

2002-2005 Freelander

Maintenance Description



Below are brief explanations of the items listed on the Maintenance Service Schedule. Only a qualified technician should perform the work while following procedures in the Freelander Workshop Manual. Always use correct methods, tools, equipment and safety precautions. Some additional details and specifications are provided in the Owner's Manual or the Workshop manuals.

Vehicle Exterior

1. Inspect Sunroof drains and lubricate slides. Ensure that drains in roof tray are not blocked. When lubricating slides take care to avoid contamination of headliner.
2. Check wiper/washer operation. Inspect Wiper Blades. Look for wear or deterioration of blades and replace if necessary. Verify spray pattern and aim.
3. Check operation of headlights and exterior lights. Ensure that all lamps are working correctly and that headlights are properly aimed.
4. Lubricate door locks, hinges & check straps, hood latch & safety catch, fuel door hinges. Use graphite based lock lubricant on lock cylinders. Use white lithium grease on check straps, hood latch and safety catch pivot. Use motor oil on fuel door hinges.
5. Replace alarm handset batteries. This should be done every two years.

Vehicle Interior

1. Check operation of ignition key interlock. Verify that the key and gearbox interlock system prohibits key removal until the selector is in the "P" location. Also verify that the engine will only crank with the gear selector in "P" or "N" positions.
2. Check parking brake operation.
3. Adjust parking brake at first 12,000-mile service only. Brake should be fully applied after three clicks of ratchet pawl. Adjust for shoe wear at drum backing plate. Do not adjust shoes too tight or brake will drag causing drive train noises when coming to a stop. Adjust cable length to compensate for cable stretch after shoe adjustment. See Workshop Manual for details on these adjustments.
4. Check seat belts. Check security of mounting points, function of buckles and locking operation of inertia reels. Check webbing for damage.

Under Hood

1. Replace pollen filter in HVAC system. Refer to the WSM for detailed instructions.
2. Inspect radiator & AC condenser for obstructions. Look for debris or blockage behind grille and in front of coils, which would impair engine cooling or AC performance. Back-flush to remove accumulations. This should be done regularly after off-road driving in deep water or mud.
3. Check power steering fluid level. Clean reservoir cap before removing to prevent contamination from entering system. Fluid level should be at the upper mark with the engine not running. Do not check with engine running. Use only ATF Dexron III to top-up.
4. Check brake fluid level. Fluid is visible through the transparent reservoir. The fluid level must be between the upper and lower marks. It is normal for fluid level to drop slightly as brake pads wear. Clean reservoir cap before removing and use only DOT-4 fluid from a sealed container if adding fluid. Always investigate and rectify the cause if fluid level drops to the minimum mark.
5. Inspect PAS lines and connectors for leaks. Pay particular attention to hose connections and locations where the potential for chaffing or other externally caused damage can occur.

6. Clean and service battery. Clean with mild detergent, rinse and dry. Remove and clean terminal connections with suitable brush. Coat terminals with petroleum jelly. Re-set radio if battery disconnected.
7. Inspect serpentine drive belt. Look at entire length of belt on smooth and grooved sides. Look for signs of wear, frayed edges or cracking of the material. Check drive pulleys to be sure v-grooves are clean.
8. Replace air cleaner element. This may be required more frequently when driving in dusty conditions. Be sure drain holes in bottom of filter housing are clear before installing new filter.
9. Inspect coolant hoses and coolant level. Look for signs of leaks or hose deterioration. Inspect the full exterior surface of all radiator and heater hoses. Replace at first sign of deterioration. Check worm gear clamps for tightness. Do *not* over-tighten. Top up as required.
10. Change engine coolant. Use only Land Rover approved phosphate-free extended-life coolant mixed with mineral-free water at a 1:1 ratio. Collect and dispose of coolant properly. Caution: coolant is poisonous and has a sweet odor, which is attractive to animals.
11. Change brake fluid. Always clean reservoir cap before removing. Use only DOT-4 fluid from sealed containers. ABS brake bleeding instructions must be followed carefully to avoid introducing air into the system while purging the ABS components. Check braking performance after fluid replacement.
12. Replace spark plugs. Use only recommended specification to prevent engine damage. Clean debris from area around plugs before removing. Be careful to avoid cross threading in aluminum cylinder heads. Tighten only to specified torque. Be sure ignition wires are carefully removed and fully seated when installed. Be sure wires are connected to the correct cylinder and properly routed through clips to prevent wire damage.
13. Replace Camshaft-drive belt. Follow WSM procedures to change the belt at the required intervals. Caution: Improper maintenance of this component can lead to belt failure and the potential for engine damage.
14. Replace serpentine drive belt. Follow instructions in Workshop Manual. Clean drive pulley v-grooves while belt is removed.
15. Replace fuel filter. This procedure requires removal of the fuel pump assembly to access the filter. It is only performed once at 120 thousand miles or 10 years of service, whichever comes first.

