

FOREWORD

Congratulations on your selection of this Lexus. In Lexus vehicles we have invested all our engineering and design resources; all the know-how we have gained in over 60 years of making automobiles; the highest motivation of our most talented employees; and our tradition of incessant striving toward ever greater quality.

This Owner's Manual explains the features of your new Lexus. Please read it and follow the instructions carefully so that you can enjoy many years of safe motoring.

When it comes to service, remember that your Lexus dealer knows your vehicle best and is interested in your complete satisfaction. Your Lexus dealer will provide quality maintenance and any other assistance you may require.

If there is not a Lexus dealer near you, or you need emergency assistance for any reason, please call the following number:

U.S. OWNERS

- When traveling in the U.S. mainland or Canada:
Lexus Roadside Assistance 1-800-25-LEXUS (Toll-Free)
(1-800-255-3987)
- HAWAII:
Lexus Customer Service Assistance 1-800-25-LEXUS (Toll-Free)
(1-800-255-3987)

CANADIAN OWNERS

- When traveling in Canada or the U.S. mainland:
Lexus Roadside Assistance/Customer Service 1-800-26-LEXUS (Toll-Free)
(1-800-265-3987)

Please leave this Owner's Manual in this vehicle at the time of resale. The next owner will need this information also.

All information and specifications in this manual are current at the time of printing. However, because of the Lexus policy of continual product improvement, we reserve the right to make changes at any time without notice.

Please note that this manual applies to all models and explains all equipment, including options. Therefore, you may find some explanations for equipment not installed on your vehicle.

TOYOTA MOTOR CORPORATION

IMPORTANT INFORMATION ABOUT YOUR LEXUS

IMPORTANT INFORMATION ABOUT YOUR LEXUS

Occupant restraint systems

Lexus encourages you and your family to take the time to read Section 1-6 of this Owner's Manual carefully. In terms of helping you understand how you can receive the maximum benefit of the occupant restraint systems this vehicle provides, Section 1-6 of this Owner's Manual is the most important section for you and your family to read.

Section 1-6 describes the function and operation concerning seats, seat belts, SRS airbags and child restraint systems of this vehicle and some potential hazards you should be aware of. These systems work together along with the overall structure of this vehicle in order to provide occupant restraint in the event of a crash. The effect of each system is enhanced when it is used properly and together with other systems. No single occupant restraint system can, by itself, provide you or your family with the equal level of restraint which these systems can provide when used together. That is why it is important for you and your family to understand the purpose and proper use of each of these systems and how they relate to each other.

The purpose of all occupant restraint systems is to help reduce the possibility of death or serious injury in the event of a collision. None of these systems, either individually or together, can ensure that there is no injury in the event of collision. However, the more you know about these systems and how to use them properly, the greater your chances become of surviving an accident without death or serious injury.

Seat belts provide the primary restraint to all occupants of the vehicle, and every occupant of the vehicle should wear seat belts properly at all times. Children should always be secured in child restraint systems that are appropriate for their age and size. SRS (Supplemental Restraint System) airbags are, as their names imply, designed to work with, and be supplemental to, seat belts and are not substitutes for them. SRS airbags can be very effective in reducing the risk of head and chest injuries by preventing contact of the head and chest with interior portions of the vehicle.

In order to be effective, the SRS airbags must deploy with tremendous speed. The rapid deployment of the SRS airbags makes the SRS airbags themselves potential sources of serious injury if an occupant is too close to an airbag, or if an object or some part of his or her body has been placed between the occupant and the airbag at the time of deployment. This is just one example of how the instructions in Section 1-6 of this Owner's Manual will help ensure proper use of the occupant restraint systems, and increase the safety they can provide to you and your family in the event of an accident.

Lexus recommends you to read the provisions in Section 1-6 carefully and refer to them as needed during your time of ownership of this vehicle.

IMPORTANT INFORMATION ABOUT YOUR LEXUS

New vehicle warranty

Your new vehicle is covered by the following Lexus limited warranties:

- New vehicle warranty
- Emission control systems warranty
- Others

For further information, please refer to the "Owner's Guide", "Owner's Manual Supplement" or "Warranty Booklet".

Your responsibility for maintenance

It is the owner's responsibility to make sure the specified maintenance is performed. Section 5 of this Owner's Manual gives details of these maintenance requirements. Included in Section 6 is general maintenance. For scheduled maintenance information, please refer to the "Owner's Manual Supplement / Scheduled Maintenance".

Important health and safety information about your Lexus



CAUTION

- **WARNING: Engine exhaust, some of its constituents, and a wide variety of automobile components contain or emit chemicals known to the State of California to cause cancer and birth defects and other reproductive harm. In addition, oils, fuels and fluids contained in vehicles as well as waste produced by component wear contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.**
- **Battery posts, terminals and related accessories contain lead and lead compounds. Wash your hands after handling. Used engine oil contains chemicals that have caused cancer in laboratory animals. Always protect your skin by washing thoroughly with soap and water.**

IMPORTANT INFORMATION ABOUT YOUR LEXUS

Accessories, spare parts and modification of your Lexus

A wide variety of non-genuine spare parts and accessories for Lexus vehicles are currently available in the market. You should know that Toyota does not warrant these products and is not responsible for their performance, repair, or replacement, or for any damage they may cause to, or adverse effect they may have on, your Lexus vehicle.

This vehicle should not be modified with non-genuine Lexus products. Modification with non-genuine Lexus products could affect its performance, safety or durability, and may even violate governmental regulations. In addition, damage or performance problems resulting from the modification may not be covered under warranty.

If you install any Genuine Accessories such as a bull-bar, winch, etc., consult your Lexus dealer.

Spark ignition system of your Lexus

The spark ignition system in your Lexus meets all requirements of the Canadian Interference-Causing Equipment Standard.

Installation of a mobile two-way radio system

As the installation of a mobile two-way radio system in your vehicle could affect electronic systems such as the multiport fuel injection system/sequential multiport fuel injection system, cruise control system, anti-lock brake system, SRS airbag system and seat belt pretensioner system, be sure to check with your Lexus dealer for precautionary measures or special instructions regarding installation.

Tires and loading on your Lexus

Underinflated or overinflated tire pressure and the excess load may result in the deterioration of steering ability and braking ability, leading to an accident. Check the tire inflation pressure periodically and be sure to keep the load limits given in this Owner's Manual. For details about tire inflation pressure and load limits, see pages 384 and 302.

Scrapping of your Lexus

The SRS airbag and seat belt pretensioner devices in your Lexus contain explosive chemicals. If the vehicle is scrapped with the airbags and seat belt pretensioners left as they are, this may cause an accident such as a fire. Be sure to have the systems of the SRS airbag and seat belt pretensioner removed and disposed of by a qualified service shop or by your Lexus dealer before you scrap your vehicle.

On-pavement and off-road driving tips

This vehicle belongs to the utility vehicle class. Utility vehicles have a significantly higher rollover rate than other types of vehicles. This vehicle will handle and maneuver differently from an ordinary passenger car because it is designed for off-road use also. In addition, this vehicle has a higher ground clearance and center of gravity than that of an ordinary passenger car. This vehicle design feature causes this type of vehicle to be more likely to rollover. Failure to operate this vehicle correctly may result in loss of control, accidents or vehicle rollover causing death or serious injury. Be sure to read "Off-road vehicle precautions" on page 284 and "Off-road driving precautions" on page 287.

HOW TO USE THIS MANUAL

HOW TO USE THIS MANUAL

The contents of this manual are explained briefly on this page to help you make the best use of the manual. Please read this page and the rest of the Owner's Manual carefully to make sure you fully understand the operation of your vehicle.

This will help you enjoy safe and comfortable driving.

TABLE OF CONTENTS

The table of contents and the pictorial index provide easy reference to the appropriate pages.

BASIC OPERATION - QUICK REFERENCE

Operation of basic equipment is briefly explained in an easily understandable way for quick reference.

SECTION 1 - INSTRUMENTS AND CONTROLS

The vehicle's equipment is divided into the 7 groups listed below. Use of the equipment is explained, including any points you should pay particular attention to.

1. Keys and doors
2. Switches
3. Gauges, meters and service reminder indicators
4. Interior equipment
5. Exterior equipment
6. Occupant restraint systems
7. Steering wheel and mirrors

SECTION 2 - AIR CONDITIONING AND AUDIO

The features of the vehicle's air conditioning and audio are explained in detail. Be sure to read this section so that you can make full use of them.

SECTION 3 - STARTING AND DRIVING

Starting the engine, driving, stopping, operation of features affecting vehicle handling, hints on vehicle safety and safe driving techniques are all explained. Please read everything in this section, and remember - drive safely!

SECTION 4 - IN CASE OF AN EMERGENCY

This section explains what to do in the event of an urgent situation such as the engine not starting or getting a flat tire, etc. If such a problem occurs, check the contents of this Owner's Manual and follow the instructions given.

SECTION 5 - MAINTENANCE

This section explains the importance of regular maintenance. Regular and periodic inspection and maintenance of your Lexus will help to keep your vehicle in its best condition.

SECTION 6 - SERVICE PROCEDURES AND SPECIFICATIONS

Simple maintenance procedure and service data are provided here for your reference should you wish to perform inspection and maintenance yourself.

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HOW TO USE THIS MANUAL

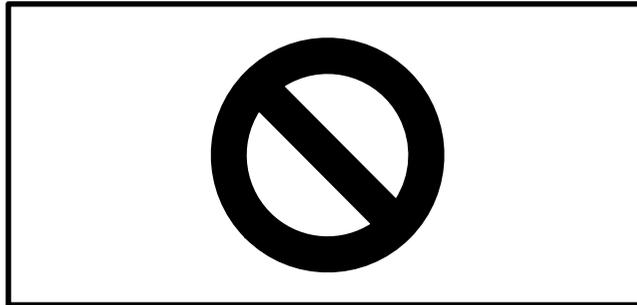
GAS STATION INFORMATION

The information you need to know for appropriate servicing at the gas station is provided here.

QUICK INDEX

This is designed so that you can quickly find the needed information when an urgent situation arises.

Safety symbol



In this manual, you will also see a circle with a slash through it. This means “Do not”, “Do not do this”, or “Do not let this happen”.

Safety and vehicle damage warnings

In this manual you will see CAUTION and NOTICE warnings. These are used in the following ways:



CAUTION

This is a warning against anything which may cause injury to people if the warning is ignored. You are informed about what you must or must not do in order to reduce the risk of injury to yourself and others.

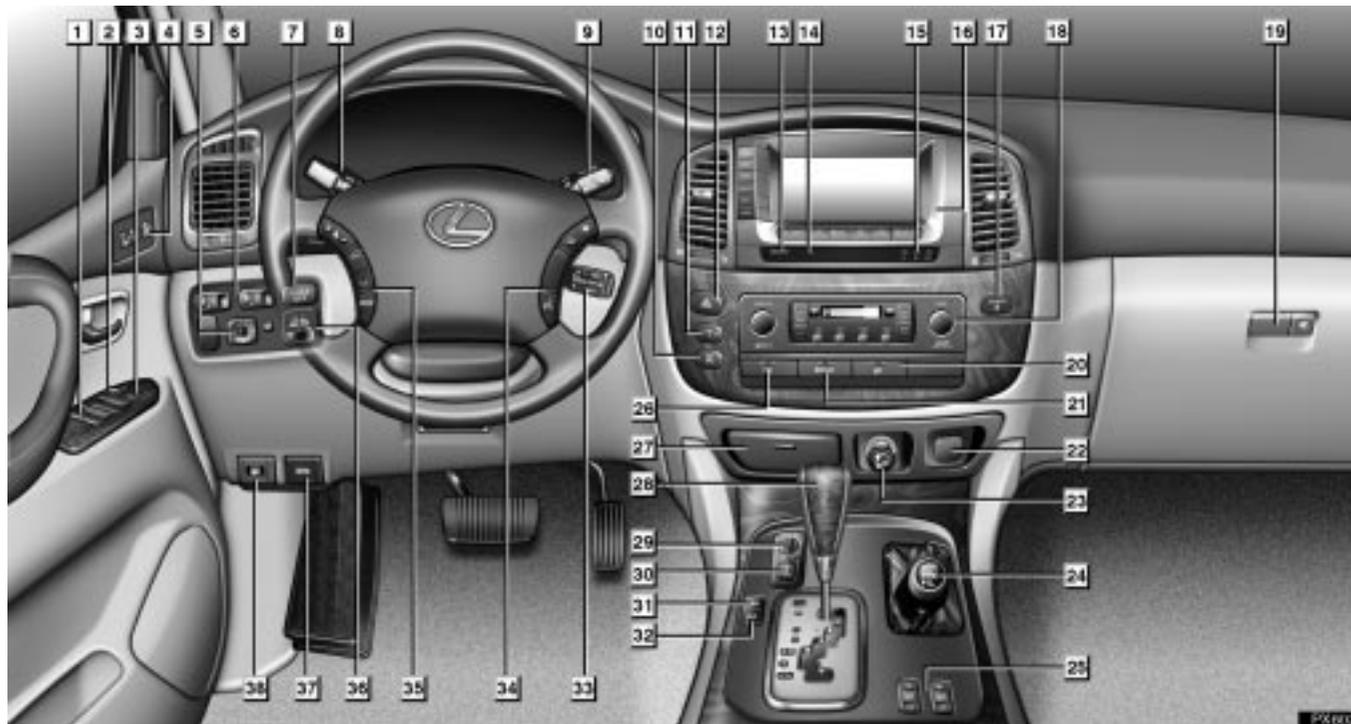
NOTICE

This is a warning against anything which may cause damage to the vehicle or its equipment if the warning is ignored. You are informed about what you must or must not do in order to avoid or reduce the risk of damage to your Lexus and its equipment.

Your Lexus Owner’s Manual provides you with a considerable amount of information. To use this information most effectively, please take the time to familiarize yourself with the contents and use of the manual.

PICTORIAL INDEX

INSTRUMENT PANEL (Vehicles sold in U.S.A.)



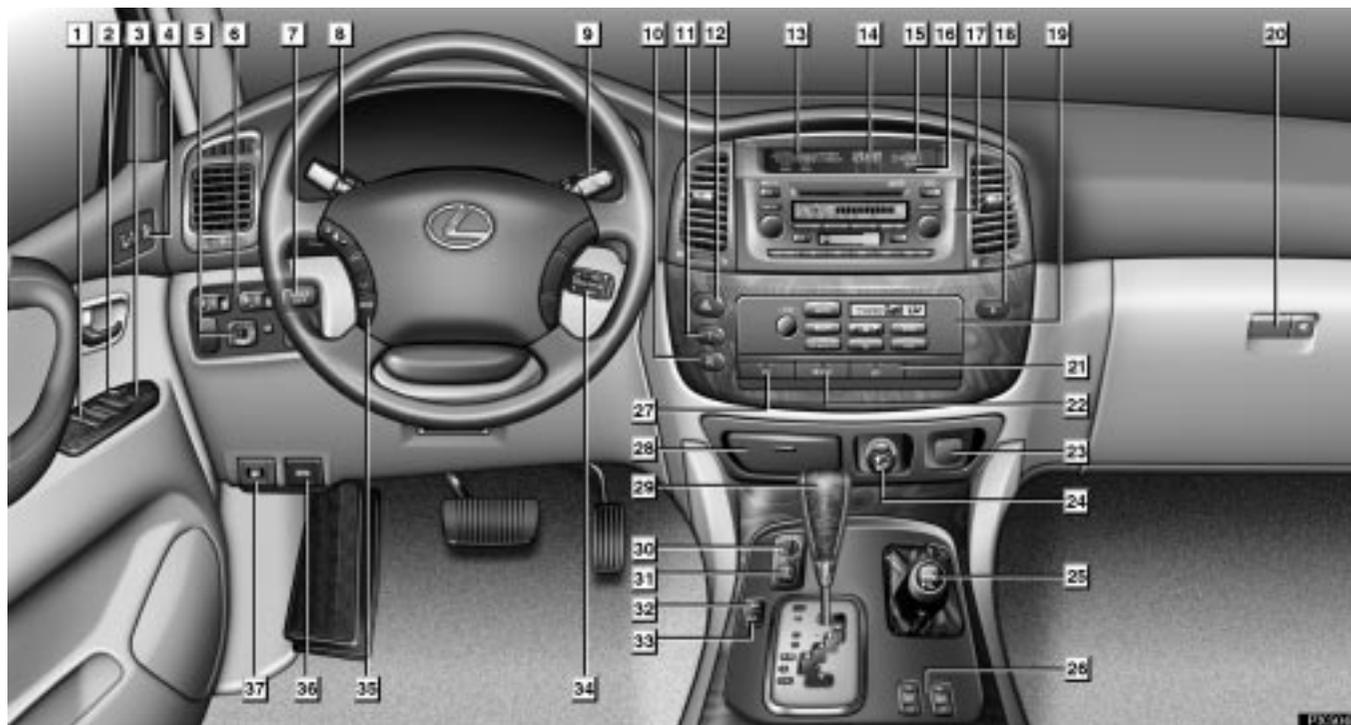
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INSTRUMENT PANEL (Vehicles sold in Canada)



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INSTRUMENT CLUSTER (Vehicles sold in Canada)



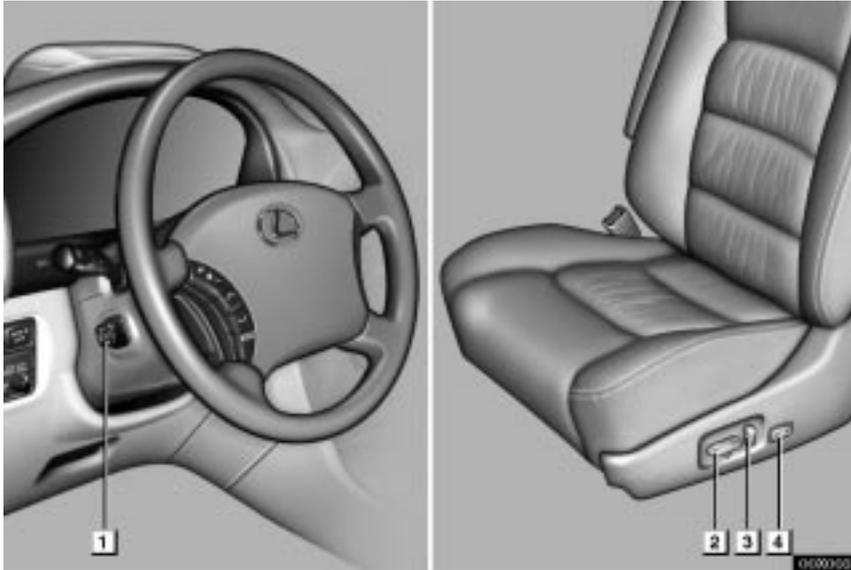
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For detailed information, refer to the description given in each section.

SEAT AND STEERING WHEEL

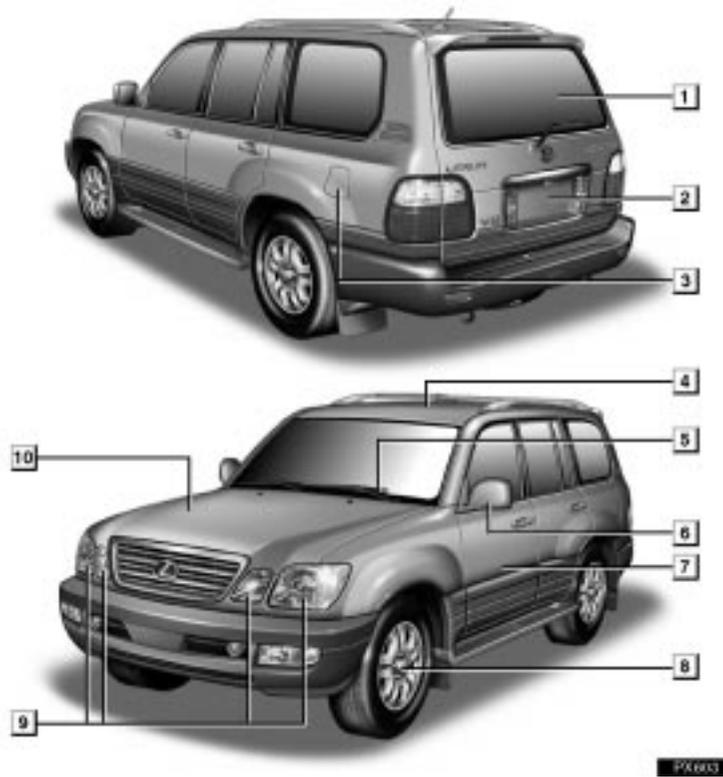
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BASIC OPERATION

QUICK REFERENCE

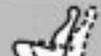
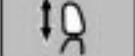
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QUICK REFERENCE

1. DRIVER'S SEAT

Seat adjustment

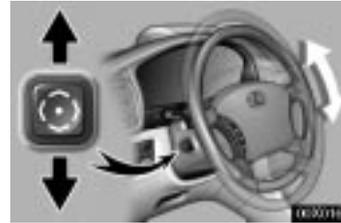


	Seat position		
	Seat cushion angle		
			
Seat cushion height			
	Seatback angle		
	Lumbar support		
	Head restraint height		
	Head restraint angle		

0000000000

2. STEERING WHEEL

• **TILT STEERING WHEEL**



To tilt the steering wheel up or down to the desired angle, push the control switch in the required direction and release the button when the steering wheel reaches the desired angle.

• **TELESCOPIC STEERING WHEEL**



To move the steering wheel to the desired position, push the control switch away from you or pull it toward you until the steering wheel reaches the desired position.

3. AUTOMATIC TRANSMISSION



SELECTOR LEVER POSITION

- P:** Parking, engine starting and key removal position
- R:** Reverse position
- N:** Neutral position
- D:** Normal driving position (Shifting into overdrive possible)
- 4:** Position for engine braking (Shifting into overdrive not possible)*
- 3, 2:** Position for more powerful engine braking
- L:** Position for maximum engine braking

OPERATION OF SELECTOR LEVER



★ Shift while pressing the brake pedal. (Ignition switch must be in the "ON" position.)

*When the cruise control is being used, even if you downshift from "D" to "4", engine braking will not be enabled because the cruise control is not cancelled. For the operation to decrease the vehicle speed, see page 261.

QUICK REFERENCE

4. HEADLIGHT AND TURN SIGNAL SWITCH

● HEADLIGHT SWITCH

With the ignition OFF

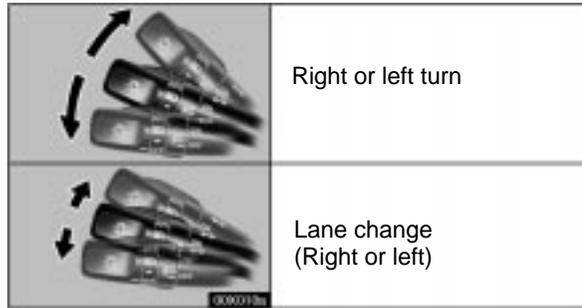
	Parking, tail, license plate, side marker and instrument panel lights turn on.
	Headlights also turn on.
	Automatic light control

With the engine started and parking brake released

	Parking, tail, license plate, side marker and instrument panel lights turn on.
	Headlights also turn on at full intensity.
	Automatic light control

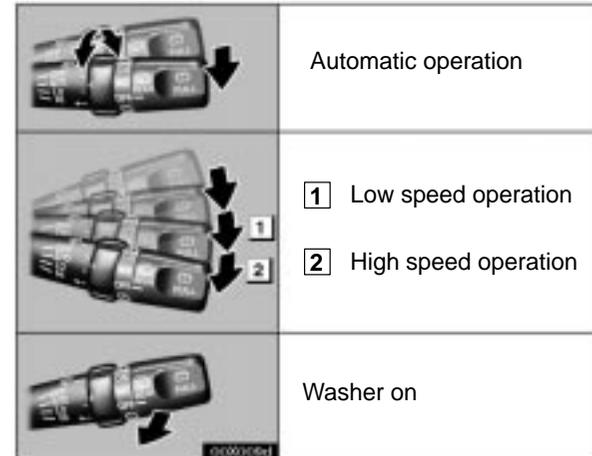
	High beam
	Headlight flasher

• TURN SIGNAL SWITCH

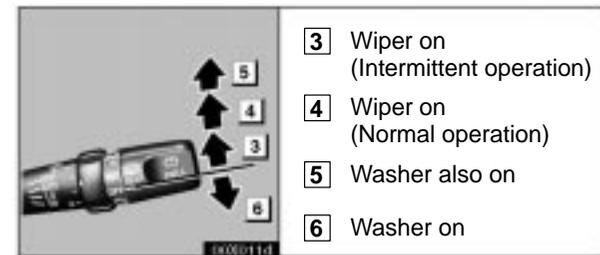


5. WIPER SWITCH

• Front



• Rear



SECTION 1 - 1

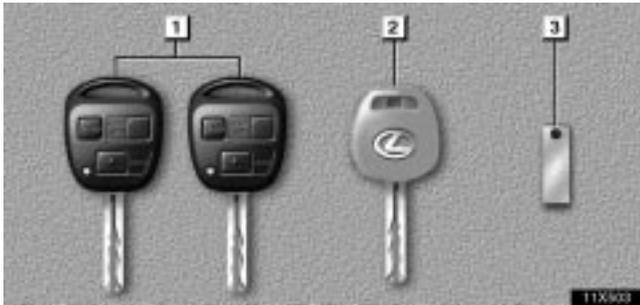
INSTRUMENTS AND CONTROLS

Keys and doors

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KEYS AND DOORS

KEYS



- 1 Master keys (black) - The master keys work in every lock. For your Lexus dealer to make you a new key with a built-in transponder chip, your dealer will need it.**
- 2 Sub key (gray) - The sub key will not open the glove box.**
- 3 Key number plate - Keep the plate in a safe place such as your wallet, not in the vehicle.**

A transponder chip for the engine immobilizer system has been placed in the head of the master and sub keys. These chips are required for the system to function correctly, so be careful not to lose these keys. If you make your own duplicate key, you will not be able to cancel the system or start the engine.

To protect items locked in the glove box when using valet parking, leave the sub key with the attendant.

Since the side doors and back door can be locked without a key, you should always carry a spare master key in case you accidentally lock your keys inside the vehicle.

If you should lose your keys or if you need additional keys, duplicates can be made by a Lexus dealer using the key number.

We recommend writing down the key number and storing it in a safe place.

Flat key



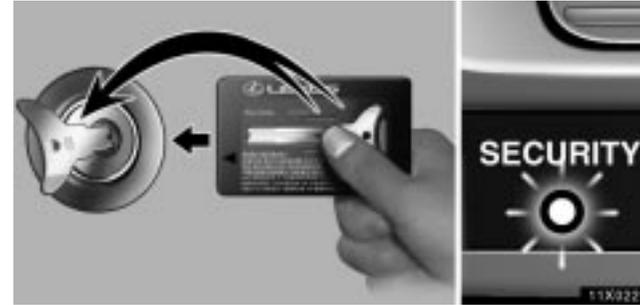
As a transponder chip is built in its key case, you can start the engine with this key.

The flat key works in every lock.

A transponder chip for the engine immobilizer system has been placed in the key case of the flat key. This chip is required for the system to function correctly, so be careful not to lose this key. If you make your own duplicate key, you will not be able to cancel the system or start the engine.

Insert your key plate in its key case as shown. We recommend that you always carry this with you for emergency use. Do not leave it in your vehicle.

Starting the engine using a flat key



1. Remove the key plate from the key case.
2. Insert the key plate into the ignition switch. The indicator light keeps flashing.
3. Bring the key case closer to the ignition switch within 10 seconds as indicated by the arrow head. The indicator light goes out. This means the engine immobilizer system is automatically canceled. (For details, see “Engine immobilizer system” on page 11.) You can put the key case away then. You cannot cancel the engine immobilizer system if 10 seconds have passed after you inserted the key plate. You need to remove the key plate from the ignition switch and try it again from the step 2.
4. Start the engine within 60 seconds after the security indicator light goes out. You cannot start the engine if 60 seconds have passed after the security indicator went off. You need to remove the key plate from the ignition switch and try it again from the step 2.

KEYS AND DOORS

NOTICE

- *Do not let the key case become bent as the key plate may fall out or become bent also.*
- *The flat key is designed for emergency use only.*



When using a key containing a transponder chip, observe the following precautions:

- *When starting the engine, do not use the key with a key ring resting on the key grip and do not press the key ring against the key grip. Doing so may prevent the engine from starting, or may cause the engine to stop soon after it starts.*



- *When starting the engine, do not use the key in proximity with other transponder keys (including keys of other vehicles), and do not press other key plates against the key grip. Doing so may prevent the engine from starting, or may cause the engine to stop soon after it starts. If this happens, remove the key once and then insert it again after removing other transponder keys (including keys of other vehicles) from the ring or while gripping or covering them with your hand to start the engine.*



- ***Do not bend the key grip or flat key.***
- ***Do not cover the grip or flat key with any material that cuts off electromagnetic waves.***
- ***Do not knock the key or flat key hard against other objects.***
- ***Do not leave the key or flat key exposed to high temperatures for a long period, such as on the dashboard or hood under direct sunlight.***
- ***Do not put the key or flat key in water or wash it in an ultrasonic washer.***
- ***Do not use the key or flat key with electromagnetic materials.***

ENGINE IMMOBILIZER SYSTEM



The engine immobilizer system is a theft prevention system. When you insert the key in the ignition switch, the transponder chip in the key's head transmits an electronic code to the vehicle. The engine will start only when the electronic code in the chip corresponds to the registered ID code for the vehicle.

The system is automatically set when the key is removed from the ignition switch. At this time, the security indicator light flashes. When you insert the key in the ignition switch, the security indicator light goes out and the system is canceled automatically, which enables the engine to start.

For your Lexus dealer to make you a new key with built-in transponder chip, your dealer will need your key number and master key. However, there is a limit to the number of additional keys your Lexus dealer can make for you.

KEYS AND DOORS

If you make your own duplicate key, you will not be able to cancel the system or start the engine.

For vehicles sold in U.S.A.

FCC ID: MOZRI-20BTY
MADE IN JAPAN

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For vehicles sold in Canada

This device complies with SRS-210 of Industry Canada. Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

WIRELESS REMOTE CONTROL*



- 1 Locking the doors
- 2 Unlocking the doors and opening the windows and moon roof
- 3 Indicator light
- 4 Sounding an alarm

*NOTE: *This feature can be deactivated as vehicle theft deterrent measure in case of the loss of the wireless remote control key. Ask your Lexus dealer for details.*

When you operate any button on the key, push it slowly and surely. At this time, the indicator light on the key grip flashes once.

The operational range of the wireless remote control is approximately 1 meter (3 ft.). The effective range may vary with different conditions. To activate the wireless remote control without fail, do it approximately 1 meter (3 ft.) from your Lexus.

In the following cases, the battery in the key may be discharged. If this is the case, replace it using a special screwdriver.

- The remote control does not work.
- The operational range of wireless remote control becomes extremely short.
- The indicator light on the key is dimmed or does not come on.

For the replacement of the battery, see "Replacing the battery" on page 16. You can also have the battery of the key replaced by your Lexus dealer.

If you lose the wireless key, contact your Lexus dealer as soon as possible to avoid the possibility of theft, or an accident.

You can use up to 4 wireless remote control keys for the same vehicle. Contact your Lexus dealer for detailed information.

The wireless remote control key is an electronic component. Observe the following instructions in order not to cause damage to the key.

- Do not leave the wireless remote control key on places where the temperature becomes high such as on the dashboard.
- Do not disassemble it.
- Avoid knocking it hard against other objects or dropping it.
- Avoid putting it in water.

Locking/Unlocking the doors

When you push the "LOCK" button on the key, all the doors can be locked from outside the vehicle.

At this time, you can hear one beep and turn signal lights flash once.* However, when you push the "LOCK" button with any door not closed securely, the buzzer sounds for 10 seconds.** To stop the buzzer, close all the doors securely or push the "UNLOCK" button. If the key is in the ignition switch, locking cannot be done.

*NOTE: *The turn signal lights can be set not to flash and beep volume can be changed. **The buzzer can be set not to sound if a door is not closed securely. Ask your Lexus dealer for details.*

When you push the "UNLOCK" button, the driver's door is unlocked. Pushing that button once again within 3 seconds from the first push, all other doors are also unlocked.*

At this time, two beeps sound and turn signal lights flash twice.**

*NOTE: *The 2-step unlocking function can be changed. **The turn signal lights can be set not to flash and beep volume can be changed. Ask your Lexus dealer for details.*

KEYS AND DOORS

Together with the activation of unlocking, the interior light comes on for 15 seconds if the interior light switch is in "DOOR" position.* However, this function does not work when the ignition key is in the "ACC" or "ON" position. For further information, see "Interior lights" on page 69.

You have 30 seconds to open a door after using the wireless remote unlock feature.** If a door is not opened by then, all the doors will be automatically locked again. This function does not work when the ignition key is inserted.

*NOTE: *The interior light can be set not to come on or the duration of lighting can be changed. **The time before automatic re-locking can be changed. Ask your Lexus dealer for details.*

Even if the "LOCK" or "UNLOCK" switch is kept pressed in, the locking or unlocking operation is not repeated. Release the switch and then push again.

Sounding an alarm*



When you push the "PANIC" button for about 1 second, an alarm sounds to deter any person trying to break into or damage your vehicle.

If you want to stop the alarm, push "LOCK", "UNLOCK" or "PANIC" button for about 1 second.

This function does not work when the ignition key is in the "ON" position.

*NOTE: *The alarm can be set not to sound. Ask your Lexus dealer for details.*

Operating the windows and moon roof

The windows and moon roof can be operated using a wireless remote control key from outside the vehicle.*

*NOTE: *The windows and moon roof can be deactivated. The moon roof can be set to slide open or tilt up or deactivated. Ask your Lexus dealer for details.*



Push the "UNLOCK" button until the windows and moon roof start to move. At this time one beep sounds. When you release the button, the windows and moon roof stop operating.

This function will work even with the window lock switch pressed in.

For vehicles sold in U.S.A.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTICE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

KEYS AND DOORS

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

FCC WARNING:

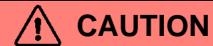
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

For vehicles sold in Canada

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Replacing the battery

When you replace the battery, prepare a lithium battery CR1616 or equivalent and a special screwdriver.



Special care should be taken to prevent small children from swallowing the removed battery or components.

NOTICE

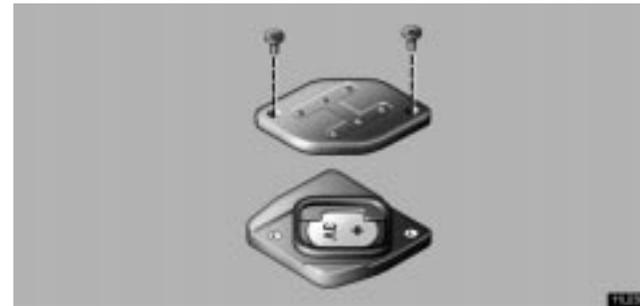
- ***When replacing the battery, be careful not to lose the components, screws and O-ring.***
- ***Replace only with the same or equivalent type recommended by a Lexus dealer.***
- ***Dispose of used battery according to the local laws.***



1. Remove the screw, and then the cover while pushing it in the arrow direction.



2. Remove the module from the key frame.



3. Remove the 2 screws to take out the lid of the module.

4. Take out the discharged battery and put a new battery with the positive side up.

NOTICE

- ***Make sure the positive side and negative side of the battery are faced correctly.***
- ***Do not replace the battery with wet hands. Water may cause unexpected rust.***
- ***Do not touch or move any components in the transmitter, or it may interfere with proper operation.***
- ***Be careful not to bend the electrode of the battery insertion and that dust or oils do not adhere to the inside of the module.***
- ***Take care not to lose the screws and O-ring.***

5. Install the lid with the 2 screws.

KEYS AND DOORS

NOTICE

Take care not to damage or bend the O-ring when installing.

6. Install the module into the key frame and secure the cover with the screw.
7. When pushing any switch on the wireless key, make sure the indicator light comes on.

SIDE DOORS

Locking with key



► **1 Lock 2 Unlock**

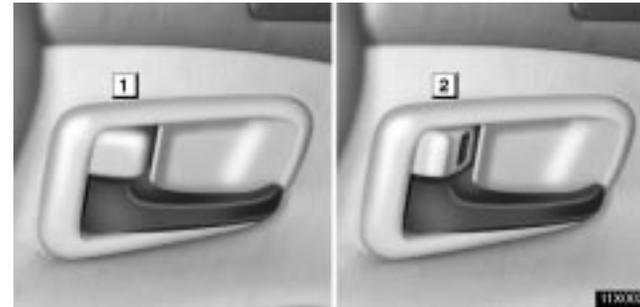
Turn the key towards the front of the vehicle to lock and towards the back to unlock.

All the side doors and back door lock and unlock simultaneously with either front door. In the driver's door lock, turning the key once will unlock the driver's door and twice in succession will unlock all the side doors and back door simultaneously. In the passenger's door lock, turning the key once will unlock all the side doors and back door simultaneously.*

*NOTE: *The 2-step unlocking function can be changed. Ask your Lexus dealer for details.*

Together with the activation of unlocking, the interior light comes on for 15 seconds if the interior light switch is in "DOOR" position. However, this function does not work when the ignition key is in the "ON" position. For further information, see "Interior lights" on page 69.

Locking with inside lock button



► **1 Lock 2 Unlock**

Push in the lock button to lock and unlock the door.

The front doors can be opened by pulling the inside handles even if the lock buttons are in the locked position.

⚠ CAUTION

Do not pull the inside handle of the front doors while driving. The doors will open and an accident may occur. Lexus strongly recommends that all children be placed in the rear seat of the vehicle.

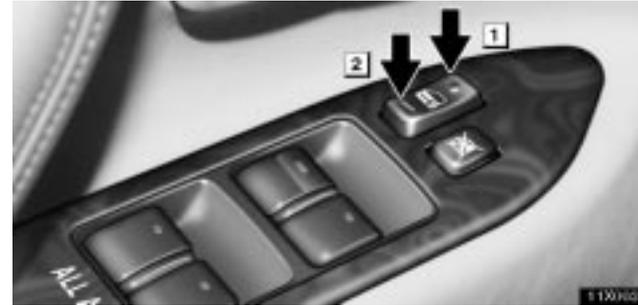
Closing the door with the lock button pushed in will also lock the door. Be careful not to lock your keys in the vehicle. With the key in the ignition switch and the front door open, the lock knob cannot be moved in the lock position.

KEYS AND DOORS

CAUTION

Before driving, make sure the doors are closed and locked, especially when small children are in the vehicle. Along with the proper use of seat belts, locking the doors helps prevent the driver and passengers from being thrown out from the vehicle during an accident. It also helps prevent the doors from being opened unintentionally.

Locking with power door lock switch



► **1** Lock **2** Unlock

To lock all the side doors and back door simultaneously, push the power door lock switch down on the front side. Pushing down on the rear side will unlock them.

The same switch is also found on the front passenger's side.

When the front doors are locked from the outside or locked with the wireless remote control transmitter, the power door lock switch will not work until either front door is unlocked with the key, lock button or wireless remote control transmitter.

Setting the automatic door locking and unlocking functions

You can set the following automatic door locking and unlocking functions by yourself.

(a) Locking linked with the shift position*

All the doors are locked automatically when the selector lever is moved out of the "P" position after the ignition switch is turned to the "ON" position and all the doors are closed.

NOTE:

**This function is the default setting for new vehicles.*

(b) Unlocking linked with the shift position

All the doors are unlocked automatically when the selector lever is moved to the "P" position after the ignition switch is turned to the "ON" position.

(c) Locking linked with the vehicle speed

All the doors are locked automatically when the vehicle speed goes above about 20 km/h (12mph). However, if any door is unlocked during driving, this auto locking function will not operate until the unlocked door is opened once.

(d) Unlocking linked with opening the driver's door

All the doors are unlocked automatically when the driver's door is opened within 10 seconds after the ignition switch is turned to the "ACC" or "LOCK" position, or the key is removed.

Setting the functions

1. Set the parking brake, close all the doors.
2. Turn the ignition switch to the "ON" position
3. Within 10 seconds after the ignition switch is turned to the "ON" position;

● To set function (a)

Push and hold the front of the driver's side power door lock switch for about 5 seconds with the selector lever in the "P" position.

● To set function (b)

Push and hold the rear of the driver's power door lock switch for about 5 seconds with the selector lever in the "P" position.

● To set function (c)

Shift the selector lever from the "P" into the "N" position and then push and hold the front of the driver's side power door lock switch for about 5 seconds.

● To set function (d)

Shift the selector lever from the "P" into the "N" position and then push and hold the rear of the driver's side power door lock switch for about 5 seconds.

KEYS AND DOORS

All the doors are automatically lock and unlock when you release the power door lock switch. This indicates that the function is set. If all the doors do not lock and unlock, the time the switch was held may have been too short or too long. Perform the procedure over again starting from step 1.

If you want to cancel a function, repeat the procedure. Each time you perform the procedure, the function is set or cancelled.



CAUTION

To prevent an accident, set and cancel the function with the parking brake set securely.

Locking with rear door child-protector

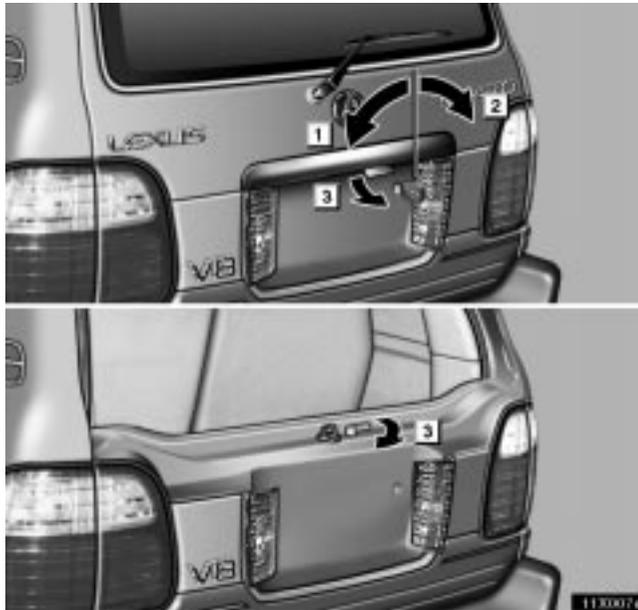


► **1** Lock **2** Unlock

Whenever small children are in the vehicle, lock the rear door so that it does not open from the inside. To do this, move the lever to the “LOCK” position as shown and then close the door.

