to the rear of the headlamp unit.

Identify the position of the bulb assembly on the rear of the headlamp unit.

Low beam bulb (A) is outboard.

High beam bulb (B) is inboard.

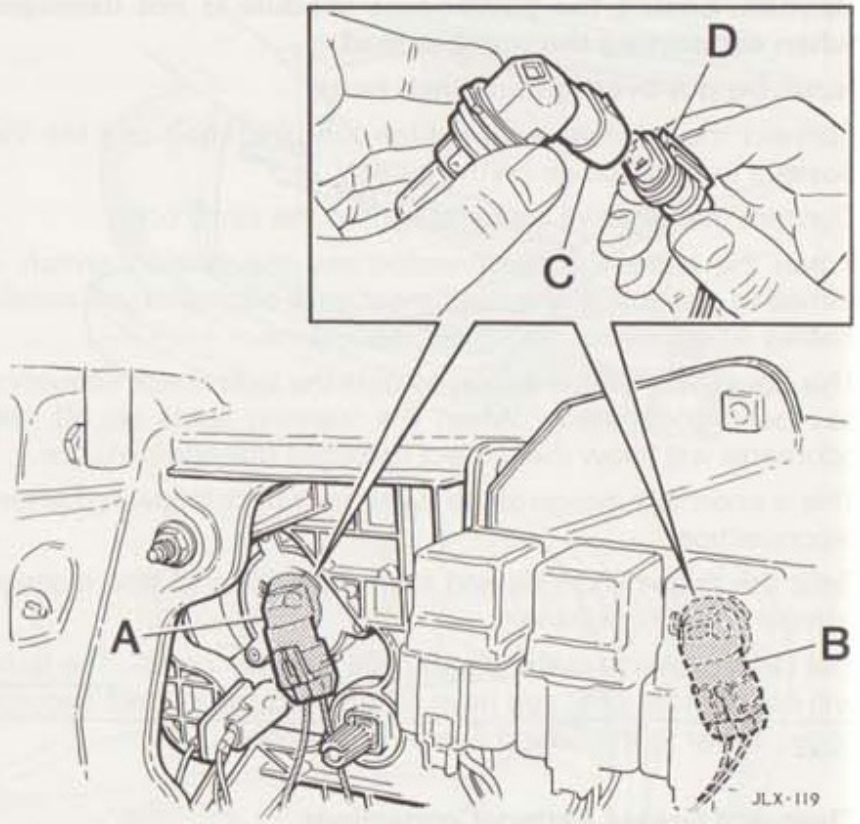
Turn the bulb assembly (C) 90° anti–clockwise and remove from the headlamp unit.

Lift the plastic spring clips (D) and remove the bulb assembly from the harness connector.

The bulb is a halogen type and will be damaged if touched by hand or contaminated with oil or grease. It is important to use clean gloves or cloth when handling a bulb which is to be used again. A contaminated bulb may be cleaned with methylated spirit before refitting.

Always use the correct bulb for the application, as specified on page 78.

Fit a new bulb assembly to the harness and engage the spring clips. Ensure that the rubber seal is seated correctly.



Reposition the bulb assembly in the headlamp unit and turn 90° clockwise.

Where necessary, refit air cleaner intake pipes.

Close the bonnet.

Front Parking (Side) Light – Bulb Replacement

Open the bonnet.

Where necessary, displace air cleaner intake pipes to help gain access to the rear of the headlamp unit.

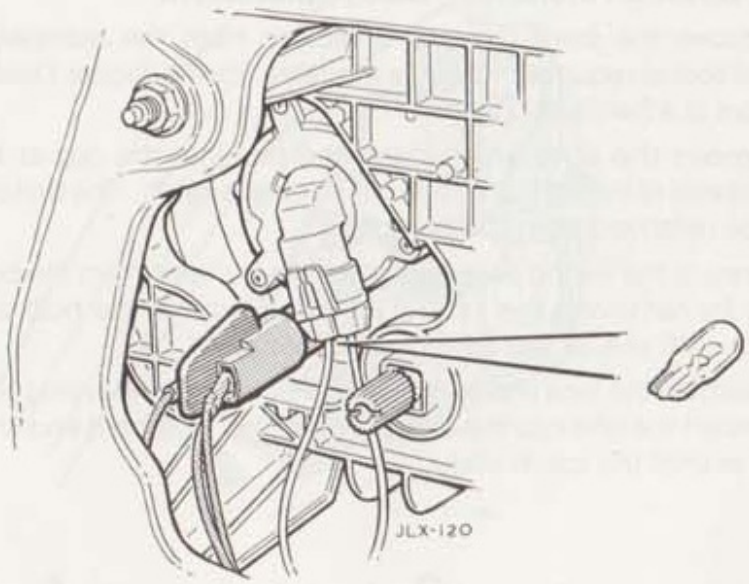
Rotate the bulb holder anti–clockwise and remove from the headlamp.

Pull the capless bulb from the holder and replace with one of the correct type, see page 78.

Reposition the bulb holder in the headlamp unit and turn clockwise.

Where necessary, refit air cleaner intake pipes.

Close the bonnet.



Front Fog Lamp – Bulb Replacement

It is recommended that the front fog lamp bulb is replaced by a Jaguar Dealer.

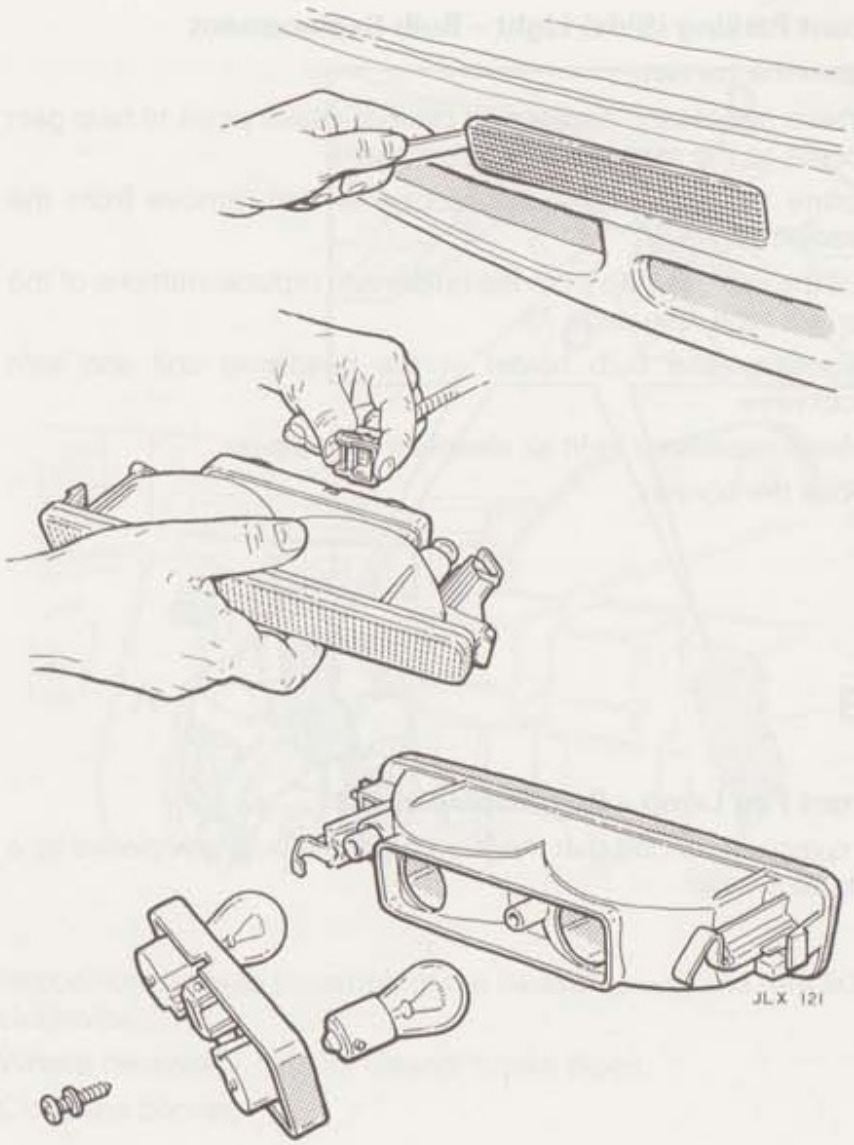
Front Direction Indicator – Bulb Replacement

