SECTION 5

MAINTENANCE

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MAINTENANCE REQUIREMENTS

Your Lexus vehicle has been designed to have fewer maintenance requirements with longer service intervals to save both your time and money. However, each regular maintenance as well as day-to-day care is more important than ever before to ensure smooth, trouble-free, safe, and economical driving.

It is the owner's responsibility to make sure the specified maintenance, including general maintenance services, is performed. Note that both the new vehicle and emission control system warranties specify that proper maintenance and care must be performed. See the Owner's Guide or Warranty Booklet for complete warranty information.

General maintenance

General maintenance items are those day-to-day care practices that are important to your vehicle for proper operation. It is the owner's responsibility to ensure that the general maintenance items are performed regularly.

These checks or inspections can be done either by yourself or your Lexus dealer.

Scheduled maintenance

The scheduled maintenance items listed in this part are those requiring servicing at regular intervals

However, under severe driving conditions, a separate maintenance schedule that requires more frequent maintenance service should be practiced.

It is recommended that any replacement parts used for maintenance or for the repair of the emission control system be Lexus supplied.

The owner may elect to use non-Lexus supplied parts for replacement purposes without invalidating the emission control system warranty. However, use of replacement parts which are not of equivalent quality may impair the effectiveness of the emission control systems.

You may also elect to have maintenance, replacement, or repair of the emission control devices and system performed by any automotive repair establishment or individual without invalidating this warranty. See Owner's Guide or Warranty Booklet for complete warranty information.

Where to go for service?

Lexus technicians are well-trained specialists and are kept up to date with the latest service information through technical bulletins, service tips, and in-dealership training programs. They are well informed about the operation of all the systems on your vehicle.

You can be confident that your Lexus dealer's service department performs the best job to meet the maintenance requirements of your vehicle.

Your copy of the repair order is proof that all required maintenance has been performed for warranty coverage. And if any problems should arise with your vehicle while under warranty, your Lexus dealer will promptly take care of it. Again, be sure to keep a copy of the repair order for any service performed on your Lexus.

What about do-it-yourself maintenance?

Many of the maintenance items are easy to do yourself, if you have a little mechanical ability and a few basic automotive tools. Simple instructions for how to perform them are presented in Section 6.

If you are a skilled do-it-yourself mechanic, the Lexus service manuals are recommended. Please be aware that do-it-yourself maintenance can affect your warranty coverage. See your Owner's Guide or Warranty Booklet for the details.

GENERAL MAINTENANCE

Listed below are the general maintenance items that should be performed at the intervals specified. It is recommended that any problem you notice be brought to the attention of your Lexus dealer.

CAUTION:
Make these checks only where adequate ventilation can be obtained if you run the engine.

Vehicle exterior

Items listed below should be performed from time to time, unless otherwise specified.

Tires

Check the pressure with a gauge every two weeks, or at least once a month and adjust as shown on the tire pressure label. Check carefully for cuts, damage or excessive wear. See page 212 for additional information.

Wheel nuts

When checking the tires, make sure to check the nuts for looseness. Tighten them if necessary.

Tire rotation

Rotate the tires every 12000 km (7500 miles). See page 212 for additional information.

Windshield wiper blades

Check for wear or cracks whenever they do not wipe clean.

Fluid leaks

Check underneath for leaking fuel, oil, water or other fluid after the vehicle has been parked for a while. If you smell fuel fumes or notice any leak, have the cause found and corrected immediately.

Doors and engine hood

Check that all doors, including trunk lid, operate smoothly and all latches lock securely. Make sure the engine hood secondary latch secures the hood from opening when the primary latch is released.

Vehicle interior

Items listed below should be checked reqularly, e.g. while performing periodic services, cleaning the vehicle, etc.

Lights

Make sure the headlights, stop lights, tail lights, turn signal lights, and other lights are all working. Check headlight aim.

Service reminder indicators and warning buzzers

Check that all service reminder indicators and warning buzzers function properly.

Horn

Make sure it works.

Windshield glass

Check that it is free from scratches, pits or abrasions.

Windshield wipers and washer

Check operation of the wipers and washer. Make sure the wipers do not streak.

Windshield defroster

Check that the air comes out from the defroster outlet when operating the air conditioning.

Air conditioning outlets

Check that they deliver sufficient air.

Rear view mirror

Make sure it is mounted securely.

