



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



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



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

## Vehicle Care Handbook

**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 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.

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.

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# Contents

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## General Information

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.

### 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

Many of the vehicle systems are controlled by complex electronic devices. 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 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 (for example, the use of test lamps, low impedance voltmeters, etc.).**

## 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 USA/Mexico '**Passport to Service**' Booklet or Canadian '**Club Jaguar**' Warranty and Benefits Information Booklet.

**USA and Mexico:** Jaguar Dealers will arrange appointments on a mileage or time interval basis to ensure that all routine and corrective maintenance work is undertaken and recorded in the '**Passport to Service**' Booklet.

**Canada:** Jaguar Dealers will arrange appointments on a distance or time interval basis to ensure that all routine and corrective maintenance work is undertaken and recorded in the '**Club Jaguar**' Warranty and Benefits Booklet.

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

# 1-2 Introduction

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## Maintenance Summary

It is the owner's responsibility to ensure that the vehicle is maintained in accordance with the Maintenance Schedules. Repairs resulting from a failure to maintain are not covered by the warranty.

The USA/Mexico '**Passport to Service**' Booklet or Canadian '**Club Jaguar**' Warranty and Benefits information Booklet is a convenient document to record all maintenance services on the vehicle.

All vehicle literature should be passed to any subsequent owner at the time of resale.

**USA and Mexico:** If the '**Passport to Service**' Booklet is not available, a replacement may be obtained by writing to the Consumer Relations Department, Jaguar Cars, 555 MacArthur Boulevard, Mahwah, New Jersey 07430, quoting the vehicle identification number from the plate located inside the windscreen, plus the date of purchase and current mileage or kilometres.

**Canada:** If the '**Club Jaguar**' Warranty and Benefits Information Booklet is not available, a replacement may be obtained by writing to the consumer Relations Department, Jaguar Canada, 8 Indel Lane, Bramalea, Ontario, L6T 4H3, quoting the vehicle identification number from the plate located inside the windscreen, plus the date of purchase and current kilometres.

## Scheduled Maintenance

The Maintenance Schedules list all the maintenance operations and their intervals. Because of the need for the use of specialized equipment and skills, it is strongly recommended that all service work be entrusted to a Jaguar Dealer.

Should the vehicle cover a low annual mileage, have a high proportion of short journeys or operate in severe conditions, Jaguar Cars recommend that the lubrication service shown in the maintenance schedule in the '**Passport to Service**' Booklet be performed at intervals not to exceed six months.

The Maintenance Schedules may be revised from time to time. Jaguar Dealers will be notified of revisions by Service Policy Letters or Technical Bulletins.

**USA only:** Maintenance, replacement or repair of the emission control devices and system may be performed by any automotive repair establishment or individual using any automotive part which has been certified by Jaguar Cars.

## Safety Precautions

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



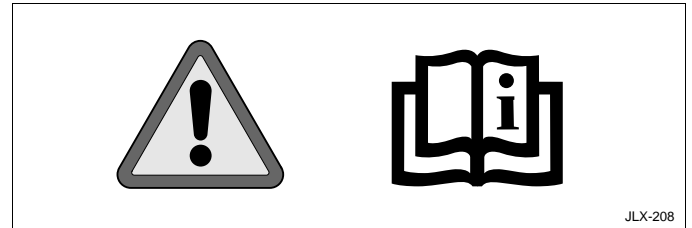
**WARNING:**

**Warnings are procedures which must be followed precisely to help avoid the risk of personal injury.**

**Caution: Cautions are 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 on the vehicle, 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.



# 1-4 Introduction

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## Safety Precautions (continued)



### WARNING:

1. Many liquids and other substances used in vehicles are poisonous and must never be consumed and should be kept away from open wounds. These substances 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. Such modifications in some circumstances could result in a fire. All service actions must be entrusted to a Jaguar Dealer.
4. Alterations to the electrical system, including the fitting of accessories not designed for this Jaguar may cause damage to the electrical circuits and systems. In some circumstances this could result in a fire. All accessory work should be entrusted to a Jaguar Dealer.
5. No attempt should be made to repair a fuse that has blown. Always install a fuse of the correct amperage (see the fuse charts on pages 4-17 to 4-21). Failure to comply with the above may cause a fire hazard or serious damage elsewhere in the electrical circuit.
6. Avoid contact with battery acid which is 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. Seek immediate medical attention when eye contact has occurred.
7. Never reverse the battery terminal connections. Always disconnect both terminals before battery charging.
8. When disconnecting the battery connections, always disconnect the earth terminal first and reconnect last.
9. Batteries produce combustible gas (hydrogen) when charging. Switch off the charger before connecting or disconnecting terminal connections to avoid sparks and short circuits.
10. Do not disconnect any pipes in the air conditioning refrigeration system. A refrigerant is used which can cause blindness if allowed to contact the eyes.

**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.



## Safety Warning and Caution Labels

**Note:** Do not remove any warning labels from the hood or inside of the vehicle.

### Braking System (A)

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 SUPER DOT 4 BRAKE FLUID FROM A SEALED CONTAINER.

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

### Cooling System (B)

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

### Power Steering System (C)

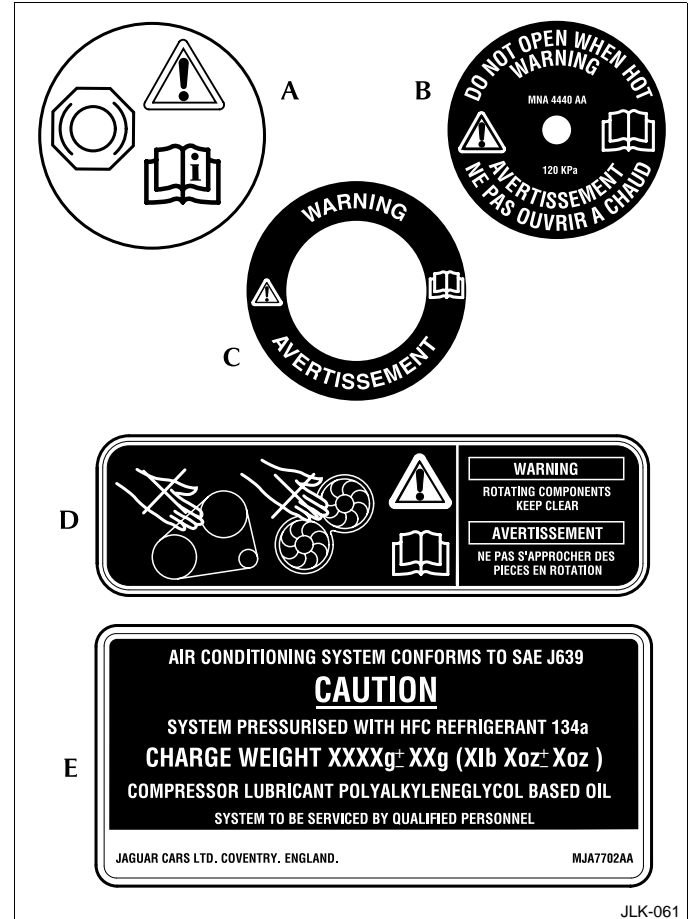
The label is located on the reservoir filler cap and states:  
WARNING.

### Rotating Components (D)

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

### Climate Control System (E)

The label located under the hood on the left-hand side states:  
CAUTION – System pressurised with HFC refrigerant 134a.  
System to be serviced by qualified personnel.



# 1-6 Introduction

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## General Precautions

- Ensure that the vehicle is securely supported before working underneath it. **Chock a front wheel and apply 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. **Do not** use any jacking equipment under the front cross member.
- 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 to provide illumination, especially under the vehicle, or in the engine and luggage compartments. Do not smoke while working on the vehicle.

- Do not apply heat in an attempt to free nuts or fittings. This will damage 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 using suitable covers over the wings and scuttle.
- To prevent soiling the interior, carry out jobs requiring access to the passenger or luggage compartments first. If a job involves access to the interior in the course of other work, prevent the transfer of oil and grease to the interior by using seat and 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.

## General Precautions (continued)

### Used Engine Oil



#### **WARNING:**

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

Always use a hand cream to protect the skin from oil contamination. 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.

### Engine and Throttle Settings

Do not attempt to make adjustments to the engine or throttle settings. Many vehicle systems are controlled by complex electronic devices and require specialist knowledge. Such work should be entrusted to a Jaguar Dealer.

### Battery/Ignition Isolator Switches

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

## Hydraulic Fluid

The Brake Hydraulic Fluid in the master cylinder and brake operating system uses non-mineral polyglycol based brake fluid with a minimum standard of JAGUAR SUPER DOT 4. ONLY FLUID OF THIS TYPE AND STANDARD MAY BE USED.



#### **WARNING:**

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

### Electrical Accessories

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

# 1-8 Introduction

## Hood Release Control

The hood lock release control is below the fascia on the driver's side of the vehicle.

**To open:** Release the hood lock by pulling the lever. Reach across to the centre of the hood and lift the rear edge. The gas filled struts will assist raising the hood, and retain it in the fully open position.

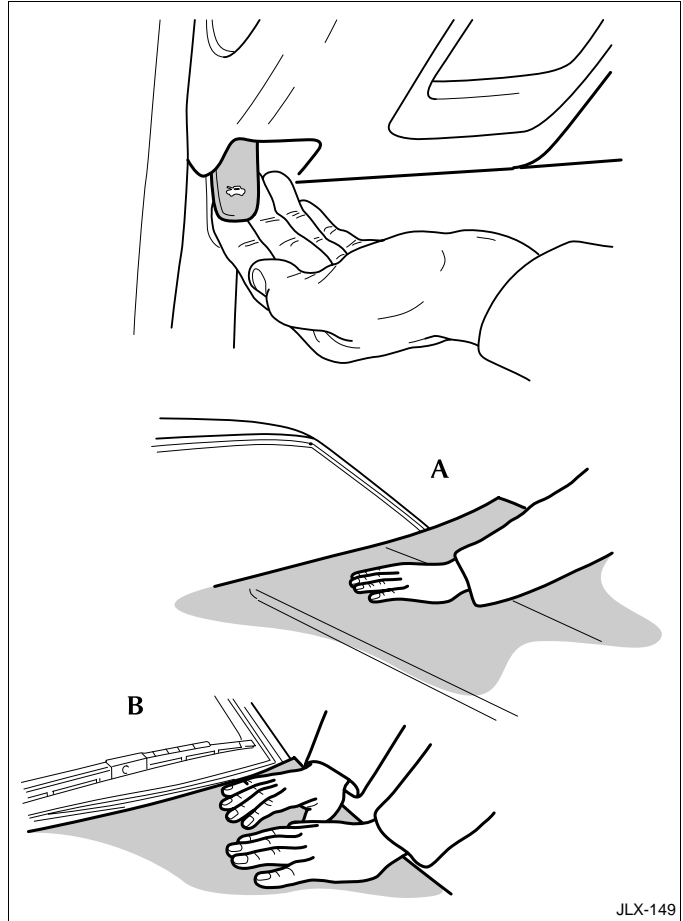


**WARNING:**

**Before closing the hood ensure that no one is obstructing the closing area and that hands and clothes are clear. Remove tools, cleaning cloths, etc. from the engine compartment.**

**Hood latching:** Close the hood to within a distance of 10 to 12 inches (250 to 300 mm) of the fully closed position. Place the left hand on the hood as shown at (A). Then pressing downwards slam the hood shut. This action should engage both the right-hand and left-hand latches.

Should one latch fail to engage, place both hands, as shown at (B), above the unlatched side and press down firmly on the hood until it engages.



## Introduction

This section gives full details of the methods and cleaning agents which should be used to achieve the best results and maintain the finish of the vehicle, both internally and externally.

Read carefully the restrictions on the use of jet washes and automatic car washes.

## Exterior Care

### Valet Kit

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

**Note:** All the cleaning materials mentioned in this section are available from the Jaguar Accessory Range.

### Washing

For best results, do not wash the vehicle under strong sunlight. Always allow the vehicle to cool down before washing.

Do not use a dry cloth to wipe dirty paintwork. Dust and gritty substances are abrasive and will scratch the paintwork. Remove dirt using a cellulose sponge and plenty of warm (never hot) water. Rinse off with clean water and dry using a clean, damp chamois leather.

Do not use household soaps or detergents. The use of Jaguar Vehicle Shampoo is recommended.

Do not direct hoses at full force around door and luggage compartment seals. Using high pressure water jets on the paintwork is not recommended.

Do not allow bird droppings or tree sap to harden. Remove from paintwork immediately with a lukewarm soap and water solution.

In winter, when salt is used on the roads, wash the vehicle frequently, and immediately after encountering such conditions. Clean undersides and wheel arches using a high pressure jet.

### Automatic Car Wash

**Note:** Regular use of automatic car washes tends to dull the lustre of the paintwork.

#### **Before entering the car wash it is essential to:**

Switch off the radio to retract the aerial,  
Remove wing mounted telephone antennas,  
Fold down screen mounted telephone antennas,  
Fold in door mounted rear view mirrors.

**Note:** If your vehicle is fitted with a Jaguar approved cellular telephone, you are advised to switch the telephone and the ignition OFF.

After leaving the car wash, switch on the windscreen wiper immediately to remove water and prevent a build up of wax. Jaguar Screen Clean Paste can be used to clean any residual wax from the glass.

### Removing Grease and Tar

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

## 2-2 Cleaning

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### Exterior Care (continued)

#### Alloy Road Wheels

Alloy wheels have an anti-corrosion protective coating, which should not be damaged.

Wash the wheels at two week intervals to avoid an accumulation of particles which could become embedded in the wheel surface.

An Alloy Wheel Clean Kit is included in the Jaguar accessory range.

In salty conditions the wheels should be cleaned weekly.

#### Chromium-plated Alloy Road Wheels

It is recommended that chromium-plated alloy road wheels are cleaned using Jaguar Vehicle Shampoo and Chrome Polish.

**Caution: Do NOT use proprietary wheel cleaners.**

#### 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.

The following products will ensure glass surfaces and windscreen wipers are kept in good condition:

**Jaguar Screen Clean Paste** – Apply to the exterior of the windscreen **only** to ensure effective operation of the windscreen wiper.

**Jaguar Glass Cleaner** – Interior and exterior of all other surfaces.

**Jaguar Screen Wash** – Washer reservoir additive.

**Jaguar Winter Care Kit comprising de-icer, ice scraper, anti-mist wipe cloth and aerial cleaner** – for use in adverse weather conditions.