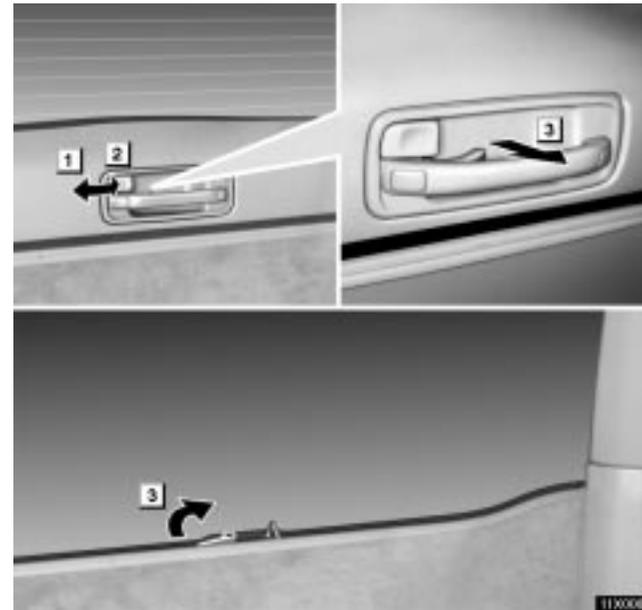
BACK DOOR

Opening and closing



► **Opening from outside** 1 Unlock 2 Lock 3 Open

All the doors lock and unlock simultaneously with the back door.



► **Opening from inside** 1 Unlock 2 Lock 3 Open

The back door can be opened as shown.

KEYS AND DOORS

See "Cargo and luggage" on page 303 for precautions to observe in loading luggage.

After closing the back door, try pulling it up to make sure it is securely closed.

Closing the back door with the lock button pushed in will also lock the back door. Be careful not to lock your keys in the vehicle.

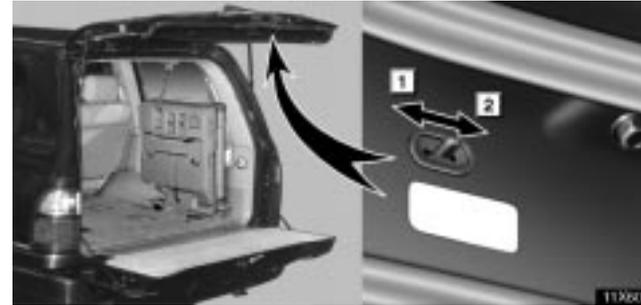
The back door lock will be controlled with the power door lock switch. (For instructions, see "Side doors" on page 18.)



CAUTION

Keep the back door closed while driving. This not only keeps the luggage from being thrown out but also prevents exhaust gases from entering the vehicle.

Locking with back door child-protector



► **1** Lock **2** Unlock

Whenever small children are in the vehicle, lock the back door so that it does not open from the inside. To do this, move the lever to the "LOCK" position as shown and then close the back door.

THEFT DETERRENT SYSTEM



To deter theft of the vehicle, this system is designed to sound an alarm if any of the doors or hood is forcibly unlocked or the battery terminal is disconnected and then reconnected while the vehicle is locked.

The alarm blows the horn intermittently and flashes the headlights, tail lights and other exterior lights.



► *Security indicator light (For U.S.A.)*



► *Security indicator light (For Canada.)*

KEYS AND DOORS

Setting the system

1. Turn the ignition key to the “LOCK” position and remove it.

The engine immobilizer system causes the indicator light to flash.

2. Close and lock all the doors and hood using an ignition key or wireless remote control.

If you lock them with wireless remote control, the turn signals flash once.*

*NOTE: *The turn signals can be set not to flash. Ask your Lexus dealer for details.*

The flashing indicator light will remain on when all the doors and hood are closed and locked.

3. After 30 seconds, the indicator starts flashing and the system is set.

Cancelling the system

When you unlock any door using an ignition key or wireless remote control, the system is cancelled.

If you unlock any door with wireless remote control, the turn signals flash twice.*

*NOTE: *The turn signals can be set not to flash. Ask your Lexus dealer for details.*

Activating the system

The alarm sounds for 60 seconds if any of the following are operated:

- Unlocking any door without using an ignition key or wireless remote control.
- Opening the hood and any doors forcibly.
- Reconnecting the battery.

If any door is unlocked and the ignition key is not in the ignition switch during the alarm sounding, its door is automatically locked.

To stop the alarm: Use either of the following methods.

- Unlock the door using an ignition key or wireless remote control.
- Turn the ignition switch on.

Testing the system

1. Open all the windows.
2. Set the system as described above.

The front doors should be locked with the ignition key or wireless remote control. Be sure to wait until the indicator light starts flashing.

3. Unlock one of the doors from the inside.

The system should activate the alarm.

4. Unlock any of the doors with a key or the wireless remote control to cancel the system.

5. Repeat this operation for the other doors and hood.

When testing the hood, also check that the system is activated when the battery terminal is disconnected and then reconnected.

If the system does not work properly, have it checked by your Lexus dealer.

NOTICE

Disconnecting the battery may result in the erasure of information you have set in the computer memory. After reconnecting the battery, check that the memorized data has been retained. If it has been erased, input it into the computer once more.

SECTION 1-2

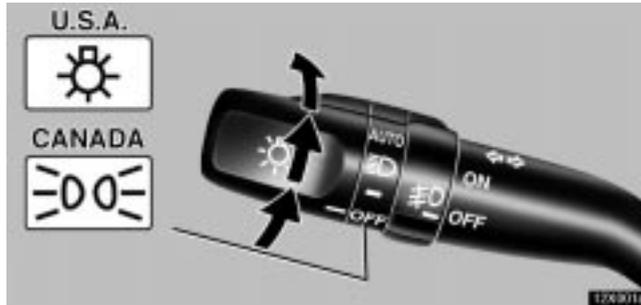
INSTRUMENTS AND CONTROLS

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SWITCHES

HEADLIGHT SWITCH



To turn the lights on, twist the knob on the end of the lever.

FIRST CLICKSTOP: Only the parking, tail, license plate, side marker and instrument panel lights turn on.

However, if the surroundings are bright and if the instrument panel light control dial is not turned fully on, the instrument panel lights do not come on.

SECOND CLICKSTOP: Headlights also turn on.

THIRD CLICKSTOP ("AUTO"): The headlights and all other lights automatically turn on depending on the darkness of the surroundings.*

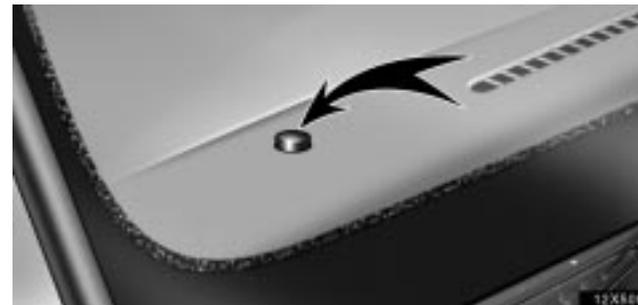
Vehicles sold in U.S.A.: When the headlights are on, the headlight indicator lights up in the instrument cluster.

Vehicles sold in Canada: When the tail lights are on, the tail light indicator lights up in the instrument cluster.

Manually twist the knob to the second clickstop to turn on the headlights if they are needed immediately when entering a dark tunnel, parking structure, etc.

When the headlight switch is turned to the first or second clickstop, the brightness of the instrument cluster will be reduced slightly unless the instrument panel light control dial is turned fully on.

*NOTE: *The operating condition or sensitivity can be changed. Ask your Lexus dealer for details.*



The automatic light control sensor is on top of the passenger's side instrument panel.

Do not place anything on the instrument panel, and/or do not affix anything on the windshield to block this sensor.

SWITCHES

When you turn on the headlights, the lights automatically turn off about 30 seconds after any of the doors is opened and closed with the ignition switch turned to the "ACC" or "LOCK" position.* To turn them on again, turn the ignition switch to the "ON" position, or turn the headlight switch off and then twist the knob until the first or second clickstop. If you are going to park for over one week, make sure the headlight switch is off.

When the headlight switch is on with all the side doors and back door locked, pushing the "LOCK" button on the wireless remote control key turns off the headlights.

*NOTE: *The time before turning off the lights can be changed. Ask your Lexus dealer for details.*

Daytime Running Light System

The headlights turn on at reduced intensity when the parking brake is released with the engine started, even with the light switch in the "OFF" position. They will not go off until the ignition switch is turned off.

To turn on the other exterior lights and instrument panel lights, twist the knob to the first clickstop.

Twist the knob to the second clickstop to turn on the headlights to full intensity for driving at night.

When setting the knob to the third clickstop ("AUTO"), the headlights will automatically adjust to full intensity and/or turn on the other lights depending on the darkness of the surroundings. Likewise, as the surroundings become brighter, the headlights will turn to reduced intensity, ultimately turning off the other lights.

NOTICE

To prevent the battery from being discharged, do not leave the lights on longer than necessary when the engine is not running.

SWITCHES

HEADLIGHT DIMMER AND TURN SIGNAL SWITCH



For high beam, push the lever forward. Pull it back for low beam. For the headlight flasher, pull it further back.

A blue light in the instrument cluster indicates high beam or headlight flasher is on.

The headlight flasher works even when the headlight switch is off.



For signaling turns, move the lever up or down in the conventional manner.

The ignition key must be in the "ON" position.

The turn signal is self-cancelling after a turn, but after a lane change, you may have to cancel it by hand. You can also signal a lane change by moving the turn signal lever partway and holding it there.

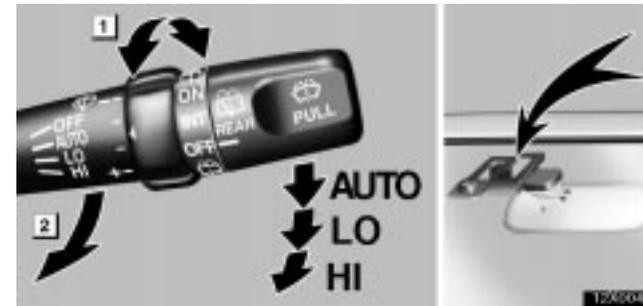
If the green light in the instrument cluster flashes faster than normal, it indicates that the front or rear turn signal bulb has burned out. If this indicator light does not come on, the fuse or the indicator light itself has probably failed.

FOG LIGHT SWITCH



To turn on the fog lights, turn the switch to the “ON” position. They will come on only when the headlights are on low beam.

WINDSHIELD WIPER AND WASHER SWITCH



► **1** Automatic control adjuster **2** Washer on

To turn the wipers on, move the lever down until you reach the desired speed setting.

The ignition switch must be in the “ON” position.

There are 3 settings:

“AUTO” position: Automatic operation

The wiper speed is determined by the amount of raindrops detected by the windshield sensor (shown in the illustration), and the vehicle speed.

“LO” position: Low speed operation

“HI” position: High speed operation

SWITCHES

Twist the automatic control adjuster in the “–” direction to lower the sensitivity, and the “+” direction to boost the sensitivity.

With the ignition switch turned off, if the windshield sensor is touched by reason of cleaning the windshield or for any other reason, either of the following operations may cause automatic wiper activation.

- Turning the ignition switch on with the wiper lever in the “AUTO” position.
- Turning the ignition switch on and move the wiper lever down in the “AUTO” position.

Even with the wiper lever in the “AUTO” position, the system will switch to intermittent operations if the system malfunctions.

When the system malfunctions, the time interval between sweeps is shortened as the vehicle speed increases. When the vehicle speed reaches more than about 20 km/h (12 mph) with the interval adjuster in “+” position, the time interval becomes the shortest 1.5 seconds.

The system will turn off if the windshield gets extremely hot (at more than 90°C or 194°F) or cold (at less than –30°C or –22°F).

CAUTION

Be careful not to get your fingers caught between the wipers and windshield.

When the wiper lever is in the “AUTO” position with the ignition switch on, the wipers could operate automatically in the following cases:

- **If you touch the upper center of the windshield adjacent to the sensor.**
- **If you wipe the upper center of the windshield (adjacent to which the sensor is located) with a towel.**
- **If the windshield vibrates.**
- **If you touch the sensor.**

If you stop the vehicle with the wiper switch in the “LO” position, the wiper speed automatically changes from low speed to intermittent operation speed.* This function does not work when the interval adjuster is in the “+” position.

*NOTE: *This feature can be deactivated. Ask your Lexus dealer for details.*

To make the washer squirt, pull the lever toward you and release it.

If the wiper lever is in the “OFF” position, the wipers will automatically make 3 wipes and then a single wipe later to sweep the windshield completely.* The interval between the 3 wipes and the last wipe will depend on the vehicle speed. The last sweep does not happen if the vehicle speed exceeds about 170 km/h (106 mph).

*NOTE: *The last single wipe can be deactivated. Ask your Lexus dealer for details.*

The low washer fluid warning light in the instrument cluster comes on when the fluid level in the tank becomes very low. For information on adding washer fluid, see “Adding washer fluid” on page 416.

In cold weather, warm the windshield with the defroster before using the washer. This will help prevent icing, which could block your vision.

The rear window and outside rear view mirror defogger automatically turns on when you operate the wipers.

NOTICE

Do not operate the wipers if the windshield is dry. It may scratch the glass.

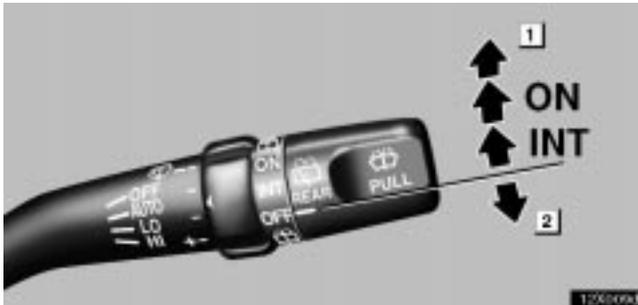
When waxing your vehicle, make sure the washer nozzles do not become blocked. If a nozzle becomes blocked, contact your Lexus dealer to have the vehicle serviced.

NOTICE

If a nozzle becomes blocked, do not try to clear it with a pin or other object. The nozzle will be damaged.

SWITCHES

REAR WINDOW WIPER AND WASHER SWITCH



► **1** Washer on during wiping **2** Washer on

To turn the wipers on, twist the knob at the end of the lever.

The ignition key must be in the “ON” position.

There are 2 settings:

“INT” position: Intermittent operation

“ON” position: Low speed operation

If you stop the vehicle with the wiper switch in the “LO” position, the wiper speed automatically changes from low speed to intermittent operation speed.

If you shift the selector lever to the “R” position while the windshield wipers are operating or for 17 seconds after the windshield wipers stop operating, the rear window wiper will activate once.*

*NOTE: *This feature can be deactivated. Ask your Lexus dealer for details.*

To make the washer squirt, twist the knob downward to position 2.

The rear wiper will automatically make 3 wipes and then a single wipe later to sweep the rear window completely.

To make the washer squirt while operating in “ON” position, twist the knob upward to position 1.

The knob automatically returns from these positions after you release it.

If the rear window wiper is off, it will operate a couple of times after the washer squirt.

The low washer fluid warning light in the instrument cluster comes on when the fluid level in the tank becomes very low. For information on adding washer fluid, see “Adding washer fluid” on page 416.

NOTICE

Do not operate the rear window wiper if the rear window is dry. It may scratch the glass.

HEADLIGHT CLEANER SWITCH (CANADA ONLY)



To spray fluid on the headlights, push the switch with the headlights on.

The ignition key must be in the "ON" position.

The low washer fluid warning light in the instrument cluster comes on when the fluid level in the tank becomes very low. For information on adding washer fluid, see "Adding washer fluid" on page 416.

NOTICE

Do not turn the headlight cleaner on with the washer fluid tank empty. It may cause the cleaner motor to overheat.

REAR WINDOW DEFOGGER SWITCH



To turn the electric rear window defogger on, push the switch.

The ignition key must be in the "ON" position.

The thin heater wires on the inside of the rear window will quickly clear the surface. An indicator light will illuminate to indicate the defogger is operating.

The system will automatically shut off when the defogger has operated about 15 minutes.

If further defrosting or defogging is desired, simply actuate the switch again. When the surface has cleared, push the switch once again to turn the defogger off. Continuous use may cause the battery to discharge, especially during stop-and-go driving. The defogger is not designed to dry rain water or to melt snow.

SWITCHES

NOTICE

- *When cleaning the inside of the rear window, be careful not to scratch or damage the heater wires or connectors.*
- *To prevent the battery from being discharged, turn the switch off when the engine is not running.*

OUTSIDE REAR VIEW MIRROR DEFOGGER SWITCH



To turn the electric outside rear view mirror defogger on, push the switch.

The ignition key must be in the "ON" position.

The thin heater wires on the heater panels in the outside rear view mirrors will quickly clear the surface. Keep your hands off the mirror faces when the switch is on. An indicator light will illuminate to indicate the defogger is operating.

The system will automatically shut off when the defogger has operated about 15 minutes.

CAUTION

Since the mirror surfaces can get hot, do not touch them when the switch is on.

If further defrosting or defogging is desired, simply actuate the switch again. When the surface has cleared, push the switch once again to turn the defogger off. Continuous use may cause the battery to discharge, especially during stop- and-go driving. The defogger is not designed to dry rain water or to melt snow.

If the outside rear view mirrors are heavily coated with ice, use a spray de-icer before operating the switch.

NOTICE

To prevent the battery from being discharged, turn the switch off when the engine is not running.

POWER WINDOW SWITCHES

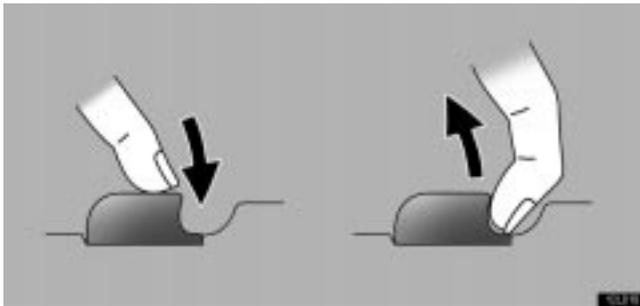
- ▶ **1** For driver's window
- 2** For front passenger's window
- 3** For left rear window
- 4** For right rear window

To raise or lower the windows, use the switch on each door. The passengers' windows can also be controlled by the switches on the driver's door.

The power windows work when the ignition key is in the "ON" position.

Key off operation: Even if the ignition key is turned to the "ACC" or "LOCK" position with all the doors closed, the window can be operated until either of the front doors is opened (or for about 45 seconds).

SWITCHES



Operating the switches

To raise or lower the window, pull the switch halfway up or push it halfway down.

Automatic operation: To fully raise or lower the window automatically, pull the switch fully up or push it fully down.

To stop the window partway, lightly push or pull the switch in the opposite direction and then release it.

Operating the window lock switch



► *Indicator light*

With the window lock switch pressed in, only the driver's window can be raised or lowered.

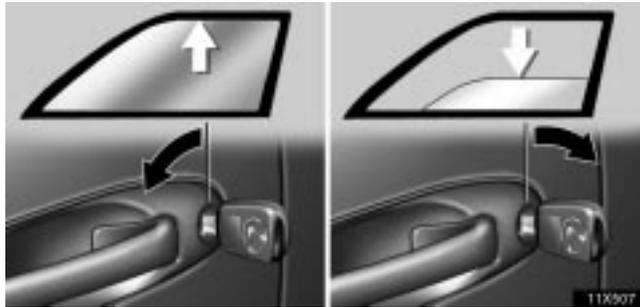
The indicator lights on the switch tell you which of the switches can be operated.

Even with the window lock switch pressed in, the windows will be opened from outside the vehicle using an ignition key or wireless remote control.

Operating the windows from outside the vehicle

The windows can be operated using an ignition key.*

*NOTE: *This feature can be deactivated. Ask your Lexus dealer for details.*



Insert the ignition key into the keyhole on the driver's side.

To close the windows: Turn the key in the locking direction and hold it.

After the door is locked, the windows begin to close. To stop in the middle, return the key.

To open the windows: Turn the key in the unlocking direction and hold it.

After the door is unlocked, the windows begin to open. To stop in the middle, return the key.

This function will work even with the window lock switch pressed in.

Jam protection function

If something gets caught between the window and window frame during automatic raising operation, key off raising operation or raising operation using the ignition key from outside, the window stops and is lowered.

If the window receives a strong impact, this function may work even if nothing is caught.

CAUTION

To avoid serious personal injury, you must do the following.

- Before you close the power windows, always make sure there is nobody around the power windows. You must also make sure the heads, hands and other parts of the bodies of all occupants are kept completely inside the vehicle. If someone's neck, head or hands get caught in a closing window, it could result in a serious injury. When anyone closes the power windows, make sure he or she operates the windows safely.
- When small children are in the vehicle, never let them use the power window switches without supervision. Use the window lock switch to prevent them from making unexpected use of the switches.

SWITCHES

- Be sure to remove the ignition key when you leave your vehicle.
- Never leave anyone (particularly a small child) alone in your vehicle, especially with the ignition key still inserted. Otherwise, he/she could use the power window switches and get trapped in a window. Unattended person (particularly a small child) can be involved in a serious accident.
- Never try jamming any part of your body to activate the jam protection function intentionally.
- The jam protection function may not work if something gets caught just before the window fully closed.

POWER QUARTER WINDOW SWITCH



- ▶ **1** For the left quarter window
- ▶ **2** For the right quarter window

The quarter windows can be operated with the “REAR VENT” switch on the instrument panel.

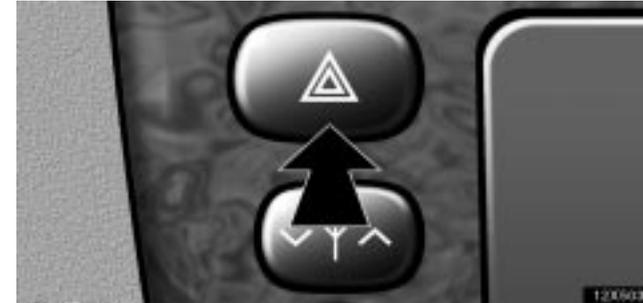
To open: Push the right side of the switch.
To close: Push the left side of the switch.

Both the left and the right quarter windows move as long as you hold the switch.

⚠ CAUTION

To avoid serious personal injury, you must do the following.

- Always make sure the hands and other parts of the bodies of all occupants are kept completely inside the vehicle before you close the power quarter windows. If someone's hands get caught in a closing window, it could result in a serious injury. When anyone closes the power quarter windows, make sure he/she operates the windows safely.
- When small children are in the vehicle, never let them use the power rear quarter window switches without supervision.
- Be sure to remove the ignition key when you leave your vehicle.
- Never leave anyone (particularly a small child) alone in your vehicle, especially with the ignition key still inserted. Otherwise, he/she could use the power quarter window switches and get trapped in a window. Unattended person (particularly a small child) can be involved in a serious accident.

EMERGENCY FLASHER SWITCH

To turn on the emergency flashers, push the switch. To turn them off, push the switch again.

All the turn signal lights will flash. The emergency flashers will work with the engine running or off and with or without the ignition key.

Turn on the emergency flashers to warn other drivers if you must stop your vehicle where it might be a traffic hazard.

Always pull your vehicle as far off the road as possible.

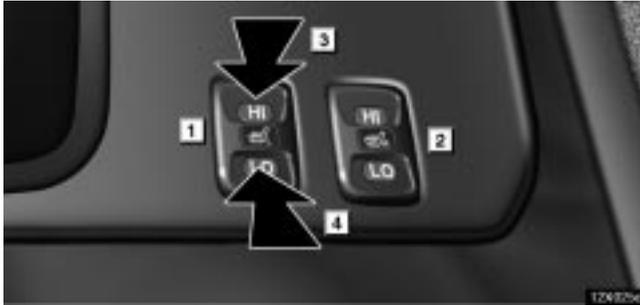
The turn signal light switch will not work when the emergency flashers are in operation.

NOTICE

To prevent the battery from being discharged, do not leave the switch on longer than necessary when the engine is not running.

SWITCHES

SEAT HEATER SWITCHES



- **1** For driver's seat **2** For front passenger's seat
3 High heating temperature
4 Low heating temperature

To turn on the seat heater, push the switch to "HI" (high temperature) or "LO" (low heating temperature). Pushing lightly on the opposite side will turn it off.

The ignition key must be in the "ON" position to operate seat heaters.

CAUTION

Occupants must use caution when operating the seat heater because they may experience minor burns even at low temperatures. Use extra caution for;

- Babies, small children, elderly persons, sick persons or handicapped persons
- Persons who have delicate skin
- Persons who are exhausted
- Persons who have taken alcohol or drugs which induce sleep (sleeping drug, cold remedy, etc.).

To prevent the seat from overheating, do not use the seat heater with a blanket, cushion, or other insulating objects which cover the seat.

NOTICE

- *Do not put unevenly weighted objects on the seat and do not stick sharp objects (needles, nails, etc.) into the seat.*
- *When cleaning the seats, do not use organic substances (paint thinner, benzine, alcohol, gasoline, etc.). They may damage the heater and seat surface.*
- *To prevent the battery from being discharged, turn the switches off when the engine is not running.*

ROLL SENSING OF CURTAIN SHIELD AIRBAGS OFF SWITCH



The roll sensing of curtain shield airbags off switch can turn off the curtain shield airbags and front seat belt pretensioners in a vehicle rollover. This switch should only be used in a situation where the inflation is not desired (such as during extreme offroad driving).

When you push the roll sensing of curtain shield airbags off switch for a few seconds with the ignition switch on, the roll sensing of curtain shield airbags off indicator light comes on and the roll sensing function is turned off. When you push the switch again, the indicator light goes off and the roll sensing function is turned on.

In a severe side impact, the curtain shield airbag on the impacted side will inflate even if the roll sensing function is turned off.

If the ignition switch is turned to "ACC" or "LOCK" with the roll sensing function off and then the ignition switch is turned back to "ON", the roll sensing function will be back on automatically.

For details, see "Seat belt pretensioners" on page 129 or "SRS side airbags and curtain shield airbags" on page 143.

CAUTION

- Make sure the roll sensing of curtain shield airbags off indicator light is not on.
- When the roll sensing of curtain shield airbags off switch is turned on (and the roll sensing of curtain shield airbags off indicator light is on), the curtain shield airbags and front seat belt pretensioners will not inflate in a vehicle rollover. Turning off the curtain shield airbags can reduce the occupant protection which your vehicle safety systems can provide to you in certain accidents and increase the likelihood of death or serious injuries.

SECTION 1 – 3

INSTRUMENTS AND CONTROLS

Gauges, meters and service reminder indicators

Fuel gauge	48
Engine coolant temperature gauge	48
Engine oil pressure gauge	49
Voltmeter	50
Tachometer	51
Odometer and trip meter	51
Service reminder indicators and warning buzzers	52
Trip information display	63
Instrument panel light control	66

GAUGES, METERS AND SERVICE REMINDER INDICATORS

FUEL GAUGE



► **Low fuel level warning light**

The gauge indicates the approximate quantity of fuel remaining in the tank when the ignition switch is on.

It is a good idea to keep the tank over 1/4 full.

If the fuel level approaches "E" or the low fuel level warning light comes on, fill the fuel tank as soon as possible.

On inclines or curves, due to the movement of fuel in the tank, the fuel gauge needle may fluctuate or the low fuel level warning light may come on earlier than usual.

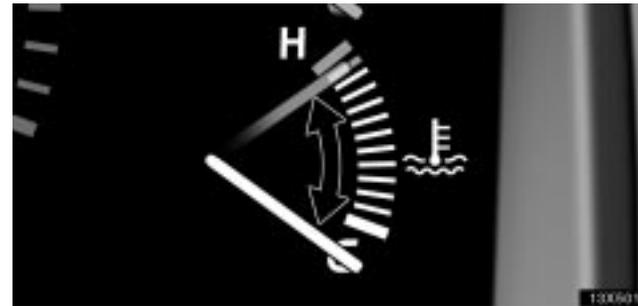
If the fuel tank is completely empty, the malfunction indicator lamp comes on. Fill the fuel tank immediately.

The indicator lamp goes off after driving several times. If the indicator lamp does not go off, contact your Lexus dealer as soon as possible.

It is not a malfunction even if the needle of the fuel gauge returns to "E" when the ignition switch is turned to the "START" position.

See the inner back cover for fuel capacity and recommended fuel selection.

ENGINE COOLANT TEMPERATURE GAUGE



► **Normal range**

The gauge indicates the engine coolant temperature when the ignition switch is on. The engine operating temperature will vary with changes in weather and engine load.

If the needle points to the red zone or higher, stop your vehicle and allow the engine to cool.

GAUGES, METERS AND SERVICE REMINDER INDICATORS

Your vehicle may overheat during severe operating conditions, such as:

- Driving up a long hill on a hot day.
- Reducing speed or stopping after high speed driving.
- Idling for a long period with the air conditioning on in stop-and-go traffic.
- Towing a trailer.

It is not a malfunction even if the needle of the engine coolant temperature gauge returns to “C” when the ignition switch is turned to the “START” position.

NOTICE

- ***Do not remove the thermostat in the engine cooling system as this may cause the engine to overheat. The thermostat is designed to control the flow of coolant to keep the temperature of the engine within the specified operating range.***
- ***Do not continue driving with an overheated engine. See “If your vehicle overheats” on page 312.***

ENGINE OIL PRESSURE GAUGE



► **1** Normal driving **2** Idling

The engine oil pressure gauge indicates engine oil pressure when the ignition is on. Check it while driving to make sure the needle is in the proper range.

If the engine oil pressure should stay below the normal range, pull off the road to a safe place and stop the engine immediately. Call a Lexus dealer or qualified repair shop for assistance.

Engine oil pressure may not build up when the engine oil level is too low. The engine oil pressure gauge is not designed to indicate engine oil level, and the engine oil level must be checked using the level dipstick.

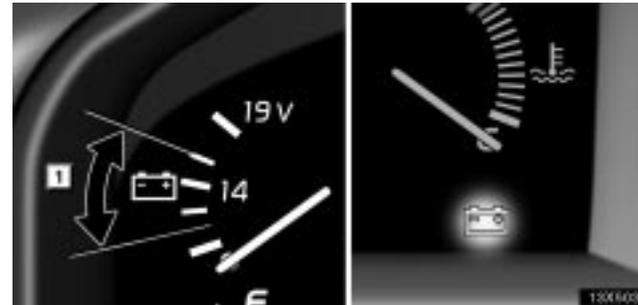
It is not a malfunction even if the needle of the engine oil pressure gauge returns to “L” when the ignition switch is turned to the “START” position.

GAUGES, METERS AND SERVICE REMINDER INDICATORS

NOTICE

Do not drive the vehicle with the engine oil pressure below the normal range until the cause is fixed - it may ruin the engine.

VOLTMETER



► **1** Normal range **2** Discharge warning light

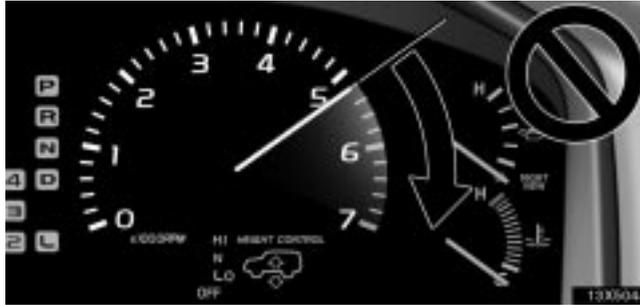
The voltmeter tells whether the battery is charged or discharged. Check it while the engine is running - the needle should always indicate as shown above.

If the needle reads below or above the normal range while the engine is running, it indicates the charging system needs immediate repair.

However, it is normal for the needle to drop below the normal range during engine starting.

It is not a malfunction even if the needle of the volt meter returns to "9" when the ignition switch is turned to the "START" position.

TACHOMETER



The tachometer indicates engine speed in thousands of rpm (revolutions per minute). Use it while driving to prevent engine over-revving.

Driving with the engine running too fast causes excessive engine wear and poor fuel economy. Remember, in most cases the slower the engine speed, the greater the fuel economy.

It is not a malfunction if the needle of the tachometer returns to "0" when the ignition switch is turned to the "START" position.

NOTICE

Do not let the indicator needle get into the red zone. This may cause severe engine damage.

ODOMETER AND TRIP METER



► "ODO/TRIP" knob

This meter displays the odometer and two trip meters. To change the mode indication, push the "ODO/TRIP" knob briefly. Each time you push the knob, the mode changes in order from the odometer to trip meter A to trip meter B, then back to the odometer, etc.

The odometer records the total distance the vehicle has been driven. The twin trip meter records two different distances independently.

For example, you can use one meter to calculate the fuel economy and the other to measure the distance on each trip.

To set the A trip meter to zero, display the A meter reading, push the knob and hold it. The same applies for the B trip meter.

The data of trip meters will be cancelled if the electrical power source is disconnected.

GAUGES, METERS AND SERVICE REMINDER INDICATORS

SERVICE REMINDER INDICATORS AND WARNING BUZZERS

	IF THIS INDICATOR OR BUZZER COMES ON ...	DO THIS.
(a)	BRAKE or  (Indicator and buzzer)	If parking brake is off, stop immediately and contact Lexus dealer.
(b)		Fasten driver's seat belt.
(c)	PASSENGER 	Fasten front passenger's seat belt.
(d)		Take vehicle to Lexus dealer immediately.
(e)	MAINT REQD	Replace engine oil.

	IF THIS INDICATOR OR BUZZER COMES ON ...	DO THIS.
(f)	 CHECK or 	Take vehicle to Lexus dealer.
(g)	ABS or 	Take vehicle to Lexus dealer. If the brake system warning light is also on, stop immediately and contact Lexus dealer.
(h)		Close all doors.
(i)		Replace bulb.
(j)	A/T P	Shift four-wheel drive control out of "N".
(k)	A/T OIL TEMP	Stop and check.

GAUGES, METERS AND SERVICE REMINDER INDICATORS

IF THIS INDICATOR OR BUZZER COMES ON ...		DO THIS.
(l)		Take vehicle to Lexus dealer.
(m)		Take vehicle to Lexus dealer.
(n)		Replace bulb.
(o)		Take vehicle to Lexus dealer.
(p)		Fill up tank.

IF THIS INDICATOR OR BUZZER COMES ON ...		DO THIS.
(q)		Add washer fluid.
(r)	Key reminder buzzer	Remove key.

GAUGES, METERS AND SERVICE REMINDER INDICATORS

(a) Brake System Warning Light and Buzzer

This light comes on in the following cases when the ignition key is in the "ON" position.

- **When the parking brake is applied ...**

This light comes on for a few seconds when the ignition key is in the "ON" position even after the parking brake is released.

- **When the brake fluid level is low ...**

 CAUTION
It is dangerous to continue driving normally when the brake fluid level is low.

- **When the hydraulic brake booster fails ...**

If the hydraulic booster causes a problem resulting in poor braking performance, the warning light comes on and buzzer sounds continuously.

Have your vehicle checked at your Lexus dealer in the following cases:

- The light does not come on even if the parking brake is applied when the ignition key is in the "ON" position.
- The light does not come on even if the ignition key is turned on with the parking brake released.

A warning light turning on briefly during operation does not indicate a problem.

 CAUTION
If any of the following conditions occurs, immediately stop your vehicle at a safe place and contact your Lexus dealer.
<ul style="list-style-type: none">• The light does not turn off even after the parking brake is released while the engine is running.• The warning buzzer comes on together with the warning light.
In either case, this can indicate that the brakes may not work properly and your stopping distance will become longer. Depress the brake pedal firmly and bring the vehicle to an immediate stop.
<ul style="list-style-type: none">• The brake system warning light remains on together with the "ABS" warning light.
In this case, not only the anti-lock brake system will fail, but also the vehicle will become extremely unstable during braking.

GAUGES, METERS AND SERVICE REMINDER INDICATORS

Any of the following conditions may occur, but do not indicate the malfunction:

- The light may stay on for about 60 seconds after the ignition key is turned to the “ON” position. It is normal if it turns off after a while.
- Depressing the brake pedal repeatedly may turn on the warning light and buzzer. It is normal if the light turns off and the buzzer stops sounding after a few seconds.
- You may hear a small sound in the engine compartment after the engine is started or the brake pedal is depressed repeatedly. This is a pump pulsating sound of the brake system, and it is not a malfunction.

(b) Driver’s Seat Belt Reminder Light and Buzzer

This light and buzzer remind you to buckle up the driver’s seat belt.

Once the ignition key is turned to “ON” or “START”, the reminder light flashes and buzzer sounds if the driver’s seat belt is not fastened. Unless the driver fastens the belt, the light stays flashing and the buzzer stops after about 4 to 8 seconds.

(c) Front Passenger’s Seat Belt Reminder Light

This light reminds you to buckle up the front passenger’s seat belt.

Once the ignition key is turned to “ON” or “START”, the reminder light flashes if a passenger sits in the front passenger seat and does not fasten the seat belt. Unless the front passenger fastens the belt, the light stays flashing.

If luggage or other load is placed on the front passenger seat, depending on its weight and how it is placed on the seat, built-in sensors in the seat cushion may detect the pressure, causing the reminder light to come on.

GAUGES, METERS AND SERVICE REMINDER INDICATORS

(d) SRS Warning Light

The indicator comes on when the ignition key is turned to the “ON” position. It goes off after about 6 seconds. This means the SRS airbags and front seat belt pretensioners are operating properly.

The SRS warning light system monitors the airbag sensor assembly, front airbag sensors, side and curtain shield airbag sensor assemblies, curtain shield airbag sensor assemblies, driver’s seat position sensor, driver’s seat belt buckle switch, inflators, seat belt pretensioners, warning light, roll sensing of curtain shield airbags off indicator light, interconnecting wiring and power sources.

If either of the following conditions occurs, this indicates a malfunction somewhere in the components monitored by the warning light system. Contact your Lexus dealer as soon as possible to service the vehicle.

- When the ignition key is turned to the “ON” position, the light does not come on, remains on or flashes.
- The light comes on or starts flashing while driving.

If the light stays on, it indicates that the driver and passenger airbags have a problem. If the light flashes, the side and curtain shield airbags and/or the seat belt pretensioners have a problem.

(e) Engine Oil Replacement Reminder Light (U.S.A. only)

This light reminds you when to replace the engine oil.

This light will come on when the ignition key is turned to “ON” and will go off after about a few seconds.

When you drive for about 7200 km (4500 miles) after the engine oil replacement, this light illuminates for about 3 seconds and then flashes for about 12 seconds with the ignition key turned to “ON” position. If you continue driving without the engine oil replacement, and if the driving range exceeds 8000 km (5000 miles), the light will come on after the ignition key is turned to “ON” position. The light will remain on thereafter.

If the light is flashing, we recommend that you replace the engine oil at an early opportunity depending on the driving and road condition. If the light comes on, replace it as soon as possible.

You need to reset the light after the engine oil replacement. Reset the light by following the procedure below:

1. Turn the ignition key to the “OFF” position with the odometer reading shown. (For details, see “Odometer and trip meter” on page 51.)
2. Turn the ignition key to the “ON” position while holding down the “ODO/TRIP” knob.

Hold down the knob until the light goes off. Before the light goes off, it illuminates for 3 seconds, flashes for 2 seconds and illuminates for 1 second.

GAUGES, METERS AND SERVICE REMINDER INDICATORS

If the system fails to reset, the light will remain flashing. In this case, return to step 1 and try again.

(f) Malfunction Indicator Lamp

This lamp comes on when the ignition key is turned to the “ON” position and goes off after the engine starts. This means that the warning light system is operating properly.

If the lamp remains on, or the lamp comes on while driving, first check the following:

- Empty fuel tank
If the fuel tank is empty, refuel immediately.
- Loose fuel tank cap
If the fuel tank cap is loose, securely tighten it.

These cases are temporary malfunctions. The malfunction indicator lamp will go off after taking several driving trips.

If the lamp will not go off even after several trips, contact your Lexus dealer as soon as possible.

If the fuel tank is not empty or the fuel tank cap is not loose...

- There is a problem somewhere in the engine, emission control system, electronic throttle control system, automatic transmission electrical system or warning light system itself.

Contact your Lexus dealer as soon as possible to service the vehicle.

If this lamp comes on and the engine speed does not increase with the accelerator pedal depressed, there may be a problem somewhere in your electronic throttle control system.

At this time, vibration may occur. However, if you depress the accelerator pedal more firmly and slowly, you can drive your vehicle at low speeds. Have your Lexus checked by your Lexus dealer as soon as possible.

Even if the abnormality of the electronic throttle control system is corrected during low speed driving, the system may not be recovered until the engine is stopped and the ignition key is turned to “ACC” or “LOCK” position.



Emissions inspection and maintenance (I/M) programs

Your vehicle may not pass a state emission inspection if the malfunction indicator lamp remains on. Contact your Lexus dealer to check your vehicle's emission control system and OBD (On- Board Diagnostics) system before taking your vehicle for the inspection.

For details, see “Emissions inspection and maintenance (I/M) programs” on page 351.

GAUGES, METERS AND SERVICE REMINDER INDICATORS

(g) “ABS” Warning Light

The light comes on when the ignition key is turned to the “ON” position. If the anti-lock brake system and the brake assist system work properly, the light turns off after a few seconds. Thereafter, if either of the systems malfunctions, the light comes on again.

When the “ABS” warning light is on (and the brake system warning light is off), the anti-lock brake system, the brake assist system, the active traction control system and/or the vehicle stability control system do/does not operate, but the brake system still operates conventionally.

When the “ABS” warning light is on (and the brake system warning light is off), the anti-lock brake system does not operate so that the wheels could lock up during a sudden braking or braking on slippery road surfaces.

If either of the following conditions occurs, this indicates a malfunction somewhere in the components monitored by the warning light system. Contact your Lexus dealer as soon as possible to service the vehicle.