Sun visors

Make sure they move freely and are mounted securely.

Steering wheel

Check that it has the specified freeplay. See page 209 for additional information. Be alert for changes in steering condition, such as hard steering, excessive freeplay or strange noise.

Seats

Check that all front seat controls such as seat adjusters, seatback recliner, etc. operate smoothly and that all latches lock securely in any position. Check that the head restraints move up and down smoothly and that the locks hold securely in any latched position.

Seat belts

Check that the seat belt system such as buckles, retractors and anchors operate properly and smoothly. Make sure the belt webbing is not cut, frayed, worn or damaged.

Accelerator pedal

Check the pedal for smooth operation and uneven pedal effort or catching.

Brake pedal

Check the pedal for smooth operation and check that the pedal has the proper clearance and freeplay. Check the brake booster function. See page 206 for additional information.

Brakes

At a safe place, check that the brakes do not pull to one side when applied.

Parking brake

On a safe incline, step on the parking brake pedal and check that the vehicle is stopped using only the parking brake. See page 207 for additional information.

Automatic transmission “Park” mechanism

Check the lock release button of the selector lever for proper and smooth operation. On a safe incline, check that your vehicle is held securely with the selector lever in “P” position and all brakes released.

Engine compartment

Items listed below should be checked from time to time, e.g. each time when refueling.

Washer fluid

Make sure there is sufficient fluid in the tank. See page 230 for additional information.

Engine coolant level

Make sure the coolant level is between the Upper and Lower lines on the see-through reservoir when the engine is cool. See page 200 for additional information.

Radiator and hoses

Make sure the front of the radiator is clean and not blocked with leaves, dirt or bugs. Check the hoses for cracks, kinks, rot and loose connections.

Battery electrolyte level

Check the electrolyte level. Add only distilled water when replenishing. See page 222 for additional information.

Brake fluid level

Make sure the brake fluid level is correct. See page 206 for additional information.

Engine drive belt

Check belt for fraying, cracks, wear or oiliness.

Engine oil level

Check the level on the dipstick with the engine turned off and the vehicle parked on a level spot. See page 198 for additional information.

Power steering fluid level

Check the level on the dipstick. The level should be in the "HOT" or "COLD" range depending on the fluid temperature. See page 208 for additional information.

Automatic transmission fluid level

Check the level on the dipstick with the engine idling and the selector lever in "P". The level should be in the "HOT" or "COOL" range according to the fluid temperature. See page 209 for additional information.

Exhaust system

Look for cracks, holes and loose supports. If you notice any change in the sound of the exhaust or smell exhaust fumes, have the cause located and corrected immediately. (See engine exhaust cautions in Section 3-1.)

DOES YOUR VEHICLE NEED REPAIRING?

Be on the alert for changes in performance and sounds, and visual tip-offs that indicate service is needed. Some important clues are:

- Engine missing, stumbling, or pinging
- Appreciable loss of power
- Strange engine noises
- A fluid leak under the vehicle (However, water dripping from the air conditioning after use is normal.)
- Change in exhaust sound (This may indicate a dangerous carbon monoxide leak. Drive with the windows open and have the exhaust system checked immediately.)
- Flat-looking tires, excessive tire squeal when cornering, uneven tire wear
- Vehicle pulls to one side when driving straight on a level road
- Strange noises related to suspension movement
- Loss of brake effectiveness, spongy feeling brake pedal, pedal almost touches floor, vehicle pulls to one side when braking
- Engine coolant temperature continually higher than normal

If you notice any of these clues, take your vehicle to your Lexus dealer as soon as possible. It probably needs adjustment or repair.

CAUTION:
Do not continue driving with the vehicle unchecked. It could result in serious vehicle damage and possibly personal injury.

SCHEDULED MAINTENANCE

Driving conditions under which you mainly operate your vehicle determine which maintenance schedule you follow.

In order to ensure smooth, trouble-free, safe and economical driving, Lexus provides two maintenance schedules to be selected according to your driving conditions: schedules A and B. The instructions on which schedule to follow are given on the next page.

The service interval for scheduled maintenance is determined by the odometer reading or the time interval, whichever comes first, shown in the schedule.

