

## BREAKING-IN

This vehicle is built using high-precision manufacturing methods, but the moving parts of the engine must still bed-in, relative to each other. The process occurs mainly in the first 2 000 miles (3 000 km) of operation.

During this breaking-in period of 2 000 miles (3 000 km), observe and follow the instructions below:

- Do not use full throttle during starts and normal driving.
- Avoid high engine speeds (rpm) until the engine has reached its full operating temperature.
- Avoid laboring the engine by operating the engine in too high a gear at low speeds.
- Gradually increase engine and road speeds.
- Avoid continuous operation at high engine speed and abrupt stops.
- Avoid frequent cold starts followed by short-distance driving.
- Preferably take longer trips.
- Do not participate in track days, sports driving schools, or any similar events.

## AIR CONDITIONING

### WARNING

With reference to US legislation relating to air conditioning refrigerants, J2845 Technician Training for Safe Service and Containment of Refrigerants Used in Mobile Air Conditioning (A/C) Systems (HFO-1234yf), states that under no circumstances should any part of the A/C system be serviced, dismantled, or replaced by anyone other than suitably qualified and certified personnel. Make sure that the refrigerant is correctly contained at all times.

### WARNING

All replacement parts for the air conditioning system must be new and equivalent to the manufacturer's original equipment. All replacement parts must comply with the relevant SAE Standard. Contact your Retailer/ Authorized Repairer for advice.

The following symbol may be used on an under hood label and is relevant to the refrigerant fluid.



Caution.



Flammable refrigerant.



Required registered technician to service A/C.



Air Conditioning (A/C) symbol.



Lubricant symbol.

## OWNER MAINTENANCE

### **NOTICE**

*Any significant or sudden drop in fluid levels, or uneven tire wear, should be reported to a qualified technician without delay.*

In addition to the routine maintenance, a number of simple checks must be carried out more frequently.

# Maintenance

## DAILY CHECKS

- Operation of the lamps, horn, turn signals, wipers, washers and warning lamps.
- Operation of the seat belts and brakes.
- Look for fluid deposits underneath the vehicle that might indicate a leak. Condensation drips from the Air Conditioning (A/C) system are normal.

## WEEKLY CHECKS

- Engine oil level.
- Engine coolant level.
- Brake fluid level.
- Power steering fluid level.
- Screen washer fluid level.
- Tire pressures and condition.
- Operate the Air Conditioning (A/C).

**Note:** *The engine oil level should be checked more frequently if the vehicle is driven for prolonged periods at high speeds.*

## ARDUOUS DRIVING CONDITIONS

When a vehicle is operated in extremely arduous conditions, more frequent attention must be paid to servicing requirements.

Arduous driving conditions include:

- Driving in dusty and/or sandy conditions.
- Driving on rough and/or muddy roads.
- Frequent wading.
- Frequent driving at high speeds in high ambient temperatures above 122 °F (50 °C).
- Frequent driving in severe cold weather below -40°F (-40 °C).
- Frequent driving in mountainous conditions.
- Frequent trailer towing.

- Driving in areas using road salt or other corrosive materials on the driving surface. Contact your Retailer/Authorized repairer for advice.

## ANTI-THEFT SYSTEM

### WARNING

**No modifications or additions should be made to the Anti-theft system. Such changes could cause the system to malfunction.**

## AIR BAG SYSTEM

### WARNING

**The components that make up the air bag system are sensitive to electrical or physical interference, either of which could easily damage the system and cause inadvertent operation or a malfunction of the air bag module.**

### WARNING

**Certain components of this vehicle, such as air bag modules and seat belt pre-tensioners, may contain Perchlorate Material - Special handling may apply for service or vehicle end-of-life disposal. See [www.dtsc.ca.gov/hazardouswaste/perchlorate](http://www.dtsc.ca.gov/hazardouswaste/perchlorate).**

To prevent malfunction of the air bag system, always consult your Retailer/Authorized Repairer before fitting any of the following:

- Electronic equipment such as a cell phone, 2-way radio, or audio system.
- Accessories attached to the front of the vehicle.
- Any modification to the front of the vehicle.

- Any modification involving the removal or repair of any wiring or component in the vicinity of any of the air bag system components, including the steering wheel, steering column, instrument or facia panels.
- Any modification to the facia panels or steering wheel.