To remove the front direction indicator from the bumper, a special tool is required, which is available from a Jaguar Dealer. The tool is a flat plastic blade.

To remove the light unit: Insert the tool into the gap at the inboard end of the light unit, this will release a catch. The unit can then be removed from the bumper.

Disconnect the wiring plug then separate the lens from the bulb holder by removing the central screw. Remove the bulb and replace with one of the correct type, see page 78.

Reassemble the lens and bulb holder. Reconnect the wiring plug then insert the unit into the bumper aperture, outboard end first. Press in until the catch clicks.



Rear Light Assembly – Bulb Replacement

The rear light assembly has the following bulbs:

(A) Fog light.

(B) Tail light.

(C) Stop/Tail light.

(D) Reverse light.

(E) Direction indicator.

Open the luggage compartment and remove the rear light unit cover.

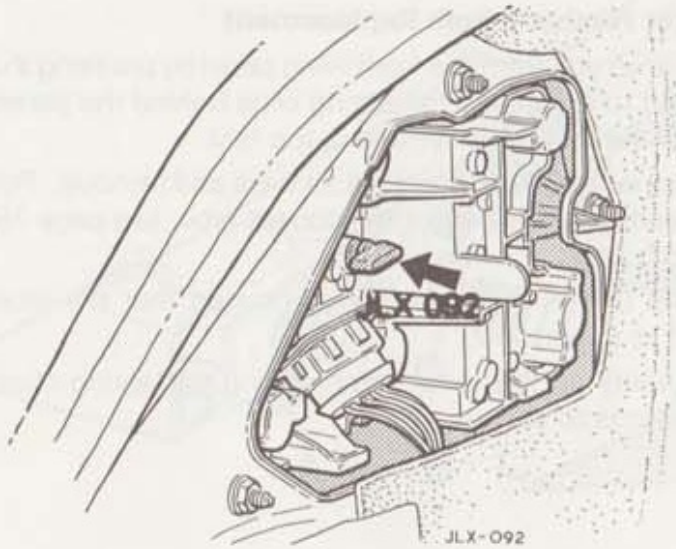
Ensure that the lights and ignition switch are OFF before removing any bulbs.

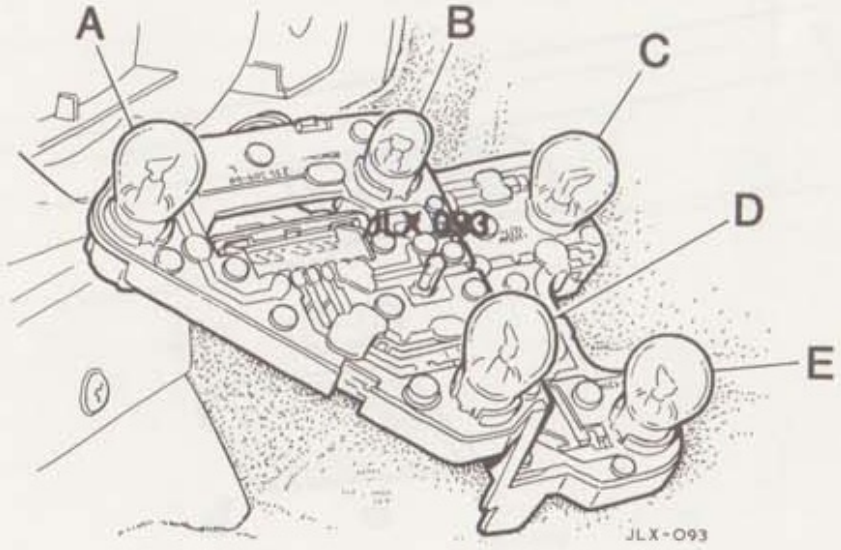
Turn the bulb holder fastener 90° anti–clockwise and carefully remove the bulb holder.

Remove the faulty bulb and replace with the correct type, as illustrated on the bulb holder, fitment of the correct type is essential, see page 78.

Refit the bulb holder assembly and turn the fastener 90° clockwise.

Refit the light unit cover.





Side Repeater Flasher – Bulb Replacement

Remove the lamp unit from the front wing panel by pressing the unit downward to compress the spring clips behind the panel. This will allow the unit to be removed, top first.

Twist the bayonet bulb holder anti–clockwise and remove. Pull out the bulb and fit a new bulb of the correct type, see page 78. Refit the bulb holder.

Refit the lamp unit in the front wing ensuring that the label marked 'TOP' is uppermost.

Press downwards on the lens, compressing the spring clips, then push inwards to secure.

High Mounted Stop Light – Bulb Replacement

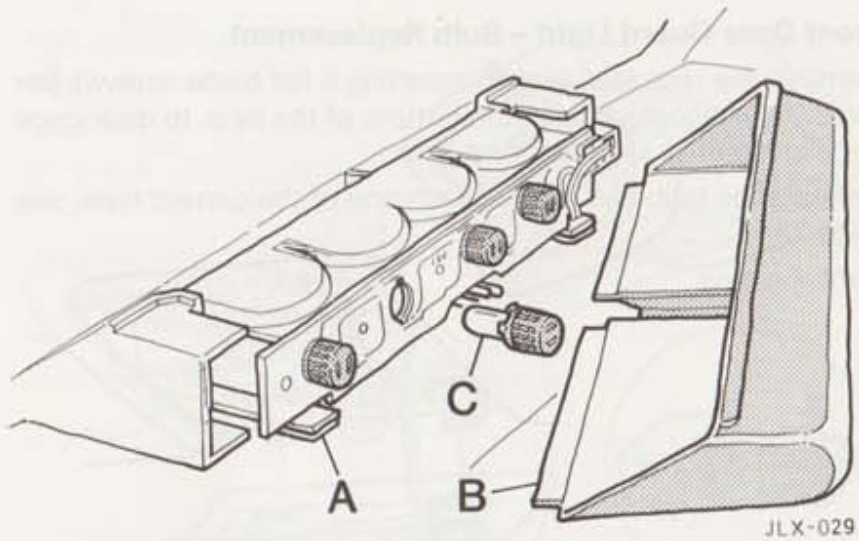
Depress the two spring clips (A) at the base of the lamp cover (B) and withdraw the cover.