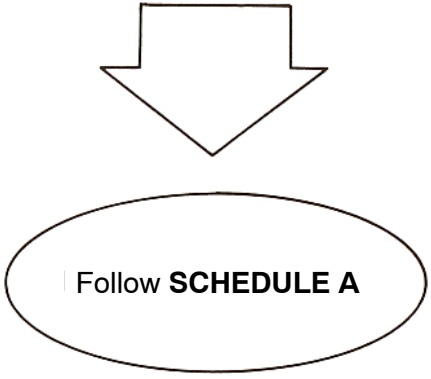
The maintenance services beyond the last period should be performed at the same intervals.

The service interval of each item can be obtained from the maintenance schedule.

Which schedule to follow?

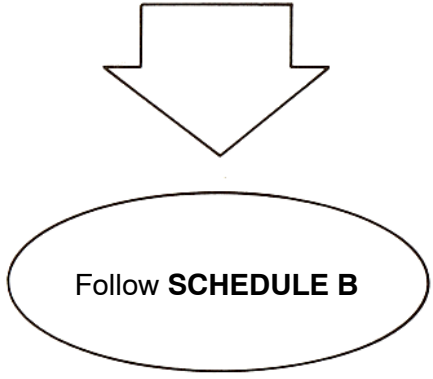
If you mainly operate your vehicle under one or more of the severe conditions below:

- Towing a trailer, using a camper or car top carrier
- Operating on dusty, rough, muddy or salt-spread roads
- Repeated short trips less than 8 km (5 miles) and outside temperatures remain below freezing
- Extensive idling and/or low speed driving for a long distance such as police, taxi or door-to-door delivery use



If you mainly operate your vehicle under:

CONDITIONS OTHER THAN THOSE LISTED ON THE LEFT



SCHEDULE A

Maintenance operations:

A = Check and adjust as necessary; I = Inspect and correct or replace as necessary; R = Replace, change or lubricate.

Service interval (Use odometer reading or months, whichever comes first.) / Maintenance items		Maintenance services beyond 96,000 km (60,000 miles) should continue to be performed at the same intervals shown for each maintenance schedule.																	
	Miles x 1,000	1	3.75	7.5	11.25	15	18.75	22.5	26.25	30	33.75	37.5	41.25	45	48.75	52.5	56.25	60	Months
	km x 1,000	1.6	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	
ENGINE COMPONENTS AND EMISSION CONTROL SYSTEMS																			
Timing belt		See note (1)																	
Valve clearance																		A	A: Every 72 months
Drive belt	See note (2)																	I	I: See note (2)
Engine oil and oil filter★			R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R: Every 6 months
Engine coolant	See note (3)													R					R: See note (3)
Exhaust pipes and mountings						I				I				I				I	I: Every 24 months
Air cleaner filter★	See note (4)		I	I	I	I	I	I	I	R	I	I	I	I	I	I	I	R	I: Every 6 months R: Every 36 months
Fuel lines and connections	See note (5)									I								I	I: Every 36 months
Fuel tank cap gasket																		R	R: Every 72 months
Spark plugs																		R	R: Every 72 months
Charcoal canister																		I	I: Every 72 months

Maintenance services indicated by a star (★) are required under the terms of the Emission Control Systems Warranty. See Owner's Guide or Warranty Booklet for complete warranty information.

★ For vehicles sold in California and New York only

NOTE:

(1) If you operate your vehicle under conditions of extensive idling and/or low speed driving for a long distance such as police, taxi or door to door delivery use, replace every 96,000 km (60,000 miles).

(2) After 96,000 km (60,000 miles) or 72 months, inspect every 12,000 km (7,500 miles) or 12 months.

(3) After 72,000 km (45,000 miles) or 36 months, replace every 48,000 km (30,000 miles) or 24 months.

(4) Applicable when operating mainly on dusty roads. If not applicable, follow schedule B.

(5) Includes inspection of vapor vent system.

SCHEDULE A

Maintenance operations:

A = Check and adjust as necessary; I = Inspect and correct or replace as necessary; R = Replace, change or lubricate.