#### Note:

1. Renew the wiper blade when worn to prevent scratching. Clean regularly with a mild detergent solution.
2. It is advisable to clean the windscreen with Jaguar Screen Clean Paste at regular intervals.

#### Polishing Paintwork and Chromium Plating

For maximum protection against road dust, salts, industrial fallout etc., it is recommended that the vehicle is polished regularly using Jaguar Polish, Chrome Polish and a Polishing Cloth.

### Exterior Care (continued)

#### Underbonnet cleaning

Underbonnet cleaning using high pressure hoses or steam cleaners should be done by a Jaguar Dealer. Indiscriminate use of cleaning equipment could damage or contaminate the electronic control modules and fuse boxes.

#### Aerial Care

Regular cleaning with a special aerial cleaner, will ensure smooth and reliable operation of the aerial.

Always wipe the aerial in an upwards direction.

Lubricate using an aerial maintenance wipe cloth.

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

The Jaguar Aerial Cleaning Kit contains the necessary maintenance items.

#### Paint Chips

Scratches and chips should be touched in before weathering action begins. Inspect the paintwork immediately after the vehicle has been washed.

### Interior Care

Brush and clean the interior regularly. Use a vacuum cleaner where possible to remove all dust from the interior and trim.

#### Carpets

Marks or stains can be removed by gentle scrubbing with a weak solution of soap and warm water.

For more stubborn stains a commercially available carpet cleaner should be used. See your Jaguar Dealer for advice.

#### Headlining

Remove dust in the headlining with a vacuum cleaner. To remove stains, rub briskly without pressing, using a lint-free white cloth, moistened with methylated spirit.

#### Leather Upholstery

Dust and dirt can penetrate the pores and creases of leather, causing surface wear and brittleness. Clean regularly to maintain the leather in first class condition.

Wipe the surfaces using a cloth dampened with warm soapy water; avoid flooding. Rinse with clean water. Allow to dry and rub with a clean soft cloth. Use Jaguar Leather Cleaner for heavily soiled areas.

Use only mild non-caustic soap. Do not use petrol, detergents or household cleaners, as these could damage the leather.

The appearance and durability can be improved by using Jaguar Hide Food and Jaguar Leather Conditioner.

## 2-4 Cleaning

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## Introduction

The transmission, final drive unit and supercharger (where fitted) are oil filled-for-life units and do not require checking by the driver. The few maintenance tasks and checks required to ensure reliable and safe day to day running of the vehicle are detailed in this section.

Only use lubricants and fluids which meet the specifications recommended by Jaguar Cars Limited.

## Regular Checks

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

### Daily

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

Check that there is adequate windscreen washer fluid for the intended journey.

### 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 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 3-2, 3-3 and 3-9.

**Engine Coolant** – With the engine cold, check the level of the coolant in the engine header tank, see pages 3-2 and 3-7. Any loss of fluid must be checked by a Jaguar Dealer.

**Brake Fluid** – Check the level of the fluid in the brake fluid reservoir. Top up if necessary with new, unused Jaguar approved brake fluid, see pages 3-2 and 3-6.

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

**Power Steering Fluid** – With the engine cold check the level of the fluid in the power steering fluid reservoir, see pages 3-2 and 3-4. Top up if necessary with fluid of the correct specification. Any loss of fluid should be checked by a Jaguar Dealer.

**Note:** The transmission and, where fitted, the supercharger are sealed for life units and do not require topping up.

### Monthly

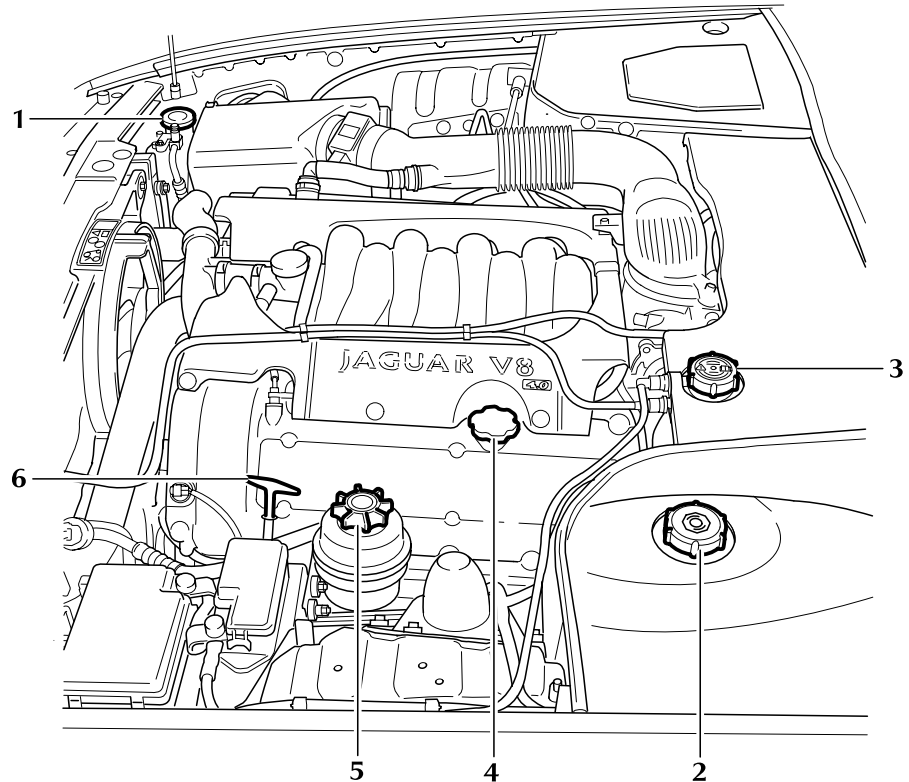
**Windscreen Washer** – Top up with recommended windscreen washer fluid and clean soft water, see pages 3-2 and 3-5. Check the operation of the washer. Use Jaguar Windscreen Washer Fluid to keep the glass clean and also to prevent the fluid from freezing during cold weather.

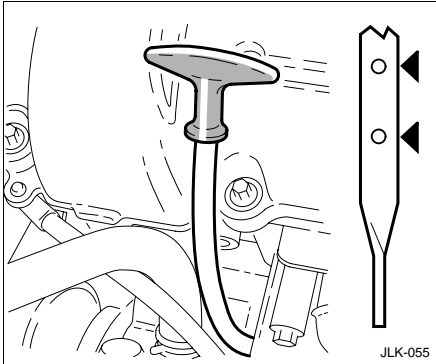
**Wiper Blade** – Check the quality of the wipe. If smearing or juddering is evident, clean the windscreen as detailed in page 5-19 and renew the wiper blade.

## 3-2 Routine checks

### Reservoir and Dipstick Locations

1. Windscreen washer reservoir
2. Brake fluid reservoir
3. Coolant filler pressure cap
4. Engine oil filler
5. Power steering reservoir
6. Engine oil dipstick





### Checking and Replenishment

#### Check/Top Up Engine Oil Level

Check the oil level regularly with the vehicle on flat, level ground.

Refer to page 3-2 for dipstick and oil filler locations.

It is preferable to check the oil level after the vehicle has been standing, that is, with the engine completely cold.

If the engine has been started do not check the oil level until the engine has reached normal operating temperature. Stop the engine and wait for a minimum of 2 minutes to allow the oil to drain back into the sump.

Remove the dipstick and wipe clean with a non-fluffy cloth. Replace fully, then withdraw the dipstick.

If the oil level is on or above the lower of the two dots on the dipstick then no additional oil is required.

If the oil level is below the lower of the two dots, remove the oil filler cap and add 1 quart (1 litre) of the correct specification oil.

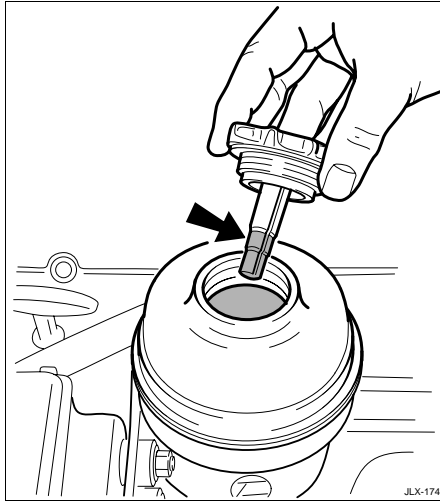
Lubricant and fluid specifications are detailed on page 3-9.

Refit the filler cap and hand tighten securely.

The supercharger (where fitted) is oil filled-for-life and does not require any checks to be made by the driver.

## 3-4 Routine checks

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### Checking and Replenishment (continued)

#### 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 page 3-2 for power steering fluid reservoir location.

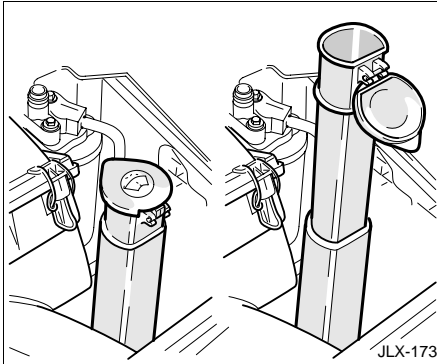
Check the fluid level when the engine is 'COLD' and the vehicle is on a flat, level surface.

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 DEXRON III fluid, DO NOT OVERFILL.

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



### Checking and Replenishment (continued)

#### Check/Top Up Windscreen Washer/ Powerwash Reservoir

See page 3-2 for windscreen washer reservoir location.

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

Fill to just below the neck with Jaguar Windscreen Washer Fluid diluted with clean, preferably soft water as specified in the instructions on the bottle.

#### Do not over-fill.

**Note:** Using a non-approved fluid may adversely affect the wiper blade rubber, resulting in ineffectual and noisy wiping.

#### Cold Weather Precautions

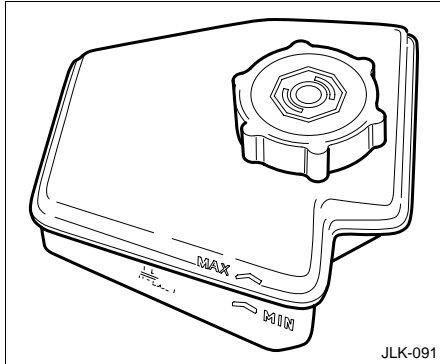
To prevent damage to the pump during freezing conditions, use Jaguar Windscreen Washer Fluid diluted with water to the correct strength, as shown on the bottle, for the anticipated ambient temperature.

#### 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.**

## 3-6 Routine checks

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### Checking and Replenishment (continued)

#### Check/Top Up Brake Fluid Reservoir



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 page 3-2 for brake fluid reservoir location.

After removal of the cover, the fluid is visible through the translucent casing of the reservoir and must be maintained at the 'MAX' mark.

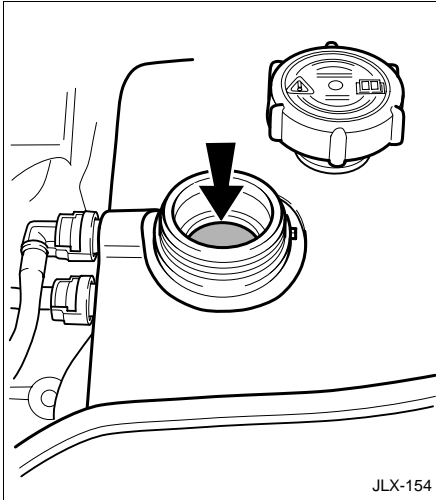
If necessary, top up as follows:

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 Jaguar brake fluid, specification Jaguar ITT SUPER DOT 4. This is a non-mineral polyglycol based brake fluid.

Refit the filler cap securely.

To avoid contamination should any brake fluid be spilt, replace the cap on the reservoir before cleaning the spilt fluid from the vehicle.



### Checking and Replenishment (continued)

#### Checking Coolant Level

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

See page 3-2 for coolant header tank location and page 3-8 for the coolant specification.



#### 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 have escaped, and then remove the cap completely.**

The coolant should be level with the bottom of the filler neck of the header tank. If persistent coolant loss is noticed have a Jaguar Dealer investigate the cause immediately.

Refit the filler cap and hand tighten securely.

#### Topping up

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

Top up until the coolant is level with the bottom of the filler neck.

Use the correct concentration of Jaguar Anti-freeze/Coolant/ Corrosion Inhibitor.

## 3-8 Routine checks

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### Cooling System

The cooling system should be filled or topped up with a mixture of 50 per cent demineralised water and 50 per cent Jaguar Anti-freeze, Coolant and Corrosion Inhibitor conforming to specification WSS M97B44-D, coloured orange, Extended Life Coolant.

This anti-freeze mixture gives frost protection for temperatures down to -40°C (-40°F).

**Caution: Do not mix with anti-freeze of a different specification as this would damage the cooling system.**

### 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 WSS M97B44-D, coloured orange, Extended Life Coolant. 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 five years or, 150 000 miles (240 000 kilometres) 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.**

### Engine Block Heater

If the vehicle is to be started at temperatures of -30°C (-22°F) and lower, it is recommended that an engine block heater is fitted and used. Failure to do so may result in damage to the drive belt.

For further information consult your Jaguar Dealer.

**Caution: The fitting of an engine block heater does not eliminate (lessen) the need for anti-freeze under freezing conditions.**



## Recommended Engine Oil

### Oil Specification

API SJ / EC and ILSAC GF-2.

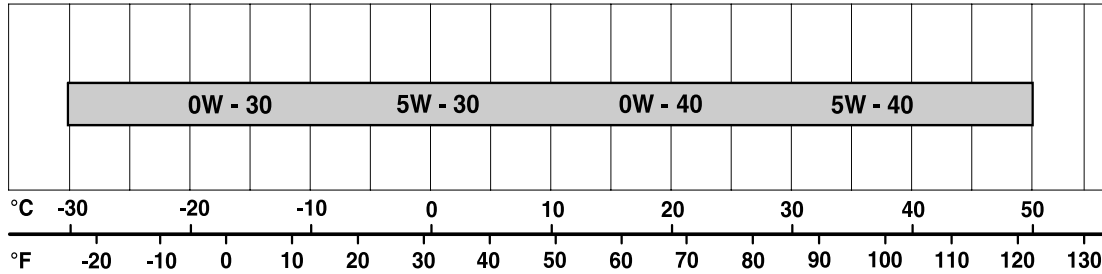
When topping up between oil changes, make sure that you use oil that has the correct quality level (API service) and viscosity grade. Your vehicle's warranty may be invalidated if damage is caused by use of improper engine oil.