- The light does not come on when the ignition key is turned to the “ON” position or remains on.
- The light comes on while you are driving.

A warning light turning on briefly during operation does not indicate a problem.

CAUTION

If the “ABS” warning light remains on together with the brake system warning light, immediately stop your vehicle at a safe place and contact your Lexus dealer.

In this case, not only the anti-lock brake system will fail but also the vehicle will become extremely unstable during braking.

Either of the following conditions may occur, but do not indicate the malfunction:

- The light may stay on for about 60 seconds after the ignition key is turned to the “ON” position. It is normal if it turns off after a while.
- Depressing the brake pedal repeatedly may turn on the light. It is normal if it turns off after a few seconds.

(h) Open Door Warning Light

This light remains on until all the side doors and back door are completely closed.

GAUGES, METERS AND SERVICE REMINDER INDICATORS

(i) Rear Light Failure Warning Light

If this light comes on when the headlight switch is turned on (at the first or second clickstop), it indicates that one or more tail lights are burned out.

If it comes on when the brake pedal is depressed, one or more stop lights are burned out.

Have defective bulbs replaced as soon as possible.

(j) Unengaged "Park" Warning Light

This light warns that the transmission "Park" mechanism is not engaged. If the four-wheel drive control is in the "N" position while the selector lever is in the "P" position, the transmission will disengage and the wheels will not lock.



CAUTION

To restore the park function, shift the four-wheel drive control out of "N".

(k) Automatic Transmission Fluid Temperature Warning Light

This light warns that the automatic transmission fluid temperature is too high.

If this light comes on while you are driving, slow down and pull off the road. Stop the vehicle at a safe place and put the selector lever in "P" and leave the engine idling until the light goes off. If the light goes off, you can start the vehicle again. If the light does not go off, call a Lexus dealer or qualified repair shop for assistance.

NOTICE

Continued driving with the warning light on may damage the automatic transmission.

GAUGES, METERS AND SERVICE REMINDER INDICATORS

(l) Vehicle Stability Control System and Active Traction Control System Warning Light

This light warns that there is a problem somewhere in the vehicle stability control system and active traction control system.

If the "VSC/TRAC" warning light and "VSC OFF" indicator light come on, have your vehicle checked by Lexus dealer as soon as possible. However, it is no problem that the "VSC/TRAC" warning light comes on when the brake actuator temperature becomes high. (For details, see "Active traction control system" on page 272.)

The lights will stay on with the ignition key turned to "ON", and will go off after about a few seconds.

The lights may stay on for 60 seconds after the ignition key is turned to the "ON" position. It is normal if they go out after a while.

Depressing the brake pedal repeatedly may turn on the lights. It is normal if they go out after a few seconds.

When the "VSC/TRAC" warning light and "VSC OFF" indicator light come on, the vehicle stability control system and/or active traction control system do not operate, but there is no problem to continue your driving.

(m) Variable Gear Ratio Steering System Warning Light

This light warns that there is a problem somewhere in the variable gear ratio steering system.

The light will come on when the ignition key is turned to "ON" and will go off after a few seconds.

If the light comes on while driving, the system is not working. Although conventional steering operates when maneuvered, a larger degree of wheel maneuvering (than at the time when the system is functioning properly) is needed when driving at low speed. At this time, the center position of the steering wheel could be changed. Although it is no problem to continue driving, have your vehicle repaired at your Lexus dealer.

In the following cases, contact your Lexus dealer:

- The warning light does not come on after the ignition key is turned to "ON".
- The warning light remains on after the ignition key is turned to "ON".
- The warning light comes on while driving.

The light will flash if you disconnect and reconnect the battery terminal. This is because the system is reset temporarily. However, it is no problem to drive. To turn off the light, drive for a short while. The system will be set automatically and return to normal.

GAUGES, METERS AND SERVICE REMINDER INDICATORS

(n) Lexus Night View System Warning Light

When this light comes on, the bulb for the near-infrared floodlight (night view projector) is burned out. Have it replaced at Lexus dealer.

(o) Discharge Warning Light

This light warns that the battery is being discharged.

If it comes on while you are driving, stop the vehicle, turn off the engine, and check for the cause. Look first at the engine drive belt.

- If it is loose or broken, the generator will not charge the battery properly.
- If the belt is O.K., there is a problem somewhere in the charging system.

The engine ignition will continue to operate, however, until the battery is discharged. Turn off the air conditioning, blower, radio, etc., and drive directly to the nearest Lexus dealer or repair shop.

NOTICE

Do not continue driving if the engine drive belt is broken or loose.

(p) Low Fuel Level Warning Light

This light comes on when the fuel level in the tank becomes very low. Fill the tank as soon as possible.

On inclines or curves, due to the movement of fuel in the tank, the low fuel level warning light may come on earlier than usual.

(q) Low Washer Fluid Warning Light

This light comes on when the fluid level in the tank becomes very low. Fill the tank as soon as possible.

(r) Key Reminder Buzzer

This buzzer reminds you to remove the key when you open the driver's door with the ignition key in the "ACC" or "LOCK" position.

GAUGES, METERS AND SERVICE REMINDER INDICATORS

How to check all the service reminder indicators

(except the low fuel level warning light):

1. Apply the parking brake.
2. Open the door.

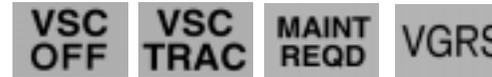
The following service reminder indicator should come on. It goes off when you close the door completely.



3. Place the four-wheel drive control lever in "N" position and the selector lever in "P" position.

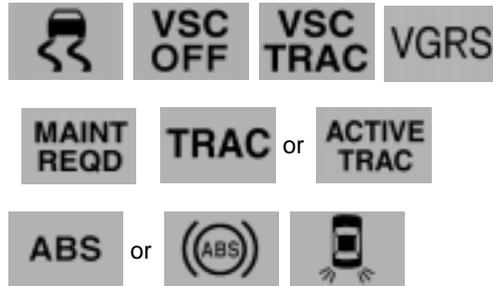
4. Turn the ignition key to "ON".

The following service reminder indicators should come on.



GAUGES, METERS AND SERVICE REMINDER INDICATORS

The following service reminder indicator goes off after a few seconds.



The following service reminder indicator goes off after about 6 seconds.



The anti-lock brake system warning light, vehicle stability control system off indicator light and vehicle stability control system and active traction control system warning light may stay on for about 60 seconds after the ignition key is turned to the "ON" position. It is normal if they go out after a while.

If any service reminder indicator or warning buzzer does not function as described above, have it checked by your Lexus dealer as soon as possible.

TRIP INFORMATION DISPLAY



The following information is shown with the ignition switch turned on. Each time you push the "MODE" button, the displayed information is changed.

- Average vehicle speed
- Driving distance after engine starting
- Available driving range
- Average fuel consumption after being refueled
- Current fuel consumption

The displayed trip information values indicate the general driving condition and may not always reflect precise and actual conditions.

GAUGES, METERS AND SERVICE REMINDER INDICATORS

- Average vehicle speed



The average vehicle speed is calculated and displayed based on the total driving distance and the total driving time with the engine running.

The displayed value is updated every 10 seconds.

To begin recalculating, push the "RESET" button for about 1 second.

- Driving distance after engine starting



The driving distance after engine starting is displayed.

To begin recalculating, push the "RESET" button for about 1 second.

- Available driving range



The available driving range is calculated and displayed depending on the amount of remaining fuel.

GAUGES, METERS AND SERVICE REMINDER INDICATORS

- Average fuel consumption after refueling



The average fuel consumption after refueling is calculated and displayed based on the total driving distance and the total fuel consumption after refueling.

The value is updated every 10 seconds.

When refueling, be sure to stop your vehicle and turn the ignition switch off.

- Current fuel consumption



The current fuel consumption is calculated and displayed based on the driving distance and the fuel consumption per 2 second interval with the engine running.

The value is updated every 2 seconds.

If you are driving at low speeds just before stopping, the accurate figure may not be shown.

GAUGES, METERS AND SERVICE REMINDER INDICATORS



The unit shown on the display can be changed using the following procedure:

1. Hold down the "MODE" button until the unit flashes.
2. Push the "RESET" button to change the unit.
3. Push the "MODE" button.

When you change the unit shown on the trip information display, the unit on the outside temperature display is also changed.

INSTRUMENT PANEL LIGHT CONTROL



To adjust the brightness of the instrument panel lights, turn the dial.

When the surroundings are dark and when the headlight switch is in the first or second click stop, you can also adjust the brightness of the displays on the clock and audio and air conditioning systems using this dial.

SECTION 1 - 4

INSTRUMENTS AND CONTROLS

Interior equipment

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INTERIOR EQUIPMENT

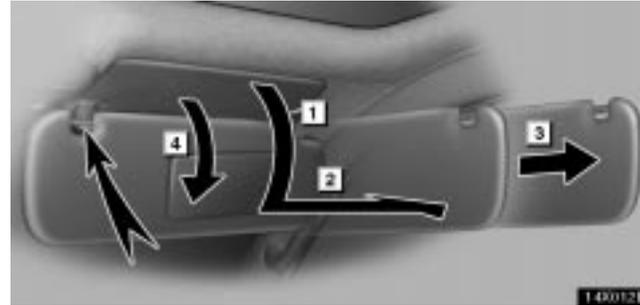
VANITY MIRRORS



To use the vanity mirrors, swing the sun visor down and open the cover.

The vanity light comes on when you open the cover.

Sun visors



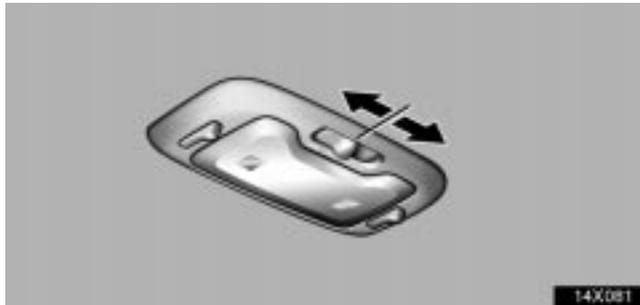
- 1** To block out glare from the front , swing the sun visor down.
- 2** To block out glare from the side, remove the sun visor from the hook and swing it to the side.
- 3** To block out glare coming obliquely from behind you, slide the visor backwards.

At this position, the vanity light does not come on.

- 4** To block out glare from the front with the sun visor in the position **2** or **3** , swing the other sun visor down.

INTERIOR LIGHTS

Front



To turn on the interior light, slide the switch.

With the switch in the "DOOR" position, the light comes on when any door is opened or when the ignition key is turned to "LOCK". After all the doors are closed, the light remains on for about 15 seconds and then goes out.*

However, in the following cases, the light goes out immediately:

1. All the doors are closed when the ignition key is in "ACC" or "ON" position.
2. The ignition key is turned to "ACC" or "ON" when the light is still on.
3. All the doors are locked when the light is still on.

4. One door is closed with the lock button pushed in while the other doors are locked.

*NOTE: * The interior lights can be set not to come on or the duration of lighting can be changed. Ask your Lexus dealer for details.*

Rear



To turn on the interior light, slide the switch.

With the switch in the "DOOR" position, the light comes on when the rear door or back door is opened. The light goes out immediately when the rear door and back door are closed.

INTERIOR EQUIPMENT

PERSONAL LIGHTS

Front



Rear



To turn on the personal light, push the switch. To turn it off, push the switch on the opposite side.

IGNITION SWITCH LIGHT



For easy access to the ignition switch, the ignition switch light comes on when any of the doors are opened.

The light remains on for about 15 seconds and goes out after all the doors are closed. However, the light goes out immediately when all the doors are locked or the ignition key is in the "ACC" or "ON" position.

CLOCK



The digital clock indicates the time when the ignition key is at the "ACC" or "ON" position. To reset the hour, press the "H" button. To reset the minutes, press the "M" button. To adjust the time to the nearest hour, press the ":00" button.

For example, if the ":00" button is pressed when the time is between 9:30 - 9:59 or between 10:01 - 10:29, the time will change to 10:00.

If the electrical power source has been disconnected from the clock, the time display will automatically be set to 1:00 (one o'clock).

When the headlight switch is in the first or second click stop, you can also adjust the brightness of the display using the instrument panel light control dial.

INTERIOR EQUIPMENT

OUTSIDE TEMPERATURE DISPLAY



This display shows the outside temperature when the ignition switch is on.

The displayed temperature ranges from -30°C (-22°F) up to 50°C (122°F). If the temperature does not appear on the display or it shows “-”, take your vehicle to your Lexus dealer.

When the headlight switch is in the first or second click stop, you can also adjust the brightness of the display using the instrument panel light control dial.

The unit shown on the display can be changed. For details, see “Trip information display” on page 63.

CIGARETTE LIGHTER AND ASHTRAY

Front



To use the cigarette lighter, press in the cigarette lighter. After it finishes heating up, it automatically pops out ready for use.

Do not hold the cigarette lighter pressed in.

If the engine is not running, the ignition key must be in the “ACC” position to use the lighter.

When finished with your cigarette, thoroughly extinguish it in the ashtray to prevent other cigarette butts from catching fire. After using the ashtray, push it back in completely.

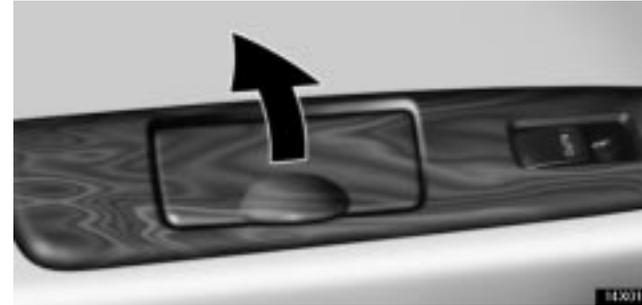
To remove the ashtray, press down on the lock spring plate and pull out.

Use a Lexus genuine cigarette lighter or equivalent for replacement.

 **CAUTION**

To reduce the chance of injury in case of an accident or sudden stop while driving, always close the ashtray completely after use.

Rear



To use the ashtray, pull on the lid.

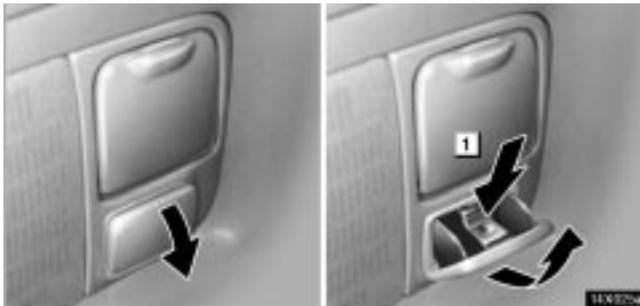
When finished with your cigarette, thoroughly extinguish it in the ashtray to prevent other cigarette butts from catching fire. After using the ashtray, close the lid completely.

To remove the ashtray, just pull it up.

 **CAUTION**

To reduce the chance of injury in case of an accident or sudden stop while driving, always close the ashtray completely after use.

INTERIOR EQUIPMENT



► **1 Snuffer bridge**

To use the ashtray, pull on the lid.

When finished with your cigarette, thoroughly extinguish it in the ashtray to prevent other cigarette butts from catching fire. After using the ashtray, close the lid completely.

To remove the ashtray, pull it out while pressing on the snuffer bridge to release the catch.

CAUTION

To reduce the chance of injury in case of an accident or sudden stop while driving, always close the ashtray completely after use.

POWER OUTLETS

Front



► **Vehicles without
Navigation System**

► **Vehicles with
Navigation System**

Rear



The power outlets are designed for power supply for car accessories.

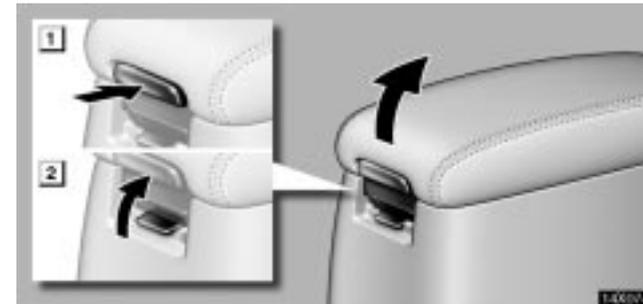
The ignition key must be in the “ACC” or “ON” position for the power outlets to be used.

NOTICE

- To prevent the fuse from being blown, do not use the electricity over the total vehicle capacity of 12V/120W (front and rear outlets together).
- To prevent the battery from being discharged, do not use the power outlets longer than necessary when the engine is not running.

- Close the power outlet lids when the power outlets are not in use. Inserting a foreign object other than the appropriate plug that fits the outlet, or allowing any liquid into the outlet may cause electrical failure or short circuits.

REAR CONSOLE BOX

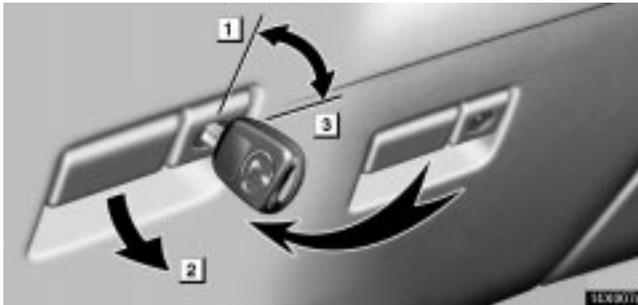


- **1** For upper box **2** For lower box

To use the rear console box, open as shown in the illustration.

INTERIOR EQUIPMENT

GLOVE BOX



► **1** Unlock **2** Open **3** Lock

To open the glove box door, pull the lever. To lock the glove box door, insert the master key and turn it clockwise.

With the tail lights on, the glove box light will come on when the glove box door is open.



CAUTION

To reduce the chance of injury in case of an accident or a sudden stop, always keep the glove box door closed while driving.

GARAGE DOOR OPENER

The garage door opener (**HomeLink®** Universal Transceiver) is manufactured under license from HomeLink® and can be programmed to operate garage doors, gates, entry doors, door locks, home lighting systems, and security systems, etc.

(a) Programming the HomeLink®



► **1** Buttons **2** Indicator light

The HomeLink® in your vehicle has 3 buttons and you can store one program for each button.

To ensure correct programming into the HomeLink®, install a new battery in the hand-held transmitter prior to programming.

The battery side of the hand-held transmitter must be pointed away from the HomeLink[®] during the programming process.

For Canadian users, follow the procedure in “Programming an entrance gate/Programming all devices in the Canadian market”.

1. Decide which of 3 HomeLink[®] buttons you want to program.
2. Place your hand-held garage transmitter 25 to 75 mm (1 to 3 in.) away from the surface of the HomeLink[®].

Keep the indicator light on the HomeLink[®] in view while programming.

3. Simultaneously press and hold the hand-held garage transmitter button along with the selected HomeLink[®] button.
4. When the indicator light on the HomeLink[®] changes from a slow to a rapid flash after 20 seconds, you can release both buttons.
5. Test the operation of the HomeLink[®] by pressing the newly programmed button. If programming a garage door opener, check to see if the garage door opens and closes.

If the garage door does not operate, identify if your garage transmitter is of the “Rolling Code” type. Press and hold the programmed HomeLink[®] button. The garage door has the rolling code feature if the indicator light (on the HomeLink[®]) flashes rapidly and then remains lit after 2 seconds. If your garage transmitter is the “Rolling Code” type, proceed to the heading “Programming a rolling code system”.

6. Repeat steps 2 through 5 for each remaining HomeLink[®] button to program another device.

Programming a rolling code system

If your device is “Rolling Code” equipped, it is necessary to follow steps 1 through 4 under the heading “Programming the HomeLink[®]” before proceeding with the steps listed below.

1. Locate the “training” button on the ceiling mounted garage door opener motor. The exact location and color of the button may vary by brand of garage door opener. Refer to the owner’s guide supplied by the garage door opener manufacturer for the location of this “training” button.
2. Press the “training” button on the ceiling mounted garage door opener motor.

Following this step, you have 30 seconds in which to initiate step 3 below.

INTERIOR EQUIPMENT

3. Press and release the vehicle's programmed HomeLink[®] button twice. The garage door may open. If the door does not open, the programming process is complete. If the door does not open, press and release the button a third time. This third press and release will complete the programming process by opening the garage door.

The ceiling mounted garage door opener motor should now recognize the HomeLink[®] unit and be able to activate the garage door up/down.

4. Repeat steps 1 through 3 for each remaining HomeLink[®] button to program another rolling code system.

Programming an entrance gate / Programming all devices in the Canadian market

1. Decide which of the 3 HomeLink[®] buttons you want to program.

2. Place your hand-held gate/device transmitter 25 to 75 mm (1 to 3 in.) away from the surface of the HomeLink[®].

Keep the indicator light on the HomeLink[®] in view while programming.

3. Press and hold the selected HomeLink[®] button.

4. Continuously press and release (cycle) the hand-held gate/device transmitter button every two seconds until step 5 is complete.

5. When the indicator light on the HomeLink[®] changes from a slow to a rapid flash after 20 seconds, you can release both buttons.

6. Test the operation of the HomeLink[®] by pressing the newly programmed button. Check to see if the gate/device operates correctly.

7. Repeat steps 1 through 6 for each remaining HomeLink[®] button to program another device.

Programming other devices

To program other devices such as home security systems, home door locks or lighting, contact your authorized Lexus dealer for assistance.

Reprogramming a button

Individual HomeLink[®] buttons cannot be erased, however, to reprogram a single button, follow the procedure "Programming the HomeLink[®]".

(b) Operating the HomeLink[®]

To operate the HomeLink[®], press the appropriate HomeLink[®] button to activate the programmed device. The HomeLink[®] indicator light should come on. The HomeLink[®] continues to send the signal for up to 20 seconds as long as the button is pressed.

(c) Erasing the entire HomeLink® memory (all three programs)

To erase all previously programmed codes at one time, press and hold down the 2 outside buttons for 20 seconds until the indicator light flashes.

If you sell your vehicle, be sure to erase the programs stored in the HomeLink® memory.

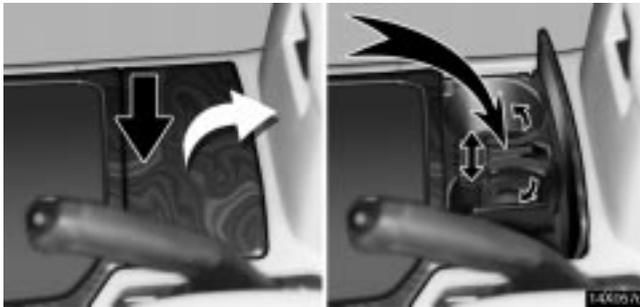
 **CAUTION**

- When programming the HomeLink® Universal Transceiver, you may be operating a garage door or other device. Make sure people and objects are out of the way of the garage door or other device to prevent potential harm or damage.
- Do not use this HomeLink® Universal Transceiver with any garage door opener that lacks the safety stop and reverse feature as required by federal safety standards. (This includes any garage door opener model manufactured before April 1, 1982.) A garage door opener which cannot detect an object (signaling the door to stop and reverse), does not meet current federal safety standards. Using a garage door opener without these features increases risk of serious injury or death.

This device complies with FCC Rules part 15. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference that may be received, including interference that may cause undesired operation. **WARNING: This transmitter has been tested and complies with FCC and DOC/MDC rules. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the device.**

CUP HOLDERS

Front

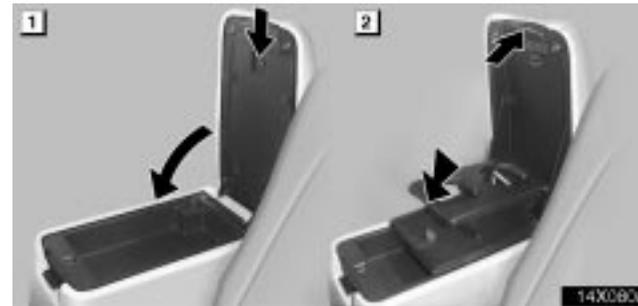


► Separator

To use a cup holder, push the cup holder lid.

The cup holder can be adjusted to the size of the cups by changing the separator position or moving the separator arms.

You can use it as an accessory box by removing the separator inside.



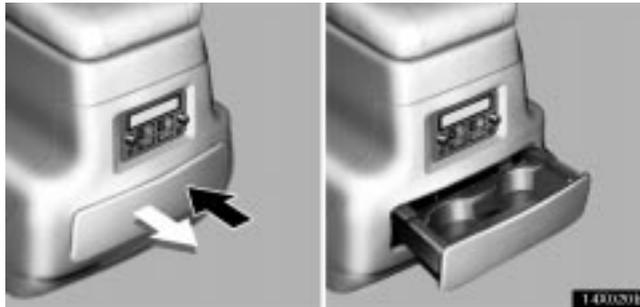
To use a cup holder in the console box,

1. Open the console box lid. Pull down the knob so that the cup holder swings down.
2. While holding the console box lid with your hand, push down the cup holder to be secured.

NOTICE

- *When you use the cup holder in the console box, make sure it is securely locked.*
- *Do not rest your arm on the cup holder in the console box.*
- *Wipe up spilt drink at once.*

Rear



►Rear end of the rear console



►Left side body panel near the third seat

To use the cup holder, push or pull out the cup holder lid.



►Right side body panel near the third seat

 CAUTION

- Do not place anything else other than cups or drink-cans in the cup holder, as such items may be thrown about in the compartment and possibly injure people in the vehicle during sudden braking or in an accident.
- To reduce the chance of injury in case of an accident or sudden stop while driving, keep the cup holder closed when not in use.

INTERIOR EQUIPMENT

AUXILIARY BOXES

Your vehicle has several types of auxiliary box. To use them, open as shown in the following illustrations.

CAUTION

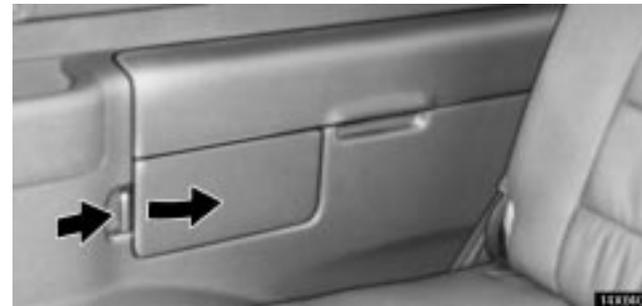
To reduce the chance of injury in case of an accident or a sudden stop, always keep the auxiliary box closed while driving.

NOTICE

During hot weather, the interior of the vehicle becomes very hot. Do not leave anything flammable or deformable such as a lighter, glasses, etc. inside.



► Rear right side



► Rear right side

CARD HOLDER



You can store a card in the slot as shown in the illustration.

FLOOR MAT



Use a floor mat of the correct size.

If the floor carpet and floor mat have 2 holes, then they are designed for use with locking clips. Fix the floor mat with locking clips into the holes in the floor carpet.

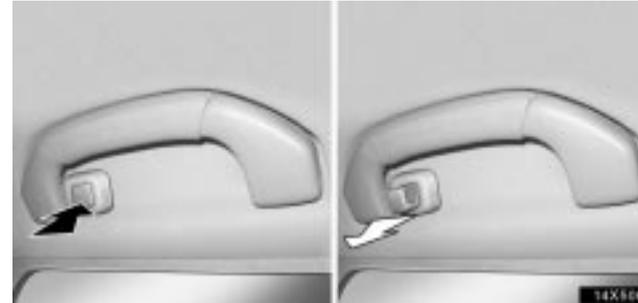
INTERIOR EQUIPMENT



 **CAUTION**

Make sure the floor mat is properly placed on the floor carpet. If the floor mat slips and interferes with the movement of the pedals during driving, it may cause an accident.

COAT HOOKS



To use the coat hook, push the hook.

 **CAUTION**

Do not hook a hanger, heavy or sharp pointed object on the coat hook. If the curtain shield airbag inflates, those items will be hurled away with great force or the curtain shield airbag may not activate correctly. When you hang clothes, hang them on the coat hook directly.

WARNING REFLECTOR HOLDER



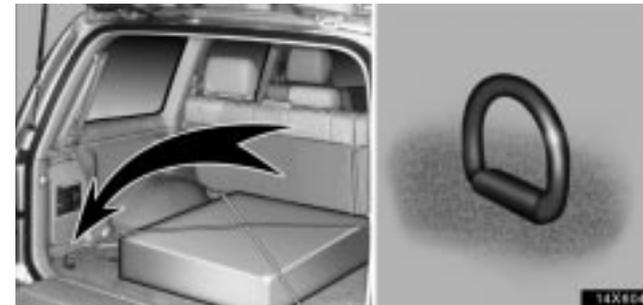
This auxiliary box is equipped with a band to hold the warning reflector.

Although the warning reflector itself is not included as original equipment, this auxiliary box can be used to store the warning reflector.

Hold the warning reflector with a band.

Make sure the warning reflector is securely held.

TIE-DOWN HOOKS

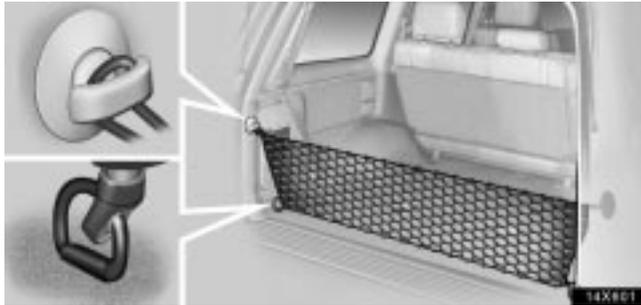


To secure your luggage, use the tie-down hooks as shown above.

For precautions to observe in loading luggage, see "Cargo and luggage" on page 303.

INTERIOR EQUIPMENT

CARGO NET HOOKS



These hooks are designed to hang the cargo net.

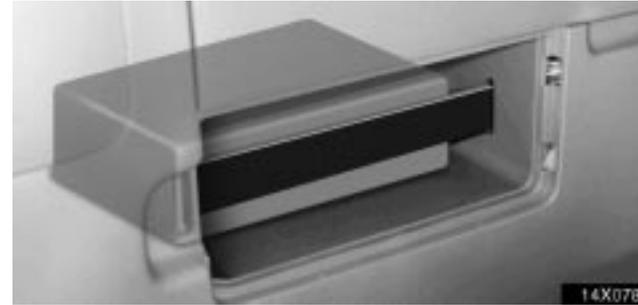
To hang the cargo net, use the cargo net hooks and rear tie-down hooks.

Although the cargo net itself is not included as an original equipment, these hooks can be used to hang the cargo net.

NOTICE

To prevent damage to the hook, avoid hanging things other than a cargo net on it.

FIRST-AID KIT HOLDER



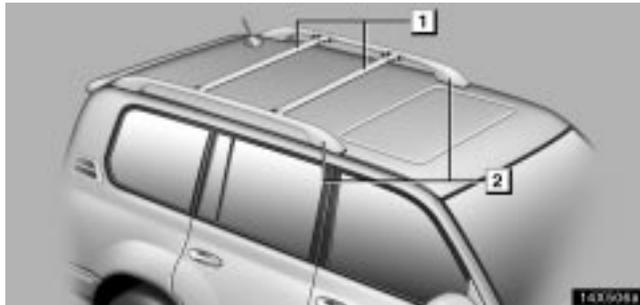
This auxiliary box is equipped with a band to hold the first-aid kit.

Although the first-aid kit itself is not included as original equipment, this auxiliary box can be used to store the first aid kit.

Hold the first-aid kit with a band.

Make sure the first-aid kit is securely held.

ROOF LUGGAGE CARRIER



- **1** Cross rails **2** Roof rails

The roof luggage carrier consists of roof rails and sliding cross rails.

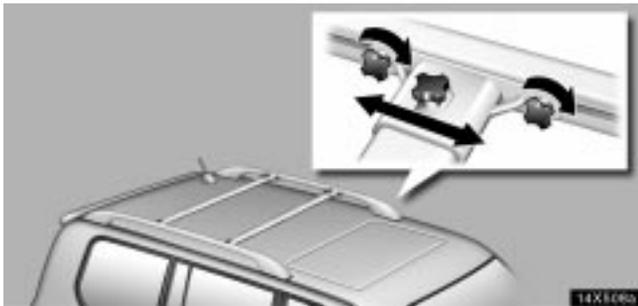
Adjusting the position of cross rails



- **1** Side knobs **2** Upper knob

1. Turn the upper and side knobs counterclockwise to loosen the cross rails.

INTERIOR EQUIPMENT



2. Slide the cross rails to the appropriate position for loading the luggages and turn the side knobs clockwise to tighten the cross rails securely.

There are cross rail stoppers on the roof rails which help you prevent the cross rails being touched with the tilted-up moon roof.

NOTICE

Do not remove the cross rail stoppers, or the moon roof may be damaged when it is tilted.



3. In order to fix the cross rails to the appropriate length, turn the upper knobs clockwise after tightening all the side knobs.

CAUTION

Make sure the cross rails are fixed securely by pushing forward and rearward them. Failure to do so may cause an unexpected accident or severe injury in the event of emergency braking or a collision.

Follow the manufacturer's instructions and precautions when installing the attachments or their equivalent.

 **CAUTION**

When you load cargo on the roof luggage carrier, observe the following:

- Place the cargo so that its weight is distributed evenly between the front and rear axles.
- If loading long or wide cargo, never exceed the vehicle overall length or width. (See “Specifications” on page 420 for information on your vehicle overall length and width.)
- Before driving, make sure the cargo is securely fastened on the roof luggage carrier.
- Loading cargo on the roof luggage carrier will make the center of the vehicle gravity higher. Avoid high speeds, sudden starts, sharp turns, sudden braking or abrupt maneuvers, otherwise it may result in loss of control or vehicle rollover due to failure to operate this vehicle correctly.
- If driving for a long distance, on rough roads, or at high speeds, stop the vehicle now and then during the trip to make sure the cargo remains in its place.
- Do not exceed 70 kg (143 lb.) cargo weight on the roof luggage carrier.

NOTICE

When loading the luggages, be careful not to scratch the surface of the moon roof.

SECTION 1-5

INSTRUMENTS AND CONTROLS

Exterior equipment

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Moon roof	95
Rear step bumper	98
Running board lights	98

EXTERIOR EQUIPMENT

HOOD



1. To open the hood, pull the hood lock release lever under the instrument panel. The hood will spring up slightly.



2. Insert your fingers under the hood, push up the auxiliary catch lever and lift the hood.

Before closing the hood, check to see that you have not forgotten any tools, rags, etc. Then lower the hood and make sure it locks.

CAUTION

Before driving, be sure that the hood is closed and securely locked. Otherwise, the hood may open unexpectedly while driving and an accident may occur.

FUEL TANK CAP



The arrow head next to  as shown indicates on which side of your vehicle the fuel filler door is located.



1. To open the fuel filler door, pull the lever under the instrument panel.

When refueling, turn off the engine.

CAUTION

- Do not smoke, cause sparks or allow open flames when refuelling. The fumes are flammable.
- When opening the cap, do not remove the cap quickly. In hot weather, fuel under pressure could cause injury by spraying out of the filler neck if the cap is suddenly removed.

EXTERIOR EQUIPMENT



2. To remove the fuel tank cap, turn the cap slowly counterclockwise, then pause slightly before removing it. The removed cap can be stored on the back side of the fuel filler door.

It is not unusual to hear a slight swoosh when the cap is opened. When installing the cap, turn the cap clockwise until you hear a click.

If the cap is not tightened securely, the malfunction indicator lamp comes on. Make sure the cap is tightened securely.

The indicator lamp goes off after driving several times. If the indicator lamp does not go off, contact your Lexus dealer as soon as possible.

CAUTION

- Make sure the cap is installed securely to prevent fuel spillage in the event of an accident.
- Use only a genuine Lexus fuel tank cap for replacement. It is designed to regulate fuel tank pressure.

MOON ROOF



► **1** Open **2** Close

To slide open the moon roof, push the “SLIDE” switch on the rear side. The moon roof will open and stop partway 30 mm (1.2 in.) from the fully opened position. When you push the switch again, the moon roof will open fully. To stop partway, push the same switch or push the “TILT” switch while the moon roof is moving.

As driving with the moon roof opened fully will cause wind throbs, we recommend you to drive with the moon roof partway 30 mm (1.2 in.) from the fully opened position.

To operate the moon roof, the ignition key must be in the “ON” position.

The sun shade can be opened or closed manually. However, if you open the moon roof, the sun shade will be opened with the moon roof.

To close the moon roof, push the switch on the front side. The moon roof will fully close. To stop partway, push the same switch or “TILT” switch.



► **1** Tilt up **2** Lower

To tilt up the rear end of the moon roof, push the “TILT” switch on the rear side. The rear end of the moon roof will tilt up fully. To stop partway, push the same switch or “SLIDE” switch.

To lower it, push the switch on the front side. The rear end of the moon roof will fully close. To stop partway, push the same switch or “SLIDE” switch.

Key off operation: Even if the ignition key is turned to the “ACC” or “LOCK” position with all the doors closed, the moon roof can be operated until either of the front doors is opened (or for about 45 seconds).

EXTERIOR EQUIPMENT

Operating the moon roof from outside the vehicle

The moon roof can be closed or opened using a key.*

Insert the ignition key into the key hole on the driver's door.

To close the moon roof: Turn the key in the locking direction and hold it.

After the door is locked, the moon roof begins to close. To stop in the middle, return the key.

To open the moon roof: Turn the key in the unlocking direction and hold it.

After the door is unlocked, the moon roof begins to open. To stop in the middle, return the key.

*NOTE: *This feature can be deactivated, or sliding open/close or tilting up/down can be selected. Ask your Lexus dealer for details.*

Jam protection function

If something gets caught into the roof opening during closing operation, the moon roof stops and is open.

If the moon roof receives a strong impact, this function may work even if nothing is caught.

If the battery terminal is disconnected or the battery is run down

The moon roof may not operate automatically and the jam protection function will not operate correctly after you reconnect, replace or recharge the battery with the moon roof slide-opened or tilted up. In any of these cases, you should return the moon roof to normal. To return the moon roof to normal, push and hold the "SLIDE" switch or "TILT" switch on the front side until the moon roof is closed completely.

Make sure the moon roof opens and closes automatically. If the moon roof cannot be operated properly, have it checked by your Lexus dealer.

 CAUTION

To avoid serious personal injury, you must do the following.

- While the vehicle is moving, always keep the heads, hands and other parts of the bodies of all occupants away from the roof opening. Otherwise, they could be seriously injured if the vehicle stops suddenly or if the vehicle is involved in an accident.
- Before you close the moon roof, always make sure there is nobody around the moon roof. You must also make sure nobody places his or her head, hands and other parts of the body in the roof opening. If someone's neck, head or hands get caught in the closing roof, it could result in a serious injury. When anyone closes the moon roof, first make sure it is safe to do so.
- Be sure to remove the ignition key when you leave your vehicle.
- Never leave anyone (particularly a small child) alone in your vehicle, especially with the ignition key still inserted. Otherwise, he/she could use the moon roof switches and get trapped in a moon roof. Unattended person (particularly a small child) can be involved in a serious accident.

- Never sit on top of the vehicle around the roof opening.
- Never try jamming any part of your body to activate the jam protection function intentionally.
- The jam protection function may not work if something gets caught just before the moon roof fully closed.

EXTERIOR EQUIPMENT

REAR STEP BUMPER

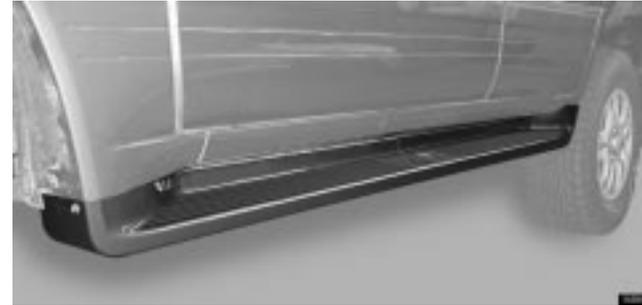


The rear step bumper is for rear end protection and easier step-up loading.

CAUTION

- Do not allow more than one person to get on the rear step bumper at a time. It is designed for only one person.
- Never drive the vehicle with anyone on the rear step bumper.

RUNNING BOARD LIGHTS

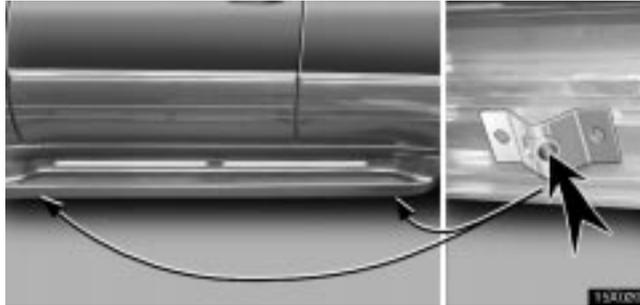


Lighting the running board and the ground helps you easily to get in and out of the vehicle in the night.

When you unlock any door with a key or wireless remote control, the lights come on and go out after about 15 seconds automatically.

Opening any door lights up the lights and closing it goes out them after 15 seconds. However, if the door remains open, the lights automatically go out after about 30 minutes.

Cleaning ground lights



► **Ground light**

If the mud or debris are sticking on the lense covers of the ground lights, the lights will dim. Wipe off them from the lens covers with a soft moist cloth periodically.

SECTION 1 – 6

INSTRUMENTS AND CONTROLS

Occupant restraint systems

Seats	102
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OCCUPANT RESTRAINT SYSTEMS

SEATS

While the vehicle is being driven, all vehicle occupants should have the seatback upright, sit well back in the seat and properly wear the seat belts provided.

CAUTION

- Do not drive the vehicle unless the occupants are properly seated. Do not allow any passengers to sit in the luggage compartment or cargo area. Persons not properly seated and/or not properly restrained by seat belts can be severely injured in the event of emergency braking or a collision.
- During driving, do not allow any passengers to stand up or move around between seats. Otherwise, severe injuries can occur in the event of emergency braking or a collision.

