ROUTINE SERVICING
The safety, reliability and performance of your vehicle will depend partly on how it is maintained.

Maintenance is the owner's responsibility; make sure that all routine services and warranty inspections are carried out according to the manufacturers' recommendations and at the intervals shown in the Service Portfolio book. You will find this book in the literature pack.

The Service Portfolio book also includes a Service Record section, which enables a record to be kept of all the routine services carried out on the vehicle - ensure your dealer signs and stamps the book after each service.

Emission control
Your vehicle is fitted with emission and evaporative control equipment designed to meet specific territorial and legal requirements. You should be aware that unauthorised replacement, modification or tampering with this equipment by an owner or motor vehicle repairer could be unlawful and subject to legal penalties.

In addition, engine settings must not be tampered with. These have been established to ensure that your vehicle complies with stringent exhaust emission regulations. Incorrect engine settings may adversely affect exhaust emissions, engine performance and fuel consumption, as well as causing high temperatures, which could result in damage to the catalytic converter and the vehicle.

OWNER MAINTENANCE
In addition to the routine services and warranty inspections referred to above, a number of simple checks must be carried out more frequently. These are listed alongside. You can carry out these checks yourself and advice is given on the following pages.

Daily Checks ........
- Operation of lights, horn, direction indicators, wipers, washers and warning lights.
- Operation of seat belts and brakes.
- Look for fluid deposits beneath the vehicle that might indicate a leak.

Weekly Checks ........
- Engine oil level.
- Coolant level.
- Operate air conditioning (if fitted).
- Brake and power steering fluid levels.
- Screen washer fluid level.
- Tyre pressures and condition.
**Maintenance**

**SPECIAL OPERATING CONDITIONS**
When a vehicle is operated in extremely arduous conditions or a dusty, wet or muddy terrain, more frequent attention must be paid to servicing requirements.

For example; if your vehicle experiences deep wading conditions, even DAILY servicing could be necessary to ensure the continued safe and reliable operation of the vehicle.

Contact a Land Rover dealer for advice.

**SAFETY IN THE GARAGE**
If you need to carry out maintenance, observe the following safety precautions at all times:

- Keep your hands, tools, and clothing away from drive belts and pulleys.
- If the vehicle has been driven recently, DO NOT TOUCH exhaust and cooling system components until the engine has cooled.
- DO NOT TOUCH electrical leads or components while the engine is running, or with the starter switch turned on.
- NEVER leave the engine running in an unventilated area - exhaust gases are poisonous and extremely dangerous.
- DO NOT work beneath the vehicle with the wheel changing jack as the only means of support.
- Ensure sparks and naked lights are kept away from the engine compartment.
- Remove metal wrist bands and jewellery before working in the engine compartment.
- DO NOT allow battery leads or terminals to make contact with tools or metal parts of the vehicle.

Poisonous fluids
Fluids used in motor vehicles are poisonous and should not be consumed or brought into contact with open wounds. These include; battery acid, anti-freeze, brake and power steering fluid, petrol, diesel, engine oil and windscreen washer additives. Obey all instructions printed on labels and containers.

**FOR YOUR SAFETY**
Any significant or sudden drop in fluid levels, or uneven tyre wear, should be reported to your dealer without delay.

**CARE POINTS**
Engine oil should be checked more frequently, if the vehicle is driven for prolonged periods at high speeds.

**ENVIRONMENT**
It is illegal to pollute drains, water courses or soil. Use authorised waste disposal sites to dispose of used oil and toxic chemicals.
Bonnet Opening

1. From inside the vehicle, pull the bonnet release handle.
2. Lift the bonnet safety catch lever and raise the bonnet.
3. Unclip the support stay.
4. Fit the support stay into the cut-out in the underside of the bonnet.

For Your Safety ..........
After closing the bonnet, check that the lock is fully engaged by attempting to lift the front edge of the bonnet. This should be free from all movement.