When the oil level is at the lower dipstick mark, add one quart (one litre) of engine oil.

### SAE Viscosity Rating

It is recommended that you use only approved engine oils to meet the SAE Viscosity Range / Ambient Temperature Scale shown below. For maximum fuel economy, 5W/30 oil is recommended.

Recommended SAE Viscosity Range / Ambient Temperature Scale



## 3-10 Routine checks

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### Capacities

	US Quarts	Litres
Engine Oil – without oil cooler . . . . .	6.9	6,5
– with oil cooler . . . . .	7.9	7,5

The rear axle (final drive unit), automatic transmission unit and supercharger (where fitted) are oil filled-for-life and will not normally require to be topped up.

Cooling system, including reservoir and climate control:

– Initial fill – 3.2 and 4.0 litre normally aspirated . . . . .	10.6	10,0
– Initial fill – 4.0 litre supercharged . . . . .	12.7	12,0

Windscreen Washer Reservoir . . . . .	6.6	6,3
---------------------------------------	-----	-----

### Fuel Tank

	US Gallons	Litres
Indicated refill capacity (E to F on fuel gauge)	19.8	75,0
Unindicated capacity (Below E on fuel gauge)	1.6	6,0
Total refill capacity	21.4	81,0

## Introduction

In the event of a flat tyre, drivers should follow closely the procedure for wheel changing and jacking given in this section. The correct jacking points and how to locate them are shown. It is important that only the correct jacking points are used.

## Spare Wheel and Jacking Equipment

The spare wheel, jacking equipment and wheel chock are stored under the luggage compartment floor panel.

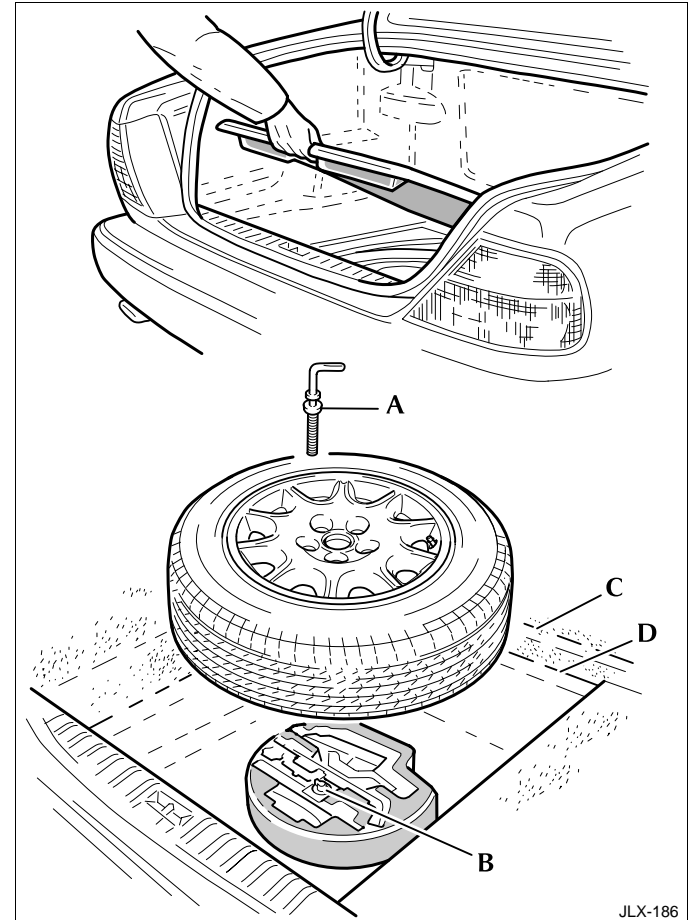
To remove the spare wheel, remove the luggage compartment floor panel and unscrew the retaining screw (A).

The tray containing the jacking equipment kit can be removed from the luggage compartment by unscrewing the yellow securing bolt (B).

The kit comprises: the jack; jack ratchet handle with socket extension; wheel nut wrench with telescopic extension and a wheel chock. For vehicles fitted with locking wheel nuts, a wheel locking nut extractor tube and key socket are included in the tray.

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

Stow the replaced road wheel in the luggage compartment so that it fits over the jacking equipment tray. Reposition the luggage compartment floor panel in the upper location slots (C). (D) is the panel location slots for vehicles with a space saver wheel.



## 4-2 Roadside emergency service

### Wheel Changing and Jacking

Be prepared for 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, solid ground as possible. Switch on hazard warning lights and, where legally required, display the warning triangle.



**WARNING:**

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

Remove the spare wheel (see page 4-1) to obtain the jack and wheel changing tools.

#### To Gain Access to the Wheel Nuts:

##### Alloy Wheels with Plain Wheel Nut Covers

Carefully remove the wheel nut cover using the flattened end of the spare wheel retaining screw.

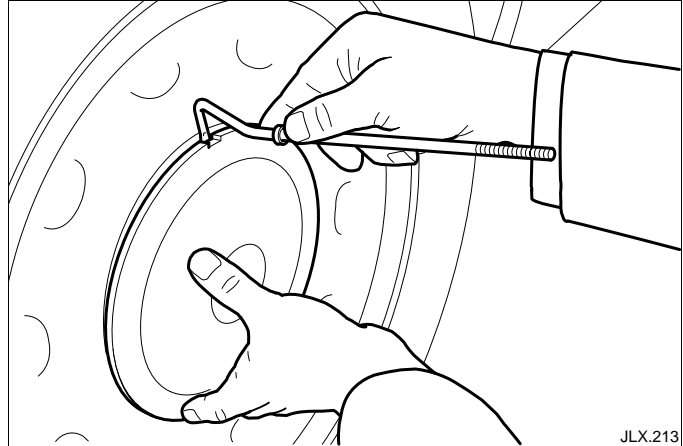
##### Loosening the Wheel Nuts

Always **slightly** loosen the wheel nuts before raising the vehicle.

A label showing correct use of the wheel nut wrench is printed on its shaft, as shown opposite and states:

WHEEL NUT REMOVAL

WHEEL NUT TIGHTEN



JLX.213



WHEEL NUT REMOVAL

WHEEL NUT TIGHTEN

JLK 053

## Wheel Changing and Jacking (continued)

### Removing Locking Wheel Nuts (where fitted)

Some vehicles are fitted with one locking wheel nut on each wheel. These can only be removed using the extractor tube and key socket from the jacking equipment tray.

The locking wheel nut is provided with a cover which makes it visually similar to standard wheel nuts. The top of the cover has an indentation (A) to aid identification.

Push the extractor tube firmly over the locking wheel nut cover, as shown at (B), until it is fully located.

Withdraw the extractor tube to remove the cover.

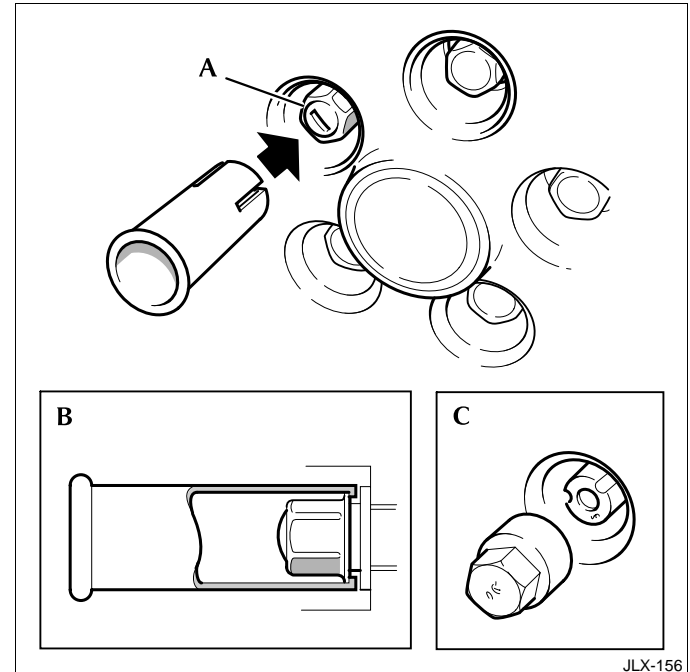
Fit the key socket over the locking wheel nut as shown at (C).

Fit the wheel nut wrench over the key socket and loosen the locking wheel nut.

### Locking Wheel Nut Security Coding

Locking wheel nuts have a letter stamped on their upper surface. The key socket is stamped with a corresponding number. Only key sockets with the correct matching number will fit the locking wheel nut.

Should a new key socket be required, note the letter on the locking wheel nut and contact your Jaguar Dealer. Proof of vehicle ownership will be required.



## 4-4 Roadside emergency service

### Wheel Changing and Jacking (continued)

#### Before Lifting the Vehicle



**WARNING:**

**Before attempting to lift the vehicle with the jack, chock one of the front wheels to prevent the vehicle from rolling when jacked up.**

A folding wheel chock is supplied with the jacking equipment. The chock must be unfolded into a triangular form before use.

Chock the front wheel on the opposite side of the vehicle to the side being jacked up, as detailed below:

#### Note:

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

Using the wheel nut wrench with the handle extended, slacken, but do not remove, the wheel nuts.

#### VEHICLE FACING DOWN A SLOPE

Chock the front of the front wheel

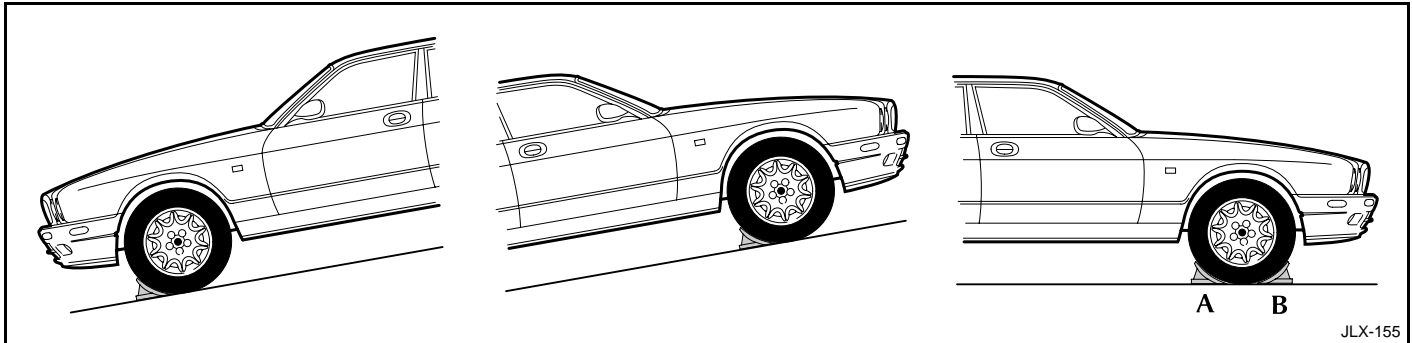
#### VEHICLE FACING UP A SLOPE

Chock the rear of the front wheel

#### VEHICLE HORIZONTAL

Front wheel change: Chock at **A**

Rear wheel change: Chock at **B**



## Wheel Changing and Jacking (continued)

### Jacking



#### WARNING:

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

Observe the instructions printed on 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 the automatic transmission 'P' (Park) position will not prevent the vehicle from moving and possibly slipping off the jack.

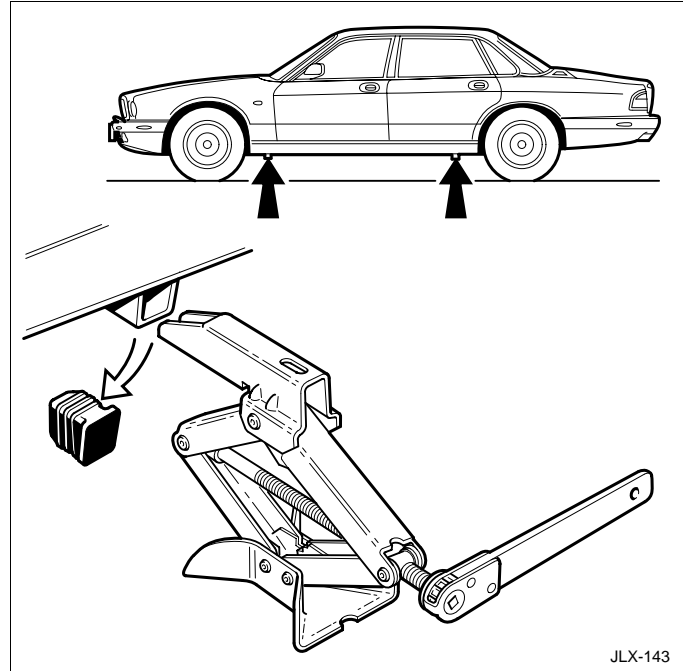
There are four jacking points, two each side. These provide positive location for the jack and are on the underside of the floor near each wheel. Remove the rubber cover from the end of the jacking point adjacent to the road wheel to be changed.

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



#### WARNING:

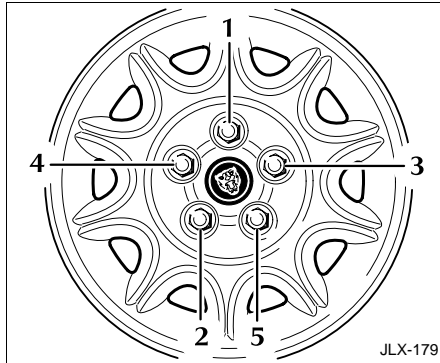
Do not attempt to lift the vehicle unless the jack arm is fully engaged in the jacking point square socket.



JLX-143

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

## 4-6 Roadside emergency service



### Wheel Changing and Jacking (continued)

Ensure that the jack arm is fully engaged. Carefully raise the vehicle by turning the ratchet handle. **Stop jacking the vehicle when the tyre just clears the ground. Minimum tyre lift gives maximum vehicle stability.** Remove the wheel nuts and the wheel.

### Fitting the Spare Wheel



#### WARNING:

**When using the wheel nut wrench, use the extension handle only for removing wheel nuts, NOT for tightening.**

Fit the spare wheel and secure with the wheel nuts.

Using the wheel nut 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, with the wrench handle not extended, tighten the wheel nuts alternately. At the earliest opportunity have the wheel nuts tightened with a torque wrench to 50 – 60 lbf.ft (68 – 82 Nm) for steel wheels, and 65 – 75 lbf.ft (88 – 102 Nm) for alloy wheels. This torque must not be exceeded.