Turn the bulb holder (C) anti–clockwise and withdraw from the lamp unit.

Remove the bulb from the holder and replace with one of the correct type, see page 78.

Replace the bulb and holder in the lamp unit and turn clockwise.

Slide the cover over the lamp unit and engage the spring clips.

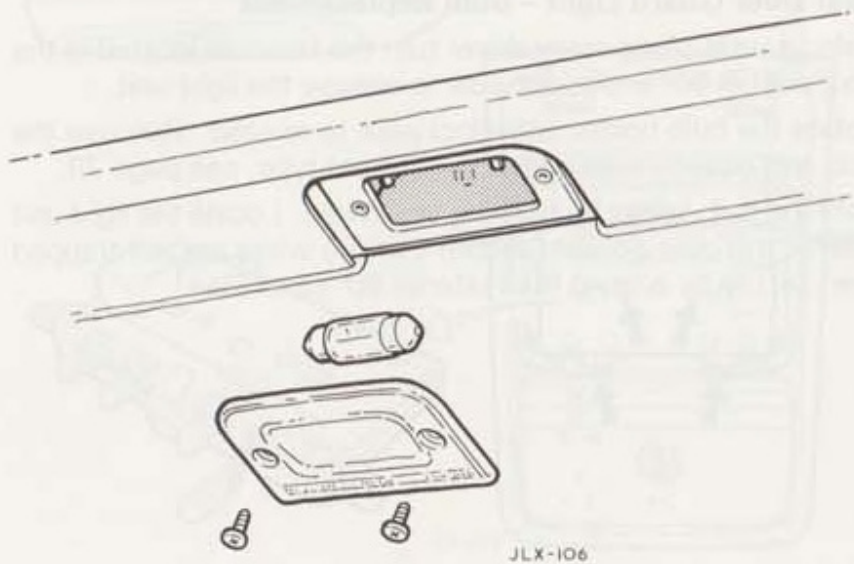


JLX-029

Number Plate Light – Bulb Replacement

Remove the two retaining screws and displace the lens. Remove the bulb and replace with one of the correct type, see page 78.

Refit the lens and secure with the two screws.

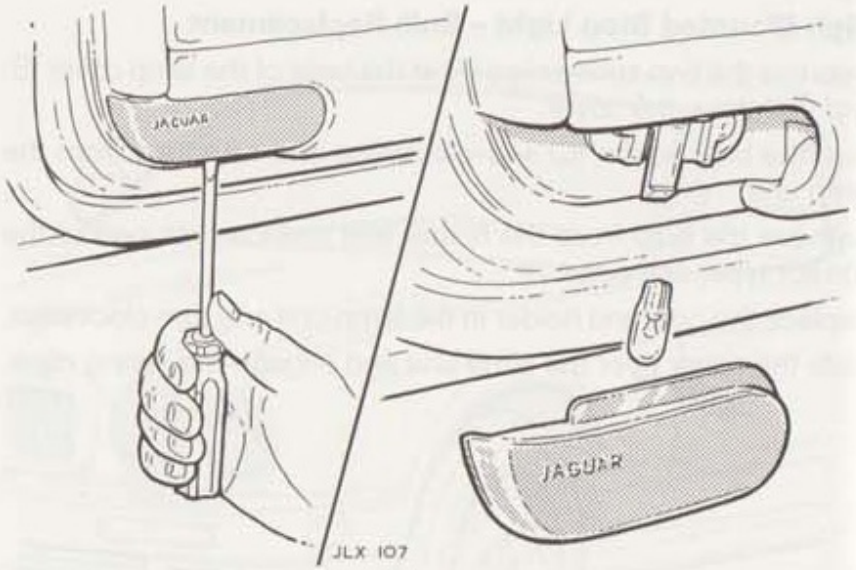

JLX-106

Front Door Guard Light – Bulb Replacement

Remove the red/clear lens by inserting a flat blade screwdriver through the access hole at the bottom of the lens, to disengage the clip leg then slide the lens down.

Remove the bulb and replace with one of the correct type, see page 78.

Refit the lens.

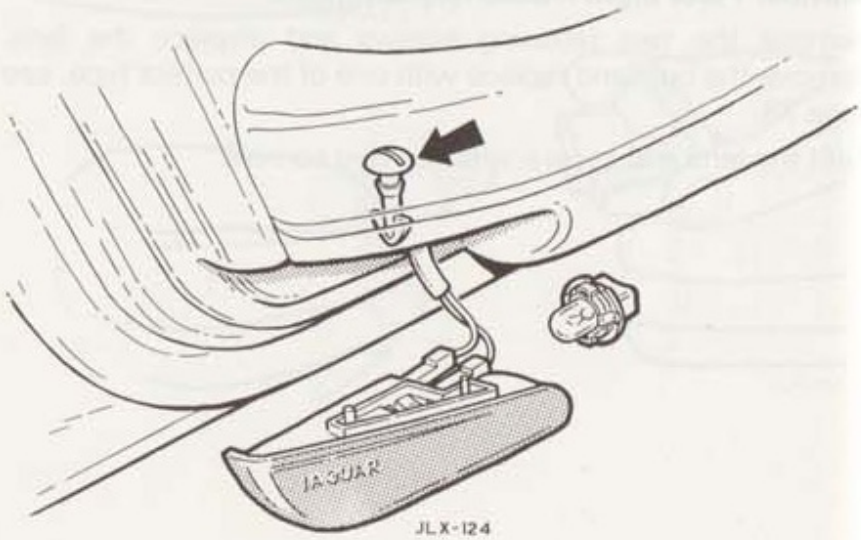


Rear Door Guard Light – Bulb Replacement

Using a wide blade screwdriver turn the fastener located in the door pocket 90° anti–clockwise to release the light unit.

Rotate the bulb holder anti–clockwise to release. Remove the bulb and replace with one of the correct type, see page 78.

Refit the bulb holder by twisting clockwise. Locate the light unit against the door pocket, ensure that the wires are not trapped then secure by turning the fastener 90° clockwise.



Roof Console Interior/Reading Lights – Bulb Replacement

Press the button on the roof console to open the sun–glasses stowage compartment.

Turn the fastener located in the sun–glasses compartment 90° anti–clockwise. Lower the roof console rear end slightly and withdraw it rearwards. Unplug the connector and place the console on a soft, clean surface.