Closing the bonnet
Replace the support stay in its retaining clip, then lower the bonnet, allowing it to drop for the last 12 inches (30 centimetres) approx.
**Engine Compartment**

**WARNING!**
While working in the engine compartment, always observe the safety precautions listed under 'Safety in the garage' on a previous page.

1. Power steering reservoir
2. Cooling system reservoir
3. Brake reservoir
4. Washer reservoir (blue cap)
5. Engine oil filler and dipstick

Petrol engines
WARNING!
While working in the engine compartment, always observe the safety precautions listed under ‘Safety in the garage’ on a previous page.

1. Power steering reservoir
2. Cooling system reservoir
3. Brake reservoir
4. Washer reservoir (blue cap)
5. Engine oil dipstick (yellow)
6. Engine oil filler
Engine

Oil specification

For petrol engines:
10W/40 engine oil meeting RES.22.OL.G4 or ACEA A2:96.

For diesel engines:
10W/40 or 15W/40 engine oil meeting RES.22.OL.PD2 or ACEA B2:96

Oils manufactured to the above specifications are suitable for use in temperatures between -20°C to +30°C (if climatic temperature falls outside these limits, seek advice from your dealer).

Mixing oil additives with the engine oil is not recommended and could damage the engine.
Engine

OIL LEVEL CHECK & TOP-UP
Check the oil level weekly, or whenever you fill up with fuel. Ideally the oil level should be checked with the engine cold and the vehicle resting on level ground. If the engine is already warm, then wait for at least two minutes after switching off before checking the level.

1. Withdraw the dipstick and wipe the blade clean.
2. Reinsert the dipstick and withdraw again to check the level.
3. If the oil level is near to the lower mark on the dipstick, unscrew the filler cap and add oil to maintain the level between the upper and lower marks on the dipstick.

**NOTE:** On diesel models, it is necessary to open the access flap - lift the release tab (arrowed) and open. Wipe the area around the access flap clean before removing, and remember to refit the flap when topping-up is complete.

4. Wait for a few minutes and then recheck the level, adding more oil if necessary.
5. Finally, ensure the filler cap is replaced and fully tightened. On diesel models, refit the access flap.

If the oil consumption seems excessive, check the system for leaks and contact your dealer.

Operating Tip ............
Check the oil level when you fill up with fuel (refuel first, then check the oil - this allows time for the oil to drain into the sump before you check the level).

Care Points ............
Take care to avoid spilling engine oil onto a hot engine - a fire may result!
DO NOT fill above the upper mark!

Check the engine oil more frequently if the vehicle is driven at high speeds for prolonged periods.

WARNING!
Driving the vehicle with the engine oil level ABOVE the upper mark, or BELOW the lower mark on the dipstick, will damage the engine.
COOLANT CHECK & TOP-UP
The coolant level should be checked weekly when the cooling system is cold and with the vehicle resting on level ground. If the level is below the 'MIN' mark on the side of the reservoir, top-up to the 'MAX' mark with a mixture of 50% anti-freeze and 50% water. If the level falls appreciably during a short period, suspect leakage or overheating and arrange for your dealer to examine the vehicle. If the cooling system is to be topped-up before the vehicle is to be left undriven over the winter, mix the anti-freeze and water together thoroughly BEFORE adding it to the cooling system. Ensure the cap is tightened fully after top-up is completed.

WARNING!
If anti-freeze contacts the skin or eyes, rinse immediately with plenty of water.
Anti-freeze is poisonous and can be fatal if swallowed - keep out of the reach of children. If accidental consumption of anti-freeze is suspected, seek medical attention immediately.

For Your Safety ........
DO NOT remove the reservoir cap when the cooling system is hot - escaping steam or water could cause serious injury. Take care not to spill anti-freeze onto a hot engine - a fire may result.