FRONT SEATS

Front seat precautions

Driver seat

CAUTION

The SRS driver airbag deploys with considerable force, and can cause death or serious injury especially if the driver is very close to the airbag. The National Highway Traffic Safety Administration (“NHTSA”) advises:

Since the risk zone for driver airbag is the first 50-75 mm (2-3 in.) of inflation, placing yourself 250 mm (10 in.) from your driver airbag provides you with a clear margin of safety. This distance is measured from the center of the steering wheel to your breastbone. If you sit less than 250 mm (10 in.) away now, you can change your driving position in several ways:

- Move your seat to the rear as far as you can while still reaching the pedals comfortably.
- Slightly recline the back of the seat. Although vehicle designs vary, many drivers can achieve the 250 mm (10 in.) distance, even with the driver seat all the way forward, simply by reclining the back of the seat somewhat. If reclining the back of your seat makes it hard to see the road, raise yourself by using a firm, non-slippery cushion, or raise the seat if your vehicle has that feature.

OCCUPANT RESTRAINT SYSTEMS

- If your steering wheel is adjustable, tilt it downward. This points the airbag toward your chest instead of your head and neck.

The seat should be adjusted as recommended by NHTSA above, while still maintaining control of the foot pedals, steering wheel, and your view of the instrument panel controls.

Front passenger seat

CAUTION

The SRS front passenger airbag also deploys with considerable force, and can cause death or serious injury especially if the front passenger is very close to the airbag. The front passenger seat should be as far from the airbag as possible with the seatback adjusted, so the front passenger sits upright.

Front seats (with SRS side airbags)

CAUTION

The SRS side airbags are installed in the driver and front passenger seats. Observe the following precautions.

- Do not lean against the front door when the vehicle is in use, since the side airbag inflates with considerable speed and force. Otherwise, you may be killed or severely injured.
- Do not use seat accessories which cover the area where the side airbags inflate. Such accessories may prevent the side airbags from activating correctly, causing death or serious injury.
- Do not modify or replace the seats or the upholstery of the seats equipped with side airbags. Such change may prevent the side airbag system from activating correctly, disable the system, or cause the side airbags to inflate accidentally, resulting in death or serious injury.

OCCUPANT RESTRAINT SYSTEMS

Seat adjustment precautions

⚠ CAUTION

- Do not adjust the seat while the vehicle is moving as the seat may unexpectedly move and cause the driver to lose control of the vehicle.
- Be careful that the seat does not hit a passenger, luggage or the rear seat.

NOTICE

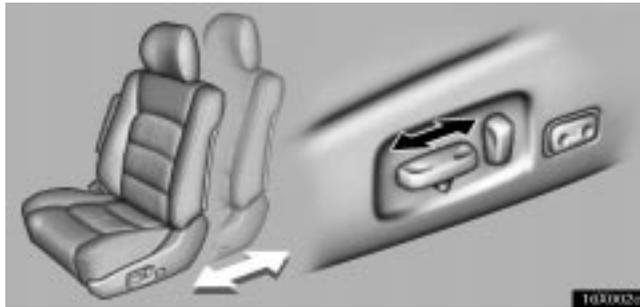
Do not operate the control switch in more than one dimension at a time. It may cause electrical overload.

Adjusting front seats



- ▶ **1** Seat position control switch, seat cushion angle and height control switch
- 2** Seatback angle control switch
- 3** Lumbar support control switch

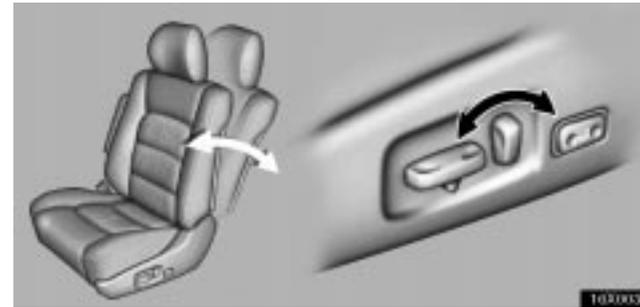
Adjusting seat position



Move the control switch in the desired direction.

Releasing the switch will stop the seat in that position. Do not place anything under the seat, as this might interfere with the seat movement.

Adjusting seatback angle



Move the control switch in the desired direction.

Releasing the switch will stop the seatback in that position.

CAUTION

To reduce the risk of sliding under the lap belt during a collision, avoid reclining the seatback any more than needed. The seat belts provide maximum protection in a frontal or rear collision when the driver and the front passenger are sitting up straight and well back in the seats. If you are reclined, the lap belt may slide past your hips and apply restraint forces directly to the abdomen. In the event of a frontal collision, the more the seat is reclined, the greater the risk of personal injury.

OCCUPANT RESTRAINT SYSTEMS

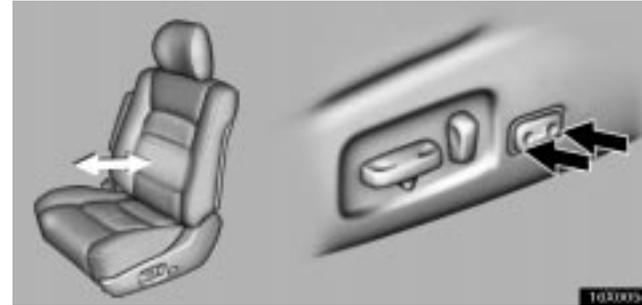
Adjusting seat cushion angle and height



Move the control switch in the desired direction.

Releasing the switch will stop the seat cushion in that position.

Adjusting lumbar support



Push the control switch on either side.

The amount of lumbar support will change while the switch is pushed.

REAR SEATS

Rear seat precautions

CAUTION

- Adjustment should not be made while the vehicle is moving.
- When folding the seat, secure the seat by adjusting the length of the anchorage strap to prevent the seat from falling down.
- When returning the seat to its original position, observe the following precautions in order to prevent personal injury in a collision or sudden stop.

There is no person or luggage around the seat and operate slowly by supporting the seat with your hands.

The seat is securely locked by pushing forward and rearward on the top of the seatback and by trying to pull up the edge of the bottom cushion. Failure to do so will prevent seat belt from operating properly.

The seat belts are not twisted or caught under the seat and are arranged in their proper position and are ready to use.

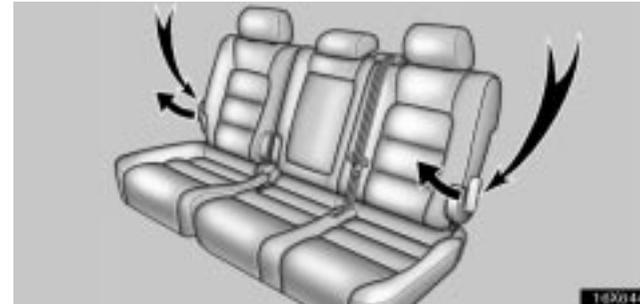
- When using the seat, make sure the seat is securely locked.

NOTICE

Avoid putting heavy loads on the removed seat. The metallic tips of the seat legs may be damaged and the seat cannot be reinstalled.

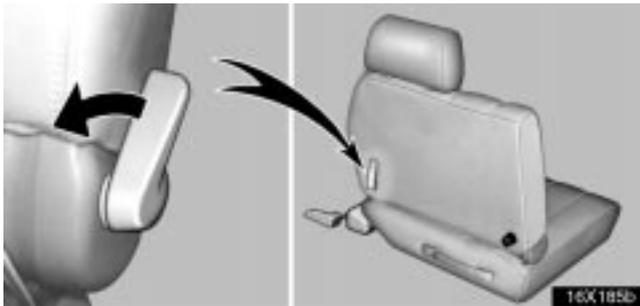
Tumbling or removing the seats will enlarge the luggage compartment. See "Cargo and luggage" on page 303 for precautions to observe for loading luggage.

Adjusting rear seats



► *Second seat*

OCCUPANT RESTRAINT SYSTEMS



► Third seat

Lean forward and pull the lock release lever. Then lean back to the desired angle and release the lever.

CAUTION

To reduce the risk of sliding under the lap belt during a collision, avoid reclining the seatback any more than needed. The seat belts provide maximum protection when the passengers are sitting up straight and well back in the seats. If you are reclined, the lap belt may slide past your hips and apply restraint forces directly to the abdomen. In the event of a frontal collision, the more the seat is reclined, the greater the risk of personal injury.

Tumbling second seat for third seat entry



For easy access to the third seat, tumble the second seat in accordance with the following procedure.

Before tumbling the second seat, stow the second seat buckles as shown in the illustration.

This prevents the buckles from falling out when you tumble the second seat.

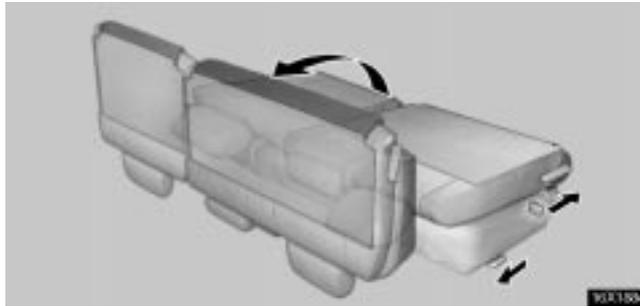
NOTICE

The seat belt buckles must be stowed before you tumble the second seat.

OCCUPANT RESTRAINT SYSTEMS

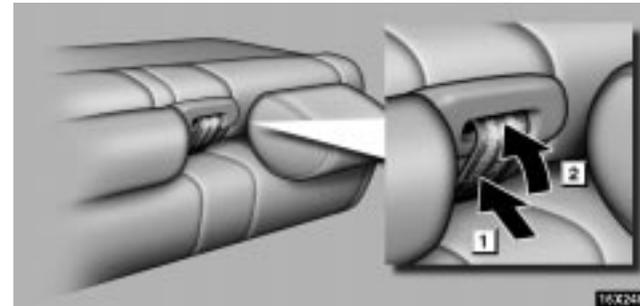


1. Lower the head restraints to the lowest position, unlock the seatback by pulling the lever on the side of the seatback and fold it down.



2. Pull the lever under the seat cushion or pull the strap on the rear end of the seat cushion and swing the whole seat forward.

3. To return it to the original position, reverse the steps above.



If you cannot raise the seatback because of the locked seat belt, do not try it hard. Release the lock of the seat belt in the following way.

- 1 Push in the lower front edge of the seatback cushion to slacken the seat belt.
- 2 Let the seat belt retract a little.

CAUTION

- Do not sit on or place anything on the tumbled seatback while driving.
- Make sure the seat is securely locked by pushing forward and rearward on the top of the seatback and by trying to pull up the edge of the bottom cushion. Failure to do so will prevent seat belt from operating properly.

OCCUPANT RESTRAINT SYSTEMS

Tumbling second seat



Before tumbling the second seat, stow the second seat buckles as shown in the illustration.

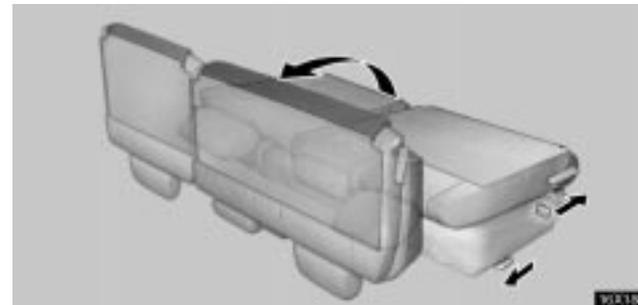
This prevents the buckles from falling out when you tumble the second seat.

NOTICE

The seat belt buckles must be stowed before you tumble the second seat.



1. Lower the head restraints to the lowest position, unlock the seatback by pulling the lever on the side of the seatback and fold it down.



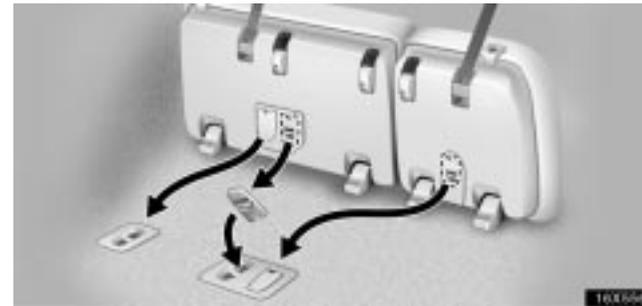
2. Pull the lever under the seat cushion or pull the strap on the rear end of the seat cushion and swing the whole seat forward.

OCCUPANT RESTRAINT SYSTEMS



3. Hook the holding strap to the assist grip and secure the seat by pulling its free end.

When returning the second seat to its original position, put the holding strap into the pocket.



4. Remove the seat hook covers from the back of the seat cushion, and install them on the seat hooks.

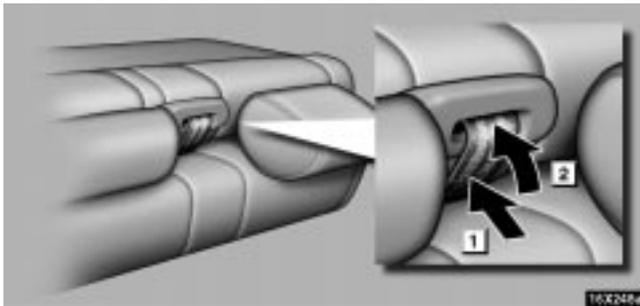
CAUTION

Be sure to install the seat hook covers on the seat hooks, or you may get burned when they become hot.

When returning the second seat to its original position, remove the seat hook covers from the floor and install them in the back of the seat cushion.

5. To return it to the original position, reverse the steps above.

OCCUPANT RESTRAINT SYSTEMS



If you cannot raise the seatback because of the locked seat belt, do not try it hard. Release the lock of the seat belt in the following way.

- 1 Push in the lower front edge of the seatback cushion to slacken the seat belt.
- 2 Let the seat belt retract a little.



CAUTION

- Do not sit on or place anything on the tumbled seatback while driving.
- Make sure the seat is securely locked by pushing forward and rearward on the top of the seatback and by trying to pull up the edge of the bottom cushion. Failure to do so will prevent seat belt from operating properly.

Tumbling third seat



Before tumbling the third seats, stow the third seat belt and buckles as shown in the illustration.

This prevents the belt and buckles from falling out when you tumble the third seat.

OCCUPANT RESTRAINT SYSTEMS

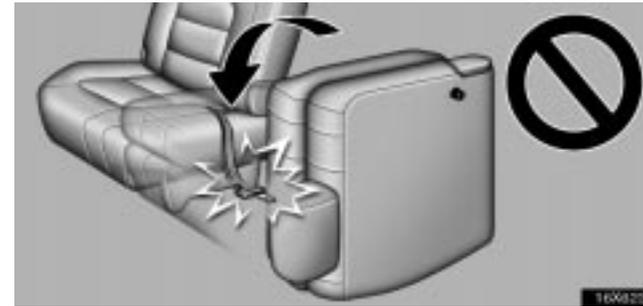


► **Seat belt hanger**

For the outer seat belts, use the seat belt hangers to prevent the belts from being tangled.

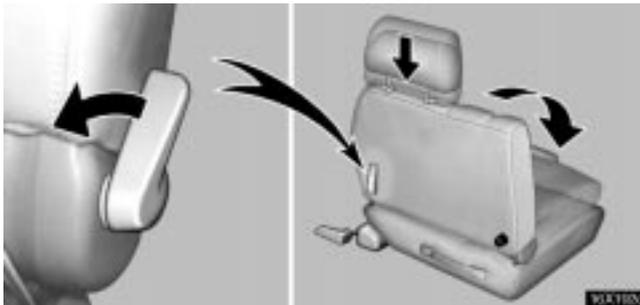
NOTICE

- *The seat belts must be stowed before you tumble the third seat.*

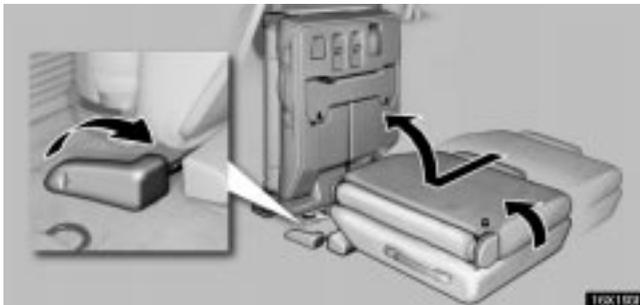


- *Make sure to stow the third center seat belt in order not to cause damage on the seat belt by pinching it between the third seat inner leg and seat striker.*

OCCUPANT RESTRAINT SYSTEMS



1. Lower the head restraint to the lowest position. Pull the reclining lever up and fold down the seatback.



2. While turning the lever, lift and slide the whole seat backward.



3. Hook the holding strap to the assist grip and secure the seat by pulling its free end.

OCCUPANT RESTRAINT SYSTEMS



4. Remove the seat hook covers from the back of the seat cushion and install them onto the seat anchor brackets.

⚠ CAUTION

Be sure to install the seat hook covers on the seat hooks, or you may get burned when they become hot.



When returning the third seat to its original position, stow the holding strap and the seat hook covers into the holder facing the direction shown in the illustration.

5. To return it to the original position, reverse the steps above.

⚠ CAUTION

- Do not sit on or place anything on the tumbled seatback while driving.
- Make sure the seat is securely locked by pushing forward and rearward on the top of the seatback and by trying to pull up the edge of the bottom cushion. Failure to do so will prevent seat belt from operating properly.

OCCUPANT RESTRAINT SYSTEMS

Removing third seats



Before removing the third seats, stow the third seat belt and buckles as shown in the illustration.

This prevents the belt and buckles from falling out when you tumble the third seat.



► Seat belt hanger

For the outer seat belts, use the seat belt hangers to prevent the belts from being tangled.

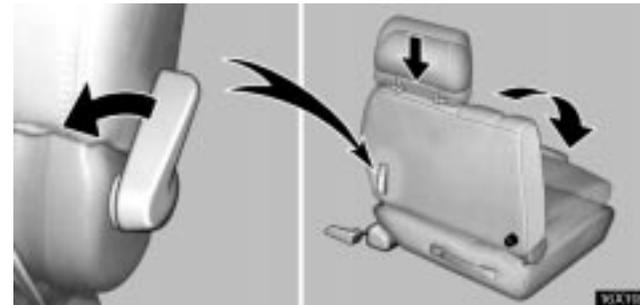
NOTICE

- *The seat belts must be stowed before you tumble the third seat.*

OCCUPANT RESTRAINT SYSTEMS



- *Make sure to stow the third center seat belt in order not to cause damage on the seat belt by pinching it between the third seat inner leg and seat striker.*



1. Lower the head restraint to the lowest position. Pull the reclining lever up and fold down the seatback.

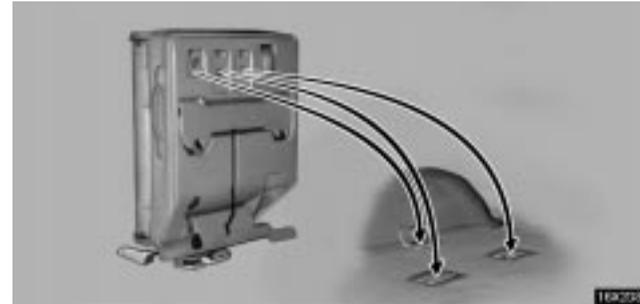


2. While turning the lever, lift and slide the whole seat backward.

OCCUPANT RESTRAINT SYSTEMS



3. Remove the lever cover and pull the lock release lever. Lift up the rear side of the seat and pull the whole seat backward.



4. Remove the seat hook covers from the back of the seat cushion and install them onto the seat anchor brackets.

CAUTION

Be sure to install the seat hook covers on the seat hooks, or you may get burned when they become hot.

5. To reinstall it, reverse the steps above.

CAUTION

When removing or reinstalling the seat, observe the following precautions to prevent personal injury:

- Be careful not to get your hands or feet pinched in the seat.
- Be careful not to hit the removed seat against a person or drop it on yourself.

⚠ CAUTION

To prevent personal injury in a collision or sudden stop;

- You must install the removed seat back in its original position.
- Do not sit on or place anything on the tumbled seatback while driving.
- Do not leave the removed seat loose in the vehicle.
- Do not try to sit on or place anything on the removed seat.

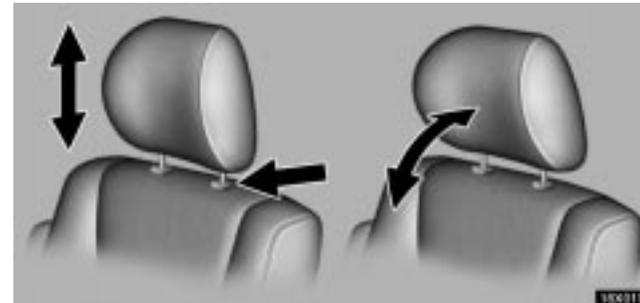
Make sure the seat is securely locked by pushing forward and rearward on the top of the seatback and by trying to pull up the edge of the bottom cushion. Failure to do so will prevent seat belt from operating properly.

NOTICE

Avoid putting heavy loads on the removed seat. The metallic tips of the seat legs may be damaged and the seat cannot be reinstalled.

HEAD RESTRAINTS

Front seat



For your safety and comfort, adjust the head restraint before driving.

To raise the head restraint, pull it up. To lower it, press the lock release button and push the head restraint down. To move the head restraint forward or rearward, pull or push on the top.

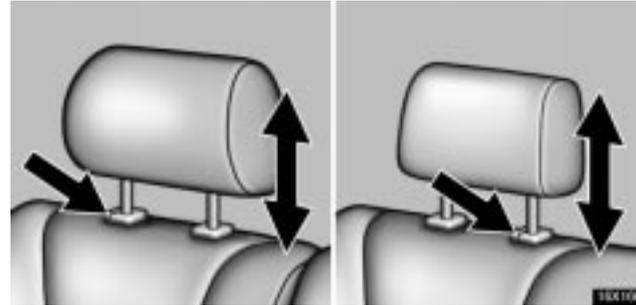
The head restraint is most effective when it is close to your head. Therefore, using a cushion on the seatback is not recommended.

OCCUPANT RESTRAINT SYSTEMS

CAUTION

- Adjust the center of the head restraint so that it is closest to the top of your ears.
- After adjusting the head restraint, make sure it is locked in position.
- Do not drive with the head restraints removed.

Second and third seats



► *Second seat*

► *Third seat*

To raise the head restraint, pull it up. To lower it, press the lock release button and push the head restraint down.

The head restraint is most effective when it is close to your head. Therefore, using a cushion on the seatback is not recommended.

CAUTION

- Adjust the center of the head restraint so that it is closest to the top of your ears.
- After adjusting the head restraint, make sure it is locked in position.
- Do not drive with the head restraints removed.

ARMREST



To use the armrest, pull it down as shown above.

NOTICE

To prevent damage to the armrest, avoid putting heavy loads on it.

SEAT BELTS

Seat belt precautions

Lexus strongly urges that the driver and passengers in the vehicle be properly restrained at all times with the seat belts provided. Failure to do so could increase the chance of injury and/or the severity of injury in accidents.

The seat belts provided for your vehicle are designed for people of adult size, large enough to properly wear them.

Child. Use a child restraint system appropriate for the child until the child becomes large enough to properly wear the vehicle's seat belts. See "Child restraint" on page 156 for details.

If a child is too large for a child restraint system, the child should sit in the rear seat and must be restrained using the vehicle's seat belt. According to accident statistics, the child is safer when properly restrained in the rear seat than in the front seat.

If a child must sit in the front seat, the seat belts should be worn properly. If an accident occurs and the seat belts are not worn properly, the force of the rapid inflation of the airbag may cause death or serious injury to the child.

Do not allow any children to stand up or kneel on either rear or front seats. An unrestrained child could suffer serious injury or death during emergency braking or a collision. Also, do not let the child sit on your lap. Holding a child in your arms does not provide sufficient restraint.

OCCUPANT RESTRAINT SYSTEMS

Pregnant woman. Lexus recommends the use of a seat belt. Ask your doctor for specific recommendations. The lap belt should be worn securely and as low as possible over the hips and not on the waist.

Injured person. Lexus recommends the use of a seat belt. Depending on the injury, first check with your doctor for specific recommendations.



CAUTION

Persons should ride in their seats properly wearing their seat belts whenever the vehicle is moving. Otherwise, they are much more likely to suffer serious bodily injury or death in the event of sudden braking or a collision.

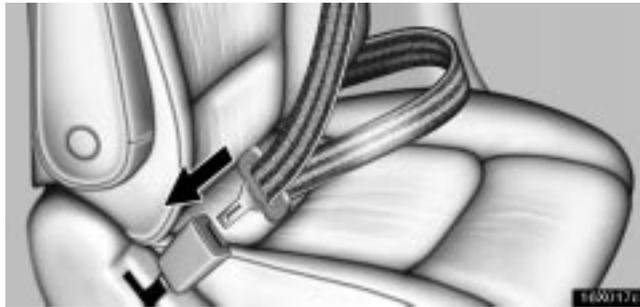
When using the seat belts, observe the following:

- Use the belt for only one person at a time. Do not use a single belt for two or more people - even children.
- To reduce the risk of sliding under the lap belt during a collision, avoid reclining the seatback any more than needed. The seat belts provide maximum protection in a frontal or rear collision when the driver and the front passenger are sitting up straight and well back in the seats. If you are reclined, the lap belt may slide past your hips and apply restraint forces directly to the abdomen. In the event of a frontal collision, the more the seat is reclined, the greater the risk of personal injury.

- Be careful not to damage the belt webbing or hardware. Take care that they do not get caught or pinched in the seat or doors.
- Inspect the belt system periodically. Check for cuts, fraying, and loose parts. Damaged parts should be replaced. Do not disassemble or modify the system.
- Keep the belts clean and dry. If they need cleaning, use a mild soap solution or lukewarm water. Never use bleach, dye, or abrasive cleaners, or allow them to come into contact with the belt - they may severely weaken the belts. (See "Cleaning the interior" on page 424 for instructions.)
- Replace the belt assembly (including bolts) if it has been used in a severe impact. The entire assembly should be replaced even if damage is not obvious.

OCCUPANT RESTRAINT SYSTEMS

Fastening front, second and third (outside seats) seat belts



Adjust the seat as needed and sit up straight and well back in the seat. To fasten your belt, pull it out of the retractor and insert the tab into the buckle.

You will hear a click when the tab locks into the buckle.

The seat belt length automatically adjusts to your size and the seat position.

The retractor will lock the belt during a sudden stop or on impact. It also may lock if you lean forward too quickly. A slow, easy motion will allow the belt to extend, and you can move around freely.

When a passenger's shoulder belt is completely extended and is then retracted even slightly, the belt is locked in that position and cannot be extended. This feature is used to hold the child restraint system securely. (For details, see "Child restraint" on page 156.) To free the belt again, fully retract the belt and then pull the belt out once more.

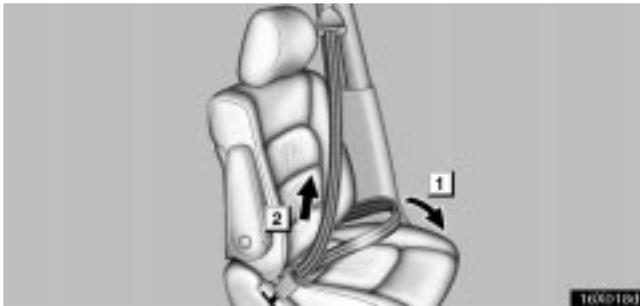
If the seat belt cannot be pulled out of the retractor, firmly pull the belt and release it. You will then be able to smoothly pull the belt out of the retractor.



CAUTION

- After inserting the tab, make sure the tab and buckle are locked and that the belt is not twisted.
- Do not insert coins, clips, etc. in the buckle as this may prevent you from properly latching the tab and buckle.
- If the seat belt does not function normally, immediately contact your Lexus dealer. Do not use the seat until the seat belt is fixed, because it cannot protect an adult occupant or your child from injury.

OCCUPANT RESTRAINT SYSTEMS

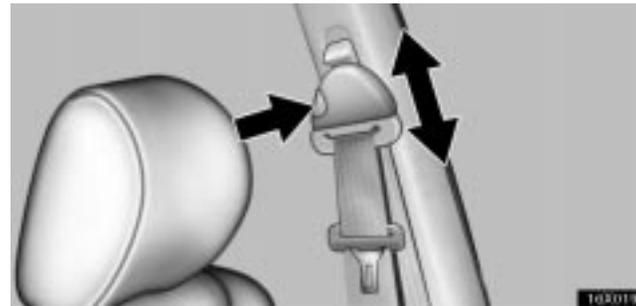


Adjust the position of the lap and shoulder belts.

- 1 Position the lap belt as low as possible on your hips - not on your waist.
- 2 Adjust it to a snug fit by pulling the shoulder portion upward through the latch plate.

CAUTION

- Both high-positioned lap belts and loose-fitting belts could cause serious injuries due to sliding under the lap belt during a collision or other unintended event. Keep the lap belt positioned as low on hip as possible.
- Do not place the shoulder belt under your arm.



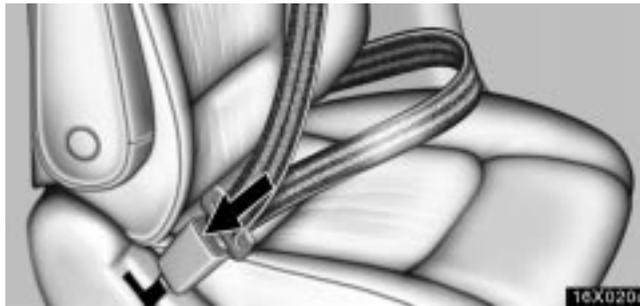
Adjust the shoulder anchor position to your size.

To raise the shoulder anchor position, push the anchor up. To lower the anchor position, support the anchor while you push the lock release button then slide the anchor down. After the adjustment, make sure the anchor is locked in position.

CAUTION

Always make sure the shoulder belt is positioned across the center of your shoulder. The belt should be kept away from your neck, but not falling off your shoulder. Failure to do so could reduce the amount of protection in an accident and cause serious injuries in a collision.

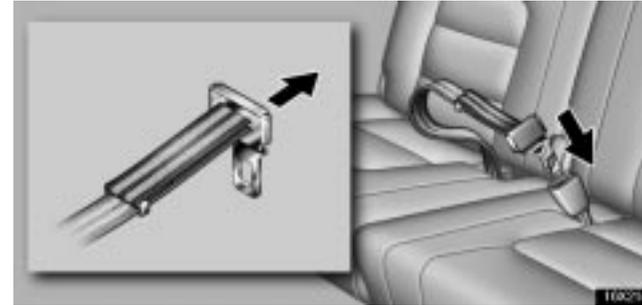
OCCUPANT RESTRAINT SYSTEMS



To release the belt, press the buckle release button and allow the belt to retract.

If the belt does not retract smoothly, pull it out and check for kinks or twists. Then make sure it remains untwisted as it retracts.

Third (center seat) seat belt



Sit up straight and well back in the seat. To fasten your belt, insert the tab into the buckle.

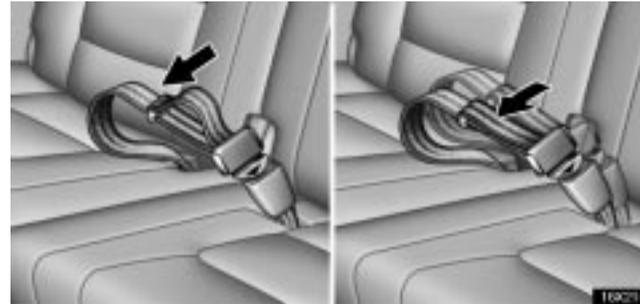
You will hear a click when the tab locks into the buckle.

If the belt is not long enough for you, hold the tab at a right angle to the belt and pull on the tab.

OCCUPANT RESTRAINT SYSTEMS

CAUTION

- After inserting the tab, make sure the tab and buckle are locked and that the belt is not twisted.
- Do not insert coins, clips, etc. in the buckle as this may prevent you from properly latching the tab and buckle.
- If the seat belt does not function normally, immediately contact your Lexus dealer. Do not use the seat until the seat belt is fixed. It cannot protect an adult occupant or your child from injury.



Remove excess length of the belt and adjust the belt position.

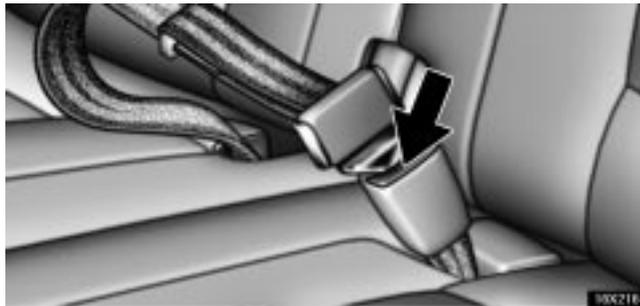
To shorten the belt, pull the free end of the belt.

Position the lap belt as low as possible on your hips - not on your waist, then adjust it to a snug fit.

CAUTION

High-positioned and loose-fitting lap belt could cause severe injuries due to sliding under the lap belt during a collision or other unintended result. Keep the lap belt positioned as low on hip as possible.

OCCUPANT RESTRAINT SYSTEMS



To release the belt, press the buckle release button.

Seat belt extender

If your seat belts cannot be fastened securely because they are not long enough, a personalized seat belt extender is available from your Lexus dealer free of charge.

Please contact your local Lexus dealer to order the proper required length for the extender. Bring the heaviest coat you expect to wear for proper measurement and selection of length. Additional ordering information is available at your Lexus dealer.



CAUTION

When using the seat belt extender, observe the following precautions. Failure to follow these instructions could reduce the effectiveness of the seat belt restraint system in case of an accident, increasing the chance of personal injury.

- Remember that the extender provided for you may not be safe when used on a different vehicle, for another person, or at a different seating position than the one originally intended.

OCCUPANT RESTRAINT SYSTEMS



- If the seat belt extender has been connected to the driver's seat belt buckle without wearing the seat belt when using the extender in the driver's seat, the SRS driver's airbag system will judge that the driver wears the seat belt even if not wearing it. In this case, the driver's airbag may not activate correctly, causing death or serious injury in the event of collision. Be sure to wear the seat belt with the seat belt extender.
- Be sure to wear the seat belt without the seat belt extender if you can fasten the seat belt without the extender.
- Do not use the seat belt extender when installing a child restraint system on the front or rear passenger seat. If installing a child restraint system with the seat belt extender connected to the seat belt, the seat belt will not securely hold the child restraint system, which could cause death or serious injury to the child or other passengers in the event of collision.



To connect the extender to the seat belt, insert the tab into the seat belt buckle so that the "PRESS" signs on the buckle release buttons of the extender and the seat belt are both facing outward as shown.

You will hear a click when the tab locks into the buckle.

When releasing the seat belt, press on the buckle release button on the extender, not on the seat belt. This helps prevent damage to the vehicle interior and extender itself.

When not in use, remove the extender and store in the vehicle for future use.

 CAUTION

- After inserting the tab, make sure the tab and buckle are locked and that the lap and shoulder portions of the belt and the seat belt extender are not twisted.
- Do not insert coins, clips, etc. in the buckle as this may prevent you from properly latching the tab and buckle.
- If the seat belt does not function normally, immediately contact your Lexus dealer. Do not use the seat until the seat belt is fixed, because it cannot protect an adult occupant or your child from injury.

Seat belt pretensioners



The driver and front passenger seat belt pretensioners are designed to be activated in response to a severe frontal impact or a vehicle rollover.

When the sensor detects a severe frontal impact or a vehicle rollover, the front seat belts are quickly drawn back by the retractor so that the belts snugly restrain the occupants.

The seat belt pretensioners are activated even if there is no passenger sitting in the front seat.

The seat belt pretensioners and SRS airbags may not operate together in case of collisions at certain speeds and angles.

OCCUPANT RESTRAINT SYSTEMS



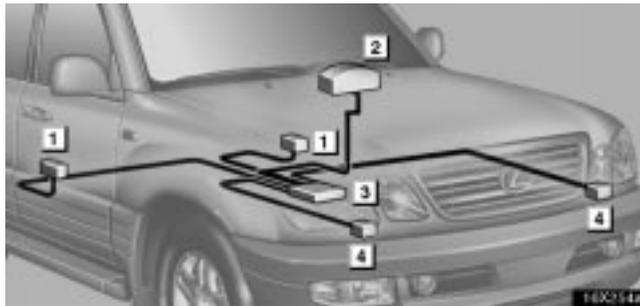
► **Roll sensing of curtain shield airbags off indicator light**

The seat belt pretensioners will not operate in a vehicle rollover if the roll sensing of curtain shield airbags off indicator light is on. For details, see "Roll sensing of curtain shield airbags off switch" on page 45.

 **CAUTION**

- Make sure the roll sensing of curtain shield airbags off indicator light is not on.
- When the roll sensing of curtain shield airbags off switch is turned on (and the roll sensing of curtain shield airbags off indicator light is on), the seat belt pretensioners will not operate in a vehicle rollover and turning off the seat belt pretensioners can reduce the occupant protection which your vehicle safety systems can provide to you in certain accidents and increase the likelihood of serious personal injuries.

OCCUPANT RESTRAINT SYSTEMS



- ▶ **1** *Seat belt pretensioner assemblies*
- 2** *SRS warning light*
- 3** *Airbag sensor assembly*
- 4** *Front airbag sensors*

The seat belt pretensioner system consists mainly of the above components, and their locations are shown in the illustration.

The seat belt pretensioners are controlled by the airbag sensor assembly. The airbag sensor assembly consists of a safing sensor and airbag sensor.

When the seat belt pretensioners are activated, an operating noise may be heard and a small amount of non-toxic gas may be released. This does not indicate that a fire is occurring. This gas is normally harmless.

Once the seat belt pretensioners have been activated, the seat belt retractors remain locked.

CAUTION

- Do not modify, remove, strike or open the seat belt pretensioner assemblies, airbag sensor or surrounding area or wiring. Doing any of these may cause sudden operation of the seat belt pretensioners or disable the system, which could result in death or serious injury.
- Do not use tires or wheels other than the manufacturer's recommended size. Such a use may cause the curtain shield airbags and seat belt pretensioners to inflate accidentally, which could result in death or serious injury. For details, see "Checking and replacing tires" on page 397.
- Do not place luggage heavier than specified on the roof luggage carrier. Such luggage may cause the curtain shield airbags and seat belt pretensioners to inflate accidentally, which could result in death or serious injury. For details, see "Roof luggage carrier" on page 87.
- Do not modify or change the suspension system. Such changes may cause the curtain shield airbags to inflate accidentally, which could result in death or serious injury.

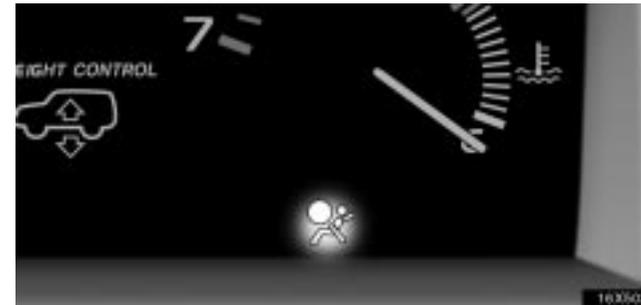
Failure to follow these instructions can result in death or serious injury. Consult your Lexus dealer before performing any repairs and modifications.

OCCUPANT RESTRAINT SYSTEMS

NOTICE

Do not perform any of the following changes without first consulting your Lexus dealer. Such changes can interfere with proper operation of the seat belt pretensioners in some cases.

- *Installation of electronic devices such as a mobile two-way radio, cassette tape player or compact disc player.*
- *Repairs on or near the seat belt retractor assemblies.*
- *Modification of the front end structure.*
- *Attachment of a grille guard (bull bar, kangaroo bar, etc.), snowplow, winches or any other equipment to the front end.*
- *Repairs made on or near the front fenders, front end structure or console.*



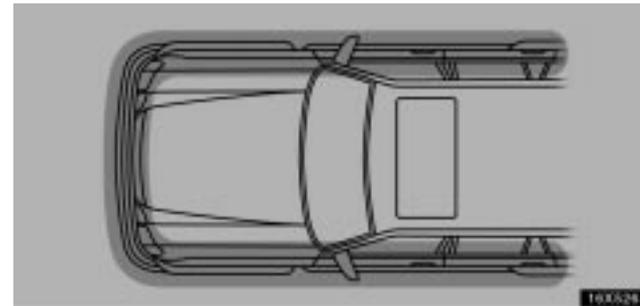
This indicator comes on when the ignition switch is turned to the "ON" position. It goes off after about 6 seconds. This means the seat belt pretensioners are operating properly.

This warning light system monitors the airbag sensor assembly, front airbag sensors, side and curtain shield airbag sensor assemblies, curtain shield airbag sensor assemblies, driver's seat position sensor, driver's seat belt buckle switch, seat belt pretensioner assemblies, inflators, warning light, roll sensing of curtain shield airbags off indicator light, interconnecting wiring and power sources. (For details, see "Service reminder indicators and warning buzzers" on page 52.)

OCCUPANT RESTRAINT SYSTEMS

If any of the following conditions occurs, this indicates a malfunction of the airbags or seat belt pretensioners. Contact your Lexus dealer as soon as possible.

- When the ignition switch is turned to the "ON" position, the light does not come on, remains on or flashes.
- The light comes on or starts flashing while driving.
- If any seat belt does not retract or cannot be pulled out due to a malfunction or activation of the relevant seat belt pretensioner.
- The seat belt pretensioner assembly or surrounding area has been damaged.



In the following cases, contact your Lexus dealer as soon as possible.

- The front of the vehicle and portion of the doors (shaded in the illustration) were involved in an accident that was not severe enough to cause the seat belt pretensioners to operate.
- The seat belt pretensioner assembly or surrounding area is scratched, cracked, or otherwise damaged.

OCCUPANT RESTRAINT SYSTEMS

SRS DRIVER AIRBAG AND FRONT PASSENGER AIRBAG



► Front airbags

The SRS (Supplemental Restraint System) front airbags are designed to provide further protection for the driver, front and second seat passengers in addition to the primary safety protection provided by the seat belts.

In response to a severe frontal impact, the SRS front airbags work together with the seat belts to help reduce injury by inflating. The SRS front airbags help reduce injuries mainly to the driver's or front passenger's head or chest caused by hitting the vehicle interior.

The front passenger airbag is activated even if there is no passenger sitting in the front seat.

Your vehicle is equipped with a crash sensing and diagnostic module, which will record the use of the seat belt restraint system by the driver when the SRS front airbags are inflated.

Always wear your seat belt properly.