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



### Wheel Changing and Jacking (continued)

#### Re-fit the Centre Badge or Wheel Nut Cover

##### Alloy Wheels with Centre Badge

Carefully remove the centre badge to allow the wheel to be stowed. Transfer the badge to the replacement wheel. Press fit the centre badge into position on the wheel.

##### Alloy Wheels with Plain Wheel Nut Covers

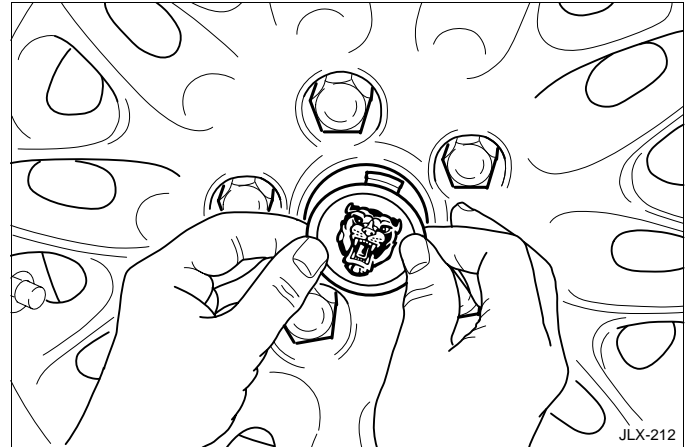
Push the wheel nut cover firmly into position on the wheel.

##### Stowing the Equipment

Remove the chock and fold flat.

Stow the jack, wheel chock and tools in the jacking equipment tray. If removed, refit the equipment tray in the luggage compartment and secure with the yellow securing bolt.

Place the road wheel over the equipment tray and refit the luggage compartment floor panel.



## 4-8 Roadside emergency service

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### Emergency Starting

#### Rolling Start

A start by pushing or towing cannot be achieved on a vehicle with automatic transmission.

#### Emergency Starting using Jump Leads

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

Before commencing, the following precautions must be taken:

1. When the battery of another vehicle is being used, ensure that the vehicles do not touch. Alternatively, remove the charged battery and place near to, not on, the vehicle with the discharged battery.
2. Ensure that both vehicles have all electrical services OFF, the handbrake is ON and the transmission is in Park.
3. Where the jump leads are of a different colour, e.g. red and black, use red for positive (+). This aids identification and helps to avoid crossing positive (+) to negative (-). Take extra care to avoid crossing the polarity when using cables of the same colour.

#### Caution:

1. If using a jump start vehicle, under no circumstances should the vehicles come into contact with each other. 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.

Continued

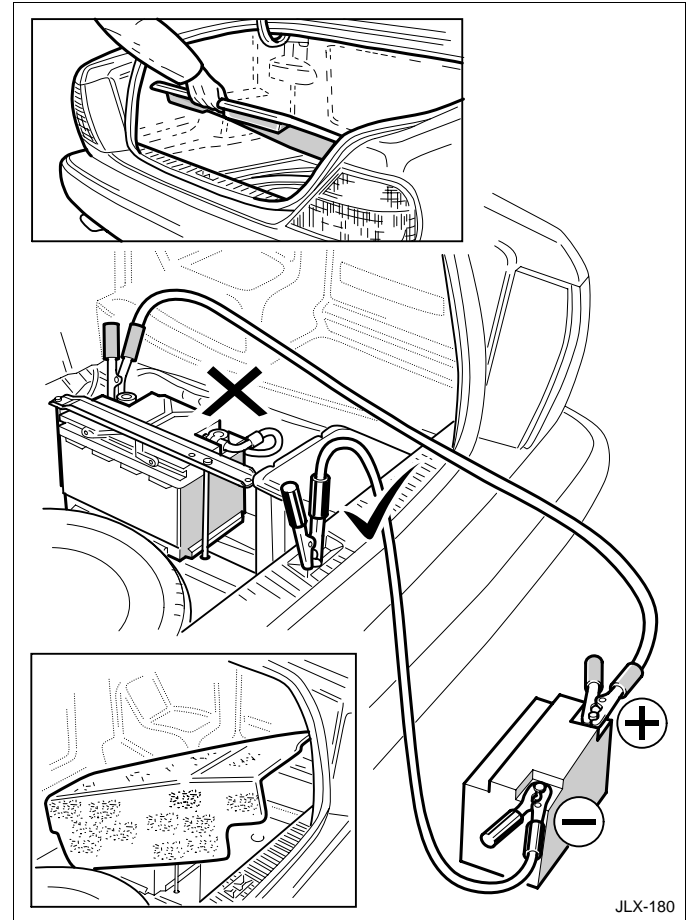
## Emergency Starting (continued)

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

1. Apply the handbrake, select Park and turn off all the vehicles electrical services.
2. Remove the luggage compartment floor panels.
3. Unclip the battery positive (+) terminal cover.
4. Attach one end of the red jump lead to the positive (+) terminal of the **booster** battery and the other end to the positive (+) terminal of the discharged battery. **Make sure that a good connection is made.**

**Caution: Do not connect the negative jump lead directly to the negative (-) terminal of the discharged vehicle.**

5. Attach one end of the black jump lead to the negative (-) terminal of the **booster** battery and the other end to an earth point on the vehicle being started. (See illustration). The earth point must be at least 12 inches (305 mm) from the discharged battery. Make sure that a good connection is made.
6. When started, allow the engine to idle for 5 minutes before disconnecting the cables.
7. Disconnect the black jump lead from the earth point and the booster battery negative (-) terminal.
8. Disconnect the red jump lead from the positive (+) terminals of both batteries.
9. Refit the positive (+) terminal cover.
10. Refit the luggage compartment floor panels.



## 4-10 Roadside emergency service

### 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 for winching the vehicle onto a recovery transporter.

### Transporting

If the vehicle is being transported on a trailer or vehicle flat bed transporter, the handbrake must be applied, the wheels chocked and the gear selector lever moved to position 'N' or 'D' but NEVER to 'P'.

The vehicle must be securely tied down to the transporter or trailer. 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:

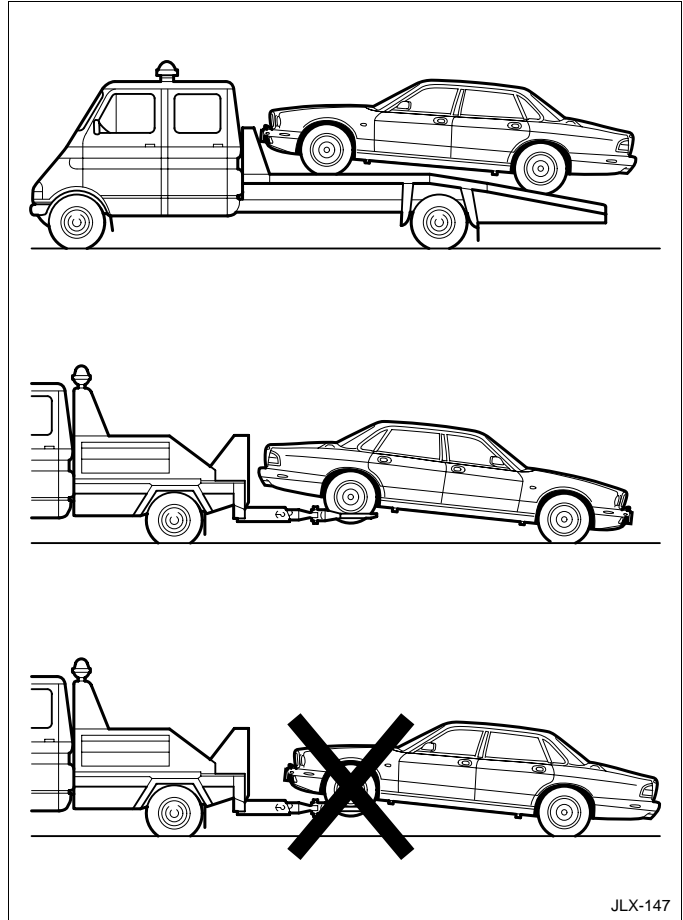
**Do not** tow with sling-type equipment since damage to the bodywork may result.

**Caution: Do not tow vehicle by suspending the front end.**

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

### Vehicles with Defective Automatic Transmission

The vehicle must be towed with the rear wheels clear of the ground.



## Towing Loops

**Caution: The towing loops are not suitable for 'solid bar towing'.**

**Care must be taken to avoid damaging the bumpers and front apron.**

The front loop is welded to the right-hand bumper mounting bracket.

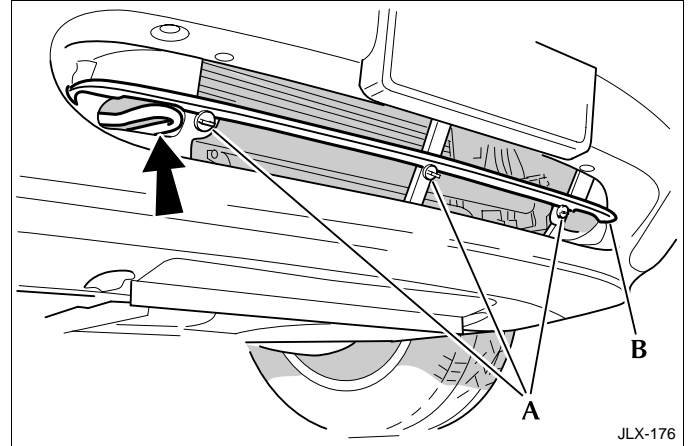
Turn the three fasteners (A) anti-clockwise and remove the grille vane (B) before using the front towing loop.

The rear eye 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 selector lever must be in neutral (position 'N') with the ignition key turned to position 'II' to release the steering lock and render the indicators, horn and brake lights operational.

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



### 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.**

## 4-12 Roadside emergency service

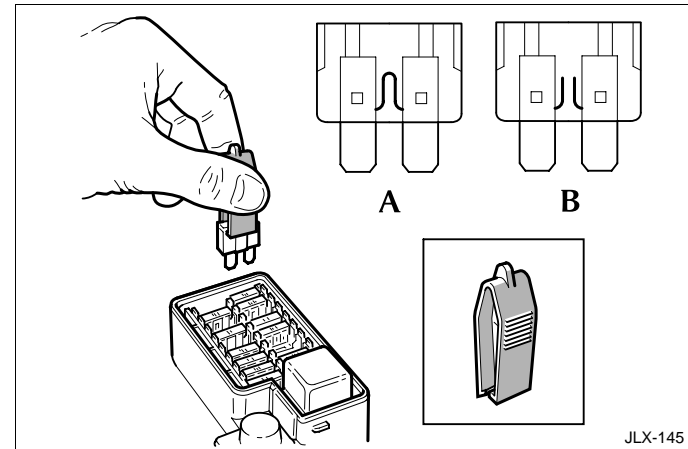
### Fuses and Fuse Boxes

Fuse failure is identified by an inoperative circuit.

Do not fit a new fuse if the wiring is damaged; contact a Jaguar Dealer. After renewing a fuse have the circuit checked by a Jaguar Dealer.

A special tool for removing and replacing the fuses is supplied underneath the electrical carrier lid in the luggage compartment, together with spare fuses.

Use only the spare fuses supplied. Replace the spare with a Jaguar approved fuse of the **same** amperage rating.



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### Checking and Renewing a Blown 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. The colour code is as follows:

TAN	5 amp	CLEAR	25 amp
RED	10 amp	LIGHT GREEN	30 amp
LIGHT BLUE	15 amp	BRIGHT ORANGE	40 amp
YELLOW	20 amp		

Push the tool on to the suspect fuse and withdraw it.

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

**A** – Fuse in good condition.      **B** – Blown fuse.

Fit a new fuse using the tool.

## Fuse Box Locations

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

There are two types of fuse box:

**Type A** – 18 fuse positions with one relay

**Type B** – 22 fuse positions with seven relays.

The locations are as follows:

### Type A Fuse boxes

**B** Engine management fuse box

**C** Rear compartment fuse box

**D** Rear compartment fuse box

### Type B Fuse boxes

**A** Engine compartment fuse box

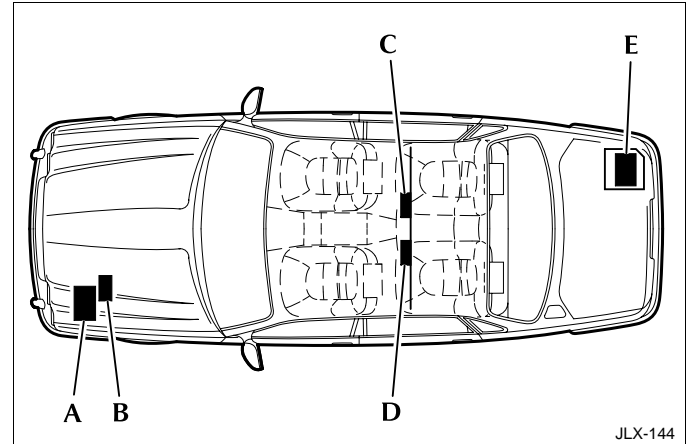
**E** Luggage compartment fuse box

**Note:** Relays are detailed on page 4-22.



### WARNING:

1. Do not fit a fuse of a different amperage from that specified on the Master Label. 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.



## 4-14 Roadside emergency service

### Engine Compartment Fuse Boxes

There are two fuse boxes in the main engine compartment, located on the left-hand side. The larger of the fuse boxes, the engine compartment fuse box, contains 22 fuse positions. The smaller fuse box, the engine management fuse box, has 18 fuse positions.

**Caution:** When a fuse box lid is removed, take care to protect the box from moisture, and refit the lid at the earliest opportunity.

Remove the larger fuse box lid by pressing the retaining lugs and lifting.

When refitting, press the fuse box lid in the area of the retaining lugs until the lid engages.