Care Points ........
DO NOT add rust inhibitors or other additives to the coolant - these may not be compatible with the coolant or engine components. Anti-freeze will damage painted surfaces.
Cooling System

**Anti-freeze**
The anti-freeze content of the coolant must be maintained at a minimum of 50% (but must never exceed 60%) all year round. To ensure that the anti-corrosion properties of the coolant are retained, the anti-freeze content should be checked by your dealer once a year and the coolant completely renewed every two years, regardless of mileage.

For maximum corrosion prevention, use Land Rover Parts RTC5779A anti-freeze and summer coolant. If this is unavailable, use an ethylene glycol based anti-freeze which meets specification BS 6580 and BS 5117.

**Coolant specification**
50% mix of water and Land Rover Parts RTC5779A anti-freeze and summer coolant, or any ethylene glycol based anti-freeze which meets specification BS 6580 and BS 5117.
BRAKE FLUID CHECK & TOP-UP
Fluid level in the brake reservoir may fall slightly during normal use, but should not drop below the 'MIN' mark. If there is any appreciable drop in level over a short period, consult your Land Rover dealer.

Topping-up
Wipe the cap clean to prevent dirt entering the reservoir. Unscrew the cap and top-up the reservoir to the 'MAX' mark using a recommended fluid.

Use only new fluid from a sealed container (old fluid from uncapped containers or fluid previously bled from the system will have absorbed moisture, and adversely affect braking performance).

NOTE: On manual gearbox vehicles the clutch requires no maintenance. The hydraulic operating system is sealed, making topping-up the reservoir unnecessary.

Fluid specification
- AP New Premium Super DOT 4 brake fluid.
- Castrol Universal DOT 4 brake fluid.

For Your Safety ........
Brake fluid is highly toxic - keep containers sealed and out of the reach of children. If accidental consumption of brake fluid is suspected, seek medical attention immediately.

If brake fluid should come into contact with the skin or eyes, rinse immediately with plenty of water.

Care Points ........
Take care not to spill brake fluid onto a hot engine - a fire may result.

Brake fluid will damage painted surfaces: Soak up any spillage with an absorbent cloth immediately and wash the area with a mixture of car shampoo and water.

WARNING!
DO NOT drive the vehicle if the fluid level is below the 'MIN' mark.

Brake fluid must be completely replaced every three years or 36,000 miles (60,000 km).
Power Steering

POWER STEERING FLUID LEVEL
Check and top-up the fluid level ONLY when the engine is cold. You should also ensure that the front wheels are in the straight ahead position before stopping the engine and checking the fluid level.

Wipe the filler cap clean to prevent dirt from entering the reservoir. Rotate the cap half a turn, lift off and top-up the reservoir to the upper level mark with a power steering fluid meeting Dexron IID or III specification.

Do not overfill!

NOTE: The colour of commercially available fluids may differ from that of the power steering fluid used to fill the system during manufacture. This is not cause for concern.

Emergency operation
Any large or sudden drop in the fluid level must be investigated by a qualified dealer immediately.

If it can be established that fluid loss is slow, then the reservoir may be topped-up to the upper level mark to enable the vehicle to be driven to the nearest dealer for examination.

Fluid specification
Dexron IID or III specification.

Oils manufactured to the above specifications are suitable for use in temperatures between -20°C to +30°C (if climatic temperature falls outside these limits, seek advice from your dealer).

WARNING!
If the fluid level has dropped below the lower level mark, top-up the reservoir before starting the engine, or damage to the steering pump could result.

For Your Safety ........
Power steering fluid is highly toxic - keep containers sealed and out of the reach of children. If accidental consumption of power steering fluid is suspected, seek medical attention immediately.

If power steering fluid should come into contact with the skin or eyes, rinse immediately with plenty of water.

Care Points ........
Take care not to spill power steering fluid onto a hot engine - a fire may result.

Power steering fluid will damage painted surfaces: Soak up any spillage with an absorbent cloth immediately and wash the area with a mixture of car shampoo and water.
**Washers**

**Windscreen Washers**
The windscreen washer reservoir supplies both front and rear screen washer jets. Check the reservoir level at least every week and to prevent freezing in cold weather, top-up with a mixture of water and Land Rover Parts STC8249 screenwash. Preferably mix the recommended quantities of water and screenwash in a separate container before topping-up the system, and always follow the instructions on the container.