## PARTS AND ACCESSORIES

### WARNING

**Fitting of non-approved parts and accessories, or the carrying out of non-approved alterations or conversions, may be dangerous and could affect the safety of the vehicle and occupants, and also invalidate the terms and conditions of the vehicle's warranty.**

### WARNING

**Jaguar Land Rover Limited will not accept any liability for death, personal injury, or damage to property, which may occur as a result of installation of non-approved accessories or the carrying out of non-approved conversions to your vehicle.**

### WARNING

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The following symbol may be used on an under hood label and is relevant to the refrigerant fluid.



Extremely flammable. Chemicals that have an extremely low flash point and boiling point, and gases that catch fire when in contact with air.

## ROAD TESTING DYNAMOMETERS (ROLLING ROADS)

It is essential that any dynamometer testing is carried out only by a qualified person, familiar with the dynamometer testing and safety procedures practiced by Retailers/Authorized Repairers.

## SAFETY IN THE GARAGE

### WARNING

**If the vehicle has been driven recently, do not touch the engine, exhaust and cooling system components until the engine has cooled.**

### WARNING

**Never leave the engine running when the vehicle is in a garage. Exhaust gases are poisonous and can cause unconsciousness and death if inhaled.**

### WARNING

**Do not work beneath the vehicle with the wheel changing jack as the only means of support.**

## **⚠️WARNING**

The jack is designed for wheel changing only. Never work beneath the vehicle with the jack as the only means of support. Always use correctly rated vehicle support stands, before putting any part of your body beneath the vehicle.

## **⚠️WARNING**

Keep your hands and clothing away from drive belts, pulleys and fans. Some fans may continue to operate after the engine has stopped.

## **⚠️WARNING**

Remove metal wristbands and jewelry, before working in the engine compartment.

## **⚠️WARNING**

Do not touch electrical leads or components while the engine is running, or with the ignition switched on.

## **⚠️WARNING**

Do not allow tools or metal parts of the vehicle to make contact with the battery leads or terminals.

## USED ENGINE OIL

Prolonged contact with engine oil may cause serious skin disorders, including dermatitis and cancer of the skin. Always wash thoroughly after contact.



It is illegal to pollute drains, watercourses or soil. Use authorized waste disposal sites to dispose of used oil and toxic chemicals.

## OPENING THE HOOD



E164056

1. Pull the handle, located in the left-side front footwell, to release the hood securing latch.
2. Push up on the safety catch lever, located below the center point of the hood and then raise the hood.

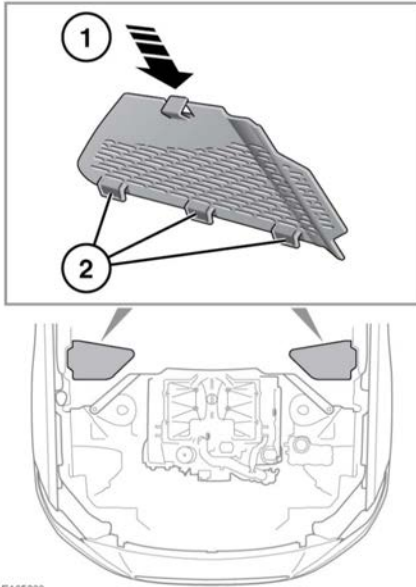
## CLOSING THE HOOD

### **⚠️WARNING**

Do not drive with the hood secured by the safety catch alone.

1. Lower the hood until the safety catch engages.
2. Using both hands, press the hood down until the catches click.
3. Check that both catches are engaged by trying to lift the front edge of the hood.

## UNDER HOOD COVERS - REMOVAL



E165288

Open the hood and follow the procedure:

1. Lightly push back and hold the cover's front retaining lug.
2. Lift up the cover and slide forwards to release the rear locating lugs.

## UNDER HOOD COVERS - REFITTING

Open the hood and follow the procedure:

1. Locate the cover's rear locating lugs into the vehicle's panel.
2. Lightly press down the cover to engage the front retaining lug into the vehicle's panel.

**Note:** The cover should be a flush fit and aligned to the vehicle's panel.

## FUEL SYSTEM

### ⚠ WARNING

Under no circumstances should any part of the fuel system be dismantled or replaced by anyone other than a suitably qualified vehicle technician.