CAUTION

- The SRS front airbag system is designed only as a supplement to the primary protection of the driver, front and second outside seat passenger seat belt systems. The front and second seat occupants can be killed or seriously injured by the inflating airbags if they do not wear the available seat belts properly. During sudden braking just before a collision, an unrestrained driver, front passenger or second seat passenger can move forward or sideways into direct contact with or close proximity to the airbag which may then deploy during the collision. To ensure maximum protection in an accident, the driver and all passengers in the vehicle must wear their seat belts properly. Wearing a seat belt properly during an accident reduces the chances of death or serious injury or being thrown out of the vehicle. For instructions and precautions concerning the seat belt system, see "Seat belts" on page 121.

OCCUPANT RESTRAINT SYSTEMS

- Improperly seated and/or restrained infants and children can be killed or seriously injured by the deploying airbags. An infant or child who is too small to use a seat belt should be properly secured using a child restraint system. Lexus strongly recommends that all infants and children be placed in the rear seat of the vehicle and properly restrained. The rear seats are the safest for infants and children. For instructions concerning the installation of a child restraint system, see “Child restraint” on page 156.

The SRS front airbags are designed to deploy in severe (usually frontal) collisions where the magnitude and duration of the forward deceleration of the vehicle exceeds the designed threshold level.

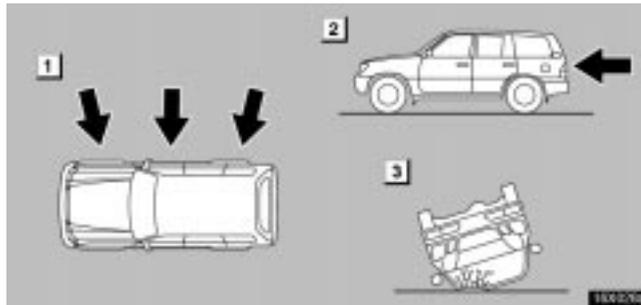
The SRS front airbags will deploy if the severity of the impact is above the designed threshold level, comparable to an approximate 25 km/h (15 mph) collision when the vehicle has the impact straight into a fixed barrier that does not move or deform.

However, this threshold velocity will be considerably higher if the vehicle strikes an object, such as a parked vehicle or sign pole, which can move or deform on impact, or if the vehicle is involved in an underride collision (e.g. a collision in which the front of the vehicle “underrides”, or goes under, the bed of a truck, etc.).

It is possible that in some collisions where the forward deceleration of the vehicle is very close to the designed threshold level, the SRS front airbags and the seat belt pretensioners may not activate together.

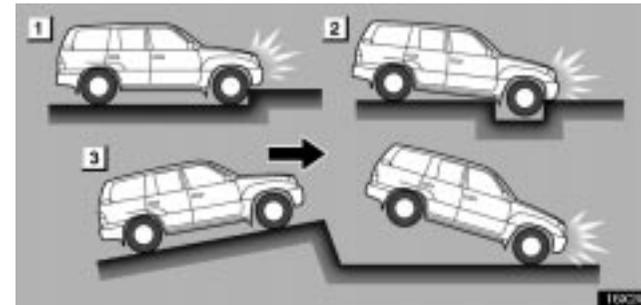
Always wear your seat belts properly.

OCCUPANT RESTRAINT SYSTEMS



- ▶ **1** *Collision from the side*
- ▶ **2** *Collision from the rear*
- ▶ **3** *Vehicle rollover*

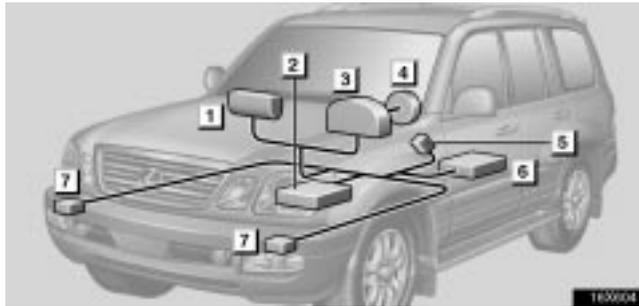
The SRS front airbags are generally not designed to inflate if the vehicle is involved in a side or rear collision, if it rolls over, or if it is involved in a low-speed frontal collision.



- ▶ **1** *Hitting a curb, edge of pavement or hard surface*
- ▶ **2** *Falling into or jumping over a deep hole*
- ▶ **3** *Landing hard or vehicle falling*

The SRS front airbags may also deploy if a severe impact occurs to the underside of your vehicle. Some examples are shown in the illustration.

OCCUPANT RESTRAINT SYSTEMS



- ▶ **1 Airbag module for front passenger (airbag and inflator)**
- 2 Airbag sensor assembly**
- 3 SRS warning light**
- 4 Airbag module for driver (airbag and inflator)**
- 5 Driver's seat belt buckle switch**
- 6 Driver's seat position sensor**
- 7 Front airbag sensors**

The SRS front airbag system consists mainly of the above components, and their locations are shown in the illustration.

The airbag sensor assembly consists of a safing sensor and airbag sensors.

The front airbag sensors and airbag sensor assembly constantly monitor the forward deceleration of the vehicle. If an impact results in a forward deceleration beyond the designed threshold level, the system triggers the airbag inflators. At this time a chemical reaction in the inflators very quickly fills the airbags with non-toxic gas to help restrain the forward motion of the occupants. The front airbags then quickly deflate, so that there is no obstruction of the driver's vision should it be necessary to continue driving.

When the airbags inflate, they produce a loud noise and release some smoke and residue along with non-toxic gas. This does not indicate a fire. This smoke may remain inside the vehicle for some time, and may cause some minor irritation to the eyes, skin or breathing. Be sure to wash off any residue as soon as possible to prevent any potential skin irritation with soap and water. If you can safely exit from the vehicle, you should do so immediately.

Deployment of the airbags happens in a fraction of a second, so the airbags must inflate with considerable force. While the system is designed to reduce serious injuries, primarily to the head and chest, it may also cause other, less severe injuries to the face, chest, arms and hands. These are usually in the nature of minor burns or abrasions and swelling, but the force of a deploying airbag can cause more serious injuries, especially if an occupant's hands, arms, chest or head is in close proximity to the airbag module at the time of deployment.

OCCUPANT RESTRAINT SYSTEMS

This is why it is important for the occupant to; avoid placing any object or part of the body between the occupant and the airbag module; sit straight and well back into the seat; wear the available seat belt properly; and sit as far as possible from the airbag module, while still maintaining control of the vehicle.

Parts of the airbag module (steering wheel hub, airbag cover and inflator) may be hot for several minutes after deployment, so do not touch! The airbags inflate only once. The windshield may be damaged by absorbing some of the force of the inflating airbag.

CAUTION

The driver or front passenger who is too close to the steering wheel or dashboard during airbag deployment can be killed or seriously injured. Lexus strongly recommends that:

- **The driver sit as far back as possible from the steering wheel while still maintaining control of the vehicle.**
- **The front passenger sit as far back as possible from the dashboard.**
- **All vehicle occupants be properly restrained using the available seat belts.**
- **If the seat belt extender has been connected to the driver's seat belt buckle without wearing the seat belt when using the extender in the driver's seat, the SRS driver's airbag system will judge that the driver wears the seat belt even if not wearing it. In this case, the driver's airbag may not activate correctly, causing death or serious injury in the event of collision. Be sure to wear the seat belt with the seat belt extender.**
- **For instructions and precautions concerning the seating position, see "Front seat precautions" on page 102.**

OCCUPANT RESTRAINT SYSTEMS

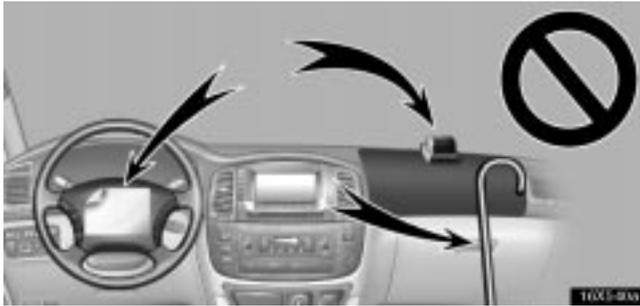


- Do not sit on the edge of the seat or lean against the dashboard when the vehicle is in use, since the front passenger airbag could inflate with considerable speed and force. Anyone who is up against, or very close to, an airbag when it inflates, can be killed or seriously injured. Sit up straight and well back in the seat, and always use your seat belt properly.



- Lexus strongly recommends that all infants and children be placed in the rear seat of the vehicle and be properly restrained.
- Do not allow a child to stand up or kneel on the front passenger seat, since the front passenger airbag could inflate with considerable speed and force. Otherwise, the child may be killed or seriously injured.
- Do not hold a child on your lap or in your arms. Use a child restraint system in the rear seat. For instructions concerning the installation of a child restraint system, see “Child restraint” on page 156.

OCCUPANT RESTRAINT SYSTEMS



- Do not put anything or any parts of your body on or in front of the dashboard or steering wheel pad that houses the driver and front passenger airbag system. They might restrict inflation or cause death or serious injury as they are projected rearward by the force of the deploying airbags. Likewise, the driver and front passenger should not hold objects in their arms or on their knees.

- Do not modify or remove any wiring. Do not modify, remove, strike or open any components, such as the steering wheel pad, steering wheel, column cover, dashboard near the front passenger airbag, front passenger airbag cover, front passenger airbag or airbag sensor assembly. Doing so may prevent the front airbag system from activating correctly, cause sudden front airbags activation of the system or disable the system, which could result in death or serious injury.

Failure to follow these instructions can result in death or serious injury. Consult your Lexus dealer before performing any repair and modification.

NOTICE

Do not perform any of the following changes without first consulting your Lexus dealer. Such changes can interfere with proper operation of the SRS airbag system in some cases.

- *Installation of electronic devices such as a mobile two-way radio, cassette tape player or compact disc player.*
- *Modification of the front end structure and side structure of the passenger compartment.*
- *Attachment of a grille guard (bull bar, kangaroo bar, etc.), snowplow, winches or any other equipment to the front end.*
- *Repairs made on or near the front fenders, front end structure, console, steering column, steering wheel, dashboard near the front passenger airbag or front seats.*



This indicator comes on when the ignition switch is turned to the “ON” position. It goes off after about 6 seconds. This means the SRS front airbags are operating properly.

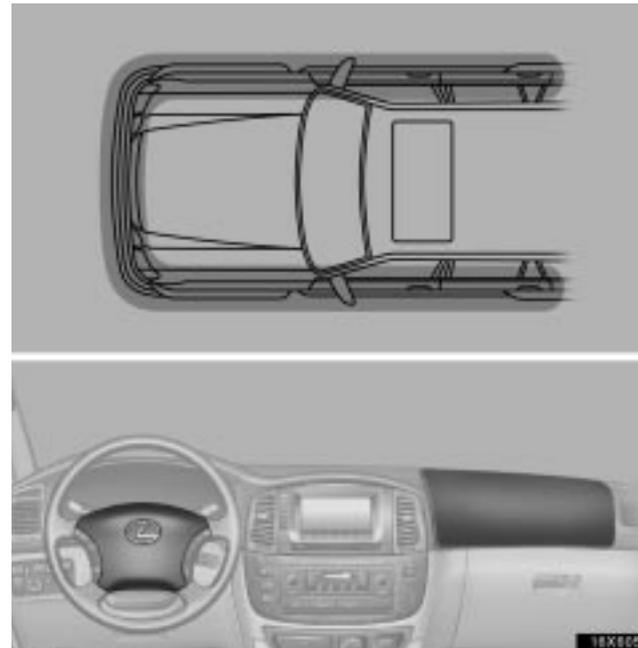
This warning light system monitors the airbag sensor assembly, front airbag sensors, side and curtain shield airbag sensor assemblies, curtain shield airbag sensor assemblies, driver’s seat position sensor, driver’s seat belt buckle switch, seat belt pretensioner assemblies, inflators, warning light, roll sensing of curtain shield airbags off indicator light, interconnecting wiring and power sources. (For details, see “Service reminder indicators and warning buzzers” on page 52.)

OCCUPANT RESTRAINT SYSTEMS

If any of the following conditions occurs, this indicates a malfunction of the airbags or seat belt pretensioners. Contact your Lexus dealer as soon as possible.

- When the ignition switch is turned to the "ON" position, the light does not come on, remains on or flashes.
- The light comes on or starts flashing while driving.

If the light stays on, it indicates that the SRS driver and front passenger airbags have a problem. If the light flashes, the SRS side and curtain shield airbags have a problem.



In the following cases, contact your Lexus dealer as soon as possible:

- Any of the SRS front airbags have been inflated.
- The front of the vehicle and portion of the doors (shaded in the illustration) were involved in an accident that was not severe enough to cause the SRS front airbags to inflate.

- The pad section of the steering wheel or dashboard (shaded in the illustration) is scratched, cracked, or otherwise damaged.

NOTICE

Do not disconnect the battery cables before contacting your Lexus dealer.

SRS SIDE AIRBAGS AND CURTAIN SHIELD AIRBAGS



► **1** *Curtain shield airbag* **2** *Side airbag*

The SRS (Supplemental Restraint System) side airbags and curtain shield airbags are designed to provide further protection for the driver, front and second seat passengers in addition to the primary safety protection provided by the seat belts.

In response to a severe side impact, the SRS side airbags and curtain shield airbags works with the seat belts to help reduce injury by inflating. The SRS side airbags help reduce injuries mainly to the driver's or front passenger's chest and the SRS curtain shield airbags help reduce injuries mainly to the driver's, front passenger's or second seat passenger's head and can help the driver, front passenger and second seat passengers to retain inside the vehicle.

OCCUPANT RESTRAINT SYSTEMS

Roll sensing function:

In response to a vehicle rollover, the curtain shield airbags on both sides inflate. The curtain shield airbags work together with the seat belts to help to reduce injuries mainly to the driver's head, front passenger's head and second seat passengers' heads and can help the driver, front passenger and second seat passengers to retain inside the vehicle.

The SRS side airbag and curtain shield airbag on the passenger side are activated even with no passenger in the front seat or second seat.

The curtain shield airbags may activate even when the side airbags are not activated.

Always wear your seat belt properly.

CAUTION

- **The SRS side airbag and curtain shield airbag system is designed only as a supplement to the primary protection of the driver, front and second outside seat passenger seat belt systems. The front and second seat occupants can be killed or seriously injured by the inflating airbags if they do not wear the available seat belts properly. During sudden braking just before a collision, an unrestrained driver, front passenger or second seat passenger can move forward or sideways into direct contact with or close proximity to the airbag which may then deploy during the collision. To ensure maximum protection in an accident, the driver and all passengers in the vehicle must wear their seat belts properly. Wearing a seat belt properly during an accident reduces the chances of death or serious injury or being thrown out of the vehicle. For instructions and precautions concerning the seat belt system, see "Seat belts" on page 121.**
- **Do not allow anyone to lean his/her head or any part of his/her body against the door or the area of the seat, front pillar, rear pillar or roof side rail from which the SRS side airbag and curtain shield airbag deploy even if he/she is a child seated in the child restraint system. It is dangerous if the SRS side airbag and curtain shield airbag inflate, and the impact of the deploying airbags could cause death or serious injury to the occupant.**

OCCUPANT RESTRAINT SYSTEMS

- Improperly seated and/or restrained infants and children can be killed or seriously injured by the deploying airbags. An infant or child who is too small to use a seat belt should be properly secured using a child restraint system. Lexus strongly recommends that all infants and children be placed in the rear seat of the vehicle and properly restrained. The rear seats are the safest for infants and children. For instructions concerning the installation of a child restraint system, see "Child restraint" on page 156.



► Roll sensing of curtain shield airbags off switch

The roll sensing of curtain shield airbags off switch can turn off the curtain shield airbags in a vehicle rollover. This switch should only be used in a situation where the inflation is not desired (such as during extreme offroad driving).

When you push the roll sensing of curtain shield airbags off switch for a few seconds with the ignition switch on, the roll sensing of curtain shield airbags off indicator light comes on and the roll sensing function is turned off. When you push the switch again, the indicator light goes off and the roll sensing function is turned on.

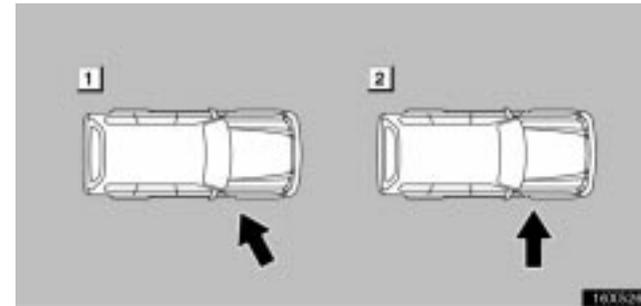
In a severe side impact, the curtain shield airbag on the impacted side will inflate even if the roll sensing function is turned off.

If the ignition switch is turned to "ACC" or "LOCK" with the roll sensing function off and then the ignition switch is turned back to "ON", the roll sensing function will be back on automatically.

OCCUPANT RESTRAINT SYSTEMS

CAUTION

- Make sure the roll sensing of curtain shield airbags off indicator light is not on.
- When the roll sensing of curtain shield airbags off switch is turned on (and the roll sensing of curtain shield airbags off indicator light is on), the curtain shield airbags will not inflate in a vehicle rollover. Turning off the curtain shield airbags can reduce the occupant protection which your vehicle safety systems can provide to you in certain accidents and increase the likelihood of death or serious injuries.



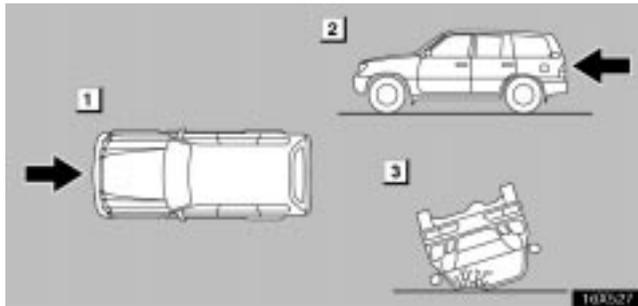
- **1** Collision from the side at an angle
2 Collision from the side to the vehicle body other than the passenger compartment

The SRS side airbag and curtain shield airbag system may not activate if the vehicle is subjected to a collision from the side at certain angles, or a collision to the side of the vehicle body other than the passenger compartment as shown in the illustration.

The SRS side airbags and curtain shield airbags are designed to inflate when the passenger compartment area suffers a severe impact from the side.

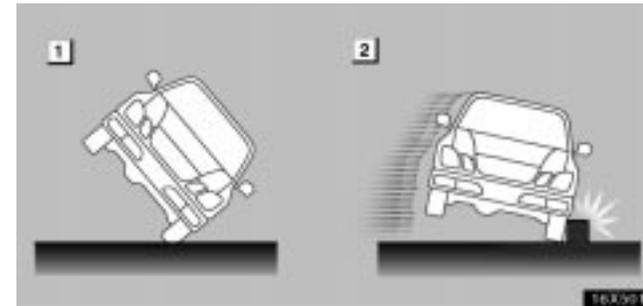
Always wear your seat belts properly.

OCCUPANT RESTRAINT SYSTEMS



- ▶ **1** *Collision from the front*
- ▶ **2** *Collision from the rear*
- ▶ **3** *Vehicle rollover*

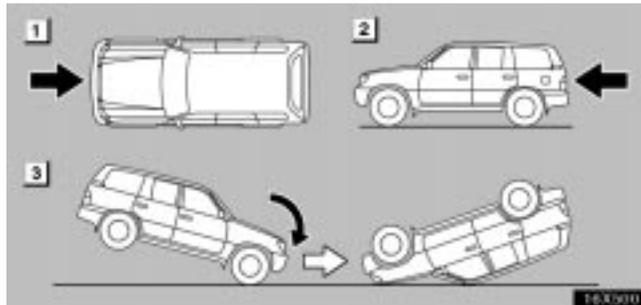
The SRS side airbags and curtain shield airbags are not designed to inflate if the vehicle is involved in a front or rear collision, if it rolls over, or if it is involved in a low-speed side collision.



- ▶ **1** *The angle of vehicle tip-up is marginal*
- ▶ **2** *Skidding vehicle hitting a curb stone*

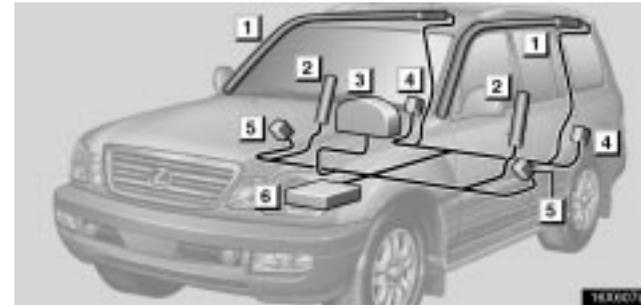
The SRS curtain shield airbags may inflate if the angle of vehicle tip-up is marginal or if the skidding vehicle's tires hit a curb stone laterally as shown in the illustration.

OCCUPANT RESTRAINT SYSTEMS



- ▶ **1** Collision from the front
- ▶ **2** Collision from the rear
- ▶ **3** Pitching end over end

The SRS curtain shield airbags are not designed to inflate if the vehicle is involved in a front or rear collision, if it pitches end over end or if it is involved in a low-speed side collision.



- ▶ **1** Curtain shield airbag module (airbag and inflator)
- ▶ **2** Side airbag module (airbag and inflator)
- ▶ **3** SRS warning light
- ▶ **4** Curtain shield airbag sensor assembly
- ▶ **5** Side and curtain shield airbag sensor assembly
- ▶ **6** Airbag sensor assembly

The SRS side airbag and curtain shield airbag system consists mainly of the above components, and their locations are shown in the illustration.

The SRS side airbag and curtain shield airbag system is controlled by the airbag sensor assembly. The airbag sensor assembly consists of a safing sensor and airbag sensors.

OCCUPANT RESTRAINT SYSTEMS

In a severe side impact, the side and curtain shield airbag sensor and/or the curtain shield airbag sensor trigger(s) the side and airbag inflators and/or the curtain shield airbag inflators. In a vehicle rollover, the airbag sensor assembly triggers the curtain shield airbag inflator. At this time a chemical reaction in the inflators very quickly fills the airbags with non-toxic gas to help restrain the forward or lateral motion of the front and second seat occupants.

When the airbags inflate, they produce a loud noise and release some smoke and residue along with non-toxic gas. This does not indicate a fire. This smoke may remain inside the vehicle for some time, and may cause some minor irritation to the eyes, skin or breathing. Be sure to wash off any residue as soon as possible to prevent any potential skin irritation with soap and water. If you can safely exit from the vehicle, you should do so immediately.

Deployment of the airbags happens in a fraction of a second, so the airbags must inflate with considerable force. While the system is designed to reduce serious injuries, it may also cause minor burns or abrasions and swelling.

Front seats as well as parts of the front and rear pillars, and roof side rail may be hot for several minutes, but the airbags themselves will not be hot. The airbags are designed to inflate only once.



CAUTION

SRS side airbags and curtain shield airbags inflate with considerable force. To reduce the possibility of death or serious injury when they inflate, the driver, front passenger and rear outside passengers must:

- **Wear their seat belts properly.**
- **Remain properly seated with their backs upright and against the seats at all times.**

OCCUPANT RESTRAINT SYSTEMS

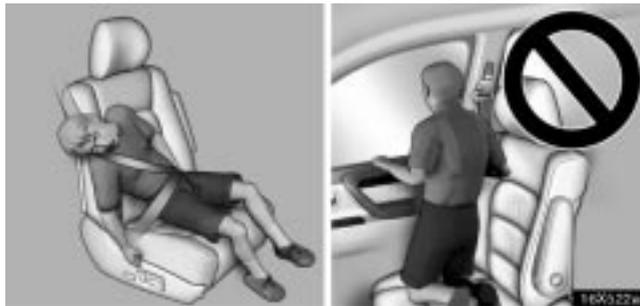


- Do not allow anyone to lean against the door when the vehicle is in use, since the side airbag and curtain shield airbag could inflate with considerable speed and force. Otherwise, he/she may be killed or seriously injured.
- Sit up straight and well back in the seat, distributing your weight evenly in the seat. Do not apply excessive weight to the outer side of the seats with a side airbag, and to the front pillar, rear pillar, and roof side rail with a curtain shield airbag.
- Improper sitting and wearing of the seat belts may not retain you inside the vehicle.



- Make sure the roll sensing of curtain shield airbags off indicator is not on. If this indicator light is on, the curtain shield airbags will not inflate in a vehicle rollover and you may be killed or seriously injured.

OCCUPANT RESTRAINT SYSTEMS



- Do not allow anyone to get his/her head close to the area where the side airbag and curtain shield airbag inflate. These airbags could inflate with considerable speed and force. Otherwise, he/she may kill or seriously injure you or a child. Special care should be taken especially when you have a small child in the vehicle.
- Do not allow anyone to kneel on the passenger seat, facing the passenger's side door, since the side airbag and curtain shield airbag could inflate with considerable speed and force. Otherwise, he/she may be killed or seriously injured. Special care should be taken especially when you have a small child in the vehicle.



- Do not allow anyone to get his/her head or hands out of windows since the curtain shield airbags could inflate with considerable speed and force. Otherwise, he/she may be killed or seriously injured. Special care should be taken especially when you have a small child in the vehicle.

OCCUPANT RESTRAINT SYSTEMS



- Do not attach a cup holder or any other device or object on or around the door. When the side airbag inflates, the cup holder or any other device or object will be thrown with great force, or the side airbag may not activate correctly, which could result in death or serious injury. Likewise, the driver and front passenger should not hold objects in their arms or on their knees.



- Do not attach a microphone or any other device or object around the area where the curtain shield airbag activates such as on the windshield glass, side door glass, front, center and roof side garnish, roof interior or assist grips. When the curtain shield airbag inflates, the microphone or other device or object will be thrown away with great force or the curtain shield airbag may not activate correctly, which could result in death or serious injury.
- Do not hook a hanger, heavy or sharp pointed objects on the coat hook. If the curtain shield airbag inflates, those items will be hurled away with great force or the curtain shield airbag may not activate correctly, which could result in death or serious injury. When you hang clothes, hang them on the coat hook directly.

OCCUPANT RESTRAINT SYSTEMS

- Do not use seat accessories which cover the parts where the side airbags inflate. Such accessories may prevent the side airbags from activating correctly, which could cause death or serious injury.
- Do not modify or replace the seats or upholstery of the seats equipped with side airbags. Such changes may prevent the side airbag system from activating correctly, disable the system or cause the side airbags to inflate accidentally, which could result in death or serious injury.
- Do not disassemble or repair the front and rear pillars and roof side rails containing the curtain shield airbags. Such changes may disable the system or cause the curtain shield airbags to inflate accidentally, which could result in death or serious injury.
- Do not use tires or wheels other than the manufacturer's recommended size. Such a use may cause the curtain shield airbags to inflate accidentally, which could result in death or serious injury. For details, see "Checking and replacing tires" on page 397.
- Do not place luggage heavier than specified on the roof luggage carrier. Such luggage may cause the curtain shield airbags to inflate accidentally, which could cause in death or serious injury. For details, see "Roof luggage carrier" on page 87.

- Do not modify or change the suspension system. Such changes may cause the curtain shield airbags to inflate accidentally, which could result in death or serious injury.

Failure to follow these instructions can result in death or serious injury. Consult your Lexus dealer before performing any repair and modification.

NOTICE

Do not perform any of the following changes without first consulting your Lexus dealer. Such changes can interfere with proper operation of the SRS airbag system in some cases.

- *Installation of electronic devices such as a mobile two-way radio, cassette tape player or compact disc player.*
- *Modification of the front end structure and side structure of the passenger compartment.*
- *Attachment of a grille guard (bull bar, kangaroo bar, etc.), snowplow, winches or any other equipment to the front end.*
- *Repairs made on or near the console, or front seats.*

OCCUPANT RESTRAINT SYSTEMS



This indicator comes on when the ignition switch is turned to the “ON” position. It goes off after about 6 seconds. This means the SRS side airbags and curtain shield airbags are operating properly.

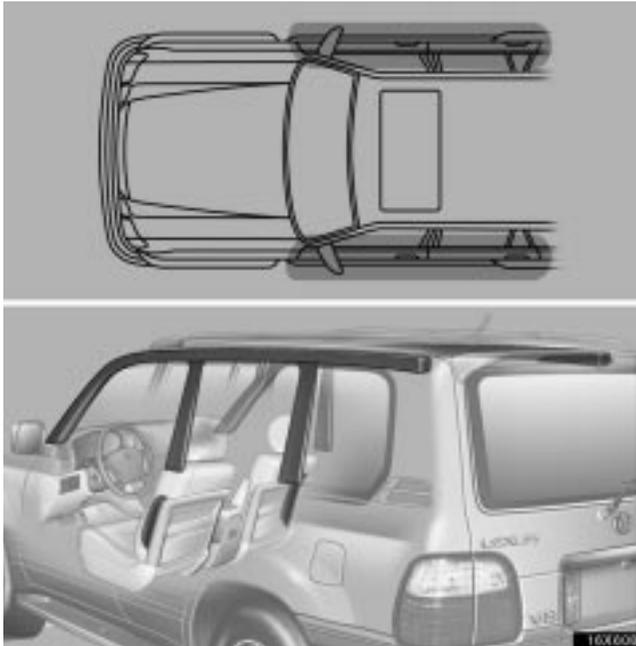
This warning light system monitors the airbag sensor assembly, front airbag sensors, side and curtain shield airbag sensor assemblies, curtain shield airbag sensor assemblies, driver’s seat position sensor, driver’s seat belt buckle switch, seat belt pretensioner assemblies, inflators, warning light, roll sensing of curtain shield airbags off indicator light, interconnecting wiring and power sources. (For details, see “Service reminder indicators and warning buzzers” on page 52.)

If any of the following conditions occurs, this indicates a malfunction of the airbags or seat belt pretensioners. Contact your Lexus dealer as soon as possible.

- When the ignition switch is turned to the “ON” position, the light does not come on, remains on or flashes.
- The light comes on or starts flashing while driving.

If the light stays on, it indicates that the SRS driver and front passenger airbags have a problem. If the light flashes, the SRS side and curtain shield airbags have a problem.

OCCUPANT RESTRAINT SYSTEMS



In the following cases, contact your Lexus dealer as soon as possible:

- Any of the SRS side airbags and curtain shield airbags have been inflated.

- The portion of the doors (shaded in the illustration) were involved in an accident that was not severe enough to cause the SRS side airbags and curtain shield airbags to inflate.
- The surface of the seats with the side airbags (shaded in the illustration) is scratched, cracked, or otherwise damaged.
- The portion of the front, center and rear pillar garnish, roof interior containing the curtain shield airbags inside (shaded in the illustration) is scratched, cracked, or otherwise damaged.

NOTICE

Do not disconnect the battery cables before contacting your Lexus dealer.

OCCUPANT RESTRAINT SYSTEMS

CHILD RESTRAINT

Child restraint precautions

Lexus strongly urges the use of appropriate child restraint systems for children.

The laws of all 50 states in the U.S.A. and Canada now require the use of a child restraint system.

Your vehicle conforms to SAE J1819.

If a child is too large for a child restraint system, the child should sit in the rear seat and must be restrained using the vehicle's seat belt. See "Seat belts" on page 121 for details.



CAUTION

- For effective protection in automobile accidents and sudden stops, a child must be properly restrained, using a seat belt or child restraint depending on age and size of the child. Holding a child in your arms is not a substitute for a child restraint system. In an accident, the child can be crushed against the windshield, or between you and the vehicle's interior if you are unrestrained.
- Lexus strongly urges use of a proper child restraint system which conforms to the size of the child installed on the rear seat. According to accident statistics, the child is safer when properly restrained in the rear seat than in the front seat.

- Never install a rear-facing child restraint system on the front passenger seat. In the event of an accident, the force of the rapid inflation of the front passenger airbag can cause death or serious injury to the child if the rear-facing child restraint system is installed on the front passenger seat.
- A forward-facing child restraint system should be allowed to be installed on the front passenger seat only when it is unavoidable. Always move the seat as far back as possible, because the front passenger airbag could inflate with considerable speed and force. Otherwise, the child may be killed or seriously injured.
- Do not use the seat belt extender when installing a child restraint system on the front or rear passenger seat. If installing a child restraint system with the seat belt extender connected to the seat belt, the seat belt will not securely hold the child restraint system, which could cause death or serious injury to the child or other passengers in the event of collision.
- Make sure you have complied with all installation instructions provided by the child restraint manufacturer and that the system is properly secured. If it is not secured properly, it may cause death or serious injury to the child in the event of a sudden stop or accident.

OCCUPANT RESTRAINT SYSTEMS

- Do not allow the child to lean his/her head or any part of his/her body against the door or the area of the seat, front or rear pillar or roof side rail from which the side airbags or curtain shield airbags deploy even if the child is seated in the child restraint system. It is dangerous if the side airbag and curtain shield airbag inflate, because the impact could cause death or serious injury to the child.

Child restraint system

A child restraint system for a small child or baby must itself be properly restrained on the seat with the lap portion of the lap/shoulder belt. You must carefully consult the manufacturer's instructions which accompany the child restraint system.

To provide proper restraint, use a child restraint system following the manufacturer's instructions about the appropriate age and size of the child for the restraint system.

Install the child restraint system correctly following the instructions provided by its manufacturer. General directions are also provided under the following illustrations.

The child restraint system should be installed on the rear seat. According to accident statistics, the child is safer when properly restrained in the rear seat than in the front seat.

When not using the child restraint system, keep it secured with the seat belt or place it somewhere other than in the passenger compartment. This will prevent it from injuring passengers in the event of a sudden stop or accident.

OCCUPANT RESTRAINT SYSTEMS

Types of child restraint system

Child restraint systems are classified into the following 3 types depending on the child's age and size.

- (A) Infant seat
- (B) Convertible seat
- (C) Booster seat

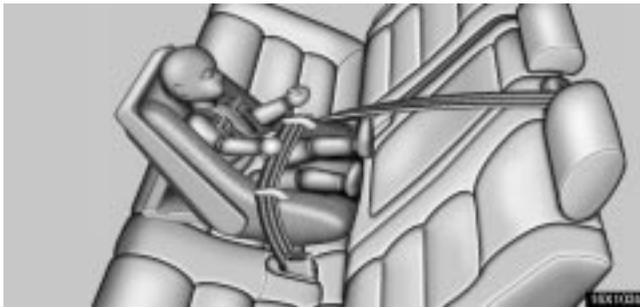
Install the child restraint system following the instructions provided by its manufacturer.

Your vehicle has anchor brackets for securing the top strap of a child restraint system.

For instructions about how to use the anchor bracket, see "Using a top strap" on page 176.

The child restraint lower anchorages approved for your vehicle may also be used. See "Installation with child restraint lower anchorages" on page 178.

(A) Infant seat



(B) Convertible seat

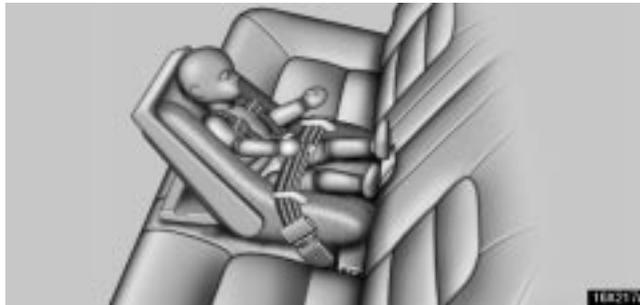


(C) Booster seat



Installation with 2-point type seat belt

(A) Infant seat installation



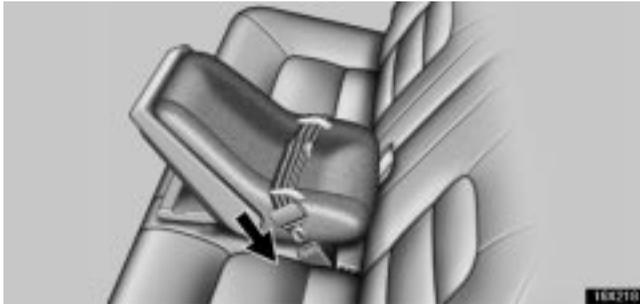
An infant seat must be used in rear-facing position only.



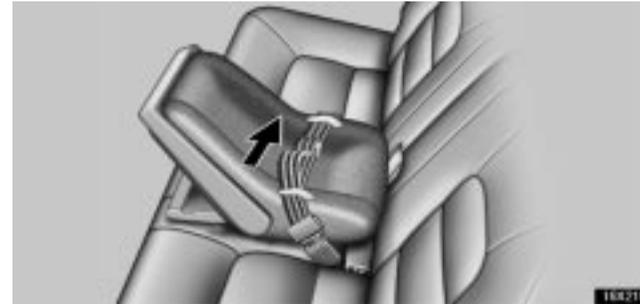
⚠ CAUTION

- Do not install a rear-facing child restraint system on the third seat if it interferes with the lock mechanism of the second seat. Otherwise, the child or front seat occupant(s) may be killed or seriously injured in case of sudden braking or a collision.
- Child restraint systems installed on the third seat should not contact the second seat backs.

OCCUPANT RESTRAINT SYSTEMS



1. Run the center lap belt through or around the infant seat following the instructions provided by its manufacturer and insert the tab into the buckle taking care not to twist the lap belt.

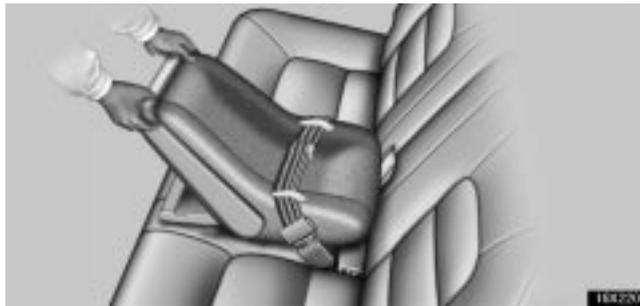


2. When pressing the infant seat firmly against the seat cushion and seatback, tighten the lap belt by pulling its free end to hold the infant seat securely.

CAUTION

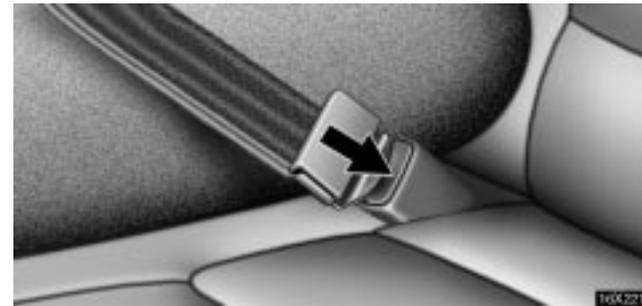
- After inserting the tab, make sure the tab and buckle are locked and that the lap belt is not twisted.
- Do not insert coins, clips, etc. in the buckle as this may prevent your child from properly latching the tab and buckle.
- If the seat belt does not function normally, it cannot protect your child from death or serious injury. Contact your Lexus dealer immediately. Do not install the child restraint system on the seat until the seat belt is fixed.

OCCUPANT RESTRAINT SYSTEMS



 **CAUTION**

Push and pull the child restraint system in different directions to be sure it is secure. Follow all the installation instructions provided by its manufacturer.



3. To remove the infant seat, press the buckle release button.

OCCUPANT RESTRAINT SYSTEMS

(B) Convertible seat installation



A convertible seat must be used in forward-facing and rear-facing positions depending on the age and size of the child. When installing, follow the manufacturer's instructions about the appropriate age and size of the child as well as directions for installing a child restraint system.



CAUTION

- Do not install a rear-facing child restraint system on the third seat if it interferes with the lock mechanism of the second seats. Otherwise, the child or front seat occupant(s) may be killed or seriously injured in case of sudden braking or a collision.
- Child restraint systems installed on the third seat should not contact the second seat backs.

OCCUPANT RESTRAINT SYSTEMS



1. Run the center lap belt through or around the convertible seat following the instructions provided by its manufacturer and insert the tab into the buckle taking care not to twist the lap belt.



2. While pressing the convertible seat firmly against the seat cushion and seatback, tighten the lap belt by pulling its free end to hold the convertible seat securely.

CAUTION

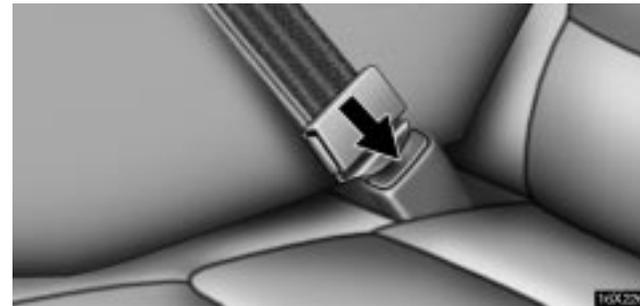
- After inserting the tab, make sure the tab and buckle are locked and that the lap belt is not twisted.
- Do not insert coins, clips, etc. in the buckle as this may prevent you from properly latching the tab and buckle.
- If the seat belt does not function normally, immediately contact your Lexus dealer. Do not use the child restraint system until the seat belt is fixed. It cannot protect your child from injury.

OCCUPANT RESTRAINT SYSTEMS



CAUTION

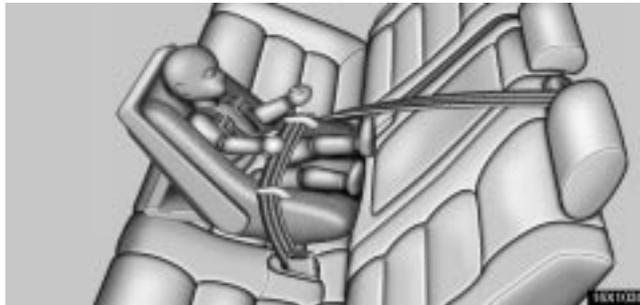
Push and pull the child restraint system in different directions to be sure it is secure. Follow all the installation instructions provided by its manufacturer.