**Washer jets**
The washer jets are set during manufacture and should not require adjustment.

**NOTE:** The rear screen washer jet is integral with the wiper arm and requires no maintenance.

**Care Points**
If a washer jet becomes blocked, use a thin wire or needle as a probe to clear the obstruction.

**WARNING!**
Do not use anti-freeze or vinegar/water solution in the screen washer reservoir - anti-freeze will damage painted surfaces, while vinegar can damage the windscreen washer pump.

**WARNING!**
Some screenwash products are inflammable, particularly if high or undiluted concentrations are exposed to sparking. Do not allow screenwash to come into contact with naked flames or sources of ignition. Body panels may suffer discoloration as a result of screenwash spillage. Take care to avoid spillage, particularly if an undiluted or high concentration of screenwash is being used. If spillage occurs, wash the affected area immediately with water.
Wipers

WIPER BLADE REPLACEMENT

Front wiper blades
Lift the wiper arm away from the windscreen. With the blade at 90° to the arm as shown, disconnect the blade by pushing in the locking tab (1) and sliding the blade (2) down the arm (3).

Fitting a replacement blade is a reversal of this process; position the new blade assembly on the wiper arm and slide the blade fully towards the hooked end of the arm until it locks in place. Check that the blade is securely locked before returning the wiper assembly to the windscreen.

Only fit replacement wiper blades that are identical to the original specification.

Care Points ........
Grease, silicone and petrol based products impair the blade’s wiping capability. Wash the wiper blades in warm soapy water and periodically check their condition.

If signs of hardness or cracking in the rubber are found, or if the wipers leave streaks or unwiped areas on the windscreen during use, then the wiper blades should be replaced.

Clean the windscreen regularly with an approved glass cleaner and ensure the screen is thoroughly cleaned before fitting replacement wiper blades.

Wash the wiper blades in warm soapy water and periodically check their condition.

If signs of hardness or cracking in the rubber are found, or if the wipers leave streaks or unwiped areas on the windscreen during use, then the wiper blades should be replaced.

Clean the windscreen regularly with an approved glass cleaner and ensure the screen is thoroughly cleaned before fitting replacement wiper blades.
Rear wiper blade
(if fitted)
Lift the wiper arm away from the rear screen, as far as the spare
wheel carrier will allow. Pivot the blade assembly away from the
arm (as arrowed), levering against resistance, until the two retaining
lugs detach from their slots at the end of the arm. Carefully replace
the arm to its stowed position.

To replace, position the wiper arm into the aperture in the middle of
the blade assembly, line up the retaining lugs with the
corresponding slots in the wiper arm and push firmly into position
until the blade clips into place.
CARING FOR YOUR TYRES
Always drive with consideration for the condition of the tyres, and regularly inspect the tread and side walls for any sign of distortion (bulges), cuts or wear.

The most common causes of tyre failure when driving on-road are:
- Bumping against kerbs
- Driving with under or over-inflated tyres

Off-road driving places additional wear and tear on the tyres so more frequent and careful inspections of the tyres will be necessary.

If possible, protect tyres from contamination by oil, grease, fuel and other automotive fluids.

Tyre pressures
Correctly inflated tyres will ensure that you enjoy the best combination of tyre life, ride comfort, fuel economy and road handling.

Under-inflated tyres wear more quickly and unevenly, cause a loss of handling on-road, a reduction in fuel economy and an increased likelihood of tyre failure. Over-inflated tyres give a harsher ride, wear unevenly and are more prone to damage.

Check the pressures (including the spare wheel) at least every week (more frequently if regularly driving off-road), preferably when the tyres are cold - be aware that it only takes a mile (1.6 km) of driving to warm up the tyres sufficiently to affect the tyre pressures.