### ⚠ WARNING

Make sure sparks and open flames are kept away from the engine compartment.

### ⚠ WARNING

Wear protective clothing, including, where practical, gloves made from an impervious material.

## CHANGING A BULB

### ⚠ WARNING

If the exterior lamps have just been switched off, give the bulbs time to cool. Handling them when hot may cause personal injury.

### ⚠ WARNING

To avoid personal injury, due to any possible residual electrical current, make sure not to touch any electrical connectors or circuit boards while changing a bulb. If removal of the outboard rear lamp is required, always wear appropriate gloves when disconnecting the wiring loom from the rear lamp.

### **NOTICE**

*Always replace bulbs with the correct type and specification. If you are in any doubt, contact a Retailer/Authorized Repairer for advice.*

**NOTICE**

*Before attempting a bulb change, make sure that the ignition and the affected lamp are switched off. If the circuit remains live, a short circuit can occur, which may damage the vehicle's electrical system.*

## Bulb specification

Not all bulbs are renewable. The following bulbs can be renewed:

Variant	Bulb description	Specification
Xenon headlamps	Front turn signal	PWY24W
All vehicles (outboard removable rear lamp)	Reversing lamp	W16W

All other lamps are either Light Emitting Diode (LED) or Xenon units, and should only be renewed or serviced by qualified personnel.

### **WARNING**

**Replacement or maintenance of Xenon lamps should only be carried out by suitably qualified personnel.**

## XENON LAMPS

### **WARNING**

High voltage is required to ignite the gas and metal vapor which are used to power Xenon lamps. Contact with this voltage can cause serious injury. Replacement or maintenance of Xenon lamps should only be carried out by suitably qualified personnel.

### **WARNING**

Xenon lamp units operate at a very high temperature. Make sure the lamp units have cooled before attempting to touch them.

### **WARNING**

**Xenon lamp units contain mercury which is highly toxic and can be extremely harmful.**

Seek advice about the correct disposal of Xenon lamp units from a Retailer/Authorized Repairer, or your local authority.

## FRONT TURN SIGNAL BULB REPLACEMENT

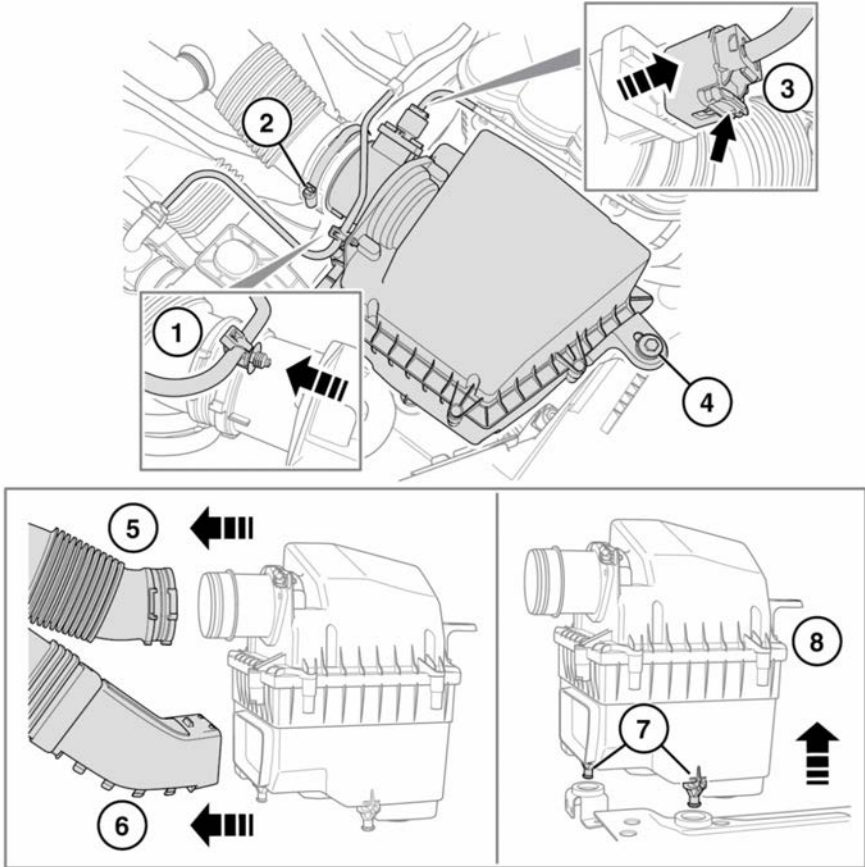
### **NOTICE**

*See 185, CHANGING A BULB.*

# Maintenance

## Air cleaner removal

The air cleaner will have to be removed to allow access to the left-side headlamp and also for the right-side headlamp for vehicles with a 3.0L engine.