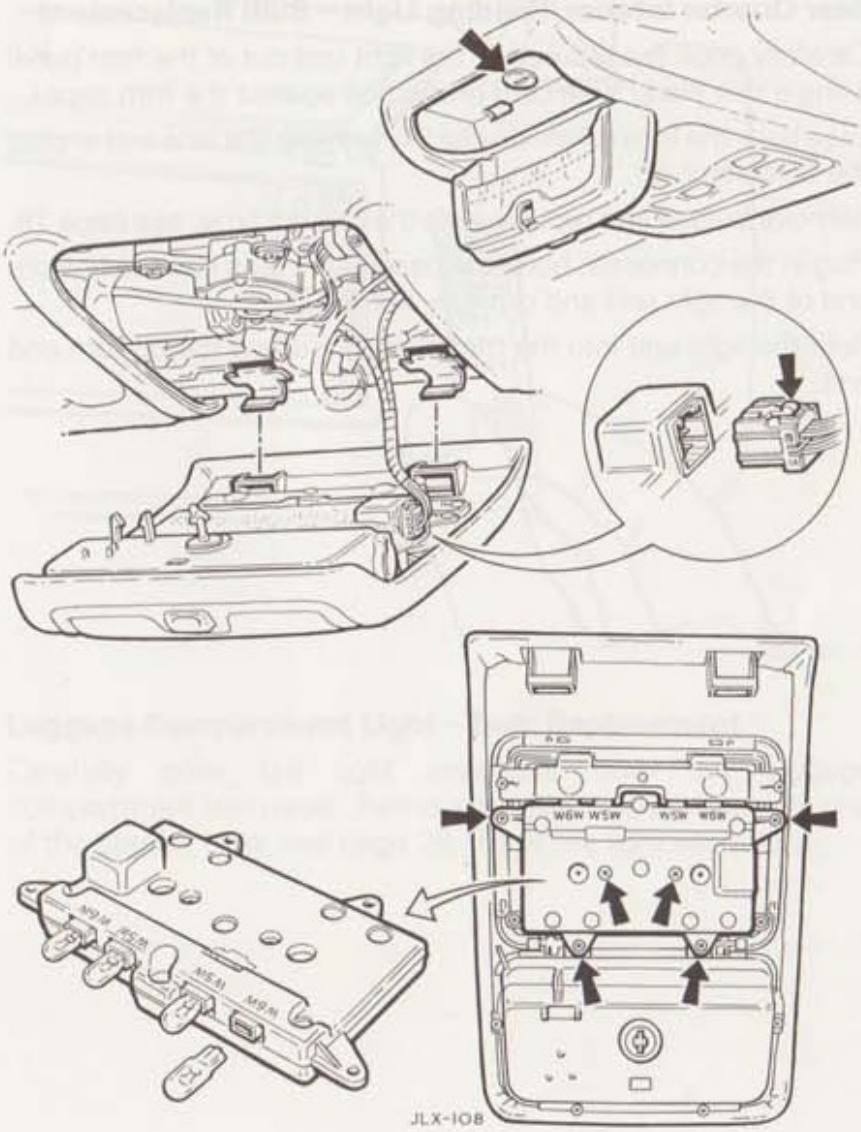
Remove the six screws from the main housing screw positions as identified on the moulding, then ease the housing away from the console.

Remove the bulb(s) and replace with the correct type, as illustrated on the moulding, fitment of the correct type is essential, see page 78.

Replace the main housing locating the bulb end first, then replace the screws – do not over tighten.

Reconnect the roof console connector and refit the console, with the front end first, then locate the rear and secure with the fastener.

Close the sun–glasses compartment.



Rear Quarter Interior/Reading Light – Bulb Replacement

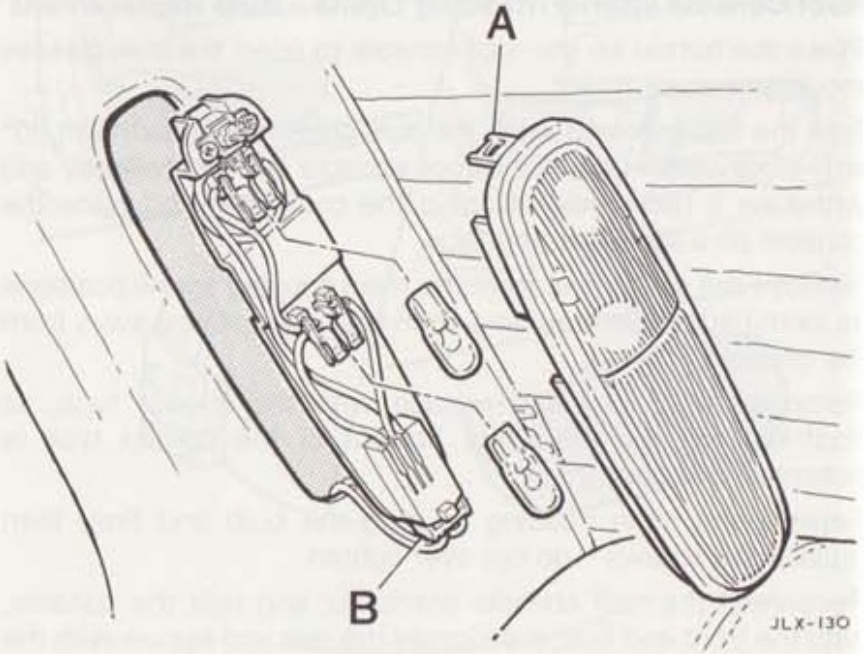
Carefully prise the top end of the light unit out of the trim panel using a thin blade with card protection against the trim panel.

Ease back the lens retention clip (A), remove the lens and unplug the connector (B).

Remove bulb(s) and replace with the correct type, see page 78.

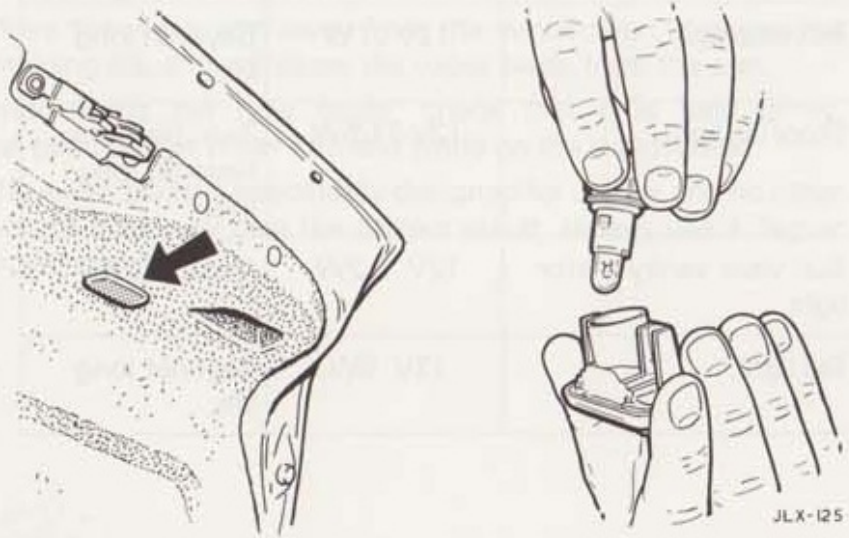
Plug in the connector, hook the base of the lens into the bottom end of the light unit and clip fully home.