Under vehicle

1. Change engine oil and replace filter. Always replace sealing washer on drain plug and tighten drain plug to specified torque. Always fill oil filter with clean oil and lubricate sealing surface before installing. Use only the specified fully synthetic oil. Refer to specifications in Owner's Manual for correct oil viscosity depending on seasonal temperatures. Always check for leaks at filter and drain plug before driving.
2. Perform body corrosion warranty inspection. Ensure that inspection is noted in the owner's Passport to Service.
3. Remove wheels and inspect tires. Be sure tires comply with the manufacturer's specifications. Look for cuts, bulges or other signs of damage. Also look for wheel or valve stem damage. Examine wear patterns and determine cause if unusual. Be sure that tread wear limits are not exceeded. Adjust pressures if necessary.

4. Inspect brake pads, calipers and disks. Evaluate brake pad wear. Look for fluid leaks at calipers and examine brake disk surface condition. Refer to Workshop Manual for specifications.
5. Inspect rear brake linings through the inspection slot
6. Remove rear drums and inspect brake linings and system elements with the drum removed. Check drums for scoring, oil contamination or cracks.
7. Swap rear wheels only from side to side on the vehicle. Lubricate all wheel centers with anti-seize compound, and install wheels.
8. Inspect trailer hitch mounting if present and check retaining bolt torque.
9. Inspect brake lines. Look for damage to all metal lines and flexible hoses from engine compartment to brake calipers.
10. Inspect fuel lines. Examine the full length of metal fuel lines and flexible hoses between the fuel tank and engine. Look for damage or chafing.
11. Inspect exhaust system & heat shields. Look for damage, deterioration or leaks. Exhaust gas contains deadly carbon monoxide and it must exit only at the end of the tailpipe. Be sure all exhaust heat shields are in place and secure. Be sure exhaust system hangers are in place and in good condition.
12. Inspect steering rack and suspension for wear or leaks. Look at all steering components for signs of damage. Compress and extend ball joints to check for play and replace if found. Examine rubber boots on ball joints for cuts or damage and replace joint if contaminated. Look for bushing wear or damage. Inspect shock absorbers.
13. Inspect wheel speed sensor wiring. Make sure the lead / harness to wheel sensors is secure and undamaged.
14. Check IRD and transmission oil levels. Remove IRD level plug using special tool. Follow the WSM procedures and carefully check the automatic transmission fluid level. Make sure that the transmission is at the correct temperature (35-45 degrees C). Always replace drain plug seals. Torque drain and fill plugs to specification.
15. Check rear axle oil level. Remove inspection plug and top-up with specified gear lube to correct level.
16. Change transmission fluid at 60 thousand mile intervals. Drain and refill using specified fluid. Follow instructions for checking fluid level after refill. Always replace drain plug seal and torque to specification.
17. Record performance of service in customer Passport to Service. Maintaining proper records for your customers is important, particularly if the vehicles should move to another location or be sold to a second owner. Please ensure that the correct notations of service are entered into the book.