E169042

Open the hood and follow the procedure below:

1. Lightly pull the coolant pipe/retaining lug, to release it from the air cleaner.

**Note:** Do not use excessive force, as this may damage the coolant pipe.

2. Continually turn the air pipe clamp bolt counter-clockwise to loosen and release.

**Note:** Do not remove the air pipe clamp.

3. Press up and hold the lug at the base of the electrical connection and then lightly pull to release it from the air cleaner.
4. Continually turn the air cleaner retaining bolt counter-clockwise to remove.
5. Lightly pull the upper air pipe to release it from the air cleaner.
6. Lightly pull the lower air pipe away, to release it from the air cleaner.
7. Lift up the air cleaner casing, to release the 2 locating/securing lugs.

**Note:** If the rubber grommets remain attached to the air cleaner, then remove them and refit to the vehicle's body before refitting the air cleaner.

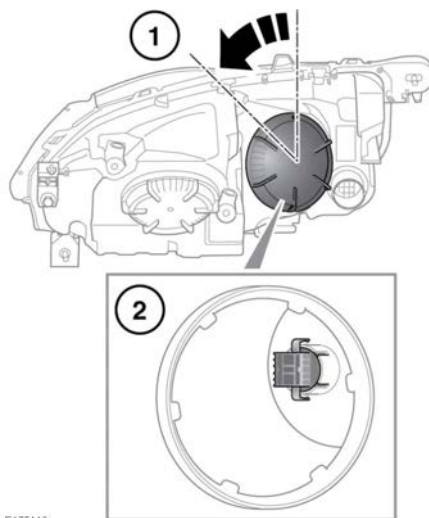
8. Remove the air cleaner from the vehicle.

## NOTICE

Observe the position of the coolant pipe, wiring loom, and both air pipes during the removal and refitting of the air cleaner.

Reverse the removal procedure to refit the air cleaner.

## Xenon headlamp turn signal bulb



1. Rotate the appropriate headlamp cover, approximately 45 degrees counter-clockwise, to release and remove.

**Note:** Note the orientation of the cover to aid refitting.

2. Pull the bulb holder to remove it from the headlamp.

**Note:** Note the orientation of the bulb holder to aid refitting.

3. Pull the bulb to remove it from the bulb holder.

**Note:** Note the orientation of the bulb to aid refitting.

Reverse the removal procedure to install a new bulb.

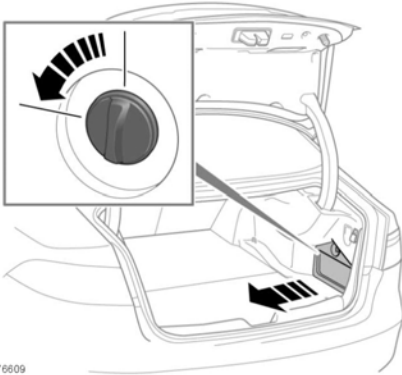
## REAR LAMP REMOVAL

See **185, CHANGING A BULB.**

# Maintenance

Identify the location/s of the bulb/s to be changed and then release/remove the relevant luggage compartment access panel.

## Right-side access panel

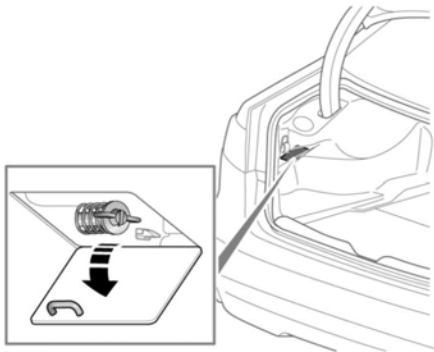


E176609

Turn the retaining lug, 90 degrees counter-clockwise, to release, then lower and lift to remove.

Reverse the removal procedure to refit.