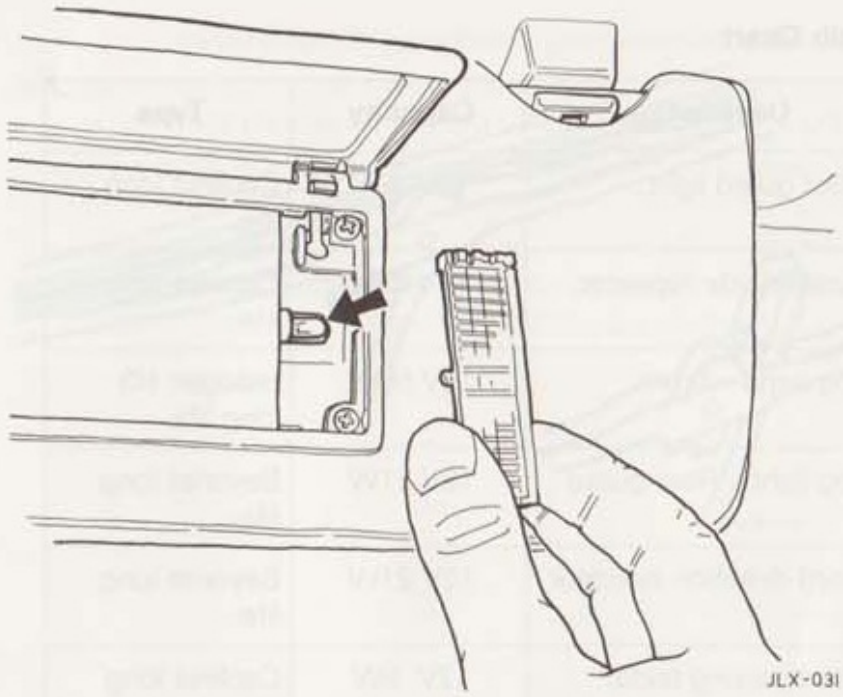
Refit the light unit into the trim panel, inserting the bottom end first.



Sun Visor Vanity Mirror Light – Bulb Replacement

Swing the sun visor downwards and lift the vanity mirror flap. Using a screwdriver carefully prise the lens from the sun visor. Remove the bulb from the holder and replace with one of the correct type, see page 78. Refit the lens.





Luggage Compartment Light – Bulb Replacement

Carefully prise the light assembly from the luggage compartment trim panel. Remove the bulb and replace with one of the correct type, see page 78. Refit the light assembly.

Bulb Chart

Description	Capacity	Type
Door guard light.	12V 5W	Capless long life.
Flasher side repeater.	12V 5W	Capless long life.
Fog lamp – Front.	12V 55W	Halogen H3 long life.
Fog light – Rear guard.	12V 21W	Bayonet long life.
Front direction indicator.	12V 21W	Bayonet long life.
Front parking (side) light.	12V 5W	Capless long life.
Headlamp.	12V 55W	Halogen H1 long life.
High mounted stop light (where fitted).	12V 5W	Capless long life.
Roof console central courtesy light.	12V 5W	Capless long life.
Roof console reading light.	12V 6W	Capless.

Description	Capacity	Type
Luggage compartment light.	12V 5W	Capless long life.
Number plate light.	12V 5W	Festoon long life.
Rear direction indicator.	12V 21W	Bayonet yellow long life.
Rear quarter courtesy light (lower section).	12V 5W	Capless long life.
Rear quarter reading light (upper section).	12V 6W	Capless long life.
Reverse light.	12V 21W	Bayonet long life.
Stop/Tail light.	12V 21/5W	Twin filament bayonet long life.
Sun visor vanity mirror light.	12V 1.2W	Capless 286.
Tail light.	12V 5W	Bayonet long life.

Windscreen Wiper Blade

Use Jaguar Screen Clean Paste to remove contamination from the windscreen to ensure effective wiping. Wash the wiper blade with a mild detergent solution.

Replace the wiper blade before and after each winter, or more often if required.

Note: At every service interval the wiper blade will be replaced (chargeable to customer).

Windscreen Wiper Blade – Inspect and Clean

Lift the wiper blade clear of the windscreen and wipe with a clean soft cloth moistened with water to which a mild liquid detergent has been added.

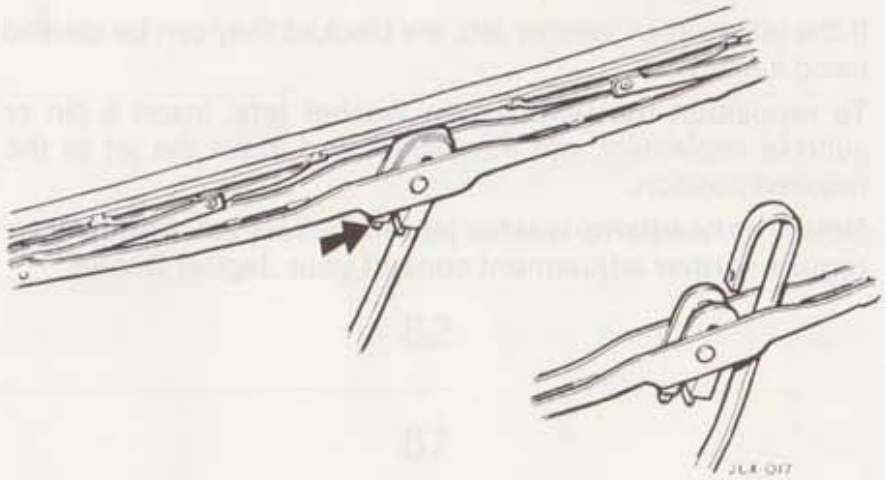
Inspect the wiper blade, and if there any signs of wear or damage; renew the blade.

Renewing Windscreen Wiper Blade

Move the wiper arm away from the windscreen, depress the retaining clip and withdraw the wiper blade from the arm.

After fitting the new blade, check that it is held firmly. Re–position the wiper arm and blade on the windscreen.

The wiper blade is specifically designed for Jaguar and no other type of blade will give the correct result; always use a Jaguar replacement.

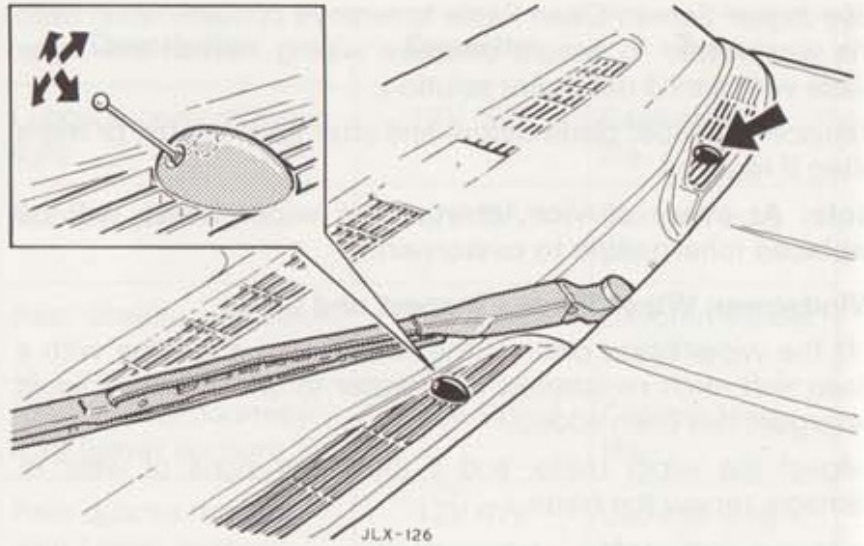


Windscreen/Headlamp Washers – Clean/Adjust

If the windscreen washer jets are blocked they can be cleared using a fine wire.