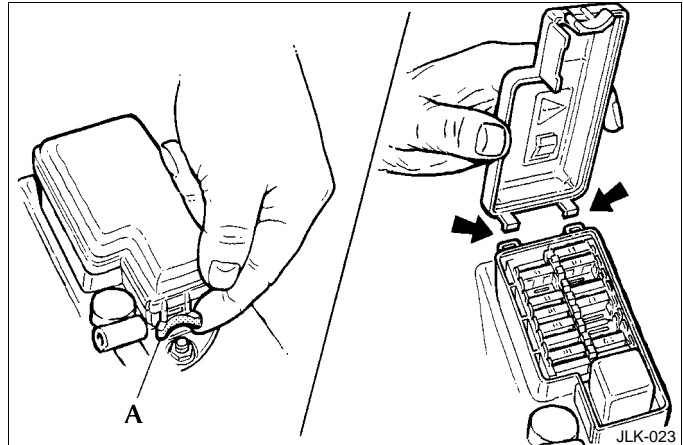
The circuits protected are listed on page 4-16.



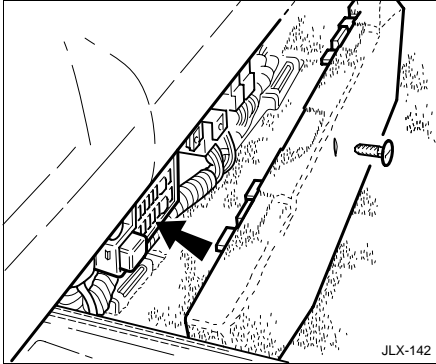
Remove the smaller fuse box lid by compressing and lifting the 'U'-shaped latching mechanism (A).

To refit the fuse box lid, position into the slots and push down until the latching mechanism is engaged.

The circuits protected are listed on page 4-17.



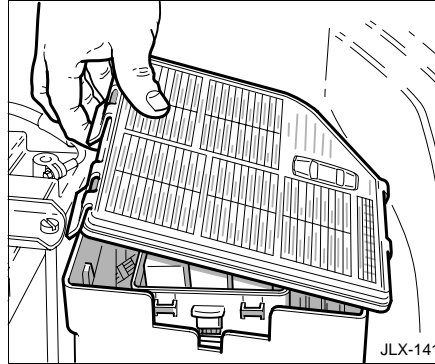




## Rear Passenger Compartment Fuse Boxes

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, turn the fastener 90 degrees and pull the heelboard panel forwards. Long wheelbase vehicles with electrically operated rear seats have a captive heelboard which hinges upwards, after loosening the fastener, for access to the fuses.



To refit the heelboard trim panel, first insert the top of the panel under the seat pan and push the bottom of the panel until it is correctly located. Fit the securing fastener.

The circuits protected are listed on pages 4-18 and page 4-19.

## Luggage Compartment Fuse Box

A fuse box is located in the luggage compartment electrical carrier which is situated to the rear of the battery.

A list of protected circuits and fuse ratings is given on the fuse allocation chart (Master Label) which is attached to the lid of the electrical carrier.

**Caution:** When the carrier lid is removed, take care to protect the box from moisture ingress, and refit the lid at the earliest opportunity.

Remove the luggage compartment floor panels.

Remove the electrical carrier lid by pulling the retaining clips and pulling the lid upwards.

Spare fuses and a special tool for removing the fuses are supplied underneath the electrical carrier lid in the luggage compartment.

Reposition the lid and press down until the retaining clips engage.

The circuits protected are listed on page 4-20.

## 4-16 Roadside emergency service

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### Fuse Ratings

#### Engine Compartment Fuse box – Left-hand Side

Fuse No	Ratings (amps)	Circuit
1	10	Transmission control module.
2	5	Screen heaters relay, alternator regulator.
3	10	Security sounder, headlamp levelling, ignition coils +Ve, fog lamp switches.
4	5	ABS control module.
5	10	Adaptive damping, starter relay coil, engine management control module and relays.
6	10	Right-hand dipped beam headlamp.
7	30	Powerwash pump.
8	10	Left-hand dipped beam headlamp.
9	10	Security sounder.
10	5	Rain Sensing.
11	10	Right-hand horn.

Fuse No	Ratings (amps)	Circuit
12	30	Radiator cooling fans series/right-hand fast.
13	10	Left-hand horn.
14	30	Cooling fans left-hand fast.
15	10	Air conditioning coolant pump.
16	30	ABS pump control.
17	15	Front fog lamps.
18	30	ABS pump motor.
19	10	Right-hand main beam headlamp.
20	–	Not used.
21	10	Left-hand main beam headlamp.
22	30	Wiper motor.

A on location illustration, page 4-13.

## Fuse Ratings and Circuits

### Engine Compartment – Engine Management Fuse box

Fuse No	Rating (amps)	Circuit
1	20	Adaptive damping.
2	15	Intercooler water pump (Supercharger).
3	25	Starter solenoid.
4	5	Engine control module.
5	10	Fuel injectors.
6	5	Transmission control module.
7	–	Not used.
8	10	Air conditioning compressor clutch.
9	30	Throttle motor.
10	5	Engine control module, Park/Neutral switch, cruise control VSV 1 and 2 (where fitted), EGR valves.

Fuse No	Rating (amps)	Circuit
11	30	HO2 sensor heaters.
12	10	Air flowmeter, VVT solenoids.
13	–	Not used.
14	10	HO2 sensor heaters relay (where fitted), EVAP valve, ignition coils relay, throttle motor relay, AC compressor clutch relay, radiator fans control module, CCV.
15	30	Windscreen left-hand heater.
16	5	Control module compartment cooling fan.
17	30	Windscreen right-hand heater.
18	10	Ignition coils, ignition amplifier.

**B** on location illustration, page 4-13.

## 4-18 Roadside emergency service

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### Rear Compartment Fuse box – Right-hand Heelboard

Fuse No	Rating (amps)	Circuit
1	20	Left-hand seat control module.
2	15	Door lock relay, door locking actuators.
3	15	Body processor module.
4	10	Door mirror heaters, mirror foldback.
5	5	Passenger seat switchpack.
6	10	Air conditioning.
7	20	Body processor module (column motor power).
8	5	Rear window switchpack, passenger door switchpack.
9	20	Rear seat heaters.
10	5	Jaguar Diagnostic System.

Fuse No	Rating (amps)	Circuit
11	20	Air conditioning right-hand blower relay.
12	5	Right-hand / left-hand rear seat timer.
13	25	Right-hand rear door control module.
14	-	Not used.
15	25	Right-hand door control module.
16	-	Not used.
17	15	Sunroof.
18	25	Right-hand and left-hand seat heaters.

C on location illustration, page 4-13.

## Rear Compartment Fuse box – Left-hand Heelboard

Fuse No	Rating (amps)	Circuit
1	20	Right-hand seat control module.
2	5	Rear window switchpack, driver door key barrel, driver door switchpack and memory.
3	5	Dimmer module.
4	5	Diagnostic connector.
5	15	Body processor module.
6	5	Centre console switchpack (includes clock), reader exciter ECM.
7	15	Body processor module (battery supply for solenoids, lamps and motors).
8	5	Steering column adjust switch, driver seat switchpack.
9	10	Radio/cassette head unit.
10	5	Airbag/SRS.
11	20	Air conditioning left-hand blower motor.

D on location illustration, page 4-13.

Fuse No	Rating (amps)	Circuit
12	10	Door mirror heaters relay, air conditioning, blower motor relays, power steering control module.
13	25	Left-hand rear window.
14	10	Cruise control switch, instrument cluster, catalytic converter over temperature warning.
15	25	Left-hand door control module.
16	5	Electrochromic interior mirror (where fitted), centre console switchpack, gear selector, traction control switch illumination, J-gate mode switch illumination. Pin A9 luggage compartment fuse box, heated rear window relay, fuel pump relay, secondary fuel pump relay (supercharged). Pin A5: feed to fuses 10 & 12 in right-hand heelboard.
17	10	Accessory supply.
18	5	Instrument cluster.

## 4-20 Roadside emergency service

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### Luggage Compartment Fuse box – Electrical Carrier

Fuse No	Rating (amps)	Circuit
1	10	Security and locking control module (Reversing lamps, rear fog lamps, stop lamps, electrochromic mirror).
2	5	Fuel filler flap.
3	5	Audio system.
4	5	Radio telephone, 'E' post lamps, navigation.
5	25	Cigar lighters.
6	-	Not used.
7	20	Fuel pump.
8	10	High mounted stop lamp, caravan/trailer stop lamps.
9	10	Antenna motor.
10	10	Security and locking control module (luggage compartment release, caravan/trailer direction indicators, fuel filler flap relay).

E on location illustration, page 4-13.

Fuse No	Rating (amps)	Circuit
11	10	Accessory sockets.
12	30	Audio system power amplifier.
13	-	Not used.
14	5	Navigation.
15	20	Fuel pump (supercharger, where fitted).
16	20	Caravan/trailer connector.
17	25	Heated rear screen.
18	20	Rear seat movement.
19	5	Right-hand side lamps, left-hand and right-hand number plate lights, caravan/trailer.
20	20	Rear seat movement.
21	5	Left-hand side lamps, left-hand and right-hand sidemarker lights, caravan/trailer.
22	5	Audio / telephone.

## Control Modules – Identification and Location

Control Module	Location
Adaptive Damping (where fitted)	Under the fascia, on the bulkhead, passenger side.
Airbag (Supplementary Restraint System)	On the tunnel forward of the J-gate.
Anti-lock Braking System and Traction Control	Engine compartment, left-hand side. Mounted below the ABS hydraulic control unit.
Body Processor	Fascia, mounted on passenger airbag bracket.
Climate Control	Right-hand side of the climate control unit.

Control Module	Location
Door (four-one in each door)	Door interior, between the inner and outer panels.
Engine Management	Engine compartment, passenger side, within bulkhead extension.
Front Seat	Seat cushion frame.
Rear Seat (where fitted)	Rear of the centre armrest.
Security and Locking	Luggage compartment electrical carrier to the rear of the battery.
Transmission	Engine compartment, passenger side, within bulkhead extension.

## 4-22 Roadside emergency service

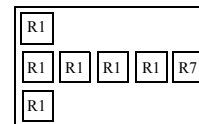
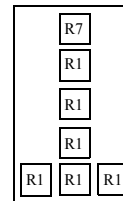
### Relay Identification and Location

The following chart identifies and gives locations for the relays which control the vehicle's electrical services. The relays have coloured harness connectors and cases for identification. Where the connector colour differs from the case, both colours will be listed.

Relays, where not mounted in a fuse box, are arranged in groups of three. Each group has a black plastic cover, which slots into the harness connector and can be easily removed for access.

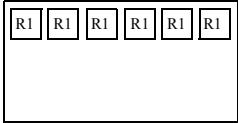
When left-hand or right-hand is used in the text, this refers to the left-hand side or right-hand side of the vehicle, viewed from the rear.

Location	Functions	Case Colour
<p>Engine compartment fuse box, left-hand side, to the rear of the brake control modulator.</p>	<p>Layout as diagram:</p> <ul style="list-style-type: none"> <li>R1 Air conditioning water pump.</li> <li>R2 Front fog lamps.</li> <li>R3 Main beam headlamps.</li> <li>R4 Power wash pump (where fitted).</li> <li>R5 Dipped beam headlamps.</li> <li>R6 Horns.</li> <li>R7 Ignition +.</li> </ul>	<p>Brown</p> <p>Brown</p> <p>Brown</p> <p>Brown</p> <p>Brown</p> <p>Brown</p> <p>Brown</p>
<p>Luggage compartment fuse box, to the rear of the battery, under the electrical carrier lid.</p>	<p>Layout as diagram:</p> <ul style="list-style-type: none"> <li>R1 Fuel pump s/c only.</li> <li>R2 Heated rear window.</li> <li>R3 Tail and number plate lamps.</li> <li>R4 Fuel pump.</li> <li>R5 Stop lamps.</li> <li>R6 Accessory socket (where fitted).</li> <li>R7 Auxiliary +.</li> </ul>	<p>Brown</p> <p>Brown</p> <p>Brown</p> <p>Brown</p> <p>Brown</p> <p>Brown</p> <p>Brown</p>





## Relay Identification and Location (continued)

Location	Functions	Case Colour
Engine compartment, engine and transmission control modules compartment, passenger side.	Layout as diagram: R1 Intercooler water pump (where fitted), (micro-relay). R2 Air conditioning compressor clutch. R3 Ignition coil. R4 Throttle motor. R5 Starter solenoid. R6 HO2 sensor heaters. R7 Fuel injection (micro-relay).	 Black Brown Brown Brown Brown Brown Black
Engine compartment, left-hand side, engine management fuse box	Engine management system control.	Brown
Engine compartment, left-hand side behind the radiator.	Wiper on/off Wiper fast/slow.	Black Black
Engine compartment, centrally at bulkhead.	Front screen heater – right-hand side (where fitted). Front screen heater – left-hand side (where fitted).	Black Black
Engine compartment, left-hand side, below the brake modulator under spoiler.	Radiator fan control module.	Black

## 4-24 Roadside emergency service

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### Relay Identification and Location (continued)

Location	Functions	Case Colour
In the passenger compartment below the driver seat.	Seat heater – driver (where fitted).	Brown
In the passenger compartment below the front passenger seat.	Seat heater – front passenger (where fitted).	Brown
In the passenger compartment behind the right-hand side rear seat heelboard.	Right-hand blower – air conditioning: micro-relay. Left-hand blower – air conditioning: micro-relay. Door mirror heater: micro-relay. Left-hand lumbar deflate, rear seat: micro-relay (where fitted).	Black Black Black Black
In the passenger compartment behind the left-hand side rear seat heelboard.	Door lock: micro-relay. Air conditioning isolate: micro-relay Door mirror fold flat: micro-relay (where fitted). Door mirror fold out: micro-relay (where fitted).	Black Black Black Black
In the passenger compartment in the left-hand side rear seat fuse box.	Ignition +	Brown
In the luggage compartment fuse box.	Fuel flap lock: micro-relay. Fuel flap unlock: micro-relay.	Black Black

## Introduction

Owners are responsible for ensuring that the vehicle is regularly maintained and serviced at the correct mileage/time intervals as specified in the 'Maintenance Schedules'. The first part of this section deals with regular servicing.

The condition of the tyres is of the utmost importance. Advice about tyre wear and correct usage is given in this section. If in any doubt about the condition of your tyres, contact a Jaguar Dealer.

## Regular Servicing

Regular maintenance and servicing is the responsibility of the owner.

Jaguar Dealers will be pleased to arrange periodic servicing in accordance with the USA and Mexico '**Passport to Service**' Booklet or Canadian '**Club Jaguar**' Warranty and Benefits Information Booklet.

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

## Tool Kit

A tool kit is provided for some vehicles/markets and is located under the bonnet, on the passenger side, in a tray on the bulhead extension cover.