Air pressure naturally increases in warm tyres; if it is necessary to check the tyres when they are warm (after the vehicle has been driven for a while, even in cold weather), you should expect the pressures to have increased between 4 and 6 lbf/in². In this circumstance, DO NOT let air out of the tyres in order to match the recommended pressures.

The recommended pressures for cold tyres are shown in ‘Technical Data’ later in this handbook.

WARNING!
DEFECTIVE TYRES ARE DANGEROUS! DO NOT drive your vehicle if any tyre is excessively worn or damaged, or is inflated to an incorrect pressure.

For Your Safety ..........
Incorrect tyres can affect the stability of your vehicle - only fit replacement tyres that are identical to the original specification.

Operating Tip ..........
The spare tyre pressure on vehicles fitted with steel wheels can be checked through the aperture in the wheel cover (provided the wheel is correctly positioned on the carrier).
Tyres

Tyre wear indicators
The tyres on your vehicle have wear indicators moulded into the tread pattern at several points around the circumference. When the tread has worn down to 1.6 mm, the indicators will come to the surface of the tread pattern, producing the effect of a continuous band of rubber across the width of the tyre.

The indicators provide warning that there is insufficient tread remaining, to provide good traction, particularly on wet roads. For safety, a tyre MUST be replaced as soon as a wear indicator becomes visible.

If tyre wear is uneven (on one side of the tyre only) or becomes abnormally excessive, the wheel alignment should be checked by your dealer.

Punctured tyres
Your vehicle is fitted with tubeless tyres, which will not normally leak if penetrated by a sharp object, provided it remains in the tyre. If you are aware of this occurring, reduce speed immediately and drive with caution until the spare wheel can be fitted. Remember, punctured or damaged tyres must be permanently repaired or replaced as soon as possible. DO NOT DRIVE WITH A FLAT TYRE!

WARNING!
ALWAYS use the same make and type of radial-ply tyres front and rear. DO NOT use cross-ply tyres.

For Your Safety ........
DO NOT replace wheels with any type other than genuine Land Rover parts. Wheels and tyres are designed for both off-road and normal road use and have a very important influence on vehicle handling. Alternative wheels, which do not meet original equipment specifications, should not be fitted.

Care Points ........
Keep the valve caps screwed down firmly - they prevent dirt from entering the valve. Check the valve for leaks (listen for a tell-tale hissing) when you check the tyre pressure.


Tyres

Replacement tyres
For your own safety, ONLY fit replacement tyres that are identical to the original specification shown in ‘Technical Data’ later in this handbook. In addition, ensure that the load rating shown on the side wall of the tyre, is the same as that of the original equipment. Contact your Land Rover dealer for further information or assistance.

Ideally, tyres should be replaced as sets of four, but if this is not possible, replace the tyres as axle sets. When replacing tyres in axle sets, always fit the new tyres to the rear axle.

Always have the wheels and tyres re-balanced after replacing.

Snow chains
Snow chains can only be fitted to vehicles equipped with 195/80 x 15 tyres.

Unsuitable snow chains could damage the tyres, wheels, suspension, brakes or bodywork of your vehicle. Only fit snow chains that are recommended by a Land Rover dealer and have been approved for use on your vehicle.

Land Rover approved snow chains are designed for on-road use in extreme snow conditions only, and are not recommended for off-road use. In use, always observe the following precautions:

- ONLY Land Rover approved chains may be fitted.
- Chains can be fitted to the front wheels only, or to all four wheels.
- Always adhere to the snow chain fitting and retensioning instructions and the speed limitations for varying road conditions. NEVER exceed 30 mph (50 km/h).
- Avoid tyre damage and excessive chain wear by removing snow chains when driving on snow free roads.

For further information about approved snow chains, consult your Land Rover dealer.