To reposition the windscreen washer jets: Insert a pin or suitable implement into the ball jet and move the jet to the required position.

Note: The headlamp washer jets are factory set. Should they require further adjustment consult your Jaguar Dealer.



SECTION 6

SPECIFICATIONS

Vehicle Data

Engine	3.2 litre	4.0 litre normally-aspirated
Type	Double overhead camshaft (DOHC). 4 valves/cylinder.	Double overhead camshaft (DOHC). 4 valves/cylinder.
Capacity	3239 cm^3 (198 $inch^3$).	3980 cm^3 (243 $inch^3$).
Bore	91 mm (3.558 inch).	91 mm (3.558 inch).
Stroke	83 mm (3.27 inch).	102 mm (4.02 inch).
Firing order: No. 1 cylinder at front of engine	1–5–3–6–2–4.	1–5–3–6–2–4.
Compression ratio	10:1.	10:1.
Spark plugs:		
– Make/type	Champion RC9 YCC.	Champion RC9 YCC.
– Electrode gap	0,9 mm (0.035 inch).	0,9 mm (0.035 inch).

Transmission		
Manual gearbox	Getrag 290 5 speed.	Getrag 290 5 speed.
Automatic transmission	ZF 4 speed.	ZF 4 speed electronic.
Final drive type	Non Powr–lok or Powr–Lok limited slip.	Non Powr–Lok or Powr–Lok limited slip.
Final drive ratio with manual gearbox	3.77:1	3.54:1
Final drive ratio with automatic transmission	4.08:1	3.54:1

Vehicle Data (continued)

Engine	**4.0 litre supercharged**	**6.0 litre V12**
Type	Double overhead camshaft (DOHC). 4 valves/cylinder.	60 degree 'Vee' formation. 2 valves/cylinder.
Capacity	3980 cm^3 (243 $inch^3$).	5993 cm^3 (365.6 $inch^3$).
Bore	91 mm (3.558 inch).	90 mm (3.543 inch).
Stroke	102 mm (4.02 inch).	78.5 mm (3.091 inch).
Firing order: No. 1 cylinder at front of engine (V12 'A' – R.H. Bank, 'B' – L.H. Bank)	1–5–3–6–2–4.	1A–6B–5A–2B–3A–4B–6A–1B–2A–5B–4A–3B.
Compression ratio	8.5:1.	11.0:1.
Spark plugs:		
– Make/type	Champion RC9 YCC.	NGK BR7 EF.
– Electrode gap	0,9 mm (0.035 inch).	0,64 mm (0.025 inch).
Transmission		
Manual gearbox	Getrag 290 5 speed.	
Automatic transmission	GM 4 speed electronic.	GM 4 speed electronic.
Final drive type	Powr–Lok limited slip.	Non Powr–Lok.
Final drive ratio	3.27:1	3.54:1

Weights (Approximate)

Note: Gross combination weight is the gross vehicle weight plus recommended trailer weight.

	3.2 litre		4.0 litre normally–aspirated		Daimler 4.0 litre normally–aspirated	
	kg	lb	kg	lb	kg	lb
Kerb weight	1800	3969	1800	3969	1825	4024
Front axle kerb weight	912	2011	912	2011	925	2039
Rear axle kerb weight	888	1958	888	1958	900	1985
Gross vehicle weight (G.V.W.)	2220	4895	2220	4895	2245	4950
Gross front axle weight	1019	2247	1019	2247	1032	2276
Gross rear axle weight	1201	2648	1201	2648	1213	2674
Gross combination weight	3720	8202	3720	8202	3745	8257
Roof–rack capacity including weight of rack	100	220	100	220	100	220
Maximum permitted luggage compartment load with four passengers and driver	70	154	70	154	70	154
Trailer weight:						
Braked (recommended)	1500	3307	1500	3307	1500	3307
Braked (maximum recommended)	1900	4188	1900	4188	1900	4188
Unbraked (maximum recommended)	750	1653	750	1653	750	1653
Trailer nose load	75	165	75	165	75	165

Weights (continued)

	4.0 litre supercharged		6.0 litre V12	
	kg	lb	kg	lb
Kerb weight	1875	4134	1975	4354
Front axle kerb weight	970	2139	1070	2359
Rear axle kerb weight	905	1995	905	1995
Gross vehicle weight (G.V.W.)	2295	5060	2395	5280
Gross front axle weight	1077	2375	1177	2595
Gross rear axle weight	1218	2685	1218	2685
Gross combination weight	3795	8367	3895	8587
Roof–rack capacity including weight of rack	100	220	100	220
Maximum permitted luggage compartment load with four passengers and driver	70	154	70	154
Trailer weight:				
Braked (recommended)	1500	3307	1500	3307
Braked (maximum recommended)	1900	4188	1900	4188
Unbraked (maximum recommended)	750	1653	750	1653
Trailer nose load	75	165	75	165

Dimensions

	mm	inch
Overall length	5024	197.8
Overall width including mirrors	2076	81.7
Overall width without mirrors	1799	70.8
Overall height (at gross vehicle weight):		
– 3.2 and 4.0 litre with comfort suspension	1314	51.7
– 6.0 litre V12 with comfort suspension	1315	51.8
– 3.2, 4.0 litre and 6.0 litre V12 with sports suspension	1307	51.5
– 4.0 litre supercharged	1303	51.3
Minimum ground clearance (at gross vehicle weight)	116	4.6
Wheelbase	2870	113.0
Track:		
Front	1500	59.1
Rear	1498	59.0
Turning circle:		
Wall to wall	12,65 metre	41 feet 6 inches
Kerb to kerb	12,06 metre	39 feet 7 inches

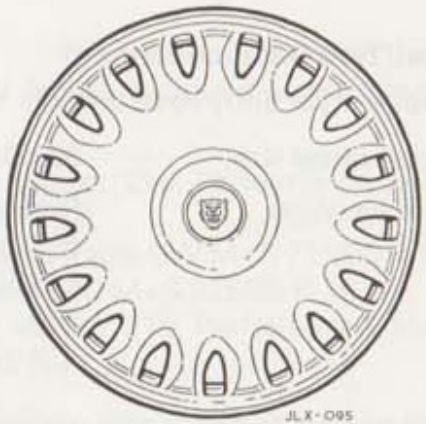
Wheel/Tyre Data

Jaguar original equipment and recommended wheels and tyres.

Caution: Do not mix tyre size or make.