## Left-side access panel

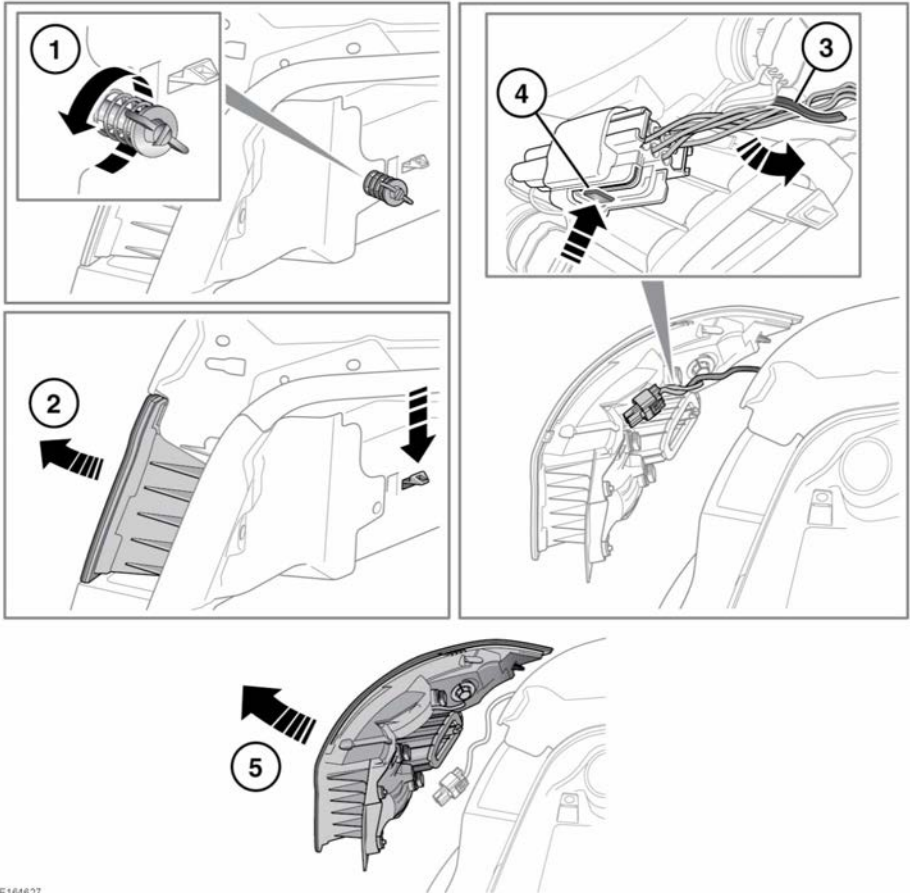


E176610

Turn the retaining lug, 90 degrees counter-clockwise, to release and then pull to lower.

Reverse the removal procedure to refit.

## Rear lamp removal



E164627

1. Continually rotate the rear lamp's retaining bolt, counter-clockwise, until fully released and then remove.
2. Lightly press down and hold the rear lamp's retaining lug and then carefully move the rear lamp a small distance away from the vehicle. This will now allow access to the rear lamp's electrical connection.

### **NOTICE**

*Do not completely remove the rear lamp from the vehicle until the vehicle's wiring loom has been released and disconnected, as this may damage the vehicle's wiring loom and the rear lamp.*

3. Release the vehicle's wiring loom from the rear lamp's retaining lug.

# Maintenance

4. Press and hold the retaining lug at the base of the electrical connector and then pull to release it from the rear lamp.
5. Completely remove the rear lamp from the vehicle.

## **NOTICE**

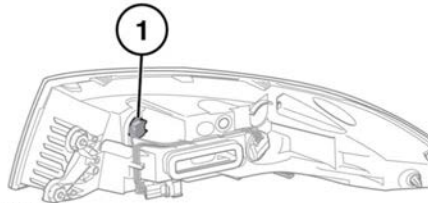
*Make sure that the rear lamp is placed on a soft surface that will not damage or scratch the rear lamp lens.*

Reverse the removal procedure to refit.