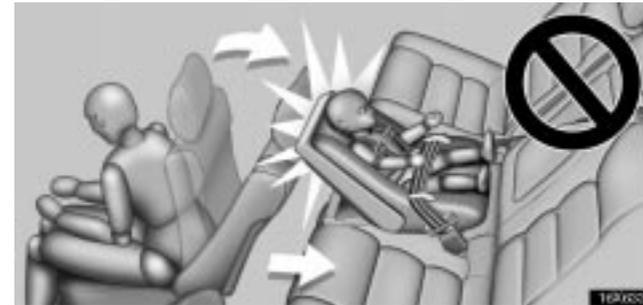
3. To remove the convertible seat, press the buckle release button.

Installation with 3-point type seat belt

(A) Infant seat installation



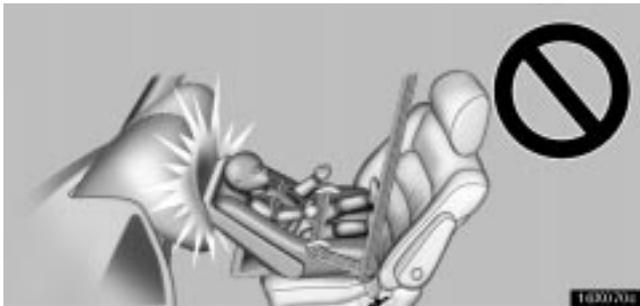
An infant seat must be used in rear-facing position only.



⚠ CAUTION

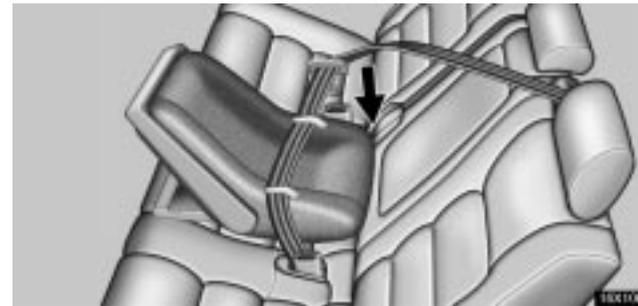
- If the driver's seat position does not allow sufficient space for safe installation, install the child restraint system on the second right seat.
- Child restraint systems installed on the second seat should not contact the front seat backs.

OCCUPANT RESTRAINT SYSTEMS



CAUTION

Never install a rear-facing child restraint system on the front passenger seat. In the event of an accident, the force of the rapid inflation of the front passenger airbag can cause death or serious injury to the child if the rear-facing child restraint system is installed on the front passenger seat.

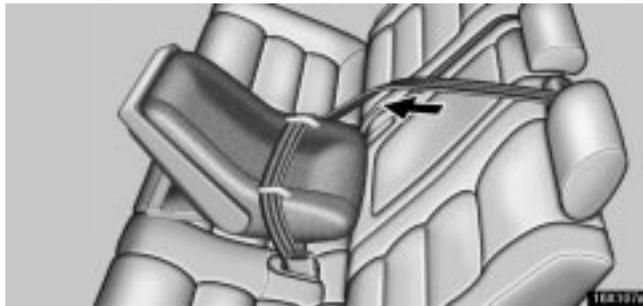


1. Run the lap and shoulder belt through or around the infant seat following the instructions provided by its manufacturer and inserting the tab into the buckle taking care not to twist the belt. Keep the lap portion of the belt tight.

CAUTION

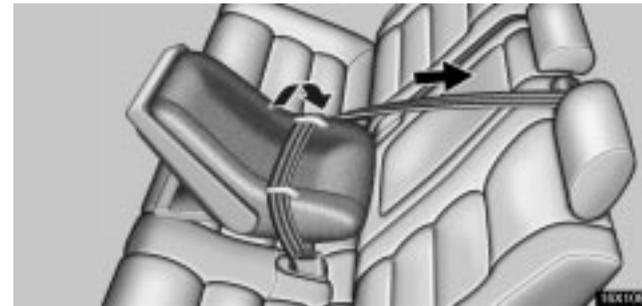
- After inserting the tab, make sure the tab and buckle are locked and that the lap and shoulder portions of the belt are not twisted.
- Do not insert coins, clips, etc. in the buckle as this may prevent you from properly latching the tab and buckle.
- If the seat belt does not function normally, immediately contact your Lexus dealer. Do not use the child restraint system until the seat belt is fixed. It cannot protect your child from injury.

OCCUPANT RESTRAINT SYSTEMS



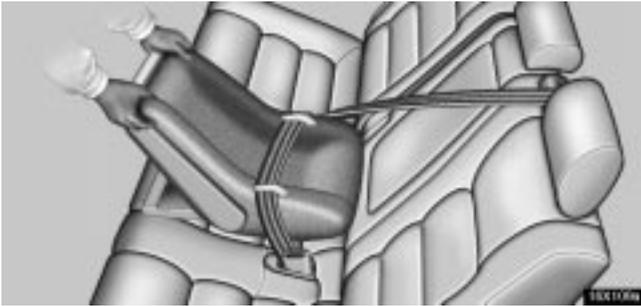
2. Fully extend the shoulder belt to put it in the lock mode. When the belt is then retracted even slightly, it cannot be extended.

To hold the infant seat securely, make sure the belt is in the lock mode before letting the belt retract.



3. While pressing the infant seat firmly against the seat cushion and seatback, let the shoulder belt retract as far as it will go to hold the infant seat securely.

OCCUPANT RESTRAINT SYSTEMS



CAUTION

Push and pull the child restraint system in different directions to be sure it is secure. Follow all the installation instructions provided by its manufacturer.



4. To remove the infant seat, press the buckle release button and allow the belt to retract completely. The belt will move freely again and be ready to work for an adult or older child passenger.

OCCUPANT RESTRAINT SYSTEMS

(B) Convertible seat installation



A convertible seat must be used in forward-facing or rear-facing position depending on the age and size of the child. When installing, follow the manufacturer's instructions about the appropriate age and size of the child as well as directions for installing the child restraint system.



CAUTION

- If the driver's seat position does not allow sufficient space for safe installation, install the child restraint system on the second right seat.
- Child restraint systems installed on the third seat should not contact the second seat backs.

OCCUPANT RESTRAINT SYSTEMS



CAUTION

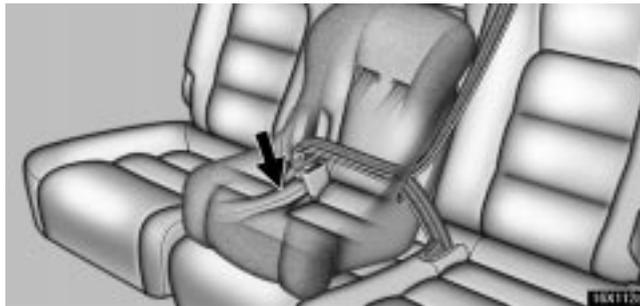
- Never install a rear-facing child restraint system on the front passenger seat. In the event of an accident, the force of the rapid inflation of the front passenger airbag can cause death or serious injury to the child if the rear-facing child restraint system is installed on the front passenger seat.



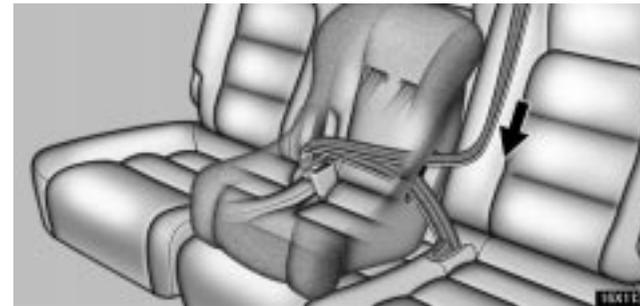
► *Move seat fully back*

- A forward-facing child restraint system should be put on the front passenger seat only when it is unavoidable. Always move the seat as far back as possible, because the front passenger airbag could inflate with considerable speed and force. Otherwise, the child may be killed or seriously injured.
- Do not allow the child to lean his/her head or any part of his/her body against the door or the area of the seat, front or rear pillar or roof side rail from which the side airbags or curtain shield airbags deploy even if the child is seated in a child restraint system. It is dangerous if the side airbag and curtain shield airbag inflate, because the impact could cause death or serious injury to the child.

OCCUPANT RESTRAINT SYSTEMS



1. Run the lap and shoulder belt through or around the convertible seat following the instructions provided by its manufacturer and inserting the tab into the buckle taking care not to twist the belt. Keep the lap portion of the belt tight.



2. Fully extend the shoulder belt to put it in the lock mode. When the belt is then retracted slightly, it cannot be extended.

To hold the convertible seat securely, make sure the belt is in the lock mode before letting the belt retract.

CAUTION

- After inserting the tab, make sure the tab and buckle are locked and that the lap and shoulder portions of the belt are not twisted.
- Do not insert coins, clips, etc. in the buckle as this may prevent your child from properly latching the tab and buckle.
- If the seat belt does not function normally, it cannot protect your child from death or serious injury. Contact your Lexus dealer immediately. Do not install the child restraint system on the seat until the seat belt is fixed.

OCCUPANT RESTRAINT SYSTEMS



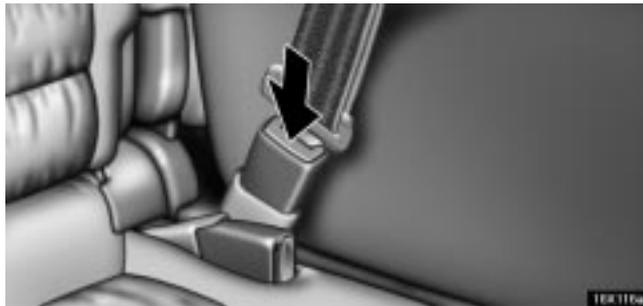
3. While pressing the convertible seat firmly against the seat cushion and seatback, let the shoulder belt retract as far as it will go to hold the convertible seat securely.



 **CAUTION**

Push and pull the child restraint system in different directions to be sure it is secure. Follow all the installation instructions provided by its manufacturer.

OCCUPANT RESTRAINT SYSTEMS



4. To remove the convertible seat, press the buckle release button and allow the belt to retract completely. The belt will move freely again and be ready to work for an adult or older child passenger.

(C) Booster seat installation



A booster seat must be used in forward-facing position only.

OCCUPANT RESTRAINT SYSTEMS



► **Move seat fully back**



CAUTION

- A forward-facing child restraint system should be allowed to be installed on the front passenger seat only when it is unavoidable. Always move the seat as far back as possible, because the front passenger airbag could inflate with considerable speed and force. Otherwise, the child may be killed or seriously injured.
- Do not allow the child to lean his/her head or any part of his/her body against the door or the area of the seat, front or rear pillar or roof side rail from which the side airbags or curtain shield airbags deploy even if the child is seated in a child restraint system. It is dangerous if the side airbag and curtain shield airbag inflate, because the impact could cause death or serious injury to the child.



1. Sit the child on a booster seat. Run the lap and shoulder belt through or around the booster seat and across the child following the instructions provided by its manufacturer and insert the tab into the buckle.

Make sure the shoulder belt is correctly across the child's shoulder and that the lap belt is positioned as low as possible on child's hips. See "Seat belts" on page 121 for details.



CAUTION

- Always make sure the shoulder belt is positioned across the center of child's shoulder. The belt should be kept away from child's neck, but not falling off child's shoulder. Otherwise, the child may be killed or seriously injured in case of sudden braking or a collision.

OCCUPANT RESTRAINT SYSTEMS

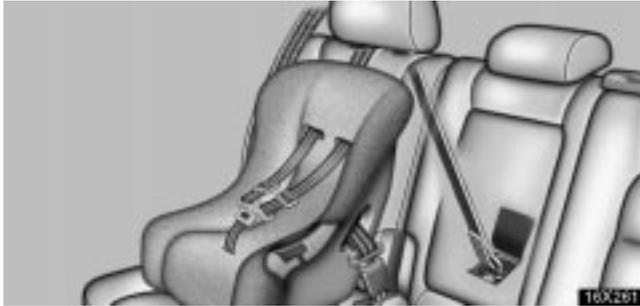
- Both high-positioned lap belts and loose-fitting belts could cause death or serious injuries due to sliding under the lap belt during a collision or other unintended event. Keep the lap belt positioned as low on child's hip as possible.
- For child's safety, do not place the shoulder belt under child's arm.
- After inserting the tab, make sure the tab and buckle are locked and that the lap and shoulder portions of the belt are not twisted.
- Do not insert coins, clips, etc. in the buckle as this may prevent your child from properly latching the tab and buckle.
- If the seat belt does not function normally, it cannot protect your child from death or serious injury. Contact your Lexus dealer immediately. Do not install the child restraint system on the seat until the seat belt is fixed.



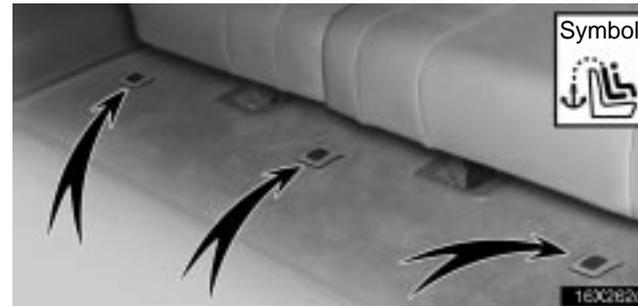
2. To remove the child restraint system, press the buckle release button and allow the belt to retract.

OCCUPANT RESTRAINT SYSTEMS

Using a top strap



Follow the procedure below for a child restraint system that requires the use of a top strap.



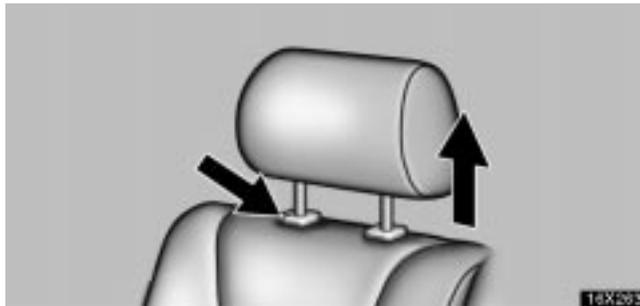
► **Anchor brackets**

Use an anchor bracket located behind the second seat on the floor to attach the top strap.

Anchor brackets are installed for each second seating position.

The symbol shown in the illustration indicates the location of user ready anchor brackets.

OCCUPANT RESTRAINT SYSTEMS



1. Remove the head restraint.



2. Fix the child restraint system with the seat belt.

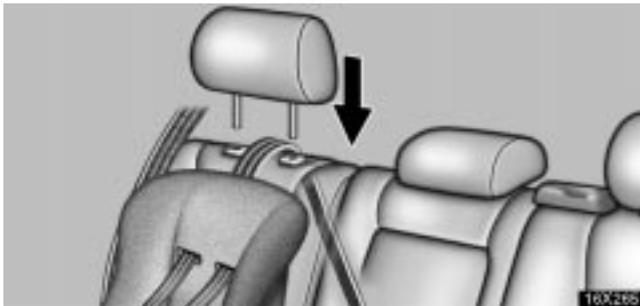
3. Take off the carpet, latch the hook onto the anchor bracket and tighten the top strap.

For instructions to install the child restraint system, see "Types of child restraint system" on page 158.

CAUTION

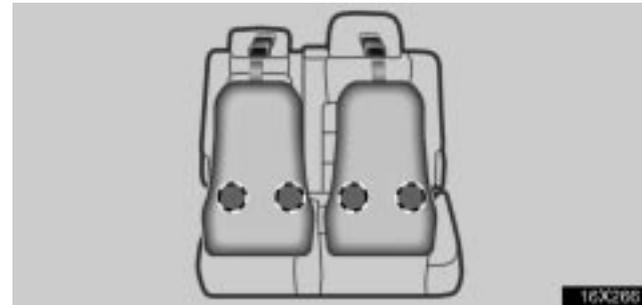
- Make sure the top strap is securely latched, and check that the child restraint system is secure by pushing and pulling it in different directions.
- Follow all the installation instructions provided by its manufacturer.

OCCUPANT RESTRAINT SYSTEMS



4. Replace the head restraint.

Installation with child restraint lower anchorages



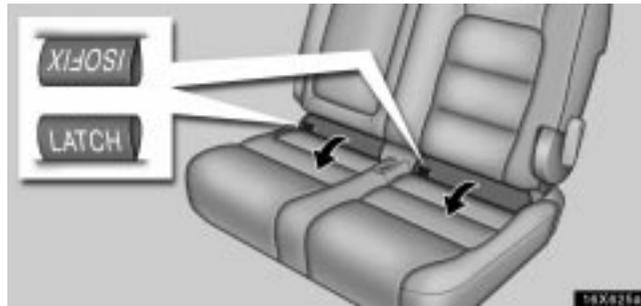
The lower anchorages for the child restraint system interfaced with the FMVSS225 or CMVSS210.2 specification are installed in the second seat.

The anchorages are installed in the clearance between the seat cushion and seatback of left and center second seats.

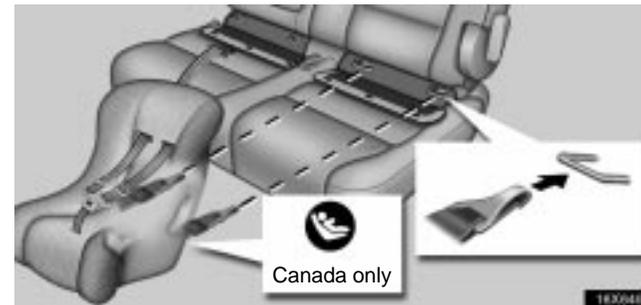
Child restraint system interfaced with the FMVSS225 or CMVSS210.2 specification can be fixed with these anchorages. In this case, it is not necessary to fix the child restraint system with a seat belt on the vehicle.

OCCUPANT RESTRAINT SYSTEMS

CHILD RESTRAINT SYSTEM INSTALLATION

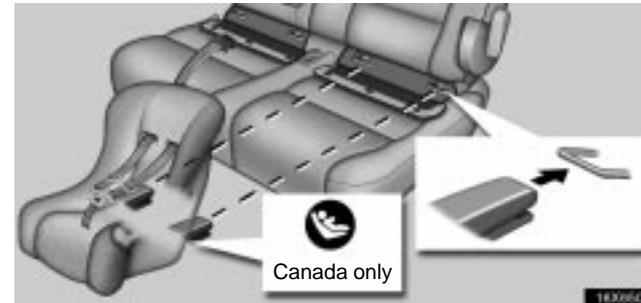


1. Take off the cover between the seat cushion and seatback a little and confirm the position of the lower anchorages below the tag in the seat cushion.



Type A:

2. Latch the hooks of lower straps onto the anchorages and tighten the lower straps.



Type B:

2. Latch the buckles onto the anchorages.

OCCUPANT RESTRAINT SYSTEMS

For owners in Canada

The symbol on a child restraint system indicates the presence of a lower connector system.

If your child restraint system has a top strap, it should be anchored. (For the installation of the top strap, see "Using a top strap" on page 176.)

For the installation details, refer to the instruction manual equipped with each product.

CAUTION

- When using the lower anchorages for the child restraint system, be sure that there are no irregular objects around the anchorages or that the seat belt is not caught.
- Push and pull the child restraint system in different directions to be sure it is secure. Follow all the installation instructions provided by its manufacturer.
- After securing the child restraint system, never recline the seat.
- Do not install a child restraint system on the third seat if it interferes with the lock mechanism of the second seat. Otherwise, the child or second seat occupant(s) may be killed or seriously injured in case of sudden braking or a collision.

DRIVING POSITION MEMORY SYSTEM

A microcomputer will memorize the position of the driver's seat, and the positions of the tilt and telescopic steering, and outside rear view mirrors. Two different driving position profiles can be entered into the computer's memory.

Recording the driving position in the computer's memory can only be done when the ignition key is in the "ON" position and the selector lever is in the "P" position.

Setting the driving position



1. Adjust the driver's seat, tilt and telescopic steering and outside rear view mirrors to the desired position.
2. While pushing the "SET" button, push button "1" or "2" until the signal beeps.

OCCUPANT RESTRAINT SYSTEMS

The beep sound means that the positions are recorded in the computer's memory.

By repeating these two steps and pressing the remaining button, the driving position for another driver can be recorded.

To set a new memorized position, select the desired position and perform step 2. The previous memory will be erased and the new position will be set.

To make only slight changes to an already memorized position, the easiest way is to first activate the memorized position, then make the desired changes and perform step 2 above.

Recalling the memorized position



When you push button “1” or “2”, the driving position will be automatically adjusted to the position recorded for that button.

Conditions for memorized position activation

- Ignition key “ON” and selector lever in “P” position. All parts of the memorized positions can be activated.
- Key not in ignition switch and within 30 seconds of opening driver's door. The memorized position can be activated, except for the tilt and telescopic steering.

If any driving position memory switch is pushed while one of the memorized driving position profiles is being activated, the operation will stop.

To activate the system, push the desired button (“1” or “2”) again.

The driving position memory control system cannot be operated while the vehicle is moving.

If the vehicle's battery is disconnected, the computer's memory will be erased and the memorized positions will have to be set again.



CAUTION

- Do not start the vehicle while the adjustments are being made.
- Take care not to select the wrong button, or the seat could strike the rear passenger or hit your body against the steering wheel. If this happens, you can stop the movement by pressing another driving position memory switch.

SECTION 1 - 7

INSTRUMENTS AND CONTROLS

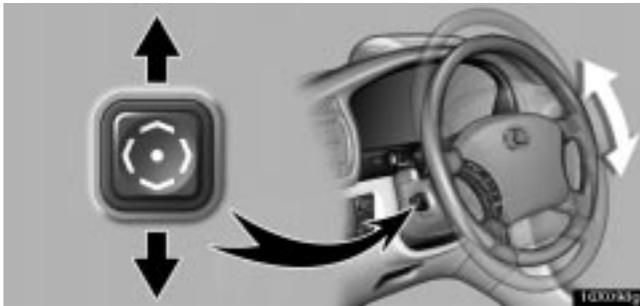
Steering wheel and mirrors

Tilt and telescopic steering wheel	184
Outside rear view mirrors	185
Inside rear view mirror	188

STEERING WHEEL AND MIRRORS

TILT AND TELESCOPIC STEERING WHEEL

Adjustment of steering wheel tilt

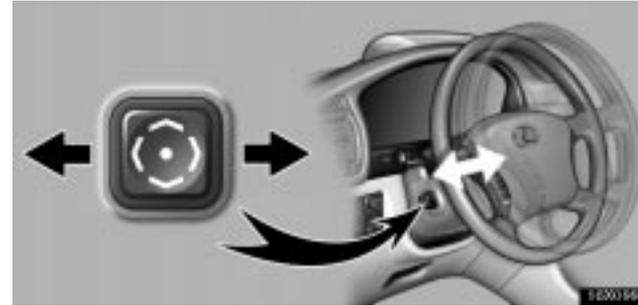


To adjust the tilt of the steering wheel, push the control switch upward or downward to set it to the desired position.

CAUTION

Do not adjust the steering wheel while the vehicle is moving. Doing so may cause the driver to mishandle the vehicle and an accident may occur resulting in death or serious injuries.

Adjustment of telescopic steering column



To adjust the steering column length, push the control switch forward or backward to set the steering wheel to the desired position.

CAUTION

Do not adjust the steering column while the vehicle is moving. Doing so may cause the driver to mishandle the vehicle and an accident may occur resulting in death or serious injuries.

Auto tilt away*



When the ignition key is removed, the steering column moves forward away from the driver and also tilts up for easy exit and entry.

When the key is inserted in the ignition switch, the steering column returns to the previously set position.

*NOTE: *This feature can be deactivated. Ask your Lexus dealer for details.*

OUTSIDE REAR VIEW MIRRORS



Adjust the mirror so that you can just see the side of your vehicle in the mirror.

Be careful when judging the size or distance of any object seen in the outside rear view mirror on the passenger's side because it is a convex mirror. Any object seen in a convex mirror will look smaller and farther away than if seen in a normal flat mirror.

When the inside rear view mirror darkens in "AUTO" mode, the outside rear view mirrors also darken to reduce the reflection of the headlights of the following vehicle. For details, see "Inside rear view mirror" on page 188.

When you push the outside rear view mirror defogger switch, the heater panels in the outside rear view mirrors will quickly clear the mirror surface. (See "Outside rear view mirror defogger switch" on page 38.)

STEERING WHEEL AND MIRRORS

CAUTION

- Do not adjust the mirror while the vehicle is moving. Doing so may cause the driver to mishandle the vehicle and an accident may occur, resulting in death or serious injuries.
- Since the mirror surfaces can get hot, do not touch them when the outside rear view mirror defogger switch is on.

Power rear view mirror control



► **1** Control switch **2** Master switch

To adjust the power rear view mirror, first place the master switch at “L” (left) or “R” (right), and push the control switch on the desired side.

The power rear view mirrors can be adjusted when the key is in the “ACC” or “ON” position.

When you are backing up, you can adjust the mirrors down quickly by the following operations with the ignition ON.

- Put the selector lever in the “R” position.
- Place the master switch at “L” (left) or “R” (right).

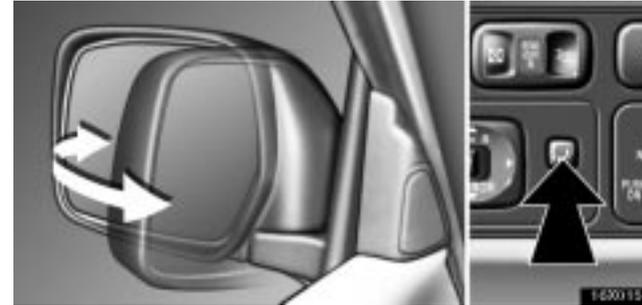
The mirrors return to the previous position by any of the following operations.

- Put the selector lever in a position other than “R”.
- Place the master switch in the neutral position.
- Turn the ignition key to the “ACC” position.

NOTICE

If ice should jam the mirror, do not operate the control or scrape the mirror face. Use a spray de-icer to free the mirror.

Folding rear view mirrors



To fold the rear view mirrors, push the switch. To return to their original position, push the switch again.

The rear view mirrors can be folded backward for parking in compact areas.

CAUTION

- To avoid personal injury and any mirror malfunction, do not touch the mirror while it is moving.
- Do not drive with the mirrors folded backward. Both the driver and passenger side rear view mirrors must be extended and properly adjusted before driving.

STEERING WHEEL AND MIRRORS

INSIDE REAR VIEW MIRROR



Adjust the mirror so that you can just see the rear of your vehicle in the mirror.

Pushing the switch changes the mode between “AUTO” and “DAY”.

The indicator comes on when the “AUTO” mode is selected.

“DAY” mode: The mirror surface is normal.

“AUTO” mode: If the mirror detects light from the headlights of the vehicle behind you, the mirror surface darkens slightly to reduce the reflected light.

When the inside rear view mirror surface changes, the outside rear view mirror surfaces will also become darker.

When the ignition key is inserted and turned on, the inside rear view mirror always turns on in the “AUTO” mode.

When the outside air temperature is low, it may take a little longer for the mirror to darken in response to the detection of headlights.

CAUTION

Do not adjust the mirror while the vehicle is moving. Doing so may cause the driver to mishandle the vehicle and an accident may occur resulting in death or serious injuries.



To ensure correct functioning of an anti-glare mirror sensor located on the back side of the mirror, do not touch or cover the sensor with your finger or a piece of cloth, etc.

STEERING WHEEL AND MIRRORS

Compass (Without Navigation system)



The compass indicates the direction in which the vehicle is heading. The illustration shown above indicates that the vehicle is heading north.

Displays	Directions
N	North
NE	Northeast
E	East
SE	Southeast
S	South
SW	Southwest
W	West
NW	Northwest

Pushing the “AUTO” button for longer than 3 seconds turns on or off the compass display.

The compass may not show the correct direction in the following conditions:

- The vehicle is stopped immediately after turning.
The compass does not adjust while the vehicle is stopped.
- The ignition switch is turned off immediately after turning.
- The vehicle is on an inclined surface.
- The vehicle is in a place where the earth's magnetic field is subject to interference by artificial magnetic fields (underground parking, under a steel tower, between buildings, roof parking, near a crossing, near a large vehicle, etc.).
- The vehicle is magnetized. (There is a magnet or a metal object on or near the inside rear view mirror.)
- The battery has been disconnected.
- Any door is open.

The compass works to calibrate the direction automatically while the vehicle in motion, if deviation is small.

For obtaining additional precision or for complete calibrating, see “CALIBRATING THE COMPASS” below.

STEERING WHEEL AND MIRRORS

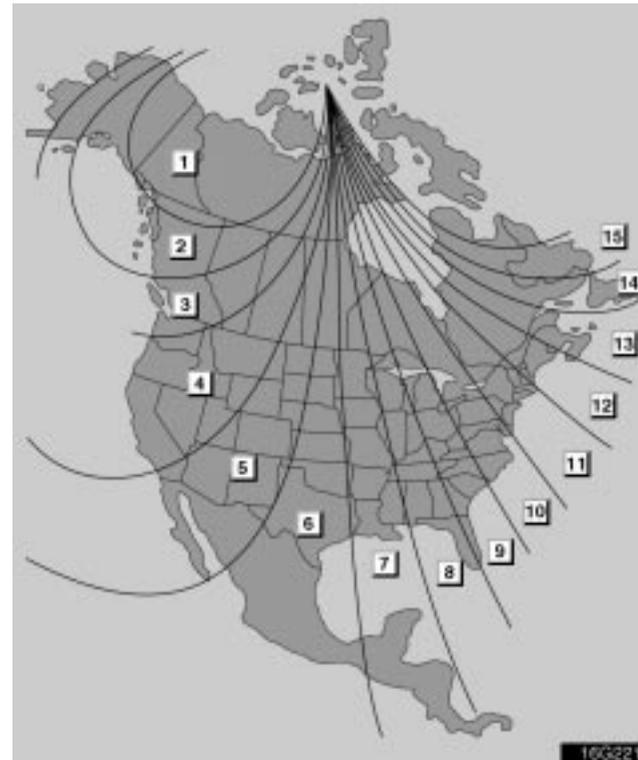
NOTICE

Do not put magnets or a metal object near the inside rear view mirror. Doing this may cause malfunction of the compass sensor.

CALIBRATING THE COMPASS (deviation calibration)

The direction display on the compass deviates from the true direction determined by the earth's magnetic field. The amount of deviation varies according to the geographic position of the vehicle.

To adjust for this deviation, stop the vehicle and push the button for longer than about 6 seconds until the number (1-15) appears on the display. Then push the button again, referring to the following map to select the number of the zone where the vehicle is.



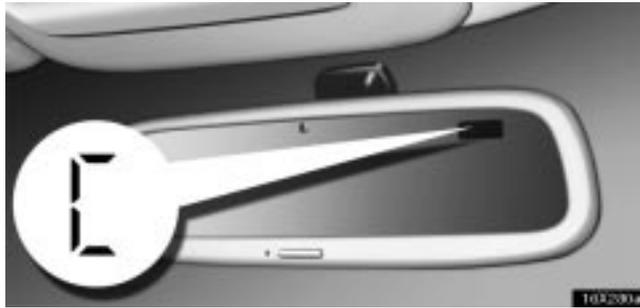
► Zone number

If the direction is displayed several seconds after adjustment, the calibration is finished.

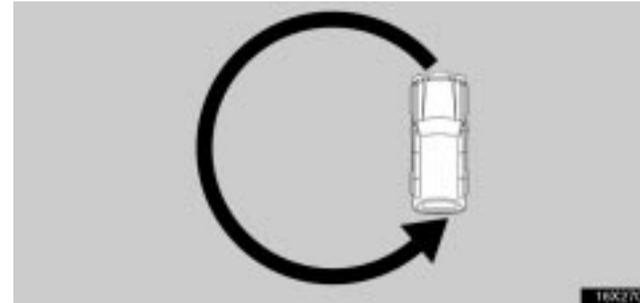
CAUTION

Do not adjust the display while the vehicle is moving. Be sure to adjust the display only when the vehicle is stopped.

CALIBRATING THE COMPASS (circling calibration)



"C" appears on the display in case the circling calibration is required due to a drastic change in the magnetic field. To rectify this, follow the calibration procedure below.



Drive the vehicle slowly (at 8 km/h (5 mph) or lower) in a circle until the direction is displayed. If there is not enough space to drive in a circle, drive around the block until the direction is displayed.

After driving in 1 to 3 circles in the above method, calibration is complete with the direction shown on the display.

If calibration cannot be performed because of the magnetized vehicle, etc., take your vehicle to Lexus dealer.

- Do not perform circling calibration of the compass in a place where the earth's magnetic field is subject to interference by artificial magnetic fields (underground parking, under a steel tower, between buildings, roof parking, near a crossing, near a large vehicle, etc.).
- During calibration, do not operate electric systems (moon roof, power windows, etc.) as they may interfere with the calibration.

STEERING WHEEL AND MIRRORS



CAUTION

- When doing the circling calibration, be sure to secure a wide space, and watch out for people and vehicles in the neighborhood. Do not violate any local traffic rules while performing circling calibration.
- Do not adjust the display while the vehicle is moving. Be sure to adjust the display only when the vehicle is stopped.

SECTION 2-1

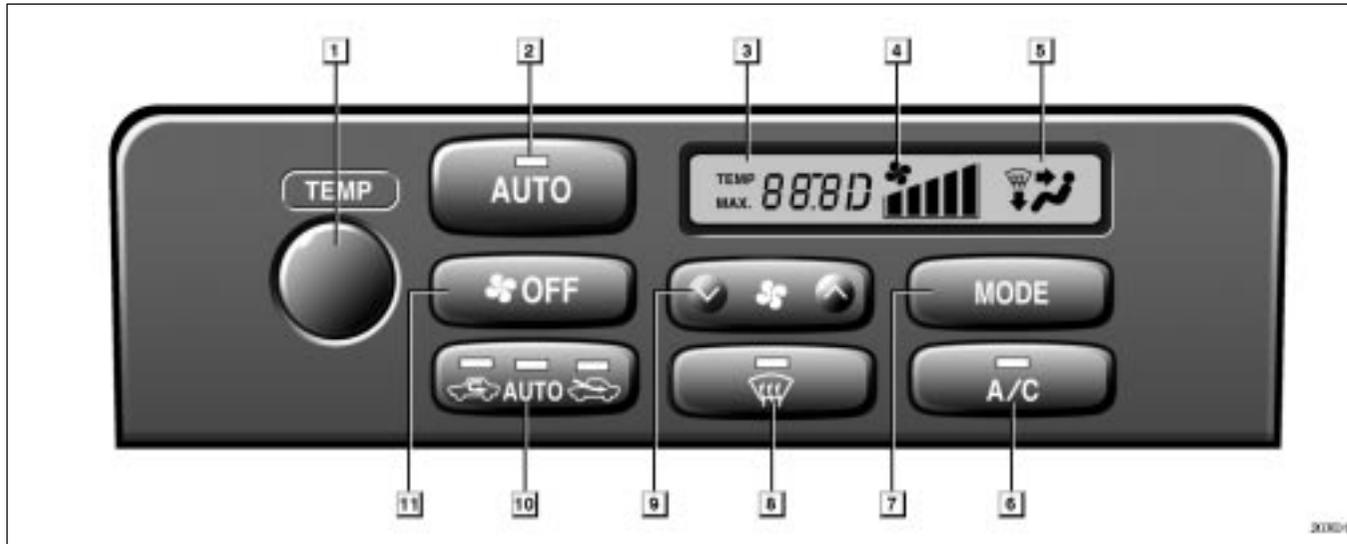
AIR CONDITIONING AND AUDIO

Air conditioning

Automatic air conditioning controls	194
Rear air conditioning controls	205

*For vehicles equipped with Navigation System,
please refer to the separate "Navigation System
Owner's Manual".*

AUTOMATIC AIR CONDITIONING CONTROLS



► You can adjust the brightness of the display. See “Instrument panel light control” on page 66 for details.

The automatic air conditioning automatically maintains the set temperature.

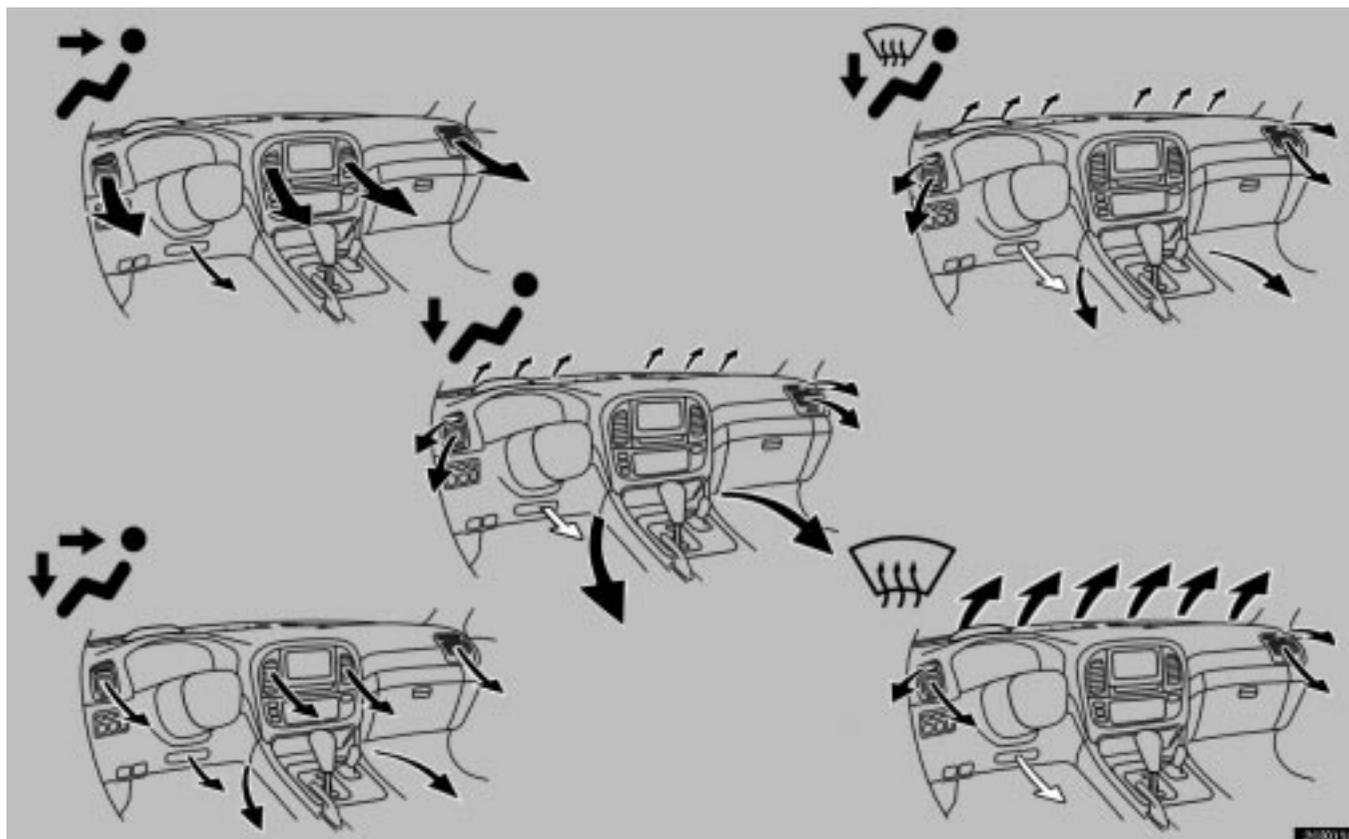
This air conditioning features automatic fan speed and air flow control which automatically selects the most suitable fan speed and air flow to control the temperature. The ignition key must be in the “ON” position.

NOTICE

To prevent the battery from being discharged, do not leave the air conditioning on longer than necessary when the engine is not running.

- 1** *Temperature control knob*
- 2** *Automatic control button*
- 3** *Temperature display (in degrees Centigrade)*
- 4** *Fan speed display*
- 5** *Air flow display*
- 6** *Air conditioning on-off button*
- 7** *Air flow control button*
- 8** *Front windshield button*
- 9** *Fan speed control button*
- 10** *Air intake control button*
- 11** *OFF button*

AIR CONDITIONING

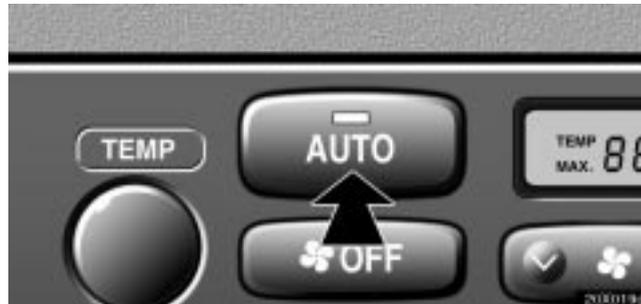


► *Air flow selection*

⇒ *See "Lower vent" on page 204.*

(a) Climate control

SETTING OPERATION - automatic control



1. Push the "AUTO" button.

Air flow quantity, switching of the diffusers, on-off of the air conditioning, and switching of the air intake between RECIRCULATED AIR and OUTSIDE AIR are automatically adjusted. The operation status is shown by each indicator.

When one of the manual control buttons is depressed while operating in automatic mode, the mode relevant to the depressed button is set. Other conditions continue to be adjusted automatically.

It is recommended that you close the lower vent. For details about this, see page 204.

Push the "OFF" button to turn the air conditioning off.



2. Turn the "TEMP" knob until the desired temperature is displayed.

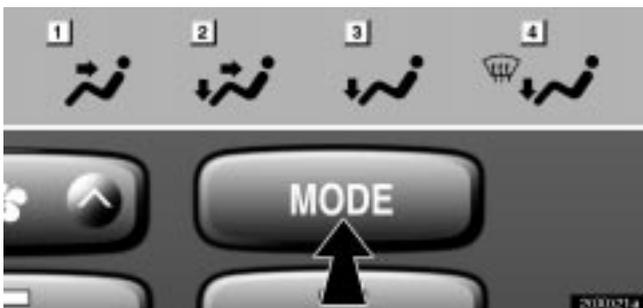
The "TEMP" knob is used to set the desired passenger compartment temperature. The temperature of air delivered to the passenger compartment will be controlled automatically according to the setting. The figures on the panel indicate degrees Fahrenheit or Centigrade.

AIR CONDITIONING

SETTING OPERATION - manual control

When one of the manual control buttons is depressed while operating in automatic mode, the mode relevant to the depressed button is set. Other conditions continue to be adjusted automatically.