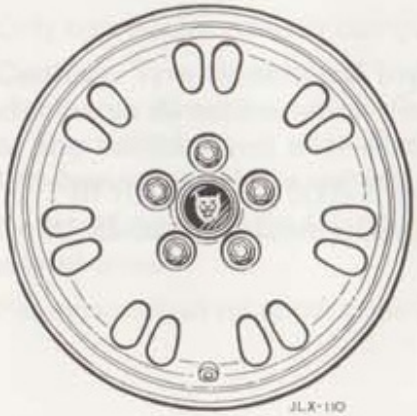
Steel road wheel:

– Road wheel size.	7J x 16.
– Tyre type/size.	Pirelli P 4000 E 225/60 ZR 16 or Goodyear GSN 225/60 ZR 16.



'Kiwi' style alloy road wheel:

– Road wheel size.	7J x 16.
– Tyre type/size.	Pirelli P 4000 E 225/60 ZR 16 or Goodyear GSN 225/60 ZR 16.



20 spoke alloy road wheel:

– Road wheel size.	8J x 16.
– Tyre type/size.	Pirelli P 6000 225/55 ZR 16 or Dunlop SP Sport 2000 225/55 ZR 16.

Wheel/Tyre Data (continued)

'Dimple' style alloy road wheel:

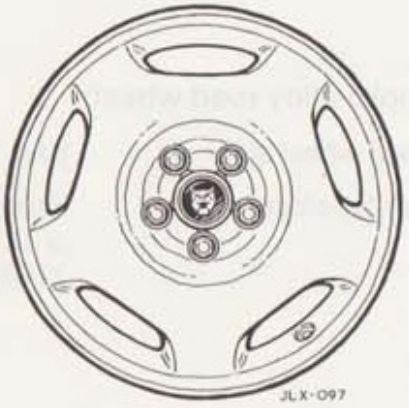
– Road wheel size.	8J x 16.
– Tyre type/size.	Pirelli P 6000 225/55 ZR 16 or Dunlop SP Sport 2000 225/55 ZR 16.

'Turbine' style alloy road wheel:

– Road wheel size.	7J x 16.
– Tyre type/size.	Pirelli P 4000 E 225/60 ZR 16 or Goodyear GSN 225/60 ZR 16.

'Sports' style alloy road wheel:

– Road wheel size.	8J x 17.
– Tyre type/size.	Pirelli P Zero 255/45 ZR 17 or Michelin MXX3 255/45 ZR 17.



Wheel/Tyre Data (continued)

Temporary–use spare wheel (where fitted):

– Road wheel size.	18 x 3.5.
– Tyre type/size.	Pirelli 115/85 R 18.

WARNING: Failure to comply with the following can be dangerous. When a temporary–use spare wheel is fitted, drive with caution and replace with the specified wheel and tyre assembly as soon as possible. Do not fit more than one temporary–use spare at one time. Temporary–use spare, maximum speed is 80 km/h (50 mph).

Winter (Snow) Tyres

It is recommended that only Jaguar approved winter tyres are used.

– Tyre type/size.	Pirelli Winter 210 Performance M+S 225/55 R 16. Goodyear Eagle GW M+S 225/60 R 16. Michelin 330 M+S 225/55 R 16. Pirelli Winter 210 Performance M+S 235/45 R 17.

Only use winter tyres in complete sets of the same type/size.

Caution: Tyre directional indicators must be rotating in a clockwise direction when viewed from the right–hand side of the vehicle, and anti–clockwise when viewed from the left–hand side of the vehicle.

Do not exceed 210 km/h (130 mph) when using Jaguar approved winter tyres.

For information on snow chains, see page 64.

Recommended Tyre Pressures

Tyres recommended on pages 87 to 89 must be inflated to the following cold inflation pressures:

Model	Tyre Size		Maximum Comfort – Speeds up to 160 km/h (100 mph)	Normal Pressures
3.2 litre and 4.0 litre normally–aspirated	225/55 ZR 16 225/60 ZR 16 225/55 R 16 225/60 R 16	Front	180 kPa (1,8 kg/cm^2 1,7 bar, 26 lbf/in^2)	220 kPa (2,24 kg/cm^2 2,21 bar, 32 lbf/in^2)
		Rear	190 kPa (2,0 kg/cm^2 1,9 bar, 28 lbf/in^2)	230 kPa (2,4 kg/cm^2 2,3 bar, 34 lbf/in^2)
4.0 litre supercharged and 6.0 litre V12	225/55 ZR 16 225/60 ZR 16 255/45 ZR 17 225/55 R 16 225/60 R 16 235/45 R 17	Front	190 kPa (2,0 kg/cm^2 1,9 bar, 28 lbf/in^2)	230 kPa (2,4 kg/cm^2 2,3 bar, 34 lbf/in^2)
		Rear	190 kPa (2,0 kg/cm^2 1,9 bar, 28 lbf/in^2)	230 kPa (2,4 kg/cm^2 2,3 bar, 34 lbf/in^2)
Temporary–use spare wheel			———	410 kPa (4,2 kg/cm^2 4,1 bar, 60 lbf/in^2)

Tyres without Jaguar approval

Tyres other than those recommended must be inflated to the following cold inflation pressure (front and rear):

300 kPa (3,1 kg/cm^2, 3,0 bar, 44 lbf/in^2)

In the event of using non–Jaguar approved winter tyres, inflate to the above recommended tyre pressure and do not exceed the tyre's speed capability.

Fuel Requirements

The use of either leaded or unleaded fuel depends on the type of emission control system fitted to the engine and the legislative requirements in the country for which the vehicle is manufactured.

If in doubt your local Jaguar Dealer will advise on which fuel **must** be used in your vehicle.

Any vehicle NOT fitted with a catalytic system can use either LEADED or UNLEADED fuel.

Always use a high quality fuel which contains detergent and other additives. These will help to protect the engine components against corrosion and carbon deposit formation, and prevent the fuel injection system from clogging.

The continuous use of high quality fuel makes the need for additional additives unnecessary.

Unleaded Fuel

Vehicles with engines fitted with catalytic converters **must only** be filled with **'Unleaded Fuel'**. The filler neck of the fuel tank is a small diameter to prevent the larger diameter nozzle of a leaded fuel pump entering.

Japan only: Use only unleaded fuel, the filler neck of the fuel tank on these vehicles is of a large diameter.

Unleaded fuel must be used for the emission control system to operate properly. Its use will also reduce spark plug fouling, exhaust system corrosion and engine oil deterioration.

Use unleaded fuel with an octane rating of at least 95 RON (Research Octane Number). For specific market applications, see pages 93 to 96.

Note: 'Super Green' Plus 98 RON unleaded fuel (where available) may be used as an alternative to the standard 95 RON unleaded fuel.

Using unleaded fuel with an octane rating lower than recommended can cause persistent, heavy 'spark knock' (a metallic rapping noise). If severe, this can lead to engine damage.

If a heavy 'spark knock' is detected even when using fuel of the recommended octane rating, or if you hear steady 'spark knock' while holding a steady speed on level roads, have a Jaguar Dealer correct the problem. Failure to do so is misuse of the vehicle, for which Jaguar Cars Limited, is not responsible. However, occasional light 'spark knock' for a short time while accelerating or driving up hills may occur. Although this noise should not give cause for concern, it may be eliminated by the use of a fuel of a higher octane rating than that recommended.