## 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.

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.

## 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.

## 5-2 Vehicle maintenance

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### 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.

However, to reduce the effects of flat-spotting, the tyres of a stored vehicle may be inflated to pressures not exceeding 50 lbf/in<sup>2</sup> (343 kPa, 3,4 bar).

Refer to SECTION 6, **Recommended Tyre Pressures** for normal operating pressures.

### Tyre Size, Type, Pressures

The tyre pressures recommended (see SECTION 6: **Wheel/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. Deflating 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 2 lbf/in<sup>2</sup> (14 kPa, (0,14 kg/cm<sup>2</sup>, 0,14 bar) per week, the cause should be investigated and rectified.

It is an offence in many States 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 speed rating moulded into the tyre's side-wall.

### Tyre Renewal

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

**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.

### 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 oil or grease contamination by using a suitable cleaner.

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

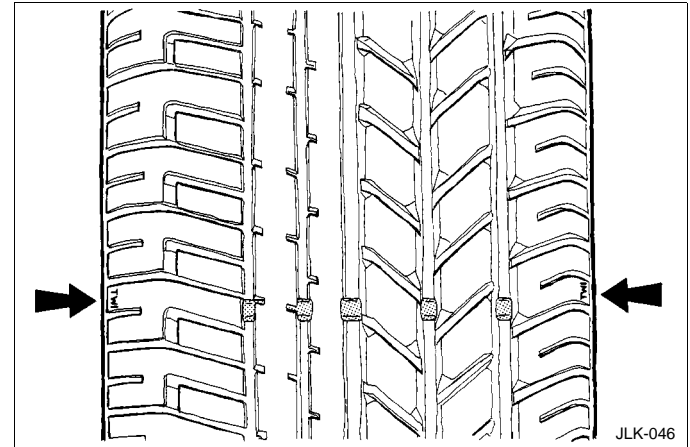
## Wear

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 0.063 inch (1,6 mm) the indicators appear at the surface as bars which connect the tread pattern across the full width of the tyre.

It is illegal in many States and certain other countries to continue to use tyres after the tread has worn to less than 0.063 inch (1,6 mm) 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.



## 5-4 Vehicle maintenance

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### Snow Chains and Spikes Spiders

Snow chains or a 'Spikes Spider' accessory, of the recommended type, may only be fitted to rear wheels. Contact your Jaguar Dealer for details and availability of approved snow chains or spikes spiders.

**Note:** Traction control (if fitted) MUST be switched OFF when using snow chains or spikes spiders.

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

Remove the snow chains or spikes spiders immediately the roads are clear of snow.

Ensure the fitting instructions supplied with the snow chains or spike spiders are kept in a safe place, for example, the Vehicle Care literature pack.

**Note:** Due to the constraints of wheelarch clearance, snow chains can only be used up to a maximum size of 16 inch diameter roadwheels. Spike spiders can be used up to a maximum of 18 inch diameter roadwheels.

### 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.

## United States Department of Transportation/Uniform Tyre Quality Grades

The following information relates to the tyre grading system developed by the National Highway Safety Traffic Administration which will grade tyres by tread wear, traction and temperature performance.

### Tread Wear

The tread wear grade is a comparative rating based on the wear rate of the tyre when tested under controlled conditions on a specified government test course. For example, a tyre graded 150 would wear one and a half (1½) times as well on the government course as a tyre graded 100. The relative performance of tyres depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

### Traction - A, B, C

The traction grades, from the highest to the lowest are A, B, C, and they represent the tyre's ability to stop on wet pavements as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tyre marked 'C' may have poor traction performance.



#### WARNING:

**The traction grade assigned to this tyre is based on braking (straight ahead) traction tests and does not include cornering (turning) traction.**

### Temperature - A, B, C

The temperature grades 'A' (the highest), 'B' and 'C' representing the tyre's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tyre to degenerate and reduce tyre life, and excessive temperature can lead to sudden tyre failure.

The grade 'C' corresponds to a level of performance which all passenger car tyres must meet under the Federal Motor Vehicle Safety Standard N<sup>o</sup>. 109.

Grades 'B' and 'A' represent higher levels of performance on the laboratory test wheel than the minimum required by law.



#### WARNING:

**The temperature grade for this tyre is established for a tyre that is properly inflated and not overloaded. Excessive speed, under inflation or excessive loading, either separately or in combination, can cause heat build-up and possible tyre failure.**

## 5-6 Vehicle maintenance

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### 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 is 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 connect any 12 volt equipment, (for example, a 12 volt lead lamp), directly to the battery terminals. Use the cigar lighter sockets for temporarily connecting Jaguar approved accessories.**

- 4. 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. 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.

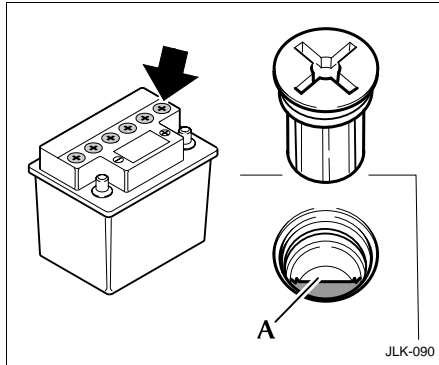
**Note:** The service life of the battery is dependent on its condition of charge. It must always be sufficiently charged for the battery to last an optimum length of time. We recommend that the battery charge is checked frequently if the vehicle is used mostly for short distance trips, or if it is not used for long periods of time.

### Generator (GEN)

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

The generator 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.





## Check/Top Up Battery Electrolyte

**Note:** In normal climates this must be carried out at least once a year. In hot weather/climates the electrolyte level must be checked at least every three months.

Remove the luggage compartment floor panel and the right-hand side panel.

Unscrew the six cell plugs. Check that the electrolyte is level with the plastic level indicator (A). If necessary, top up with distilled water but do not overfill. If illumination is required, use a hand-held flashlight to inspect the electrolyte level.

Refit the six cell plugs.

Refit the floor panels.

## Battery Charging



**WARNING:**

**Batteries produce combustible gas (hydrogen) when being charged. The battery must be removed from the vehicle before charging commences.**

To disconnect the battery, refer to **Battery Lead Disconnection** on page 5-8.

When charging the battery ensure that the charge voltage is the same as the nominal voltage of the battery.

**Caution: Switch off the charger before connecting or disconnecting terminal connections to avoid sparks and short circuits.**

Ensure that the charger positive (+) lead is connected to the positive (+) terminal of the battery and the negative (-) lead is connected to the negative (-) terminal of the battery.

Do not remove or loosen any of the cell plugs when charging the battery.

Check, and if necessary top-up, the electrolyte level when the battery is fully charged.

## Clean and Grease Battery Connections

Disconnect the battery leads as detailed in **Battery Lead Disconnection** on page 5-8. Clean the battery posts and coat the post bases with petroleum jelly. Reconnect the battery leads as detailed in **Battery Lead Connection** on page 5-8.

## 5-8 Vehicle maintenance

### Battery Lead Disconnection

**Note:** Upon battery lead disconnection, both trip computer memories (A and B) will be erased. On reconnection the radio will require recoding and the clock will need to be reset.

Remove the luggage compartment floor panel and the right-hand side panel (where fitted).

#### Caution:

1. **Under no circumstances should a battery be disconnected whilst the ignition circuit is live, as permanent damage to the instrument cluster may occur.**

2. **Disconnect the negative lead (earth terminal) first.**

Unclip the battery positive terminal cover.

Slacken the negative lead pinch bolt (10 mm spanner required) and disconnect the **negative** (-) battery lead. Slacken the positive lead pinch bolt and disconnect the **positive** (+) battery lead.

### Battery Lead Connection

**Caution: Do not overtighten the pinch bolts.**

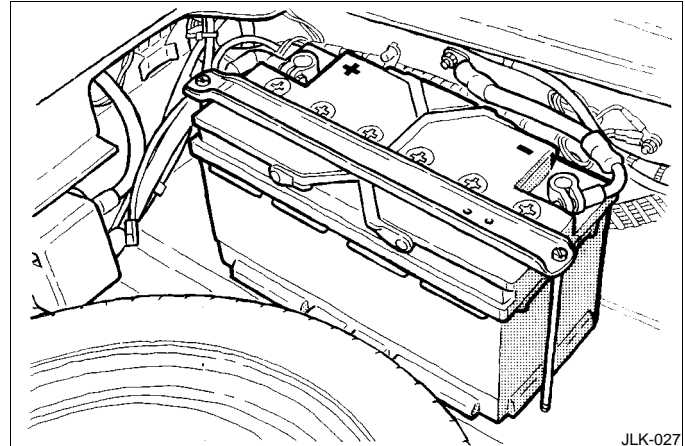
Connect the **positive** (+) lead, tighten the pinch bolt and clip the positive terminal cover on the battery.

Connect the **negative** (-) lead and tighten the pinch bolt. Refit the floor panels.

After the battery has been reconnected and the ignition switch is turned to position 'II', the message centre display will initially show an erroneous reading i.e. -----. This will remain until after the bulb check sequence, when the correct recorded mileage will be displayed. This is a normal function of the instrument pack.

Reset the clock to the correct time.

The radio cassette player display will indicate 'code'. The radio will not operate until the correct security code has been re-entered. Refer to the Sound System Handbook.



## Bulb Renewal

It is important that only Jaguar bulbs of the type specified on page 5-18 are used when renewing bulbs.

Before renewing bulbs, switch off the ignition and light switches.

### Headlamp – Bulb Renewal

Open the bonnet.

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

Dip beam bulb is outboard.

High beam bulb is inboard.

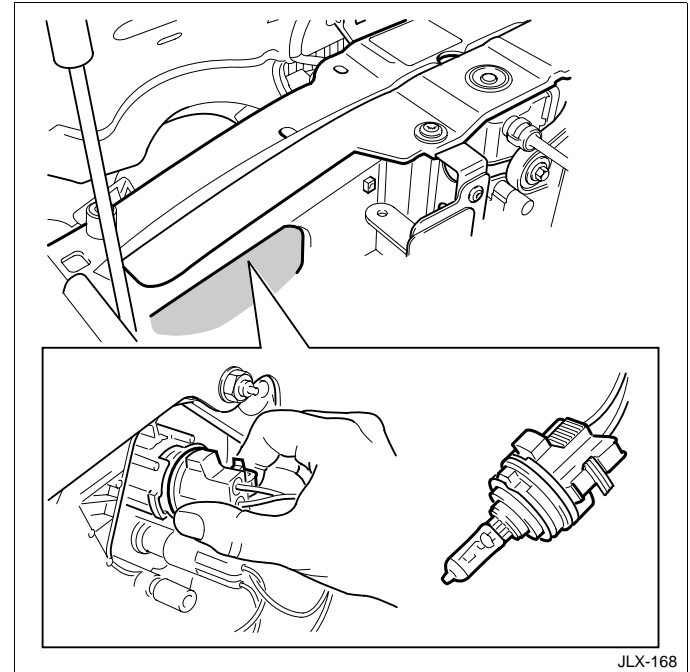
**Caution: The bulbs are halogen type and will be damaged if touched by hand or contaminated with oil or grease. It is important to use clean gloves or cloth when handling a bulb which is to be used again. A contaminated bulb may be cleaned with methylated spirit before refitting.**

Press the plastic spring clips and remove the bulb holder from the headlamp assembly. Pull the bulb from the bulb holder.

Always use the correct bulb for the application, as specified on page 5-18.

Fit a new bulb to the bulb holder, it will only correctly fit in one position. Fit the bulb holder to the headlamp, it will only correctly fit in one position, and engage the spring clips.

Close the bonnet.



## 5-10 Vehicle maintenance

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### Front Parking (Side) Light – Bulb Renewal

Open the bonnet.

The front parking lights are contained within the inner headlamp units.

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

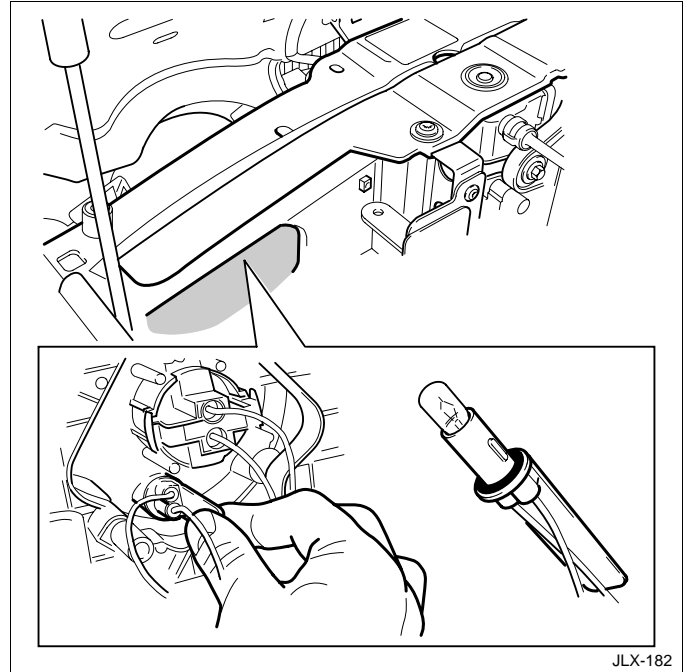
Pull the capless bulb from the holder and fit a new one of the correct type, see page 5-18.

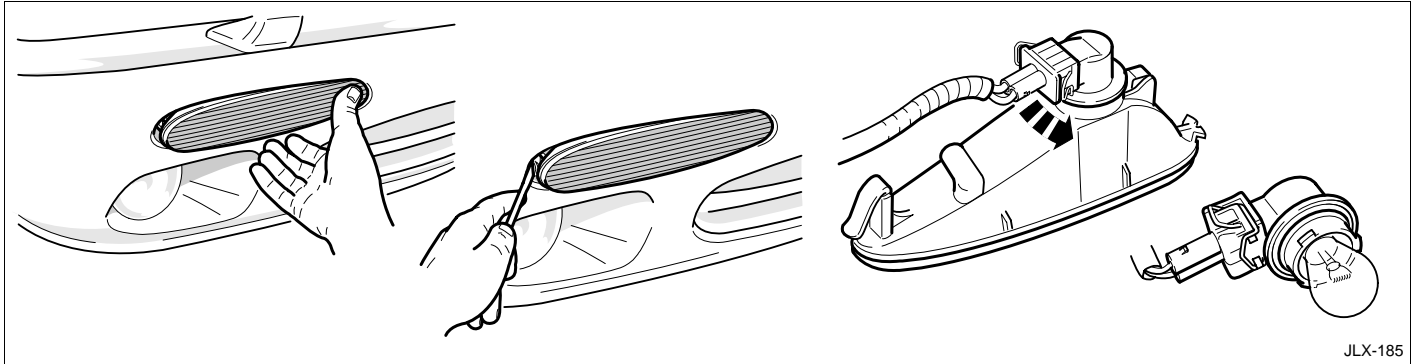
Reposition the bulb holder in the headlamp unit and turn clockwise.