If manual air flow selection is desired -



The outlets from which air is delivered can be selected manually by pressing the button. The function of each mode is as follows:

- 1 **Panel** - Air flows mainly from the instrument panel vents.
- 2 **Bi-level** - Air flows from both the floor vents and the instrument panel vents.
- 3 **Floor** - Air flows mainly from the floor vents.

It is recommended that you close the lower vent. For details about this, see page 204.

- 4 **Floor/Windshield** - Air flows mainly from the floor vents and windshield vents.

It is recommended that you close the lower vent. For details about this, see page 204.

If quick heating or cooling is desired -

Turn the "TEMP" knob until "MAX. HOT" or "MAX. COLD" appears on the display.

If manual fan speed control is desired -

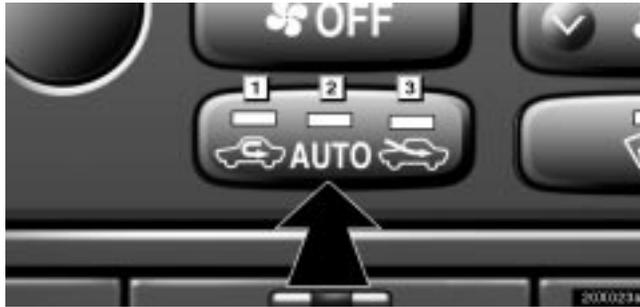


- 1 **Fan speed at low** 2 **Fan speed at high**

The fan speed can be set to your desired speed by pushing the appropriate side of fan speed control button. The higher the fan speed is, the more air is delivered. Pushing the "OFF" button turns off the fan.

To remove exterior windshield frost, use the high speed setting.

If manual switching of air intake is desired -



Each time you push the air intake control button, the mode changes in order from the RECIRCULATED AIR mode to AUTOMATIC mode to OUTSIDE AIR mode, then back to the RECIRCULATED AIR mode. Each indicator light shows which mode is now selected.

- 1 RECIRCULATED mode** - If quick circulation of cooled air is desired, select this mode.
- 2 EXHAUST GAS AUTOMATIC mode** - If the outside air contains harmful substances like exhaust gas (i.e., when the vehicle running just in front of your vehicle accelerates rapidly), the system changes automatically from the OUTSIDE AIR mode (with indicators **2** and **3** on) to the RECIRCULATED mode (with indicators **1** and **2** on).
- 3 OUTSIDE AIR mode** - The system will take fresh outside air into the vehicle.

Turning off the air conditioning manually will cancel the EXHAUST GAS AUTOMATIC mode. If you select the "AUTO" mode during fan operating, the air conditioning turns on and the EXHAUST GAS AUTOMATIC mode will operate.

For normal use, it is best to keep the air intake control button set to OUTSIDE AIR mode. If recirculated air is used during heating, the windows will fog up more easily.

In the following cases, the RECIRCULATED mode may change to the OUTSIDE AIR mode automatically to prevent interior fog.

- When the outside temperature becomes lower than 4°C (39°F).
- When the air conditioning compressor malfunctions.
- When the air conditioning cooler refrigerant decreases.

To change the sensitivity of the sensor switching between the RECIRCULATED and OUTSIDE AIR in the AUTOMATIC mode, push the air intake control button until the "AUTO" indicator light flashes. The display changes as illustrated below.

The sensitivity of the sensor can be adjusted only while the vehicle has stopped.

AIR CONDITIONING



When you turn the "TEMP" knob, the sensitivity changes from "+3" down to "-3". If you do not operate any button for a few seconds or if you push a button other than the air intake control button and temperature control knob, the previous display returns.

If manual on-off of the air conditioning is desired -

Push the "A/C" button to turn the air conditioning on and push it again to turn the air conditioning off. If you turn off the air conditioning manually, the EXHAUST GAS AUTOMATIC mode will be cancelled.

If the outside temperature is lowered down to around 0°C (32°F), the air conditioning will turn off automatically. At this time, the indicator on the A/C button is off and the EXHAUST GAS AUTOMATIC indicator light remains on. However, the EXHAUST GAS AUTOMATIC mode does not operate. When the air conditioning turns on as with the raised temperature, the EXHAUST GAS AUTOMATIC mode resumes.

If the system is used for ventilation, heating in dry weather or removing frost or exterior fog on the windshield, turn the air conditioning off once it is no longer required. This will improve fuel economy. The air conditioning can be used for year-round automatic temperature control including cooling and dehumidifying operation.

If the air conditioning compressor does not operate, the indicator of the "A/C" button will blink. If the indicator of the "A/C" button blinks even when the "A/C" button is pushed again, have the compressor checked by your nearest Lexus dealer.

(b) Windshield defogging and defrosting



To remove interior fog on the windshield -

Push the "FRONT WINDSHIELD" button.

To remove frost or exterior fog on the windshield -

1. Place the temperature control lever at the maximum temperature.
2. Push the "FRONT WINDSHIELD" button.
3. Push the "HI" button of the fan speed control button to obtain a maximum air flow.
4. Leave the air conditioning on-off button off.

For further information for removing frost and fog, see "Lower vent" on page 204.

When the "FRONT WINDSHIELD" button is pushed while operating, the OUTSIDE AIR mode is set.

Push the "A/C" button for dehumidified heating or cooling. This setting clears the front view more quickly.

If you push the "FRONT WINDSHIELD" button once again while in the FRONT WINDSHIELD mode, the mode then returns to the last mode used.

 CAUTION
Do not use the "FRONT WINDSHIELD" button during cooled air operation in extremely humid weather. The difference between the temperature of the outside air and that of the windshield could cause the outer surface of the windshield to fog up blocking your vision.

AIR CONDITIONING

(c) Rear air conditioning switch



To turn on the rear air conditioning when you sit on the front seat, push this switch. The rear air conditioning operates in the automatic mode. To adjust the air flow and setting temperature, follow the steps in accordance with “Rear air conditioning controls” on page 205.

(d) Air conditioning filter



The air conditioning filter information label is placed on the left side of the glove box as shown and indicates that a filter has been installed.

The air conditioning filter prevents dust from entering the vehicle through the air conditioning vent.



Your vehicle is equipped with an air conditioning filter. The air conditioning filter may clog after long use and reduce the air flow quantity.

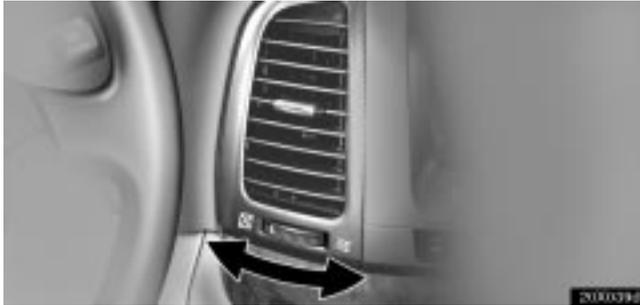
To maintain the air conditioning efficiency, inspect and replace the air conditioning filter according to the maintenance schedule. In dusty areas or areas with heavy traffic flow, such as inner city or desert areas, early replacement may be required. (For scheduled maintenance information, please refer to the “Owner’s Manual Supplement / Scheduled Maintenance.”)

(e) Operating tips

- Make sure the air inlet grilles in front of the windshield are not blocked by leaves or other obstructions.
- If air flow control is not satisfactory, check the dashboard vents. (See “Center vents”, “Side vents” and “Lower vent”.)
- To help cool down the interior after parking in the hot sun, drive for the first few minutes with the windows open. After the excess heat has blown away, close the windows.
- When driving on dusty roads, close all windows. If dust thrown up by the vehicle is still drawn into the vehicle after closing the windows, it is recommended that the air intake control button be left to the OUTSIDE AIR mode and the fan speed control button be pressed to anywhere except the “OFF” button.
- If following another vehicle on a dusty road, or driving in windy and dusty conditions, it is recommended that the air intake control button be temporarily pressed in to the RECIRCULATED AIR mode, which will close off the outside passage and prevent outside air and dust from entering the vehicle interior.

AIR CONDITIONING

Center vents



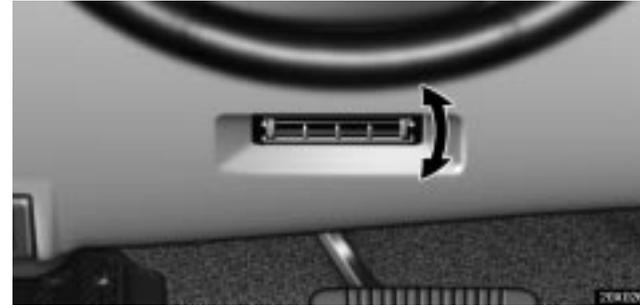
The center vents may be opened or closed as shown.

Side vents



The side vents may be opened or closed as shown.

Lower vent



The lower vent may be opened or closed as shown.

For removing frost or fog, It is recommended that you close the lower vent when you push the “FROST WINDSHIELD” button or use the “Floor” or the “Floor/Windshield” mode.

REAR AIR CONDITIONING CONTROLS



- 1 *Automatic control button*
- 2 *Air flow control buttons*
- 3 *OFF button*
- 4 *Temperature control lever*
- 5 *Fan speed control buttons*

The automatic air conditioning automatically maintains the set temperature.

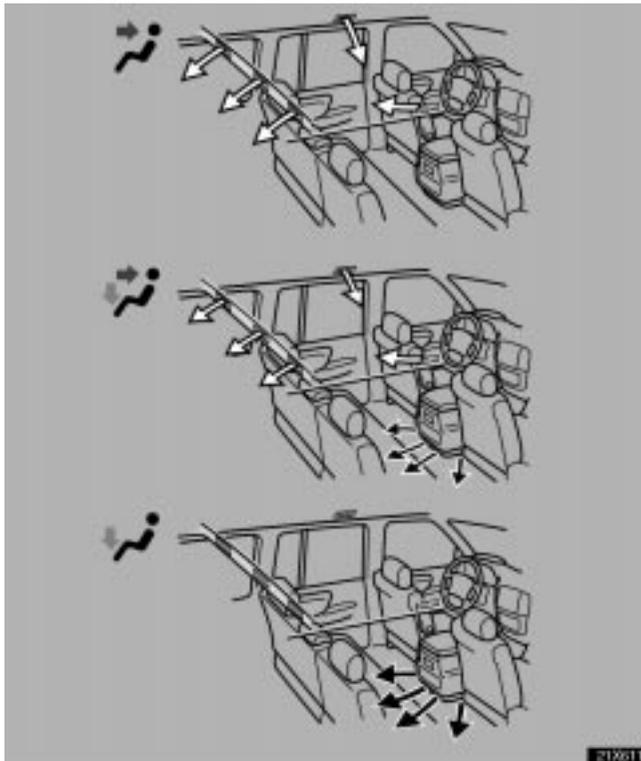
This air conditioning features automatic fan speed and air flow control which automatically selects the most suitable fan speed and air flow to control the temperature. The ignition key must be in the "ON" position.

NOTICE

To prevent the battery from being discharged, do not leave the air conditioning on longer than necessary when the engine is not running.

► *The control panel is located in the roof panel above the second seat.*

AIR CONDITIONING



➡ Warm air

⇨ Cool air

SETTING OPERATION - automatic control



1. Push the "AUTO" button.

Air flow quantity and switching of the diffusers are automatically adjusted. The operation status is shown by each indicator.

When one of the manual control buttons is depressed while operating in automatic mode, the operation corresponding to the button depressed is set. Other conditions continue to be adjusted automatically.

Push the "OFF" button to turn the rear air conditioning off.

AIR CONDITIONING



2. Use the temperature control lever to set the desired temperature.

Slide the lever to the right for higher temperature and to the left for lower temperature.

In the vehicles sold in U.S.A., the figures above the temperature control lever are the temperature in degrees Fahrenheit, while in the vehicles sold in Canada, the temperature is indicated in degrees Centigrade.

SETTING OPERATION - manual control

If manual air flow selection is desired -



The outlets from which air is delivered can be selected manually by pressing in the appropriate air flow control button. The function of each button is as follows:

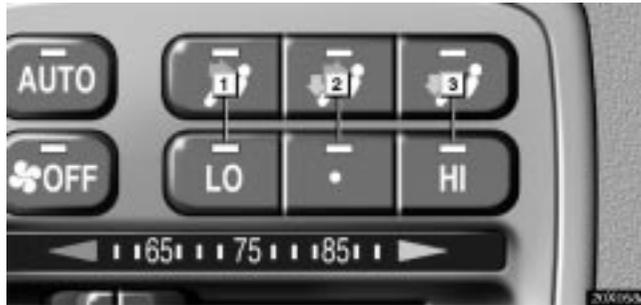
- 1 Panel** - Air flows mainly from the roof panel vents.
- 2 Bi-level** - Air flows from both the floor vents and the roof panel vents.
- 3 Floor** - Air flows mainly from the floor vents.

Air at higher than room temperature does not flow from the roof panel vents.

Air at lower than room temperature does not flow from the floor vents.

AIR CONDITIONING

If manual fan speed control is desired -



- **1** *Low speed* **2** *Middle speed*
3 *High speed*

The fan speed can be set to your desired speed by pushing the appropriate fan speed control button. The higher the fan speed is, the more air is delivered. Pushing the "OFF" button turns off the fan.

SECTION 2-2

AIR CONDITIONING AND AUDIO

Audio

Audio system 210

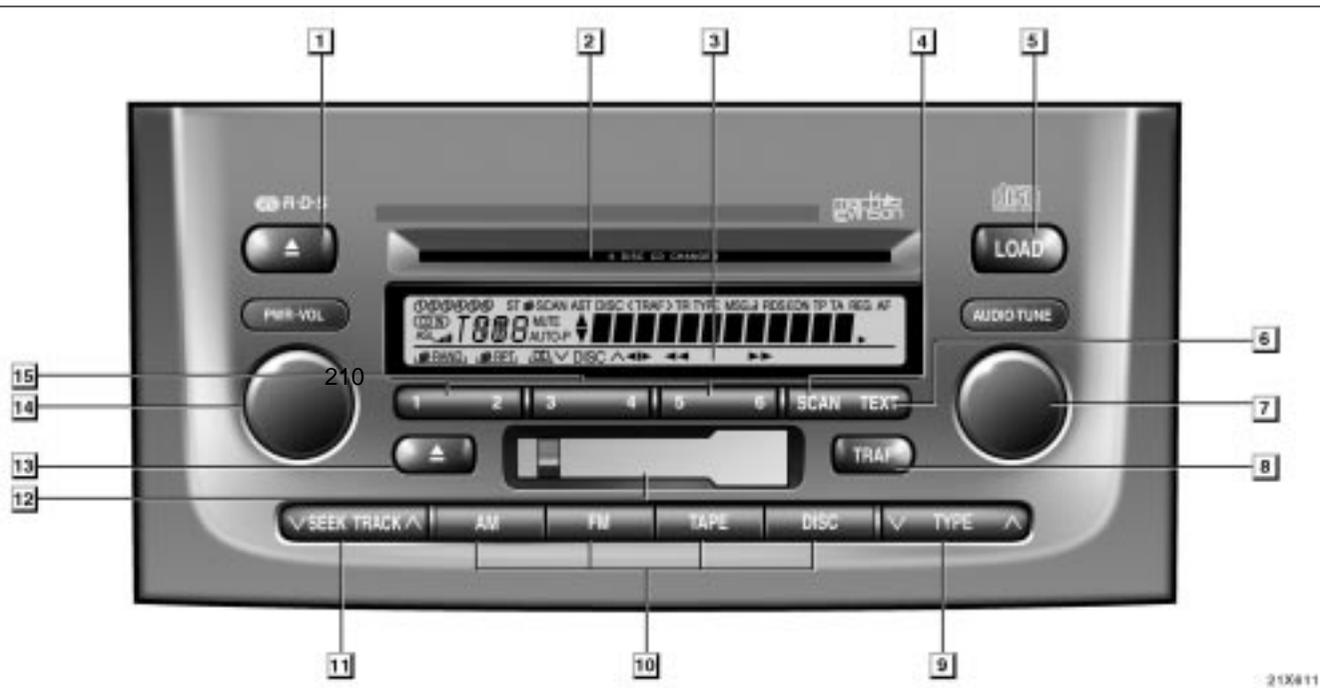
*For vehicles equipped with Navigation System,
please refer to the separate "Navigation System
Owner's Manual".*

AUDIO

AUDIO SYSTEM

Quick reference for your audio system

► You can adjust the brightness of the display. See “Instrument panel light control” on page 66 for details.



1 Stopping and ejecting a compact disc
(See page 224 for details.)

2 Compact disc slot
(See page 223 for details.)

3 Display of functions in TAPE mode

RPT: Automatic repeat
(See page 221 for details.)

□□ : DOLBY NR
(See page 220 for details.)

◀▶ : Side change
(See page 221 for details.)

◀◀ : Rewinding or Fast forwarding

▶▶ : (See page 221 for details.)

3 Display of functions in CD mode

RAND: Random access
(See page 227 for details.)

RPT: Automatic repeat
(See page 226 for details.)

v Λ : Disc selection
(See page 225 for details.)

◀◀ : Reversing or Fast forwarding

▶▶ : (See page 226 for details.)

4 Scan button
(See page 225 for details.)

5 Load button
(See page 223 for details.)

6 TEXT button
(See page 219 for details.)

7 AUDIO-TUNE knob
(See page 213 or for details.)

8 Traffic announcement button
(See page 219 for details.)

9 Program type button
(See page 218 for details.)

10 Mode selectors
(See page 212 for details.)

11 Radio mode: Seek tuning
(See page 216 or 217 for details.)

TAPE or CD mode: Direct access to a desired program
(See page 222 or 226 for details.)

12 Cassette tape slot
(See page 220 for details.)

13 Stopping and ejecting a cassette tape
(See page 220 for details.)

14 Turning the system on and adjusting the volume
(See page 212 for details.)

15 Function buttons

1 - 6: Station selector buttons
(See page 217 for details.)

AUDIO

Using your audio system: some basics

This section describes some of the basic features of the Lexus audio system. Some information may not pertain to your system.

Your audio system works when the ignition key is in the "ACC" or "ON" position.

NOTICE

To prevent the battery from being discharged, do not leave the car audio on longer than necessary when the engine is not running.

(a) Turning the system on and off



Push this knob to turn the audio system on and off. Turn this knob to adjust the volume.

The system turns on in the last mode used.



Push "AM", "FM", "TAPE" or "DISC" to turn on that mode. The selected mode turns on directly.

Push these buttons if you want to switch from one mode to another.

If the tape or disc is not set, the cassette player or compact disc player does not turn on.

You can turn off the cassette player by ejecting the cassette tape. If the audio system was previously off, then the entire audio system will be turned off when you eject the cassette tape. If another function was previously playing, it will come on again.



In the “TAPE” or “CD” mode, the applicable functions are shown in the lowest part of the display. Push the switch just below to turn on each function.

(b) Tone and balance

How good an audio program sounds to you is largely determined by the mix of the treble, mid-range, and bass levels. In fact, different kinds of music and vocal programs usually sound better with different mixes of treble, mid-range, and bass.

A good balance of the left and right stereo channels and of the front and rear sound levels is also important.

Keep in mind that if you are listening to a stereo recording or broadcast, changing the right/left balance will increase the volume of one group of sounds while decreasing the volume of another.



Each time you push the “AUDIO-TUNE” knob, the display changes as in the following. To adjust the tone and balance or turn on or off the automatic sound levelizer, turn the knob.

BAS: Adjusts low-pitched tones.

MID: Adjusts mid-pitched tones.

TRE: Adjusts high-pitched tones.

FAD: Adjusts the sound balance between the front and rear speakers.

BAL: Adjusts the sound balance between the right and left speakers.

ASL: Turns on or off the automatic sound levelizer.

Automatic sound levelizer: When the audio sound becomes difficult to be heard due to road noise, wind noise, etc. during driving, the system adjusts to the optimum volume and tone quality according to the noise level. While the automatic sound levelizer is on, “ASL” appears on the display.

AUDIO

(c) Your power antenna

The antenna automatically extends when the radio is on, and retracts when the radio mode is off. However, even if you turn off the radio when the radio on the rear seat audio system is on, the antenna does not retract.



To adjust the height of the antenna manually, push the switch.

Clean the antenna mast periodically with a clean dry cloth.



CAUTION

Before extending the antenna, confirm that no one is close enough to get injured.

NOTICE

- *To prevent damage to the antenna, make sure it is retracted before driving your vehicle through an automatic car wash.*
- *The antenna mast has to be extended higher than 100 mm (3.94 in.) length when the audio is on. Extend the antenna mast when the radio signal is weak.*
- *Putting a window tint (especially, conductive or metallic type) on the right-hand rear quarter window may affect the reception of radio or mobile telephone. For the installation of the window tint, consult with your Lexus dealer.*

(d) Your cassette player

When you insert a cassette, the exposed tape should be to the right.

NOTICE

Do not oil any part of the cassette player, and do not insert anything except a cassette tape into the slot.

(e) Your compact disc player with changer

Your changer can store up to 6 discs and play selected discs or continuously play all the discs set in the player.

When you set discs into the player, make sure their labels face up. If not, the player will display "ERROR1" and the disc number.

NOTICE

- ***Never try to disassemble or oil any part of the compact disc player. Do not insert anything other than compact discs into the slot.***
- ***Do not insert a disc upon another one, or it will damage the changer. Insert only one disc into the slot at a time.***

The player is intended for use with 12 cm (4.7 in.) discs only.

AUDIO

Radio operation

(a) Listening to the radio



Push these buttons to choose either an AM or FM station.

"AM", "FM1" or "FM2" appears on the display.



Turn this knob to the right to step up the station band or to the left to step down.

Your radio automatically changes to stereo reception when a stereo broadcast is received. "ST" appears on the display. If the signal becomes weak, the radio reduces the amount of channel separation to prevent the weak signal from creating noise. If the signal becomes extremely weak, the radio switches from stereo to mono reception. In this case, "ST" disappears from the display.

(b) Presetting a station



1. Tune in the desired station.

2. Push one of the station selector buttons (1-6) and hold it until a beep is heard. This sets the station to the button and the button number (1-6) appears on the display.

Each button can store one AM station and two FM stations. To change the preset station to a different one, follow the same procedure.

The preset station memory is cancelled when the power source is interrupted by battery disconnection or a blown fuse.

(c) Selecting a station

Tune in the desired station using one of the following methods.



Preset tuning: Push the button (1-6) for the station you want. The button number (1-6) and station frequency appear on the display.

Manual tuning: Turn the “AUDIO-TUNE” knob. The radio will step up or down to another frequency.

Seek tuning: Push the “SEEK” button. The radio will begin seeking up or down for a station of the nearest frequency and will stop on reception. Each time you push the button, the stations will be searched automatically one after another.

AUDIO



To scan all the frequencies: Push the “SCAN” button. “SCAN” appears on the display. The radio will find the next station up the band, stay there for a few seconds, and then scan again. To select a station, push the “SCAN” button a second time.

To scan the preset stations: Push the “SCAN” button until you hear a beep. “SCAN” appears on the display. The radio will tune in the next preset station up the band, stay there for a few seconds, and then move to the next preset station. To select a station, push the “SCAN” button a second time.

(d) RDS (Radio Data System)

TYPE (Program type):



When you push the “TYPE” button, the current program type receiving from RDS station appears on the display.

If the system receives no RDS stations, “NO PTY” appears on the display.

Each time you push the “v” or “^” button, the program type changes as in the following:

- ROCK
- EASY LIS (Easy listening)
- CLS/JAZZ (Classical music and jazz)
- R&B (Rhythm and Blues)
- INFORM (Information)
- RELIGION
- MISC
- ALERT (Emergency message)

Push the “SEEK TRACK” or “SCAN” button with the program type shown on the display and the radio seeks or scans the station in the relevant program type.

TRAF (Traffic) function: A station that regularly broadcasts traffic information is automatically located.

When you push the “TRAF” button, “TRAF SEEK” appears on the display and the radio will start seeking any traffic program station.

If no traffic program station is found, “NO TRAF INFO” appears on the display for a few seconds and the display returns to the previous mode.

Radio text message:



If the radio receives a radio text from RDS station, “MSG” appears on the display. Push the “TEXT” button, and a text message is displayed.

If the entire the message is not displayed, “▶” will appear on the display. To display the rest of the message, push and hold the “TEXT” button until you hear a beep.

After the entire message has been displayed, the message will disappear.

In case a text message is not accepted on the display, you can push the “TEXT” button and hold it to display the rest of the message.

When the system can show the station name, “RDS” appears on the display. Each time you push the “TEXT” button, indication on the display changes from the band to the station name, a radio text in this order. After 6 seconds passes, indication returns to the band.

AUDIO

Cassette tape player operation

(a) Playing a cassette tape

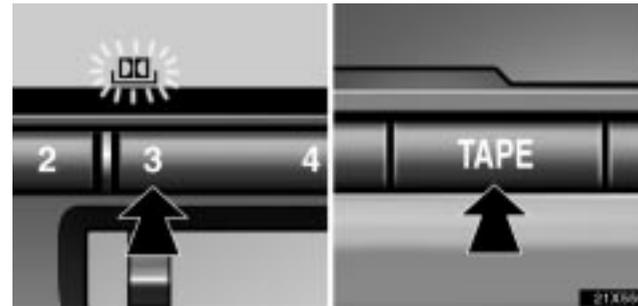


When you insert a cassette tape, the exposed tape should face to the right.

The player will automatically start when you insert a cassette tape. At this time, "TAPE" appears on the display.

To stop or eject the cassette tape, push the "EJECT" button.

Auto-reverse feature: After the cassette player reaches the end of a tape, it automatically reverses and begins to play the other side, regardless of whether the cassette was playing or fast forwarding.



If a cassette is already in the slot, push the "TAPE" button.

Dolby® Noise Reduction* feature: If you are listening to a tape that was recorded with Dolby® Noise Reduction, push the  button. The display will indicate that the Dolby noise reduction system is on.

The Dolby NR mode reduces tape noise by about 10 dB. For best sound reproduction, play your tapes with the Dolby NR on or off according to the mode used for recording the tape.

To play a tape recorded without Dolby NR, push the button until the symbol disappears from the display.

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

(b) Manual program selection



“Program” button: Push the “◀▶” button to select the other side of a cassette tape. The display indicates which side is currently selected (▲ indicates top side, ▼ indicates bottom side).

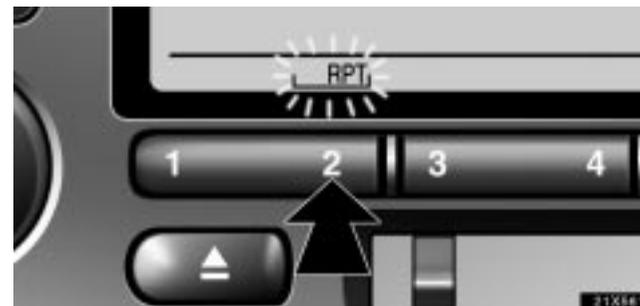
“Rewind” button: Push the “◀◀” button to rewind a tape. “REW” appears on the display.

To stop rewinding, push the same button or “TAPE” button.

“Fast forward” button: Push the “▶▶” button to fast forward a cassette tape. “FF” appears on the display.

To stop fast forwarding, push the same button or “TAPE” button.

(c) Automatic program selection



“RPT” button: The repeat feature automatically replays the current program.

Push the “RPT” button while the program is playing. When the program ends, it will automatically be rewound and replayed. Push the button again to turn off the repeat feature.

There must be at least 5 seconds of blank space between programs for the repeat feature to work correctly.

AUDIO



“Automatic program selection” button: The automatic program selection feature allows you to program your cassette player to skip forward or backward to locate the song you want to hear. You can skip up to nine programs at a time.

Push this button on the right side to skip forward. “FF” and the number will appear on the display. Push the button until the number you want to skip appears on the display. After that, the player will automatically skip forward.

When the end of the tape is reached, the player automatically reverses sides and resumes normal play.

Push this button on the left side to skip backward. Push the button until “REW” and the number you want to skip appear on the display.

- If you set “REW 1”, the player will rewind to the beginning of the current program.
- When counting the number of programs you want to rewind, remember to count the current program as well. For example, if you want to rewind to a song that is two before the song you are listening to, push this button until “REW 3” appears on the display.

When the beginning of the tape is reached, the player automatically resumes normal play.

There must be at least 5 seconds of blank space between programs for this feature to work correctly.

“RPT” or “Automatic program selection” features: These features may not work well with some spoken word, live or classical recordings.

Compact disc player operation

(a) Inserting or ejecting compact discs

The ignition switch must be in the "ACC" or "ON" position.

Your changer can store up to 6 discs.



- **Setting a single compact disc alone:**

- 1. Push the "LOAD" button briefly.**

The amber indicators at both ends of the slot start blinking and "WAIT" appears on the display. After the amber blinking indicators changes to green, and the "WAIT" changes to the "LOAD", the CD door opens.

- 2. Insert only one disc while the CD door is open.**

You can set a disc at the lowest empty disc number.

After insertion, the set disc is automatically loaded.

If the label faces down, the disc cannot be played. In this case, "ERROR1" and disc number appear on the display.

If you need to insert the next disc, repeat the same procedure to insert another disc.

- **Setting all the discs:**

- 1. Push the "LOAD" button until you hear a beep.**

The amber indicators at both ends of the slot start blinking and "WAIT" appears on the display. After the amber blinking indicators changes to green, and the "WAIT" changes to the "LOAD", the CD door opens.

- 2. Insert only one disc while the CD door is open.**

The CD door closes and "WAIT" appears again.

- 3. Insert the next disc after the "WAIT" changes to the "LOAD" and the CD door opens.**

- 4. Repeat this procedure until you insert all the discs.**

To cancel the operation, push the "LOAD" or "DISC" button.

If you do not insert the discs within 15 seconds after pushing the "LOAD" button and "LOAD" is displayed, the operation will be canceled automatically.

NOTICE

Do not insert one disc stacked on top of another one or feed them in continuously, to prevent discs from getting stuck in the player.

AUDIO



- **Ejecting a single disc alone:**

1. Push the button under the “∨” or “∧” signal on the display to display the disc number you want to eject.

2. Push the “EJECT” button briefly.

At this time, the display shows “EJECT” and the indicators at both ends of the slot as well as disc number light up.

- **Ejecting all the discs:**

Push the “EJECT” button until you hear a beep.

However, if you accidentally pushed the “EJECT” button, push the “DISC” or “LOAD” button to insert the disc again.

Do not push in the disc which is being ejected forcibly.

(b) Playing a compact disc



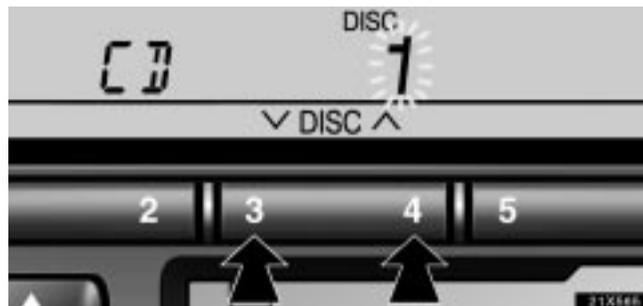
Push the “DISC” button if the discs are already loaded in the player.

“CD” appears on the display.

The discs set in the player are played continuously, starting with the last disc you inserted. The disc number of the disc currently being played, the track number and the time from the beginning of the program appear on the display.

When play of one disc ends, the first track of the following disc starts. When play of the final disc ends, play of the first disc starts again.

The player will skip any empty disc number.

(c) Selecting a desired disc

Push the “v” or “^” button to select the disc number.

Push the button several times until the desired disc number appears on the display. When you release the button, the player will start playing the selected disc from the first track.

(d) Searching for a desired track or disc

Searching for a desired track:

Push the “SCAN” button briefly. “SCAN” will appear on the display. The compact disc player will play the next track for 10 seconds, then scan again. To select a track, push the “SCAN” button a second time. If the player reaches the end of the disc, it will continue scanning at track 1.

After all the tracks are scanned in one pass, normal play resumes.

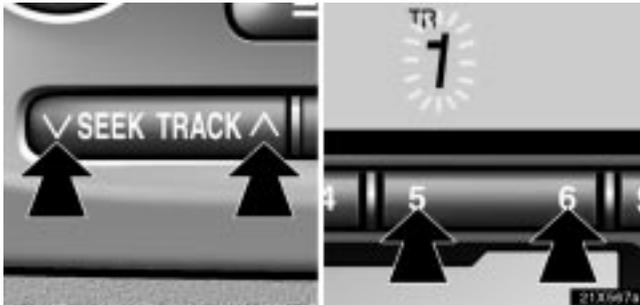
Searching for a desired disc:

Push the “SCAN” button until you hear a beep. With “SCAN” on the display, the program at the beginning of each disc will be played for 10 seconds. To continue listening to the program of your choice, push the “SCAN” button a second time.

After all the discs in the player are scanned in one pass, the scan function is cancelled.

AUDIO

(e) Selecting a desired track



“TRACK” button: Use for direct access to a desired track.

Push either side of the “TRACK” button several times until the desired track number appears on the display. As you release the button, the player will start playing the selected track from the beginning.

“Fast forward” button.

Push the “▶▶” button and hold it to fast forward the disc. When you release the button, the compact disc player will resume playing from that position.

“Reverse” button.

Push the “◀◀” button and hold it to reverse the disc. When you release the button, the compact disc player will resume playing.

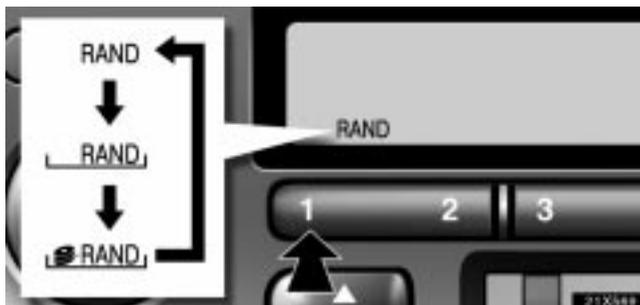
(f) Repeating a track or a disc



“RPT” button: There are 2 repeat features — you can either replay a disc track or a whole compact disc.

Repeating a track: Push the “RPT” button briefly while the track is playing. “RPT” will appear on the display. When the track ends, it will automatically be replayed. This process will be continued until you push the button again to turn off the repeat feature.

Repeating a disc: Push the “RPT” button until you hear a beep. “RPT” will appear on the display. The player will repeat all the tracks on the disc you are listening to. When the disc ends, the player will automatically go back to the top track of the disc and replay. This process will be continued until you push the button again to turn off the repeat feature.

(g) Random playing

“RAND” button: There are 2 random features — you can either listen to the tracks on all the compact discs in the player in random order, or only listen to the tracks on a specific compact disc in random order.

Random playing for the tracks on a disc: Push the “RAND” button briefly. “**RAND**” will appear on the display and play the disc you are listening to in random order.

Random playing for all the tracks in the magazine: Push the “RAND” button until you hear a beep. “**RAND**” will appear on the display and the player will perform all the tracks on all the discs in the magazine in random order. To turn off the random feature, push “RAND” a second time.

When a track is skipped or the system is inoperative, push the button to reset.

(h) Compact disc text

When you push the “TEXT” button while the compact disc with compact disc text display function (the logo “CD TEXT” marked on the CD) is being played, the track number, elapsed time, compact disc title and then track title appear on the display.

When you push this button if the compact disc does not have a text display function, “NO TITLE” appears on the display.

The display can show up to 12 letters at once. If the CD title or music title is longer than 12 letters, hold down the button for longer than 1 second. The letters after the 12th one are shown. However, 24 letters at maximum can be shown on the display.

When you push this button for longer than 1 second or play no operation for about 6 seconds with the letters after the 13th one on the display, the display returns and shows the first 12 letters.

Even if the CD title or music title is longer than 24 letters, the display can show up to 24 letters.

AUDIO

(i) If the player malfunctions

If the player or another unit equipped with the player malfunctions, your audio system will display one of the four following error messages.

If “WAIT” appears on the display: It indicates that the inside of the player unit may be too hot due to the very high ambient temperature. Remove the disc from the player and allow the player to cool down.

If “ERROR 1” appears on the display: It indicates that the disc is dirty, damaged, or it was inserted upside down. Clean the disc or insert it correctly.

If “ERROR 3” or “ERROR 4” appears on the display: It indicates there is trouble inside the system. Eject the disc.

If the malfunction is not rectified: Take your vehicle to your Lexus dealer.

Audio remote controls (steering switches)



The switches are installed on the left side of the steering wheel.

“MODE” switch: Use this switch to change the mode. If a tape or compact disc is not inserted, the “TAPE” or “CD” mode is skipped. When you push the switch with the audio system turned off, the audio system turns on.

“+” and “-” switches: Use these switches to adjust the volume. Push “+” to increase the volume and “-” to decrease the volume. The volume continues to increase or decrease while the switch is being pressed.

(a) When the radio mode is selected

“▲” or “▼” switch: Push this switch for seek tuning or to select a station.

- To select a preset station, push the switch briefly. Do this again to select the next preset station.
- To seek a station, push and hold the switch until you hear a beep. Do this again to find the next station. If you push the switch on either side of the “▲” or “▼” during the seek mode, seeking will be cancelled.
- To step up or down the frequency, push and hold the switch even after you hear a beep. When you release from the switch, the radio will begin seeking up or down for a station. Do this again to find the next station.

(b) When the “TAPE” mode is selected

“▲” or “▼” switch: Push this switch to fast forward or rewind the tape or for automatic program selection.

- Push this switch until you hear a beep to fast forward or rewind the tape. To stop fast forwarding or rewinding, push the same side on the switch until you hear a beep.
- Push this switch briefly for automatic program selection. When automatically selecting a program, you can skip up to 9 programs at a time. For details, see page 222 for details.

(c) When the “CD” mode is selected

“▲” or “▼” switch: Use this switch to select a desired track or disc.

- Push this switch briefly to select a desired track.
- To select a desired disc, push and hold this switch until the desired number of the disc appears and you hear a beep.

**CAUTION**

Operate the switches with due care while you are driving to avoid accidents.

AUDIO

Rear seat audio system

In the rear seat, you can enjoy a different mode from the one used on the front audio system, using headphones.



(a) Turning the system on and off

“ON/SOURCE” button: Use this button to turn the system on when the system is off. When the system is turned on, the mode changes by pushing this button.

“OFF” button: Use this button to turn off the system.

“Volume adjusting” knob: Use this knob to adjust the volume.

(b) When the radio mode is selected

“ v CH Λ ” button: Push this button to select a station preset on the preset button of the front audio system. Each push of the button changes to the station with higher numbered preset button.

“ v TUNE Λ ” button: Push this button for manual tuning or seek tuning.

- Push this button briefly. Each time you push the button, the radio will step up or down to another frequency.
- Push this button and hold it until you hear a beep. The radio will begin seeking up or down for a station, and will stop on reception. Each time you push the button, the stations will be searched out one after another.

(c) When the “TAPE” mode is selected

“ v PROG Λ ” button: Push this button to select the other side of a cassette tape.

“ v TRACK Λ ” button: Push the left or right side to skip forward or backward to locate the song you want to hear. For details, see “Automatic program selection” on page 221.

(d) When the “CD” or “DVD” mode is selected

“ **v DISC \blacktriangle** ” Use this button to search a desired disc.

“ **v TRACK \blacktriangle** ” **button:** Use this button to search a desired track or push this button and hold it to fast forward or reverse.

(e) Some basics

This system cannot be used if the audio system is not turned on.

You cannot select “AM” or “FM” mode in the rear seat if the “FM” or “AM” mode is used on the front seats side.

If you select the same mode as the front seats side, operating the controller will affect the mode on the front seats side.

**CAUTION**

This system is not designed for a driver. So, the driver should not use this system while driving.

Car audio system operating hints**NOTICE**

To ensure correct audio system operations:

- *Be careful not to spill beverages over the audio system.*
- *Do not put anything other than a cassette tape or compact discs into the cassette tape slot or compact disc slot.*
- *The use of a cellular phone inside or near the vehicle may cause a noise from the speakers of the audio system which you are listening to. However, this does not indicate a malfunction.*

AUDIO

Radio reception

Usually, a problem with radio reception does not mean there is a problem with your radio - it is just the normal result of conditions outside the vehicle.

For example, nearby buildings and terrain can interfere with FM reception. Power lines or telephone wires can interfere with AM signals. And of course, radio signals have a limited range. The farther you are from a station, the weaker its signal will be. In addition, reception conditions change constantly as your vehicle moves.

Here are some common reception problems that probably do not indicate a problem with your radio:

FM

Fading and drifting stations - Generally, the effective range of FM is about 40 km (25 miles). Once outside this range, you may notice fading and drifting, which increase with the distance from the radio transmitter. They are often accompanied by distortion.

Multi-path - FM signals are reflective, making it possible for two signals to reach your antenna at the same time. If this happens, the signals will cancel each other out, causing a momentary flutter or loss of reception.

Static and fluttering - These occur when signals are blocked by buildings, trees, or other large objects. Increasing the bass level may reduce static and fluttering.

Station swapping - If the FM signal you are listening to is interrupted or weakened, and there is another strong station nearby on the FM band, your radio may tune in the second station until the original signal can be picked up again.

AM

Fading - AM broadcasts are reflected by the upper atmosphere - especially at night. These reflected signals can interfere with those received directly from the radio station, causing the radio station to sound alternately strong and weak.

Station interference - When a reflected signal and a signal received directly from a radio station are very nearly the same frequency, they can interfere with each other, making it difficult to hear the broadcast.

Static - AM is easily affected by external sources of electrical noise, such as high tension power lines, lightning, or electrical motors. This results in static.

Caring for your cassette player and tapes

For the best performance for your cassette player and tapes:

Clean the tape head and other parts regularly.

- A dirty tape head or tape path can decrease sound quality and tangle your cassette tapes. The easiest way to clean them is by using a cleaning tape. (A wet type is recommended.)

Use high-quality cassettes:

- Low-quality cassette tapes can cause many problems, including poor sound, inconsistent playing speed, and constant auto-reversing. They can also get stuck or tangled in the cassette player.
- Do not use a cassette if it has been damaged or tangled or if its label is peeling off.
- Do not leave a cassette in the player if you are not listening to it, especially if it is hot outside.
- Store cassettes in their cases and out of direct sunlight.
- Avoid using cassettes with a total playing time longer than 100 minutes (50 minutes per side). The tape used in these cassettes is thin and could get stuck or tangled in the cassette player.