Leaded Fuel

This fuel must only be used on vehicles which are **not** fitted with catalytic converters. For specific market applications, see pages 93 to 96.

Using leaded fuel on engines fitted with a catalytic converter will damage the emission control system and could result in loss of warranty coverage. The effectiveness of the catalyst in the catalytic converter decreases after the use of as little as one tank of leaded fuel. Also, the vehicle is equipped with an electronic fuel injection system, which includes an oxygen sensor. Leaded fuel will damage the sensor, and deteriorate emission control.

Fuels Containing Alcohol

Some fuel suppliers sell fuel containing alcohol without advertising its presence. Where uncertainty exists check with the service station operator.

Ethanol

Fuels containing up to 10 per cent ethanol (grain alcohol) may be used. Ensure the fuel has octane ratings no lower than those recommended for unleaded fuel. Most drivers will not notice any operating difference with fuel containing ethanol, some may, in which case the use of conventional unleaded fuel should be resumed.

Methanol

Some fuels contain methanol (methyl or wood alcohol). **Do not use** fuels containing methanol that do not also contain co–solvents and corrosion inhibitors for methanol. Also, **do not use** fuels that contain more than three per cent methanol even if they contain co–solvents and corrosion inhibitors. Fuel system damage or vehicle performance problems resulting from the use of such fuels is not the responsibility of Jaguar Cars Limited, and may not be covered under the warranty.

Gasohol (Australia only)

Gasohol, a mixture of unleaded fuel and ethanol, is available in some areas. Gasohol can be used in the vehicle if it is no more than 10 per cent ethanol. Be sure the gasohol has octane ratings no lower than those recommended for unleaded fuel. Most drivers will not notice any operating difference with gasohol, but some may, in which case the use of conventional unleaded fuel should be resumed.

Methyl Tertiary Butyl Ether (MTBE)

Unleaded fuel containing an oxygenate known as MTBE can be used provided the ratio of MTBE to conventional fuel does not exceed 15 per cent.

MTBE is an ether based compound, derived from petroleum, which has been specified by several refiners as the substance to enhance the octane rating of fuel.

Should driveability problems be encountered when using MTBE blended fuel the use of conventional unleaded fuel should be resumed.

Caution: Take care to not spill fuel during refuelling. Fuel containing alcohol can cause paint damage, which may not be covered under the warranty.

Emission Control System Components

The various components of the emission control system may or may not be fitted to this vehicle. The following cross reference lists detailing fuel octanes, countries and engine types will help but, due to the legislative requirements or options available in some markets a Jaguar Dealer should be consulted where any doubt exists. The component with most impact on the running of the vehicle is the catalytic converter which, when fitted, always requires the use of unleaded fuel.

The specifications of vehicles depend on the country legislation and/or option level chosen at the time of purchase. The following cross reference lists will help to ascertain the components but refer to a Jaguar Dealer where doubt exists.

Key to system legend:

U – Unleaded.

L – Leaded.

na – Normally–aspirated.

sc – Supercharged.

EEC includes: Belgium, Denmark, Eire, France, Germany, Greece, Iberia (Canaries, Portugal and Spain), Italy, Luxembourg, Netherlands, and United Kingdom.

East Europe includes: Czech Republic, Hungary, Poland and Slovakia.

Middle East includes: Abu Dhabi, Bahrain, Dubai, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia and Turkey.

Russia includes: Baltic States (Estonia, Latvia, Lithuania), Belarus, Khazakhstan, Russia, Ukraine, Uzbekistan.

Market	Air Injection	Exhaust Catalyst	Fuel Evaporative Loss Control System	Fuel Octane
Brazil:				
4.0 litre	X	X	X	91 U
6.0 litre V12	X	X	X	91 U

Continued

Emission Control System Components (continued)

Market	Air Injection	Exhaust Catalyst	Fuel Evaporative Loss Control System	Fuel Octane
Argentina, Australia, Austria, Chile, Finland, Hong Kong, Japan, New Zealand, Slovenia, Sweden, Switzerland:				
3.2 litre		X	X	95 U
4.0 litre na	X	X	X	95 U
4.0 litre sc	X	X	X	95 U
6.0 litre V12	X	X	X	95 U
Cyprus, EEC, East Europe, Malta, Norway:				
3.2 litre		X	X	95 U
4.0 litre na		X	X	95 U
4.0 litre sc		X	X	95 U
6.0 litre V12		X	X	95 U
Indonesia, South Africa:				
4.0 litre				91 U or L
6.0 litre V12				91 U or L

Emission Control System Components (continued)

Market	Air Injection	Exhaust Catalyst	Fuel Evaporative Loss Control System	Fuel Octane
China:				
3.2 litre		X	X	95 U
4.0 litre na				91 U or L
4.0 litre na customer option		X	X	95 U
4.0 litre sc		X	X	95 U
6.0 litre V12				91 U or L
6.0 litre V12 customer option	X	X	X	95 U
Malaysia, Singapore, Thailand:				
3.2 litre		X	X	95 U
4.0 litre na		X	X	95 U
4.0 litre sc		X	X	95 U
6.0 litre V12	X	X	X	95 U
Middle East:				
3.2 litre		X	X	95 U
4.0 litre na			X	91 U or L
4.0 litre na option in certain markets		X	X	95 U
4.0 litre sc		X	X	95 U
6.0 litre V12		X	X	95 U

Emission Control System Components (continued)

Market	Air Injection	Exhaust Catalyst	Fuel Evaporative Loss Control System	Fuel Octane
Panama, Paraguay:				
4.0 litre				91 U or L
Russia:				
3.2 litre		X	X	95 U
4.0 litre na				91 U or L
4.0 litre na customer option		X	X	95 U
4.0 litre sc		X	X	95 U
6.0 litre V12				91 U or L
6.0 litre V12 customer option		X	X	95 U
South Korea, Taiwan:				
3.2 litre		X	X	95 U
4.0 litre na	X	X	X	95 U
4.0 litre sc	X	X	X	95 U

SECTION 7

Electrical Accessories

The fitment of any electrical accessory, electrical accessory supply socket, relays and fuses must only be entrusted to a Jaguar Dealer.

Caution:

1. **The use of any accessories not specifically designed for this Jaguar will damage the electrical circuits and systems of the vehicle.**
2. **Under no circumstances must the power supply be obtained direct from either battery terminal.**
3. **The use of non-approved accessories can reduce the battery capacity and charge period to an unacceptable level, therefore Jaguar cannot accept any liability for the fitment of any such item.**

The cigar lighter socket can be used for plug in accessories which are only temporarily connected to the vehicle (i.e. car vacuum cleaner).

Electrical Accessory Supply Sockets

Two electrical accessory supply sockets are provided in the following areas:

1. In the left-hand side footwell on the 'A' post, behind the trim panel.
2. In the luggage compartment, clipped near the battery.

An accessory supply socket warning label is located near each socket.

Earth Points

If an accessory needs to be connected to an earth point, consult a Jaguar Dealer.

Caution: Under no circumstances must holes be drilled in the bodywork to accept earth terminals.

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