Close the bonnet.

### Front Fog Lamp – Bulb Renewal

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





JLX-185

## Front Direction Indicator – Bulb Renewal

**To remove the light unit:** Push gently inwards on the inboard edge of the lamp unit. This will release the lamp sufficiently to insert a flat blade (take care not to damage the paintwork) into the gap at the outboard end of the light unit to compress the spring catch. The unit can then be removed from the bumper.

Disconnect the plug from the lamp. Remove the bulb and fit a new one of the correct type, see page 5-18.

Reconnect the plug, then insert the unit into the bumper aperture, inboard end first. Press in until the catch clicks.

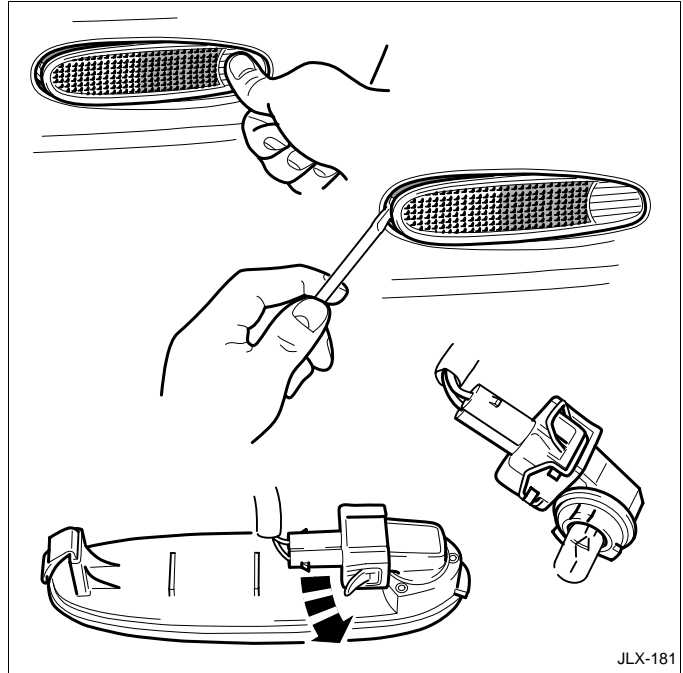
## 5-12 Vehicle maintenance

### Side marker light - Bulb renewal

Press the edge of the lens facing the centre of the vehicle to release the first stage catch. Insert a flat blade into the aperture, taking care not to damage the paintwork and press to release the second stage spring catch. The unit can then be removed from the bumper.

Twist the bulb holder anti-clockwise and remove from the unit. Pull out the bulb and fit a new bulb of the correct type, see page 5-18. Refit the bulb holder to the unit.

Insert the unit into the bumper aperture, outboard end first. Press in until the catch clicks.



JLX-181

## Rear Light Assembly – Bulb Renewal

The rear light assembly has the following bulbs:

- (A) Fog light.
- (B) Stop/tail light.
- (C) Reverse light.
- (D) Direction Indicator.

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

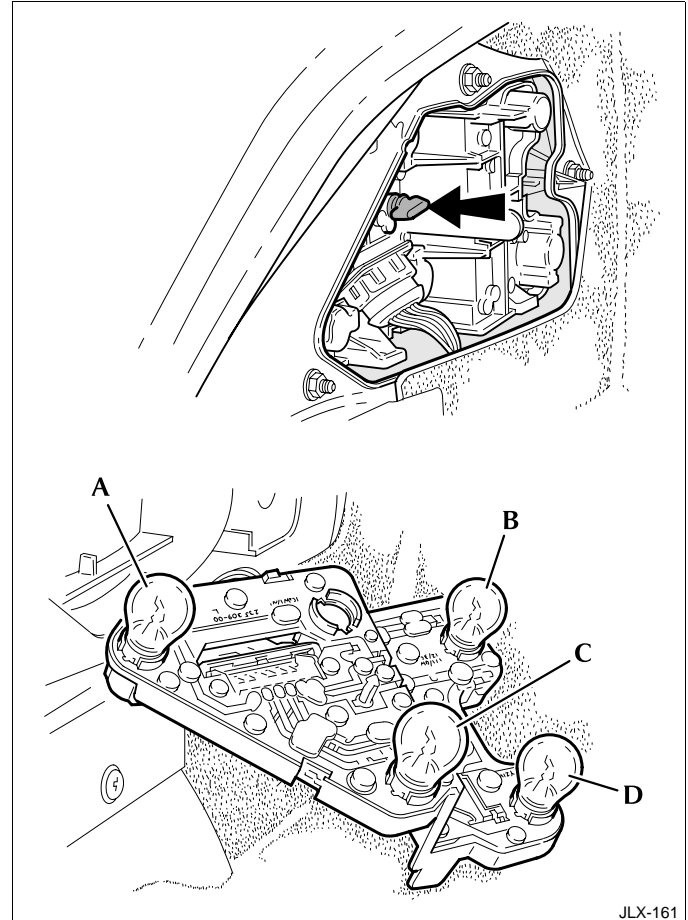
Ensure that the lights and ignition switch are OFF before removing any bulbs.

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

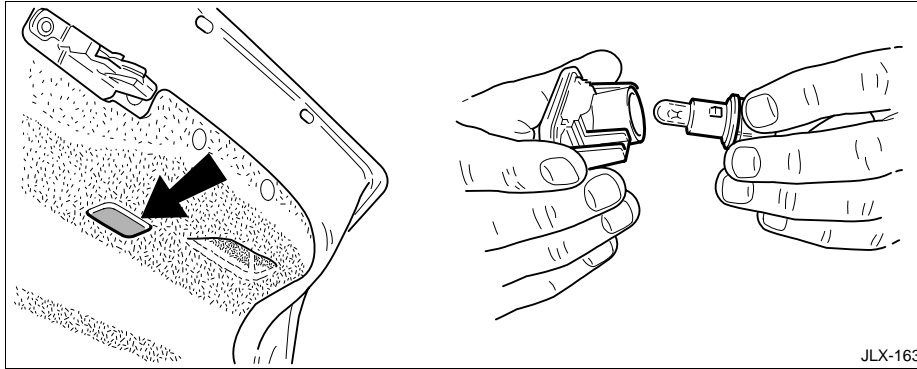
Remove the faulty bulb and fit a new one of the correct type, as illustrated on the bulb holder. Fitment of the correct type is essential, see page 5-18.

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

Refit the light unit cover.



## 5-14 Vehicle maintenance



JLX-163

### Luggage Compartment Light – Bulb Renewal

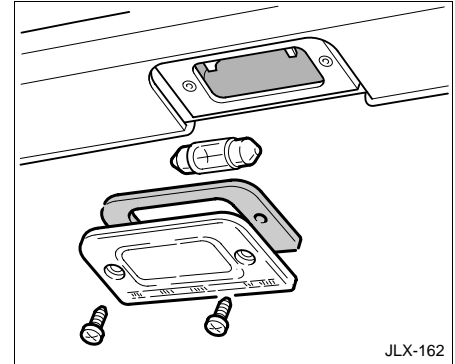
Carefully prise the light unit from the luggage compartment trim panel.

Turn the bulb holder a quarter turn to remove the holder from the lens. Pull the bulb from the holder.

Fit a new bulb of the correct type, see page 5-18.

Fit the bulb holder assembly to the lens and turn 90 degrees.

Refit the light unit to the luggage compartment trim panel.



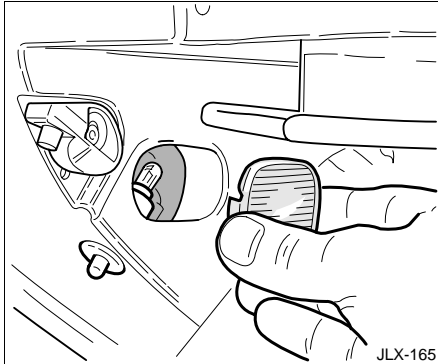
JLX-162

### Number Plate Light – Bulb Renewal

Remove the two retaining screws and the lens and gasket. Remove the bulb and fit a new one of the correct type, see page 5-18.

Refit the lens and gasket and secure with the two screws.



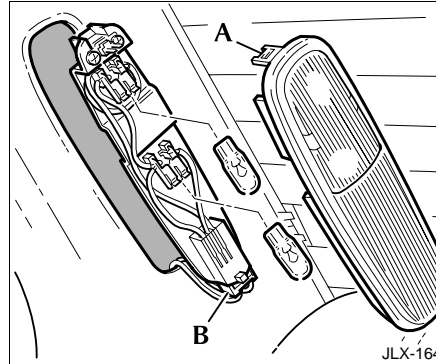


### Glove Box Light – Bulb Renewal

Open the glove box and carefully prise the lens from the left-hand side of the glove box.

Remove the bulb from the bulb holder and fit a new one of the correct type, see page 5-18.

Refit the lens into the glove box.



### Rear Quarter Interior/Reading Light – Bulb Renewal

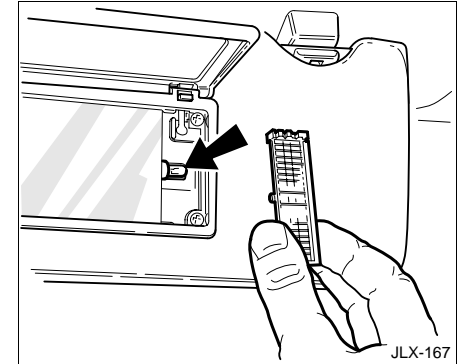
Carefully prise the top end of the light unit out of the trim panel using a thin blade with card protection against the trim panel.

Unplug the connector (B), ease back the lens retention clip (A), and remove the lens.

Remove bulb(s) and fit a new one of the correct type, see page 5-18.

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

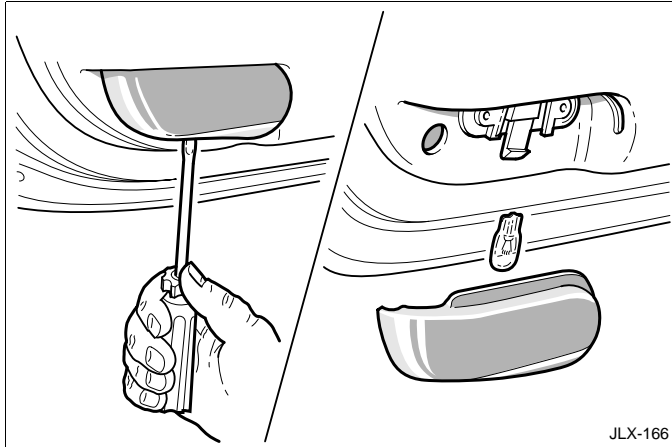
Refit the light unit into the trim panel, inserting the bottom end first.



### Sun Visor Vanity Mirror Light – Bulb Renewal

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 fit a new one of the correct type, see page 5-18. Refit the lens.

## 5-16 Vehicle maintenance

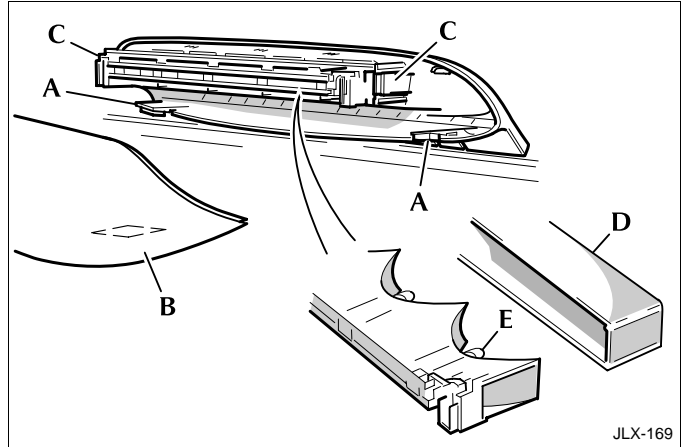


### Door Guard Light – Bulb Renewal

Remove the red/clear lens by carefully 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 fit a new one of the correct type, see page 5-18.

Refit the lens.



### High Mounted Stop Light – Bulb Renewal

Depress the two spring clips (A) at the base of the lamp cover (B) and withdraw the cover. Remove the lamp module from the base by releasing the spring clips at each end (C).

Remove the red lens from the bulb holder (D).

Taking care not to touch the reflective surfaces, remove the bulb (E) from the holder and fit a new one of the correct type, see page 5-18.

Fit the red lens to the bulb holder, fit the lamp module to the base and replace the cover.

## Roof Console Interior/Reading Lights – Bulb Renewal

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.

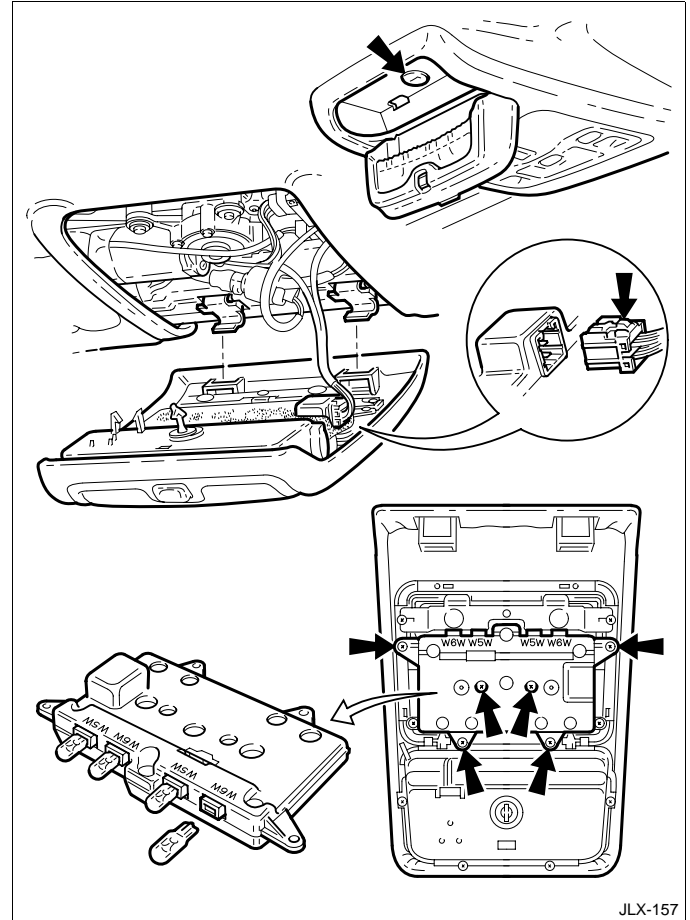
Remove the six screws from the main housing screw positions as identified on the moulding, then ease the housing away from the console.