Service interval (Use odometer reading or months, whichever comes first.) / Maintenance items	Maintenance services beyond 96,000 km (60,000 miles) should continue to be performed at the same intervals shown for each maintenance schedule.																	
	Miles x 1,000	1	3.75	7.5	11.25	15	18.75	22.5	26.25	30	33.75	37.5	41.25	45	48.75	52.5	56.25	60	Months
	km x 1,000	1.6	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	
CHASSIS AND BODY																			
Brake linings and drums			I		I		I		I		I		I		I		I	I: Every 12 months
Brake pads and discs			I		I		I		I		I		I		I		I	I: Every 12 months
Brake fluid	I				I				R				I				R	R: Every 36 months
Brake line pipes and hoses					I				I				I				I	I: Every 24 months
Steering linkage			I		I		I		I		I		I		I		I	I: Every 12 months
SRS	After inspection at 10 years, inspect every 2 years.																	
Steering gear box See note (6)	I				I				I				I				I	I: Every 24 months
Ball joints and dust covers			I		I		I		I		I		I		I		I	I: Every 12 months
Automatic transmission and differential	I				R				R				R				R	R: Every 24 months
Bolts and nuts on chassis and body See note (7)	I		I		I		I		I		I		I		I		I	I: Every 12 months
Body inspection (paint, corrosion)	I		I		I		I		I		I		I		I		I	I: Every 12 months
Air conditioning filter See note (8)					R				R				R				R	R: Every 12 months
ROAD TEST	I		I		I		I		I		I		I		I		I	I: Every 12 months

NOTE:

(6) Inspect the steering gear housing for oil leakage only.

(7) Applicable when operating mainly on rough and / or muddy roads. If not, follow schedule B.

(8) Not applicable in dusty areas.

SCHEDULE B

Maintenance operations:

A = Check and adjust as necessary; I = Inspect and correct or replace as necessary; R = Replace, change or lubricate.

Service interval (Use odometer reading or months, whichever comes first.) / Maintenance items	Maintenance services beyond 96,000 km (60,000 miles) should continue to be performed at the same intervals shown for each maintenance schedule										
	Miles x 1,000	1	7.5	15	22.5	30	37.5	45	52.5	60	Months
	km x 1,000	1.6	12	24	36	48	60	72	84	96	
ENGINE COMPONENTS AND EMISSION CONTROL SYSTEMS											
Valve clearance										A	A: Every 72 months
Drive belt	See note (1)									I	I: See note (1)
Engine oil and oil filter★			R	R	R	R	R	R	R	R	R: Every 12 months
Engine coolant	See note (2)							R			R: See note (2)
Exhaust pipes and mounting						I				I	I: Every 36 months
Air cleaner filter★						R				R	R: Every 36 months
Fuel lines and connections	See note (3)					I				I	I: Every 36 months
Fuel tank cap gasket										R	R: Every 72 months
Spark plugs										R	R: Every 72 months
Charcoal canister										I	I: Every 72 months

Maintenance services indicated by a star (★) are required under the terms of the Emission Control Systems Warranty. See Owner's Guide or Warranty Booklet for complete warranty information.

★ For vehicles sold in California and New York only

NOTE:

(1) After 96,000 km (60,000 miles) or 72 months, inspect every 12,000 km (7,500 miles) or 12 months.

(2) After 72,000 km (45,000 miles) or 36 months, replace every 48,000 km (30,000 miles) or 24 months.

(3) Includes inspection of vapor vent system.

SCHEDULE B

Maintenance operations:

A = Check and adjust as necessary; I = Inspect and correct or replace as necessary; R = Replace, change or lubricate.

Service interval (Use odometer reading or months, whichever comes first.) / Maintenance items	Maintenance services beyond 96,000 km (60,000 miles) should continue to be performed at the same intervals shown for each maintenance schedule.										
	Miles x 1,000	1	7.5	15	22.5	30	37.5	45	52.5	60	Months
	km x 1,000	1.6	12	24	36	48	60	72	84	96	
CHASSIS AND BODY											
Brake linings and drums				I		I		I		I	I: Every 24 months
Brake pads and discs				I		I		I		I	I: Every 24 months
Brake fluid		I		I		R		I		R	R: Every 36 months
Brake line pipes and hoses				I		I		I		I	I: Every 24 months
Steering linkage				I		I		I		I	I: Every 24 months
SRS		After inspection at 10 years, inspect every 2 years.									
Steering gear box	See note (4)	I		I		I		I		I	I: Every 24 months
Ball joints and dust covers				I		I		I		I	I: Every 24 months
Automatic transmission and differential		I		I		I		I		I	I: Every 24 months
Bolts and nuts on chassis and body		I		I		I		I		I	I: Every 24 months
Body inspection (paint, corrosion)		I	I	I	I	I	I	I	I	I	I: Every 12 months
Air conditioning filter				R		R		R		R	R: Every 12 months
ROAD TEST		I	I	I	I	I	I	I	I	I	I: Every 12 months

NOTE:

(4) Inspect the steering gear housing for oil leakage only.