WARNING!
DO NOT fit unapproved snow chains - this could damage brake components.
WASHING YOUR VEHICLE

Cleaning the paintwork
If the vehicle is particularly dirty, use a hose to flush grime and grit from the painted surface, prior to washing. Then, wash the vehicle using cold or lukewarm water containing a good quality wash and wax shampoo. Always use plenty of water to ensure that grit is flushed from the surface and not ground into the paintwork. After washing, rinse the vehicle with clean water and dry off with a chamois leather.

NOTE: On 3-door vehicle fitted with composite Targa roof panels, do not apply wax polish to the panels, the wax will become ingrained in the textured finish.

Cleaning the underside
During winter months if salt has been used on the roads, use a hose to wash the underside, paying particular attention to wheel arches and panel seams, and to removing accumulations of mud.

Removing tar spots
Use white spirit to remove tar spots and stubborn grease stains. Then wash immediately with soapy water to remove all traces of the spirit.

WARNING!
Some high pressure cleaning systems will penetrate door, window and sunroof seals, and damage lock mechanisms. DO NOT aim water jets directly at components that might be easily damaged.

Care Points ........
- DO NOT use hot water to wash the vehicle.
- DO NOT use detergents or washing up liquid.
- In hot weather, DO NOT wash the vehicle in direct sunlight.
- If using a hose, DO NOT direct the water directly at window, door or sunroof seals, at the soft-back canopy (if fitted), or through wheel apertures onto brake components.
- If using an automatic car wash (5-door models only), remove the radio aerial before entering the car wash. DO NOT wash a 3-door model in an automatic car wash.

Engine compartment

WARNING!
DO NOT use a high pressure hose to clean the engine compartment - damage to the vehicle’s electronic systems may occur.
Cleaning & Vehicle Care

Cleaning the softback canopy and hardback

- Use a soft brush to remove dust and flaking dirt from the canopy or hardback (not the windows), then soak with a mild soap and water solution to soften encrusted dirt and remove stains, prior to washing.
- Wash using a mild soap and water solution, before rinsing the canopy or hardback with clean lukewarm or cold water. Rinse until all traces of soap are removed.
- Never use spirit, petrol or chlorine based cleaning agents, or wash/wax compounds to clean the canopy, hardback and windows - wax polishes will become ingrained in the textured finish.
- Never use an automatic car wash, or a high pressure hose.
- Do not aim jets of water at zips or seals.
- Ensure the canopy is dry before folding or removing.
- Improper cleaning and lack of care may cause damage to the canopy and window panels, resulting in water penetration.

Cleaning the softback or hardback windows

- DO NOT use brushes, solvents, petrol, hot water, strong detergents or abrasive cleaners on the window panels.
- Wipe off any dust or dirt using a damp soft cloth.
- DO NOT wipe the window panels when they are dry.
- Wash the windows with a clean, grit-free sponge or cloth and a mixture of a mild dishwashing detergent and cold or lukewarm water. Rinse the window panels thoroughly and wipe with a soft moist cloth.
- Remove frost, ice and snow using lukewarm water - do not use a scraper. Take care when clearing ice or snow from the window panels, as they are easily scratched and could crack at low temperatures.
- Do not put adhesive backed material (badges, stickers etc) onto the window panels - this may result in damage and discolouration.

WARNING!

DO NOT use abrasive or solvent cleaners on the canopy or hardback and especially NOT on the window panels.
Use only mild detergents.

Care Points .......... The removable window panels fitted to the softback are susceptible to scratching from the effects of dirt and grit. For this reason, it is important to wash them frequently.
Always stow the window panels in the bag provided when not in use - ensure the panels are dry before stowing.
Cleaning & Vehicle Care

Protecting paint damage
After washing, examine the paintwork for damage. Treat paint chips and scratches with a Land Rover paint touch-up pencil. If the damage has revealed bare metal, use a coloured primer first, then apply the base coat and finish off with a lacquer pencil, if appropriate. Carry out this treatment after washing but before polishing or waxing.

More extensive damage to paint or bodywork must be repaired in accordance with the manufacturer’s recommendations. Ask your Land Rover dealer for advice.