Remove the bulb(s) and fit new ones of correct type, as illustrated on the moulding, fitment of the correct type is essential, see page 5-18.

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.



## 5-18 Vehicle maintenance

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### 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 51W	Halogen HB4 long life.
Fog light – Rear.	12V 21W	Bayonet long life.
Front direction indicator.	12V 21W	Bayonet long life.
Front parking (side) light.	12V 5W	Capless long life.
Glovebox light.	12V 4W	Bayonet long life.
Headlamp.	12V 55W	Halogen H7 long life.
High mounted stop light.	12V 5W	Capless long life.
Luggage compartment light.	12V 5W	Capless long life.

Description	Capacity	Type
Number plate light.	12V 5W	Festoon long life.
Rear direction indicator.	12V 21W	Bayonet amber 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.
Roof console central courtesy light.	12V 5W	Capless long life.
Roof console map light.	12V 6W	Capless.
Stop/tail light.	12V 21/5W	Twin filament bayonet long life.
Sun visor vanity mirror light.	12V 1.2W	Capless 286.

### Windscreen Wiper Blade

**Note:** The wiper blade rubber insert will be renewed at every service interval, except for the 40,000 mile (64,000 km) interval when the complete wiper blade is renewed (chargeable to customer).

Use Jaguar Screen Clean Paste to remove contamination from the windscreen to ensure effective wiping or if smearing or juddering becomes evident. A more aggressive cleaning agent may be required to remove stubborn contamination. Contact a Jaguar Dealer for advice.

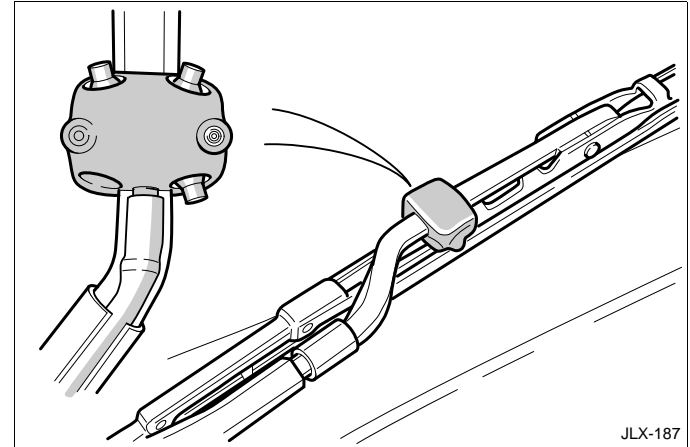
To ensure that the windscreen remains smear free, the washer system should be operated whenever the wiper is used, even when it is raining.

#### Windscreen Wiper Blade – Inspect and Clean

Lift the wiper blade clear of the windscreen and wipe the blade 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.

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



### Windscreen Washers

The windscreen washer tube and nozzles are mounted on the wiper arm to apply the washer fluid directly to the windscreen.



**Vehicle Data**

<b>Engine</b>	<b>4.0 litre normally aspirated</b>	<b>4.0 litre supercharged</b>
Type .....	V8, dual overhead camshafts 4 valves/cylinder.	V8, dual overhead camshafts 4 valves/cylinder.
Capacity .....	244 inch <sup>3</sup> (3996 cm <sup>3</sup> )	244 inch <sup>3</sup> (3996 cm <sup>3</sup> )
Bore .....	3.386 inch (86 mm)	3.386 inch (86 mm)
Stroke .....	3.386 inch (86 mm)	3.386 inch (86 mm)
Firing order: 1A and 1B cylinders at front of engine	1A, 1B, 4A, 2A, 2B, 3A, 3B, 4B	1A, 1B, 4A, 2A, 2B, 3A, 3B, 4B
Compression ratio .....	10.75 : 1	9.0 : 1
Spark plugs (unleaded fuel):		
– Type .....	NGK PFR5G-11E	NGK PFR5G-11E
– Electrode gap .....	0.04 - 0.043 inch (1.0 - 1.1 mm)	0.04 - 0.043 inch 91.0 - 1.1 mm)
Spark plugs (leaded fuel):		
– Type .....	NGK BKR5E-11	NGK BKR5E-11
– Electrode gap .....	0.04 inch (1.0 mm)	0.04 inch (1.0 mm)
 <b>Transmission</b>		
Type – Automatic .....	5 Speed	5 Speed
Final drive type .....	GKN 14HU On centre line differential	GKN 14HU On centre line differential

## 6-2 Specifications

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### Weights (Average/Approximate)

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

	XJ8 (Standard Wheelbase)		XJ8-L (Extended Wheelbase)	
	kg	lb	kg	lb
Kerb weight . . . . .	1789	3945	1810	3990
Front axle kerb weight . . . . .	923	2035	924	2038
Rear axle kerb weight . . . . .	866	1910	885	1952
Gross vehicle weight (G.V.W.) . . . . .	2218	4890	2240	4940
Gross front axle weight. . . . .	1016	2240	1018	2245
Gross rear axle weight . . . . .	1202	2650	1222	2695
Gross combination weight . . . . .	4117	9078	4140	9128



**Weights** (Average/Approximate) (continued)

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

	<b>XJR8 supercharged</b>		<b>VDP VDP supercharged</b>	
	<b>kg</b>	<b>lb</b>	<b>kg</b>	<b>lb</b>
Kerb weight . . . . .	1848	4075	1814	4000
Front axle kerb weight . . . . .	960	2117	941	2075
Rear axle kerb weight . . . . .	888	1958	873	1925
Gross vehicle weight (G.V.W.) . . . . .	2270	5005	2245	4950
Gross front axle weight . . . . .	1055	2325	1036	2285
Gross rear axle weight . . . . .	1215	2680	1209	2665
Gross combination weight . . . . .	4169	9193	4144	9138

## 6-4 Specifications

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### Weights (Average/Approximate) (continued)

#### Roof-Rack Capacity and Trailer Weights (all Models)

	<b>kg</b>	<b>lb</b>
Roof-rack capacity including weight of rack . . . . .	100	220
Maximum permitted luggage compartment load with four passengers and driver . . . . .	70	154
Trailer weight:		
Braked (recommended) . . . . .	1500	3307
Braked (maximum recommended) . . . . .	1900	4188
Unbraked (maximum recommended) . . . . .	750	1653
Trailer nose load . . . . .	76	167

**Dimensions**

	<b>Standard Wheelbase</b>		<b>Extended Wheelbase</b>	
	<b>mm</b>	<b>inch</b>	<b>mm</b>	<b>inch</b>
Overall length . . . . .	5024	197.8	5149	202.7
Overall width including mirrors. . . . .	2074	81.7	2074	81.7
Overall width excluding mirrors . . . . .	1799	70.8	1799	70.8
Overall height (at gross vehicle weight):				
– 3.2 and 4.0 litre with comfort suspension. . . . .	1314	51.7	1333	52.5
– 3.2 and 4.0 litre with sports suspension . . . . .	1307	51.5	1326	52.2
Minimum ground clearance (at gross vehicle weight) . . . .	115	4.5	115	4.5
Wheelbase. . . . .	2870	113.0	2995	117.9
Track:				
Front . . . . .	1500	59.1	1500	59.1
Rear. . . . .	1498	59.0	1498	59.0
Turning circle:				
Kerb to kerb . . . . .	11,83 metre	38 feet 10 inches		

## 6-6 Specifications

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### Wheel/Tyre Data

Wheel name	Road wheel size	Tyre type/size
Starburst alloy Crown alloy Corona alloy Lunar alloy	7J x 16	Pirelli P 4000E 225/60 ZR 16 or Pirelli P 6000 225/60 ZR 16
Solar alloy	7½J x 17	Pirelli P 6000 235/50 ZR 17
Asteroid alloy	8J x 18	Pirelli P Zero 255/40 ZR 18

## Wheel/Tyre Data (continued)

### Winter (Snow) Tyres

The tyres fitted as original equipment are designed with a rubber compound, 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.

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

**Note:** 16 inch wheels and tyres cannot be fitted to the Jaguar XJR or VDP Supercharged (225/55 R 16 or 225/60 R 16).

- Tyre type/size.      Pirelli Winter 210 Performance M+S  
                                 225/55 R 16 or:  
                                 225/60 R 16 or:  
                                 255/45 R 17 or:  
                                 255/40 R 18  
                                 Continental ContiWinterContact  
                                 225/55 R 16 95H or  
                                 225/60 R 16 98H

**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 130 mph (210 km/h) when using Jaguar approved winter tyres.

Winter tyres must be used in vehicle sets, that is, fitted on all four wheels.

For information on snow chains, or a 'Spikes Spider' accessory, see page 5-4.

## 6-8 Specifications

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### Recommended Tyre Pressures

Tyres must be inflated to the following cold inflation pressures:

		Maximum comfort – Speeds up to 160 km/h (100 mph)	Normal Pressures
16, 17 and 18 Inch Wheels/Tyres	Front	26 lbf/in <sup>2</sup> , (180 kPa 1,8 kg/cm <sup>2</sup> , 1,8 bar)	32 lbf/in <sup>2</sup> , (220 kPa 2,24 kg/cm <sup>2</sup> , 2,2 bar)
	Rear	28 lbf/in <sup>2</sup> , (190 kPa 2,0 kg/cm <sup>2</sup> , 1,9 bar)	34 lbf/in <sup>2</sup> , (230 kPa 2,4 kg/cm <sup>2</sup> , 2,3 bar)

### Tyres without Jaguar approval

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

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

When using non-Jaguar approved winter tyres, inflate to the above recommended tyre pressure and do not exceed the tyre's speed capability.

## Fuel Requirements

Use only Premium Unleaded gasoline with a minimum Anti-Knock Index (AKI) of 91.

Oxygenated gasoline blended with ethanol (max. 10%) methanol (max 10%) or methyl tertiary butyl ether (MTBE) (max. 15%) may be used.

Reformulated Gasoline with a minimum AKI of 91 may also be used

The use of high quality fuel containing 'intake system deposit control' detergent and other additives will help to keep the vehicle's intake system free of deposits and its fuel system free of corrosion and gumming.

If high quality fuels containing 'intake system deposit control' detergent and other additives are used continuously, there should be no need to add any after market products to the fuel tank.

If problems are experienced with starting, rough idling or hesitation when the engine is cold, it may be caused by gasoline with a low volatility. Try a different grade and/or brand of fuel. If the condition persists, see a Jaguar Dealer or a qualified service technician.

## Oxygenated gasoline

Fuels that are blended with compounds containing oxygen, called oxygenates, may be used. Common oxygenates are ethanol or grain alcohol (blended at no more than 10%), methanol or wood alcohol (blended at no more than 5% with necessary co-solvents and additives, and MTBE or methyl tertiary butyl ether (blended at no more than 15%). The type of oxygenate may be found on the fuel pump or by asking the attendant. In certain areas of the country, oxygenates are required to be in all fuels to help improve air quality.

Generally, difficulty should not be experienced while operating the vehicle on fuels containing oxygenates. If problems are experienced switch to a fuel with a different type of oxygenate, or switch to a fuel that does not contain oxygenates, if available.

## Reformulated gasoline

Several petroleum companies have announced the availability of reformulated fuels.

These fuels are specially designed to further reduce vehicle emissions.

Jaguar fully supports all efforts to protect and maintain ambient air quality, and encourage the use of reformulated gasoline, where available.

## 6-10 Specifications

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### Catalytic Converters

A few precautions on the use of vehicles fitted with catalytic converters are necessary. These are:

1. In order to maintain the efficiency of the emission control system it is essential that unleaded fuel is used. Use of leaded fuel will seriously damage the catalytic converters.
2. **Never** leave the vehicle unattended with the engine running.
3. Heavy impact on the converter casings must be avoided.
4. The engine settings must not be altered; they have been established to ensure that the vehicle will comply with stringent exhaust emission regulations. Incorrect engine settings could cause unusually high catalytic converter temperatures and thus result in damage to the converter and vehicle. If adjustment to the settings is considered necessary, this should be performed by a Jaguar Dealer.
5. A correctly tuned engine optimises exhaust emissions, performance and fuel economy and it is recommended that the vehicle is regularly maintained.
6. Do not continue to operate the vehicle if any engine malfunction is evident; malfunctions should be rectified immediately. For instance, misfire, loss of engine performance, excessive oil consumption or engine run-on may lead to unusually high catalytic converter temperatures and may result in damage to the converters and vehicle.
7. The use of catalytic converters increases exhaust system temperatures, therefore, do not operate or park the vehicle in areas where combustible materials such as dry grass or leaves may come into contact with the exhaust system.
8. Do not run the engine with either a spark plug lead disconnected or a spark plug removed. Do not use any device that requires an insert into a spark plug hole in order to generate air pressure e.g. tyre pump, paint spray attachment etc., as this could also result in catalytic converter damage.
9. The vehicle is designed for normal road use. Below are examples of abuse which could damage the catalytic converters and vehicle. These may lead to a dangerous condition due to excessively high catalytic converter temperatures.
  - Competition or off-road use.
  - Excessive engine speed.
  - Overloading the vehicle.
  - Switching off the engine whilst in gear.



## Electrical Accessories

The fitment of accessories, additional accessory supply sockets, 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 directly 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 sockets can be used for plug-in accessories which are only temporarily connected to the vehicle (for example, a car vacuum cleaner).

## Electrical Accessory Supply Sockets

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

1. Behind the heelboard panel on the right-hand side of the rear seat.
2. In the luggage compartment, clipped forward of the battery.

**Note:** Before connecting electrical accessories to these sockets, consult a Jaguar Dealer.

## 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.**

## 7-2 Accessories

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