Explanation of scheduled maintenance items

ENGINE COMPONENTS AND EMISSION CONTROL SYSTEMS

Timing belt

(Applicable to Schedule A only.) When scheduled, replace the belt and inspect the ignition timing. A qualified technician should perform these operations.

Valve clearance

Adjust the valve clearances to factory specifications. A qualified technician should perform this operation.

Drive belt

Inspect the drive belt for cracks, excessive wear or oiliness. Replace the belt if damaged. Check the auto tensioner operation.

Engine oil and oil filter

Change the engine oil and oil filter when scheduled. Use API SG or SH, Energy – Conserving II multigrade engine oil or ILSAC multigrade engine oil. For recommended viscosity, see page 199. A qualified technician should perform this operation.

Engine coolant

Drain and flush the cooling system when scheduled. Refill only with an ethylene-glycol type coolant. A qualified technician should perform this operation.

Exhaust pipes and mountings

Visually inspect the exhaust pipes, muffler and hangers for cracks, deterioration, or damage. Start the engine and listen carefully for any exhaust gas leakage. Tighten connections or replace parts as necessary.

Air cleaner filter

Replace the air cleaner filter when scheduled. Do-it-yourself instructions are given on page 201. If you mainly operate your vehicle on dusty roads, additionally inspect and clean the air cleaner filter when scheduled. Visually check for dirt or damage. It may be cleaned with compressed air.

Fuel lines and connections

Visually inspect the lines, connections for corrosion, damage, cracks, and loose or leaking connections. Tighten connections or replace parts as necessary.

Fuel tank cap gasket

Make sure the new gasket is correctly installed.

Spark plugs

Install new plugs of the same type as originally equipped. A qualified technician should perform this operation.

Charcoal canister

Inspect for internal damage or clogging. Clean with compressed air or replace if necessary. A qualified technician should perform this operation.

CHASSIS AND BODY

Brake linings and drums

Check for scoring, burning, leaking fluid, broken parts, and excessive wear. A qualified technician should perform this operation.

Brake pads and discs

Check the pads for excessive wear and discs for runout and wear, and leaking fluid. A qualified technician should perform this operation,

Brake fluid

Check for correct levels of the brake fluid. If the level is low, add FMVSS No. 116 DOT 3 or SAE J1703 brake fluid to the brake reservoir. Change the brake fluid as scheduled. A qualified technician should perform these operations.

Brake line pipes and hoses

Visually check for proper installation. Check for chafing, cracks, deterioration, and any evidence of leaking. Replace any deteriorated or damaged parts immediately. A qualified technician should perform these operations.

Steering linkage

With the vehicle stopped, check for excessive freeplay in the steering wheel. Check the linkage for bend or damage. Replace any damaged parts.

Steering gear box

Inspect the steering gear box for signs of leakage. Should you discover any leakage, have the cause found and corrected/repaired by a qualified technician immediately.

Ball joints and dust covers

Check the suspension and steering linkage ball joints for looseness or damage. Check all dust covers for deterioration or damage. A qualified technician should perform these operations.

Automatic transmission fluid

Inspect for signs of leakage. Should you discover any leakage, have the cause found and corrected/repaired by a qualified technician immediately. Under severe driving conditions, change the fluid and oil when scheduled.

Differential oil

Inspect the differential gear housing for signs of leakage. Should you discover any leakage, have the cause found and corrected/repaired by a qualified technician immediately. When scheduled, drain and change the oil.

SRS

This should be periodically inspected by a qualified technician. For details, see the maintenance schedule.

Bolts and nuts on chassis and body

Where necessary, retighten to specified torque.

Body inspection (paint, corrosion)

Visually check for corrosion, scratches and other damage. Check body outer panels, underneath the vehicle, inner panels of the hood and doors, etc. Apply touch-up paint to any chips or scratches, or have them repaired by a qualified technician.

Air conditioning filter

Check the air flow quantity. Have the filter replaced by your Lexus dealer according to the maintenance schedule.

ROAD TEST

While driving the vehicle, check the proper operation of engine, transmission, brakes and steering, and check for abnormal noise or vibration from any part of the vehicle.