## REAR LAMP BULB REPLACEMENT

### **NOTICE**

See **185, CHANGING A BULB.**

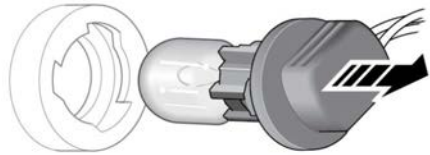
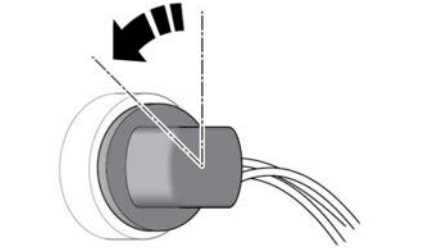


E175415

Remove the relevant rear lamp. See **189, REAR LAMP REMOVAL.**

The bulb locations are as follows:

1. Reverse lamp.



E164624

Identify the location/s of the bulb/s to be changed and then follow the procedure below:

1. Rotate the bulb holder, approximately 45 degrees counter-clockwise, then pull to remove it from the rear lamp.

**Note:** *Note the orientation of the bulb holder to aid refitting.*

2. Pull the bulb to remove it from the bulb holder.

**Note:** *Note the orientation of the bulb to aid refitting.*

Reverse the whole removal process to install a new bulb.

## WIPERS SERVICE POSITION

### **NOTICE**

*To avoid damage to the hood, do not lift the wiper blades when they are in the normal parked position.*

**Note:** *The Smart key must remain in the vehicle while the wiper blades are replaced.*

Before changing a wiper blade, the wiper arms must be set in the 'service' position as follows:

1. Make sure the ignition is switched off.
2. Switch the ignition on and then off again.
3. Immediately press the wiper/washer control to its lowest position (as if to command a single wipe, see **62, WIPER OPERATION**), hold this position while switching on the ignition again.  
The wipers will move to their service position.
4. When the new parts have been fitted, switch the ignition off. This will return the wipers to the park position.

**Note:** Fit only replacement wiper blades that are identical to the original specification.

**Note:** Replace the wiper blades in accordance with manufacturer's instructions.

## SUNROOF RESET

Make sure that the conditions, listed below, are met before carrying out the sunroof reset procedure:

- The ambient air temperature needs to be within the range of 41°F (5°C) to 149°F (65°C).
- The vehicle has to be stationary.
- The vehicle's battery is sufficiently charged and the electrical connections are good.

Reset the sunroof as follows:

1. Switch the ignition on.
2. Manually fully close the sunroof and the sunblind. Release the switches. See **74, ELECTRIC WINDOWS**.

## WARNING

**Before closing the sunroof, make sure that no occupants have any part of their body in a position where it could be trapped. Even with an Anti-trap system, death or serious injury could occur. See 76, SUNROOF ANTI-TRAP MECHANISM.**

3. Fully press and hold the front of the sunroof switch for 10 seconds, to start the reset cycle. Continue to hold the front of the sunroof switch.

**Note:** If the switch is released, then the whole procedure will have to be repeated.

4. The reset cycle will:
  - Fully open the sunblind.
  - Fully open and then fully close the sunroof.
  - Fully close the sunblind.

## WARNING

**The Anti-trap system is disabled during the reset cycle. Make sure that no occupants have any part of their body in a position where it could be trapped.**

5. Once the reset cycle has completed and the sunblind has stopped moving, release the switch.

The sunroof and the sunblind can now be operated as normal.

## WINDOW RESET

The windows will need to be reset if the battery is disconnected, becomes discharged, or the power supply is interrupted.

Once the power supply is restored, reset the windows as follows:

1. Close the window fully.
2. Release the switch, then lift it to the close position and hold for 2 seconds.

3. Release the switch.
4. Repeat the lift and release procedure twice more.
5. Test the window for correct manual and automatic switch operation. See **74, ELECTRIC WINDOWS**.
6. Repeat the procedure on each window.

**Note:** *It is advisable to have the engine running while resetting the windows, to make sure that a minimum of 12 volts is available at all times.*

## FIRE EXTINGUISHER

For certain markets, fire extinguishers are fitted to comply with local legislation. Please note, it is the owner's responsibility to make sure the fire extinguisher is maintained in accordance with the manufacturer's instructions.

It is also the responsibility of the owner to make sure the pressure is at a suitable operating pressure, as indicated on the pressure gauge. Only use fire extinguishers approved by the vehicle manufacturer.