Polishing
Occasionally treat the paint surface with an approved polish containing the following properties:

- Very mild abrasives to remove surface contamination without removing or damaging the paint.
- Filling compounds that will fill scratches and reduce their visibility.
- Wax to provide a protective coating between the paint and the elements.

Wiper blades
Wash in warm soapy water. DO NOT use spirit or petrol based cleaners.

Windows and mirrors
Regularly clean all windows, inside and out, using an approved glass cleaner.

Windscreen:
In particular, clean the outside of the screen with glass cleaner after washing the vehicle with wash and wax products, and before fitting new wiper blades.

Rear screen:
Clean the inside with a soft cloth, using a side to side motion to avoid damaging the heating elements. DO NOT scrape the glass or use abrasive cleaners - this will damage the heating elements.

Mirrors:
Wash with soapy water. Use a plastic scraper to remove ice. DO NOT use abrasive cleaners or metal scrapers.

Care Points
- If possible, avoid applying polish or wax products to window glass or rubber seals.
- DO NOT scrape or use abrasive cleaners on the inside of the rear screen - this will damage the heating elements.
- DO NOT use car polish containing coarse abrasives - these will remove the paint film and damage the gloss finish.
Cleaning & Vehicle Care

CLEANING THE INTERIOR

Plastic materials
Clean with diluted upholstery cleaner and wipe with a damp cloth.

Leather materials
Clean leather seats and trim with warm water and a non-detergent soap. Dry and polish the leather with a dry, clean, lint-free cloth.

Carpet and fabrics
Clean with diluted upholstery cleaner - test a concealed area first.

Airbag module covers
To prevent damage to the airbag SRS, the steering wheel and area of the fascia panel containing the passenger airbag should ONLY be cleaned sparingly with a damp cloth and upholstery cleaner. DO NOT allow these areas to be flooded with liquid and DO NOT use petrol, detergent, furniture cream or polishes.

Instrument pack, clock and radio
Clean with a dry cloth - DO NOT use cleaning fluids or sprays.

Seat belts
Extend the belts, then use warm water and a non-detergent soap to clean. Allow the belts to dry naturally; DO NOT retract them or use the vehicle until they are completely dry.

Fascia mounted rubber mats
The mats are removable for cleaning - replace with care.

RECOMMENDED VEHICLE CARE PRODUCTS

<table>
<thead>
<tr>
<th>Product</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>De-icer</td>
<td>STC717</td>
</tr>
<tr>
<td>Wheel cleaner</td>
<td>STC718</td>
</tr>
<tr>
<td>Glass cleaner</td>
<td>STC719</td>
</tr>
<tr>
<td>Bumper cleaner</td>
<td>STC721</td>
</tr>
<tr>
<td>Shampoo</td>
<td>STC722</td>
</tr>
<tr>
<td>Exterior wax polish</td>
<td>STC723</td>
</tr>
</tbody>
</table>

Care Points

- DO NOT polish plastic fascia components - these should remain non-reflective.
- DO NOT use bleaches, dyes or cleaning solvents on seat belts.
Battery maintenance
The battery is designed to be maintenance free, so topping-up is unnecessary. On the top of the battery there is a battery condition indicator (arrowed in illustration). Examine the indicator periodically to check the battery’s condition. When the indicator shows:

- GREEN - the battery is in a good state of charge.
- DARK (turning to black) - the battery needs charging.
- CLEAR (or light yellow) - the battery must be replaced. Do not charge the battery or jump start the car in this condition.

If the green dot is missing, the battery needs charging.

WARNING!

Batteries contain sulphuric acid, which is both corrosive and poisonous. If spillage occurs:

- On clothing or the skin - remove any contaminated clothing immediately, flush the skin with large amounts of water, and seek medical attention urgently.
- In the eyes - flush with clean water immediately for at least 15 minutes. Seek medical attention urgently.
- Swallowing battery acid can be fatal unless IMMEDIATE action is taken - seek medical attention urgently.

Operating Tip .......... When checking the battery condition indicator:

- If necessary, clean the battery top to ensure a clear view. Use a torch if natural light is poor.
- If the indicator shows clear or yellow, tap the indicator with a screwdriver to disperse any air bubbles. If the indicator colour is unchanged, the battery must be replaced.
Battery

Battery removal and replacement
Before disconnecting the battery, disarm the alarm, and ensure that the starter switch and all electrical equipment is turned off.

To remove; disconnect the negative (−) cable first and then the positive (+) cable. When reconnecting, connect the positive cable first and then the negative cable. Do not allow the battery terminals to make contact with metal parts of the car.

To release the battery from the car, undo the bolt and remove the battery clamping plate (see illustration).

Replacement batteries
Only fit a replacement battery of the same type and specification as the original - other batteries may vary in size or have different terminal positions which could cause a fire hazard when connected to the car’s electrical system.

For Your Safety
Remove any metal wrist bands and jewellery before working in the engine compartment. Do not allow the battery terminals or leads to make contact with tools or metal parts of the car.

Care Points
NEVER run the engine with the battery disconnected, or disconnect the battery while the engine is running.

DO NOT reverse the polarity of the battery - the electrical system may be damaged if the battery leads are connected to the wrong terminals.

Keep the battery upright at all times - damage will be caused if the battery is tilted more than 45 degrees.
Battery charging
As the battery ages, it may not retain its charge as effectively as when it was new. Cars that are used infrequently, or are used excessively for short journey motoring, or operation in cold climates, may need the battery to be charged regularly. Always check the battery condition indicator before charging.

Batteries generate explosive gases, contain corrosive acid and produce levels of electric current sufficient to cause serious injury. While charging, always heed the following precautions.

- Before charging, disconnect and remove the battery from the car - charging the battery with the cables connected may damage the car’s electrical system.
- Make sure the battery charger leads are securely clamped to the battery terminals BEFORE switching on the battery charger. Do not move the leads once the charger is switched on.
- Shield your eyes, or avoid leaning over the battery.
- Keep the area around the top of the battery well ventilated.
- Do not allow naked lights near the battery (batteries generate inflammable hydrogen during and after charging).
- When charging is finished, switch off the battery charger BEFORE disconnecting the leads from the battery terminals.

After charging, leave the battery for one hour before returning it to the car - this will allow time for explosive gases to disperse, thereby minimising the risk of fire or explosion.

WARNING!
DO NOT charge the battery if it is connected to the car - this may seriously damage the car’s electrical system.
DO NOT charge the battery if it is suspected of being frozen.
DO NOT attempt to charge the battery if the battery condition indicator is clear or light yellow.

Operating Tip .........
Be aware that a battery will take longer to charge in a cold environment.
The battery will be sufficiently charged once the battery condition indicator shows GREEN.

Environment .........
Used batteries can be recycled. They are also hazardous. Seek advice about disposal from your Land Rover dealer or local authority.
Battery

THE EFFECTS OF BATTERY DISCONNECTION
Some of the car’s electrical systems will be affected if the battery is disconnected. These are listed below, together with the symptoms you might experience once the battery is reconnected and the actions required to restore operation.

Radio/cassette player
The word ‘CODE’ will appear in the display and the set will fail to operate. To restore operation, enter the security code using the procedure described in the ‘In-car Entertainment’ book.

Taildoor glass
If the battery has been disconnected, the taildoor glass will need to be recalibrated. If the alarm was armed when the battery was disconnected (or discharged), disarm the alarm after reconnection - the taildoor glass will fully lower. This will happen automatically if the alarm was in a disarmed state when the battery was disconnected.

After battery reconnection, fully raise the taildoor glass (if the glass is not fully raised, an error ‘beep’ will sound) - the taildoor glass is now recalibrated.

Alarm system
The alarm system will automatically reset to the status in operation prior to battery disconnection, but the handset will need to be re-synchronised (see ‘Locks & Alarm’).