Caring for your compact disc player and discs

- Your compact disc player is intended for use with 12 cm (4.7 in.) discs only.
- Extremely high temperature can keep your compact disc player from working. On hot days, use air conditioning to cool the vehicle interior before you listen to a disc.
- Bumpy roads or other vibrations may make your compact disc player skip.
- If moisture gets into your compact disc player, you may not hear any sound even though your compact disc player appears to be working. Remove the disc from the player and wait until it dries.

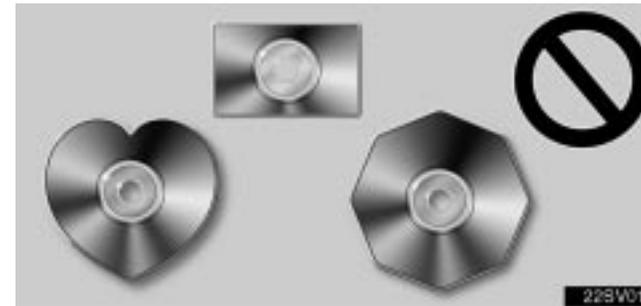
 CAUTION
Compact disc players use an invisible laser beam which could cause hazardous radiation exposure if directed outside the unit. Be sure to operate the player correctly.

AUDIO

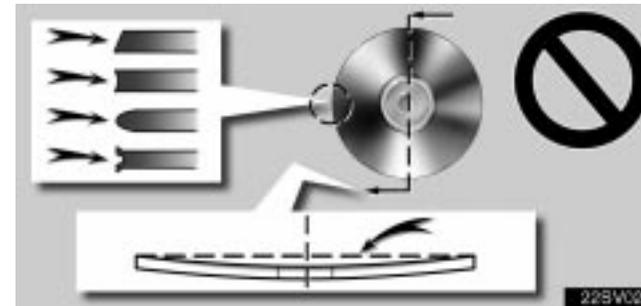


- Use only compact discs marked as shown above. The following products may not be playable on your compact disc player.

Copy-protected CD
CD-R (CD-Recordable)
CD-R W (CD-Re-writable)
CD-ROM



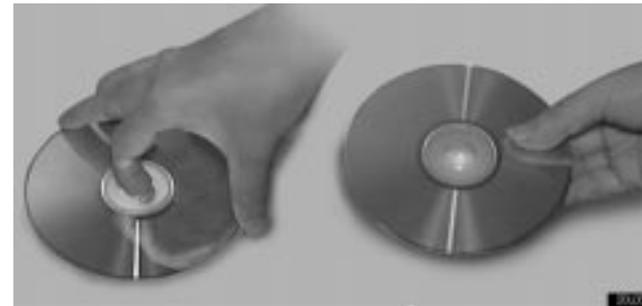
► *Special shaped discs*



► *Low quality discs*

▶ **Labeled discs****NOTICE**

To prevent damage to the player or changer, do not use special shaped, low quality or labeled discs such as those shown in the illustrations.

▶ **Correct**▶ **Wrong**

- Handle compact discs carefully, especially when you set them into the magazine. Hold them on the edge and do not bend them. Avoid getting fingerprints on them, particularly on the shiny side.
- Dirt, scrapes, warping, pin holes, or other disc damage could cause the player to skip or to repeat a section of a track. (To see a pin hole, hold the disc up to the light.)

AUDIO



To clean a compact disc: Wipe it with a soft, lint-free cloth that has been dampened with water. Wipe in a straight line from the center to the edge of the disc (not in a circle). Do not use a conventional record cleaner or anti-static device.

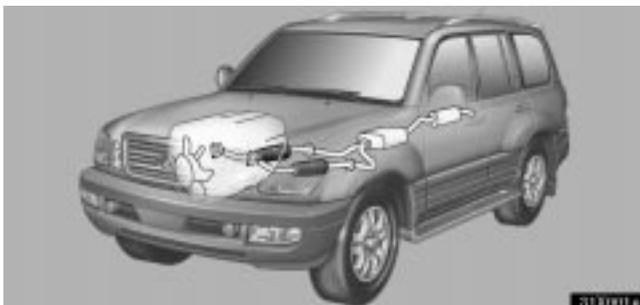
SECTION 3-1

STARTING AND DRIVING

Starting and driving

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THREE-WAY CATALYTIC CONVERTERS



Three-way catalytic converters are emission control devices installed in the exhaust system.

The purpose is to reduce pollutants in the exhaust gas.

CAUTION

- Keep people and combustible materials away from the exhaust pipe while the engine is running. The exhaust gas is very hot.
- Do not drive, idle or park your vehicle over anything that might burn easily such as grass, leaves, paper or rags.
- Do not leave anything that may burn easily, such as paper or rags, in the engine compartment.

NOTICE

A large amount of unburned gases flowing into the three-way catalytic converter may cause it to overheat and create a fire hazard. To prevent this and other damage, observe the following precautions:

- *Use only unleaded gasoline.*
- *Do not drive with an extremely low fuel level; running out of fuel could cause the engine to misfire, creating an excessive load on the three-way catalytic converter.*
- *Do not allow the engine to run at idle speed for more than 20 minutes.*
- *Avoid racing the engine.*
- *Do not push-start or pull-start your vehicle.*
- *Do not turn off the ignition while the vehicle is moving.*
- *Keep your engine in good running order. Malfunctions in the engine electrical system, electric ignition system or fuel system could cause an extremely high three-way catalytic converter temperature.*
- *If the engine becomes difficult to start or stalls frequently, take your vehicle in for a check-up as soon as possible. Remember, your Lexus dealer knows your vehicle and its three-way catalytic converter system best.*

- *To ensure that the three-way catalytic converter and the entire emission control system operate properly, your vehicle must receive the periodic inspections required by the Lexus Maintenance Schedule. For scheduled maintenance information, refer to the "Owner's Manual Supplement / Scheduled Maintenance".*

ENGINE EXHAUST CAUTION



- Avoid inhaling the engine exhaust. It contains carbon monoxide, which is a colorless and odorless gas. It can cause unconsciousness or even death.
- Make sure the exhaust system has no holes or loose connections. The system should be checked from time to time. If you hit something, or notice a change in the sound of the exhaust, have the system checked immediately.
- Do not run the engine in a garage or enclosed area except for the time needed to drive the vehicle in or out. The exhaust gases cannot escape, making this a particularly dangerous situation.
- Do not remain for a long time in a parked vehicle with the engine running. If it is unavoidable, however, do so only in an unconfined area and adjust the heating or cooling system to force outside air into the vehicle.

- Keep the back door closed while driving. An open or unsealed back door may cause exhaust gases to be drawn into the vehicle.
- To allow proper operation of your vehicle's ventilation system, keep the inlet grilles in front of the windshield clear of snow, leaves, or other obstructions.
- If you smell exhaust fumes in the vehicle, drive with the windows open and the back door closed. Have the cause immediately located and corrected.

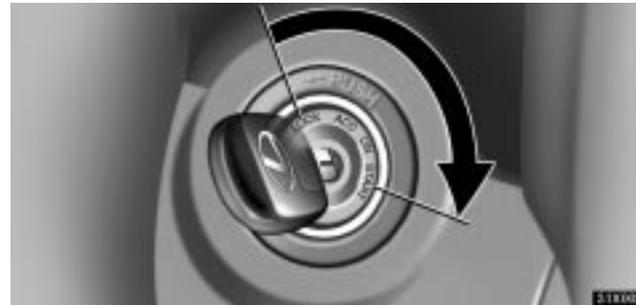
STARTING AND DRIVING

BEFORE STARTING THE ENGINE

1. Check the area around the vehicle before entering it.
2. Adjust seat position, seatback angle, head restraint height and steering wheel angle.
3. Adjust the inside and outside rear view mirrors.
4. Lock all doors.
5. Fasten seat belts.

Remember to check that the service reminder indicators function when turning the key to "ON", and check the fuel gauge to see that you have sufficient fuel.

IGNITION SWITCH WITH STEERING LOCK



"START" - Starter motor on. The key will return to the "ON" position when released.

For starting tips, see page 242.

It is not a malfunction even if the needle of the tachometer, fuel gauge, engine coolant temperature gauge, engine oil pressure gauge or volt meter returns to the bottom position when the ignition switch is turned to the "START" position.

"ON" - Engine on and all accessories on.

This is the normal driving position.

NOTICE

Do not leave the key in the "ON" position if the engine is not running. The battery will discharge and the electronic ignition system could be damaged.

"ACC" - Accessories such as the radio operate, but the engine is off.

If you leave the key in the "ACC" or "LOCK" position and open the driver's door, a buzzer will remind you to remove the key.



"LOCK" - Engine is off and the steering wheel is locked. The ignition key can be removed only at this position.

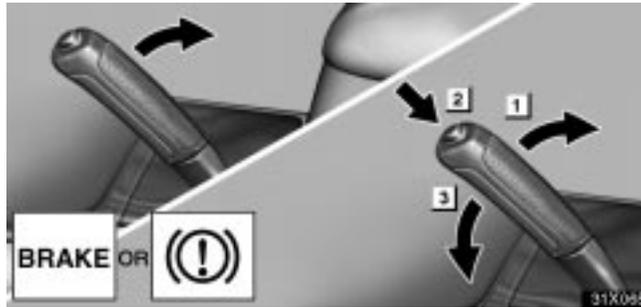
To turn the key from "ACC" to the "LOCK" position, you must put the transmission selector lever in the "P" position.

Once you remove the key, the engine immobilizer system is automatically set. See "Engine immobilizer system" on page 11.

When starting the engine, the key may seem stuck at the "LOCK" position. To free it, first be sure the key is pushed all the way in, and then rock the steering wheel slightly while turning the key gently.

If, in an emergency, you must turn the engine off while the vehicle is moving, turn the key only to "ACC".

PARKING BRAKE



- 1 To set:** Pull up the lever. For better holding power, first depress the brake pedal and hold it while setting the parking brake.
- 2 To release:** Pull up the lever slightly (1), press the lock release button (2), and lower the lever (3).

Before leaving your vehicle, firmly apply the parking brake. For better holding power, first depress the brake pedal and hold it while setting the parking brake.

CAUTION

Before driving, make sure the parking brake is fully released and that the parking brake reminder light is off.

HOW TO START THE ENGINE

Cranking hold function

Once you turn the ignition key to “START” position and release it, the cranking hold function continues to crank the engine in “ON” position until it starts.

The function stops cranking the engine after about 25 seconds maximum if the engine has not started yet. When you crank the engine again, wait a few seconds and restart it.

If you hold the key in “START” position, the function will keep cranking for about 30 seconds maximum.

Before cranking

1. Apply the parking brake firmly.
2. Turn off unnecessary lights and accessories.
3. Put the selector lever in “P”. If you need to restart the engine while the vehicle is moving, put the selector lever in “N”. A starter safety device will prevent the starter from operating if the selector lever is in any drive position.
4. Depress the brake pedal and hold it to the floor until driving off.

Starting the engine

Before starting the engine, be sure to follow the instructions in “Before cranking”.

Normal starting procedure

The multipoint fuel injection system/sequential multipoint fuel injection system in your engine automatically controls the proper air-fuel mixture for starting. You can start a cold or hot engine as follows:

With your foot off the accelerator pedal, turn the ignition key to “START” position, then release it.

Engine should be warmed up by driving, not in idle. For warming up drive with smoothly turning engine until engine coolant temperature is within normal range.

If the engine stalls ...

Simply restart it , using the correct procedure given in normal starting.

If the engine will not start

See “If your vehicle will not start” on page 308.

NOTICE

- *Do not race a cold engine.*
- *If the engine becomes difficult to start or stalls frequently, have the engine checked immediately.*

AUTOMATIC TRANSMISSION

Your automatic transmission has a shift lock system to minimize the possibility of incorrect operation. This means you can only shift out of “P” position when the brake pedal is depressed with the ignition switch in “ON” position (★)



STARTING AND DRIVING

► **The shift position is displayed on the instrument cluster.**

P: Parking, engine starting and key removal position

R: Reverse position

N: Neutral position

D: Normal driving position (Shifting into overdrive possible)

4: Position for engine braking (Shifting into overdrive not possible)

When the cruise control is being used, even if you downshift from “D” to “4”, engine braking will not be enabled because the cruise control is not cancelled. For the operation to decrease the vehicle speed, see page 261.

3, 2: Position for more powerful engine braking

L: Position for maximum engine braking

Correct use of the automatic transmission is explained in the following parts.

(a) Normal driving

(b) Using engine braking

(c) Using the “3”, “2” and “L” positions

(d) Backing up

(e) Parking

(f) Good driving practice

(g) If you cannot shift the selector lever

(h) Driving in “2nd STRT” (second start) mode

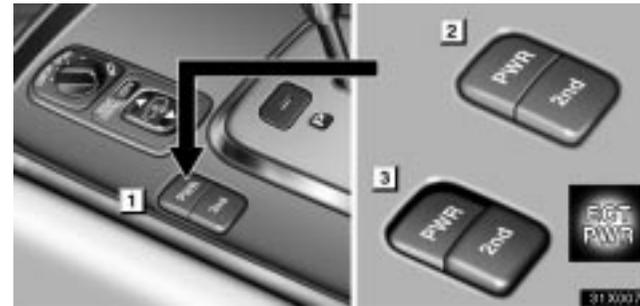
(a) Normal driving



▶ **1** "P" (Park) position **2** "N" (Neutral) position

1. Start the engine as instructed in "How to start the engine" on page 242.

The transmission must be in "P" or "N". The engine will not start in any drive position even if the ignition key is turned to "START".



▶ **1** Driving pattern selector switch
2 Normal position **3** Power position

2. Set the driving pattern selector switch to the "Normal" position.

Your transmission has a driving pattern selector switch which allows you to select either "Normal" or "Power" to suit your driving condition. For ordinary driving, Lexus recommends that you use the "Normal" position to improve fuel economy.

3. For more powerful acceleration and sporty driving, use the "Power" position.

In the "Power" position, the "ECT PWR" light in the instrument cluster is on and the transmission is shifted up at higher vehicle speeds and shifted down more responsively than in the "Normal" position.

STARTING AND DRIVING



► **1** Brake pedal **2** “D” (Drive) position

4. With your foot holding down the brake pedal, shift the selector lever to “D”.

Always use the “D” position to improve fuel economy and quiet driving. Only in this position, shifting into the overdrive gear is possible. However, while the engine coolant temperature is low, the transmission will not shift into the overdrive gear even in the “D” position. (See “(b) Using engine braking” and “(f) Good driving practice” for exceptions.)

 **CAUTION**

Never put your foot on the accelerator pedal while shifting.

5. Release the parking brake and brake pedal. Depress the accelerator pedal slowly for smooth starting.

In normal cruising, the vehicle will start in first gear and automatically shift up to the most suitable gear. On inclines, declines or winding roads, etc., the vehicle shifts up and down automatically according to the running conditions to obtain the suitable driving power and engine braking.

When the lever is in the “4” position, the automatic transmission system will select the most suitable gear for the running conditions such as hill climbing, hard towing, etc.

If you need to accelerate rapidly while driving, depress the accelerator pedal to the full throttle position. This provides more acceleration by automatically downshifting the transmission to the next lower gear or beyond, depending on the vehicle speed.

If engine braking is needed, such as in descending a long hill, see “(b) Using engine braking”.

(b) Using engine braking



To use the braking power of the engine, downshift the transmission in the way described below:

- 1** Shift into the “4” position. The transmission will downshift to fourth gear and engine braking will be enabled.

When the cruise control is being used, even if you downshift from “D” to “4”, engine braking will not be enabled because the cruise control is not cancelled. If you need to decrease the vehicle speed, see page 261.

- 2** Shift into the “3” position. The transmission will downshift to third gear when the vehicle speed is or becomes lower than the speed listed below and stronger engine braking will be enabled.

Transfer	“H”	124 km/h	(77 mph)
	“L”	49 km/h	(31 mph)

- 3** Shift into the “2” position. The transmission will downshift to second gear when the vehicle speed is or becomes lower than the speed listed below and more powerful engine braking than that of “3” position will be enabled.

Transfer	“H”	83 km/h	(52 mph)
	“L”	33 km/h	(21 mph)

- 4** Shift into the “L” position. The transmission will downshift to first gear when the vehicle speed is or becomes lower than the speed listed below and maximum engine braking will be enabled.

Transfer	“H”	43 km/h	(27 mph)
	“L”	17 km/h	(11 mph)

⚠ CAUTION

Be careful when downshifting on a slippery surface. The abrupt change in engine speed could cause the vehicle to spin or skid.

STARTING AND DRIVING

(c) Using the “3”, “2” and “L” positions

The “3”, “2” and “L” positions are used for strong engine braking as described previously.

With the selector lever in “3”, “2” or “L”, you can start the vehicle in motion as with the lever in “D”.

With the selector lever in “3” or “2”, the vehicle will start in first gear and automatically shift to second gear.

With the selector lever in “L”, the transmission is engaged in first gear.

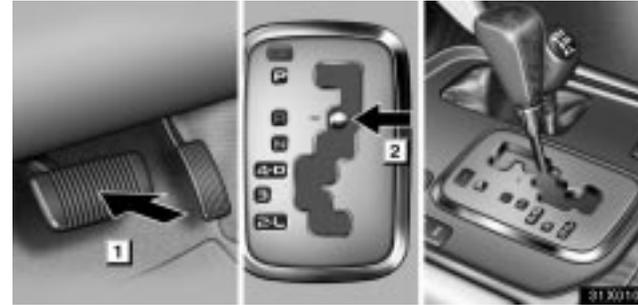
NOTICE

- **Be careful not to over-rev the engine. Watch the tachometer to keep engine rpm from going into the red zone. The approximate maximum allowable speed for each position is given below for your reference:**

Transmission	Transfer	
	“L”	“H”
“4”	67 km/h (42 mph)	165 km/h (102 mph)
“3”	48 km/h (30 mph)	118 km/h (73 mph)
“2”	33 km/h (20 mph)	81 km/h (50 mph)
“L”	19 km/h (12 mph)	47 km/h (29 mph)

- **Do not continue hill climbing or hard towing for a long time in the “3”, “2” or “L” position. This may cause severe automatic transmission damage from overheating. To prevent such damage, “4” position should be used in hill climbing or hard towing.**

(d) Backing up



- **1 Brake pedal 2 “R” (Reverse) position**

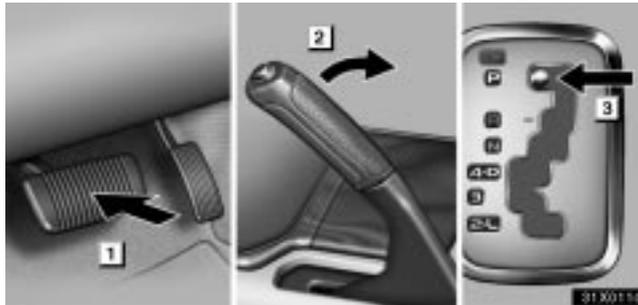
1. Bring the vehicle to a complete stop.
2. With the brake pedal held down with your foot, shift the selector lever to the “R” position.

NOTICE

Never shift into reverse while the vehicle is moving.

When you are backing up, you can adjust the outside rear view mirror on the passenger’s side down quickly. For details, see page 187.

(e) Parking



- **1** Brake pedal **2** Parking brake lever
3 "P" (Park) position

1. Bring the vehicle to a complete stop.
2. Apply the parking brake fully.
3. With the brake pedal held down with your foot, shift the selector lever to the "P" position.

CAUTION

While the vehicle is moving, never attempt to move the selector lever into "P" under any circumstances. Serious mechanical damage and loss of vehicle control may result.

(f) Good driving practice

- If the transmission repeatedly shifts up and down between the fourth and overdrive gears when climbing a gentle slope, shift the selector lever to the "4" position. Be sure to shift the selector lever to the "D" position after climbing the slope.
- When towing a trailer, in order to maintain efficient engine braking and electrical charging performance, do not use overdrive.

CAUTION

Always keep your foot on the brake pedal while stopped with the engine running. This prevents the vehicle from creeping.

NOTICE

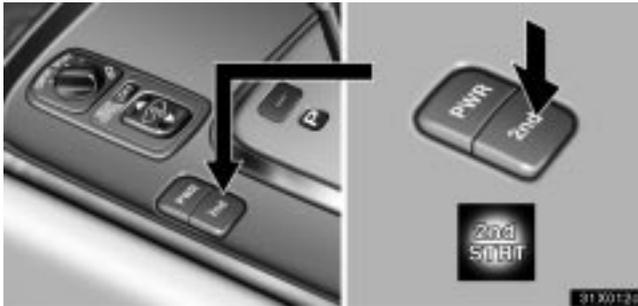
Always use the brake pedal or parking brake to hold the vehicle on an upgrade. Do not attempt to hold the vehicle using the accelerator pedal, as this can cause the transmission to overheat.

STARTING AND DRIVING

(g) If you cannot shift the selector lever

If you cannot shift the selector lever even though the brake pedal is depressed, use the shift lock override button. For instructions, see “If you cannot shift automatic transmission selector lever” on page 331.

(h) Driving in “2nd STRT” (second start) mode



In the “2nd STRT” (second start) mode, the transmission system shifts up from second gear. Use this mode when starting your vehicle in sand, mud, ice or snow.

To set the “2nd STRT” mode, push the “2nd” switch. In the “2nd STRT” mode, the “2nd STRT” indicator light comes on. To cancel the “2nd STRT” mode, push the “2nd” switch again.

The “PWR” mode is automatically cancelled when you push the “2nd” switch.

FOUR-WHEEL DRIVE SYSTEM

(a) Four-wheel drive control



Use the four-wheel drive control lever and center differential lock button to select the following transfer and center differential modes.

The “H” and “L” position of the four-wheel drive control lever provides either lock or unlock mode of the center differential depending on the center differential lock button position.

Use the center differential lock system if your wheels get stuck in a ditch, or when you are driving on a slippery or bumpy surface. When the center differential is locked, the vehicle stability control system is automatically turned off and the center differential lock and “VSC OFF” indicator lights come on because the function that controls engine performance interferes with the process of freeing your wheels.

NOTICE

As soon as the center differential lock switch is turned on, the "VSC OFF" indicator light comes on. After the wheels are out of the ditch or off the slippery or bumpy surface, turn the center differential lock switch off. Make sure the center differential lock indicator light and vehicle stability control system off indicator light turn off.

"H" (high speed position, center differential unlocked):
Lever at "H", center differential lock button left out

Use this for normal driving on all types of roads, from dry hard-surfaced roads to wet, icy or snow-covered roads. This position gives greater economy, quietest ride, least wear and better vehicle control.

"H" (high speed position, center differential locked):
Lever at "H", center differential lock button pushed in

Use this for greater traction when you experience a loss of power, such as wheel slipping, in the center differential unlock mode.

"N" (neutral position): Lever at "N"

No power is delivered to the wheels. The vehicle must be stopped.

"L" (low speed position, center differential unlocked):
Lever at "L", center differential lock button left out

Use this for maximum power and traction. Use this for climbing or descending steep hills, off-road driving, and hard pulling in sand or mud.

In this mode, the braking feeling that occurs when the wheels are negotiating a sharp corner is further reduced than in the "L" (low position, center differential locked) mode.

"L" (low speed position, center differential locked): Lever at "L", center differential lock button pushed in

Use this for maximum power and traction. Use this for hard pulling in situations the vehicle cannot negotiate even in the "L" (low speed position, center differential unlocked) mode. Also, using this mode when driving down steep off-road inclines will help contribute to increased vehicle stability.

The indicator light tells when the differential lock is engaged. Note that the differential is not still locked as long as the indicator light remains off.

If the indicator light does not go off when you push out the center differential lock button, drive straight ahead while accelerating or decelerating, or drive in reverse.

See "(b) Shifting procedure" for further instructions.

STARTING AND DRIVING

Advice for driving on slippery roads in “L” (low speed position) mode

If you shift the four-wheel drive control lever to “L”, the automatic transmission lever to “2” when you drive in steep off-road areas, the output of the brake can be controlled effectively by the active traction control system, which assists the driver to control the driving power of 4 wheels.

Use the “L” position of the automatic transmission lever for maximum power and traction when your wheels get stuck or when you drive down a steep incline. In the following cases, the output of the brake can be controlled by the active traction control system if the engine speed is under 3,000 rpm (normally engine speed is under 3,000 rpm when the wheels get unstuck).

- The four-wheel drive control lever in the “L” position and the automatic transmission lever in the “L” position or the automatic transmission lever in the “D”, “4”, “3” or “2” with the transmission downshifting to the first gear.
- The four-wheel drive control lever in the “L” position and the automatic transmission lever in the “R” position

(As for the automatic transmission lever positions, see “Automatic transmission” on page 243.)

(b) Shifting procedure

To shift between unlock and lock modes in “H”, push the center differential lock button.

To shift between unlock and lock modes in “L”, push the center differential lock button.

To shift between “H” and “L”, stop the vehicle, put the transmission into “N” and move the four-wheel drive control lever.

CAUTION

Never move the four-wheel drive control lever if wheels are slipping. Stop the slipping or spinning before shifting.

NOTICE

For normal driving on dry and hard surface roads, unlock the center differential. To prevent damage to the center differential lock system, do not push the center differential lock button when the vehicle is cornering or when its wheels are spinning freely off the ground. If the indicator light does not go off when unlocking the center differential, drive straight ahead while accelerating or decelerating, or drive in reverse.

REAR VIEW MONITOR SYSTEM

The rear view monitor system assists the driver by displaying an image of the rear of the vehicle while backing up. The displayed image on the screen is a horizontally reversed mirror image of the inside rear view mirror.

To display the rear view image on the screen, place the selector lever in the "R" position when the ignition switch is in the "ON" position.

If you move the selector lever out of the "R" position, the screen returns to the previous screen. Operating another function of the navigation system will display another screen.

The rear view monitor system is a supplemental device intended to assist back up. When backing up, be sure to check behind and all around the vehicle visually.

CAUTION

- Never depend on the rear view monitor system entirely when backing up. Always make sure your intended path is clear.

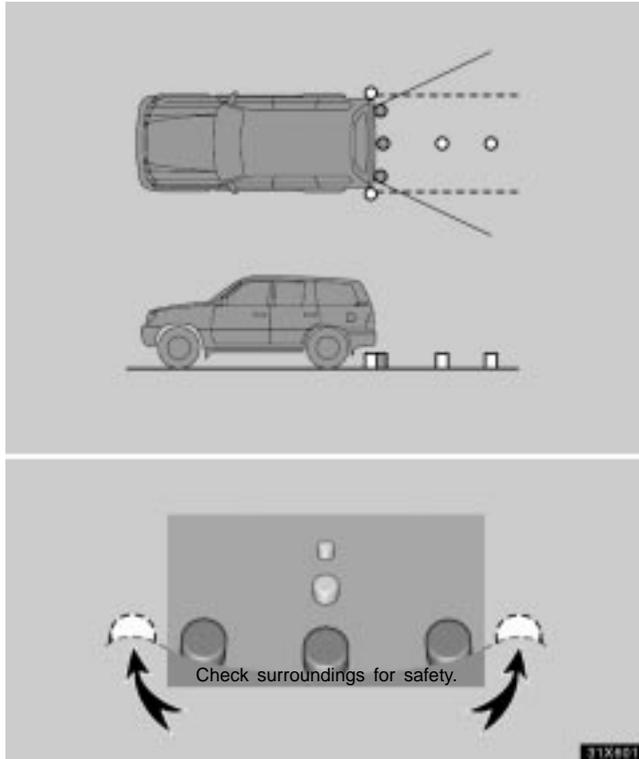
Use caution just as you would when backing up any vehicle.

- Never back up while looking only at the screen. The image on the screen is different from actual conditions. Depicted distances between objects and flat surfaces will differ from actual distances. If you back up while looking only at the screen, you may hit a vehicle, a person or an object. When backing up, be sure to check behind and all around the vehicle visually and with mirrors before proceeding.
- Do not use the system when the back door is not completely closed.
- If the back of the vehicle is hit, the position and mounting angle of the camera may change. Be sure to have the camera's position and mounting angle checked at your Lexus dealer.
- If the temperature changes rapidly, such as when hot water is poured on the vehicle in cold weather, the system may not operate normally.
- If the camera lens becomes dirty, it cannot transmit a clear image. If water droplets, snow, or mud adhere to the lens, rinse with water and wipe with a soft cloth. If the lens is extremely dirty, wash it with a mild cleanser and rinse.
- The displayed image may become darker and moving images may be slightly distorted when the system is cold. When backing up, be sure to check behind and all around the vehicle visually and with mirror before proceeding.

STARTING AND DRIVING

AREA DISPLAYED ON SCREEN

Image is displayed approximately level on screen.



► *Corners of bumper*

- The area covered by the camera is limited. Objects which are close to either corner of the bumper or under the bumper cannot be seen on the screen.
- The area displayed on the screen may vary according to vehicle orientation or road conditions.

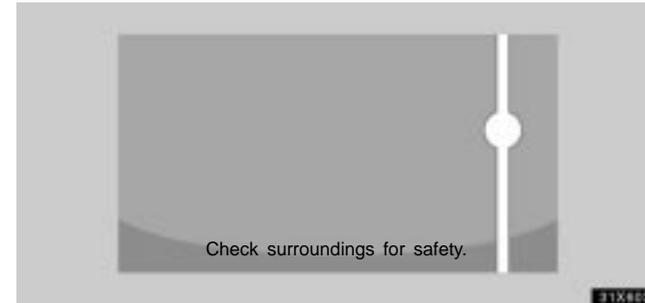
THE REAR VIEW MONITOR SYSTEM CAMERA



The rear view monitor system camera is located on the back door as shown in the illustration. The camera uses a special lens. The distance of the image that appears on the screen differs from the actual distance.

In the following cases, it may become difficult to see the images on the screen, even when the system is functioning.

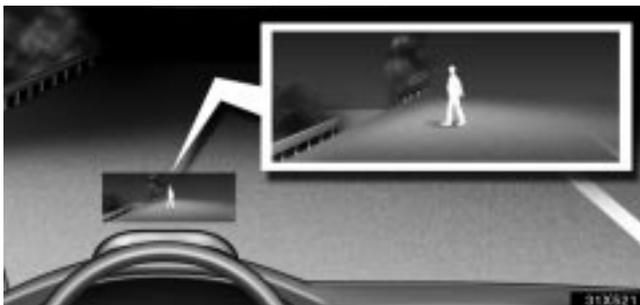
- In the dark (for example, at night)
- When the temperature near the lens is extremely high or low
- When water droplets are adhering to the camera, or when humidity is high (for example, when it rains)
- When foreign matter (for example, snow or mud) adheres to the camera lens
- When the sun or the beam of headlights is shining directly into the camera lens



If a bright light (for example, sunlight reflected off the vehicle body) is picked up by the camera, the smear effect* peculiar to the camera may occur.

*: Smear effect — A phenomenon that occurs when a bright light (for example, sunlight reflected off the vehicle body) is picked up by the camera; when transmitted by the camera, the light source appears to have a vertical streak above and below it.

LEXUS NIGHT VIEW SYSTEM



The Lexus night view system can help you see forward when driving at night. If pedestrians or objects are detected within the area reaching the tip of the low beam to high beam, they are displayed along with the layout of the road in the windshield as a monochrome image.



CAUTION

- This system should be used as a supplemental aid to help you see objects. Never depend on this system only. Be sure to view objects with your own eyes while driving.
- This system is designed to help you see objects better when driving in a flat area with few curves in darkness. Use of this function in an area with many curves or slopes or in a well-lit area could cause an accident.

Turning on the system



The Lexus night view system turns on and the “MAIN” indicator light comes on when you push the knob with the ignition switch on:

When the system is turned on in the following conditions, the head-up display (night view display) shutter opens automatically and the image sent from the head-up display is shown on the windshield.

- It is dark outside.
- The headlights are on.

When the vehicle starts moving in this condition, the “BEAM” indicator light comes on, the near-infrared floodlight (night view projector) is irradiated, and the image of the road ahead is shown on the windshield.

You can adjust the brightness by turning the knob.

While the system is on, pushing the knob turns off the "MAIN" indicator light and the system. If you turn the ignition off with the system turned on, the system will be turned off automatically.

CAUTION

If the image in the head-up display (night view display) is too bright, you cannot see the surroundings through the windshield clearly. To avoid glare, do not make the display brighter than necessary.



- ▶ **1** Near-infrared floodlight (Night view projector)
- 2** Near-infrared camera (Night view camera)
- 3** Head-up display (Night view display)
- 4** Automatic light control sensor

The near-infrared floodlight (night view projector which irradiates near-infrared light not seen by people) located near the fog lights irradiates the area reaching from the tip of the low beam to high beam. The near-infrared camera (night view camera) located on top of the windshield converts irradiated light into an image. This image is shown on the head-up display (night view display) located on the bottom of the windshield.

The automatic light control sensor is on top of the passenger side instrument panel.

Do not place anything on the instrument panel and do not affix anything on the windshield to block this sensor.

STARTING AND DRIVING

In the following conditions, the image may not be clear or the view of the road ahead may not be shown at all.

- Driving on hills with many up and down slopes
- Driving on road with curves
- In severe weather conditions such as rain, fog or snow
- Strong near- infrared light emission, such as the light coming from a vehicle running in the opposite lane, enters the near-infrared camera (night view camera).
- An object or clothing of a pedestrian is made of a certain kind of material (ex. leather).
- The windshield or the lens of the near-infrared floodlight (night view projector) is dirty. (Always keep the windshield and the lens clean.)
- Double vision of image reduces clarity in some situation.
- The top of the windshield fogs up.

If the top of the windshield fogs up, the glass in front of the lens of the camera will also fog up, resulting in deterioration of the system performance. Defog the windshield by pushing the "FRONT WINDSHIELD" button on the air conditioning.

If you notice the inner lens of the near-infrared camera (night view camera) is dirty, have it inspected at your Lexus dealer.

You cannot use this system to read a road sign or signboard.

If the outside temperature is low, the display may darken or it may take time to display the image with the system on.

The near-infrared floodlight (night view projector) is installed on the bumper. If the bumper is deformed in a collision, etc., the performance of the system will be affected. Have it repaired or replaced at Lexus dealer.

CAUTION

The near-infrared floodlight (night view projector) irradiates strong energy not visible to the eyes. Do not stare at the floodlight at close range for a long time. Your eyes could be seriously injured.

NOTICE

- ***Do not put anything in front of the head-up display (night view display) shutter. It may hinder the opening or closing of the shutter, resulting in a malfunction of the system.***
- ***Do not let drinks spill on the head-up display. This may cause a malfunction of the system.***
- ***If an object gets caught in the shutter and it does not close securely, it may cause a malfunction of the system. Open the shutter with your hand and remove the object. The shutter will function properly after you turn the ignition off and then on.***



If this warning light comes on, the bulb of the near-infrared floodlight (night view projector) has blown out. Have the bulb replaced at your Lexus dealer.

CRUISE CONTROL

The cruise control allows you to cruise the vehicle at a desired speed over about 40 km/h (25 mph) with your foot off the accelerator pedal.

Your cruising speed can be maintained although a slight speed change may occur when driving up or down a gradient, within the limits of engine performance. On steeper hills, a greater speed change will occur so it is better to drive without the cruise control.

When the cruise control is on, the driving pattern of the automatic transmission is fixed in the normal position, regardless of the position of the driving pattern selector switch.

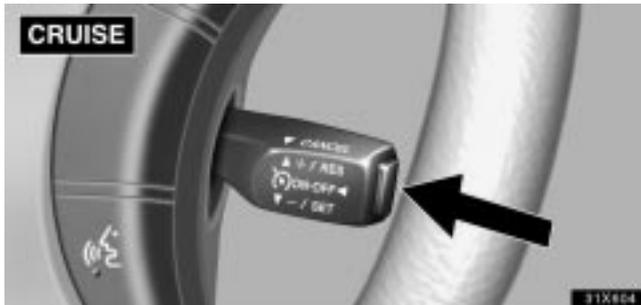


CAUTION

- To help maintain maximum control of your vehicle, do not use the cruise control when driving in heavy or varying traffic, or on slippery (rainy, icy or snow-covered) or winding roads.
- Avoid vehicle speed increases when driving downhill. If the vehicle speed is too fast in relation to the cruise control set speed, cancel the cruise control then downshift the transmission to use engine braking to slow down.

STARTING AND DRIVING

Turning the system on



To operate the cruise control, push the main switch. This turns the system on. The indicator light in the instrument cluster shows that you can now set your desired cruising speed. Another push on the switch will turn the system completely off.

When the ignition key is turned off, the main switch is also automatically turned off. To use the cruise control again, push the main switch again to turn it on.



CAUTION

To avoid accidental cruise control engagement, keep the main switch off when not using the cruise control.

Setting operation



► **Each function is described below.**

1 Setting at a desired speed.

The transmission must be in “D” or “4” before you set the cruise control speed.

Bring the vehicle to the desired speed, press the control lever downward in the “-/SET” direction and release it. This sets the vehicle at that speed. Now you may take your foot off the accelerator pedal. If you need acceleration - for example, when passing - depress the accelerator pedal enough for the vehicle to exceed the set speed. When you release the accelerator pedal, the vehicle will return to the speed set prior to the acceleration.

2 **Cancelling the preset speed**

You can cancel the preset speed by either of the following:

- a. Pulling the control lever in the “CANCEL” direction.
- b. Depressing the brake pedal.
- c. Pushing the main switch.

If the vehicle speed falls below about 40 km/h (25 mph), the preset speed will be automatically cancelled.

If the vehicle speed drops 16 km/h (10 mph) below the preset speed, the preset speed will also automatically be cancelled.

If the preset speed automatically cancels out for other than these reasons, have your vehicle checked by your Lexus dealer at the earliest opportunity.

3 **Resetting to a faster speed**

Press the control lever upward in the “+/RES” direction and hold it. Release the lever when the desired speed is attained. While the lever is held upward, the vehicle will gradually gain speed.

When the difference between the actual vehicle speed and the set speed is less than 5 km/h (3 mph), the set speed can be increased 1.6 km/h (1 mph) each time by pressing the control lever upward in the “+/RES” direction quickly within 0.6 seconds.

However, a quicker way to reset is to accelerate the vehicle and then press the control lever downward in the “-/SET” direction.

4 **Resetting to a slower speed**

Press the control lever downward in the “-/SET” direction and hold it. Release the lever when the desired speed is attained. While the lever is held downward, the vehicle speed will gradually decrease.

When the difference between the actual vehicle speed and the set speed is less than 5 km/h (3 mph), the set speed can be lowered 1.6 km/h (1 mph) each time by pressing the control lever downward in the “-/SET” direction quickly within 0.6 seconds.

However, a quicker way to reset is to depress the brake pedal and then press the control lever downward in the “-/SET” direction.

Even if you turn off the overdrive switch with the cruise control on, engine braking will not be applied because the cruise control is not cancelled. To decrease the vehicle speed, reset to a slower speed with the cruise control lever or depress the brake pedal. If you use the brake pedal, cruise control is cancelled.

5 **Resuming the preset speed**

If the preset speed is cancelled by pulling the control lever or by depressing the brake pedal, pushing the lever up in the “+/RES” direction will restore the speed set prior to cancellation. However, once the vehicle speed falls below about 40 km/h (25 mph), the preset speed will not be resumed.

STARTING AND DRIVING

Cruise control failure warning

If the "CRUISE" indicator light in the instrument cluster flashes when using the cruise control, push the main switch to turn the system off and then push it again to turn it on.

If any of the following conditions then occurs, there is some trouble in the cruise control system.

- The indicator light does not come on.
- The indicator light flashes again.
- The indicator light goes out after it comes on.

If this is the case, contact your Lexus dealer and have your Lexus inspected.

ACTIVE HEIGHT CONTROL SUSPENSION (AHC)

This active height control suspension controls the vehicle height depending on the vehicle driving condition. Select your desired height among the "HI" (high), "N" (normal) and "LO" (low) modes with the height select switch.



(a) Vehicle height modes

- "HI" (high) mode

The vehicle height is about 40 mm (1.6 in.) higher at front and about 50 mm (2.0 in.) higher at rear than the normal mode height.

This mode is suitable when driving on bumpy roads and through water.

This mode is available when the vehicle speed is under about 30 km/h (19 mph).

CAUTION

The “HI” (high) or “Extra high” mode should be used for severe off-road driving condition only. Because the vehicle’s center of gravity is higher in this setting, the vehicle may become unstable when turning abruptly, resulting in an accident.

When the four-wheel drive control lever is put at “L”, this mode may change to the extra high mode automatically in accordance with the driving condition.

When the vehicle exceeds the specified vehicle speed, the vehicle height changes to the following:

With the four-wheel drive control lever at “H” and at the vehicle speed of 30 km/h (19 mph) or over, the normal mode is automatically selected.

With the four-wheel drive control lever at “L” and at the vehicle speed of 50 km/h (30 mph) or over, the vehicle height becomes automatically about 25 mm (1.0 in.) higher than the normal mode height. If the vehicle speed is lowered about 20 km/h (12 mph) or less after that, the high mode automatically resumes.

Extra high mode

This mode is automatically selected from the high mode with the four-wheel drive control lever placed in “L” position depending on the vehicle driving condition.

If the vehicle becomes stuck, the vehicle height rises automatically to the extra high mode (slightly higher or at about 70 mm (2.8 in.) higher than normal mode height).

In the following cases, the extra high mode changes to the high mode automatically:

- When your vehicle is no longer stuck.
- When the four-wheel drive control lever is put in a position other than “L”.

When you push the height select switch on the “▼” side in the extra high mode, the normal mode is selected.

Since the extra high mode is automatically selected, you cannot select this mode on purpose with the height select switch.

• “N” (normal) mode

The vehicle height in this mode is standard.

This mode is suitable for ordinary driving.

• “LO” (low) mode

The vehicle height is about 50 mm (2.0 in.) lower at front and about 40 mm (1.6 in.) lower at rear than the normal mode height.

This mode allows you easy access to the vehicle (getting in and out) and easy loading and unloading operation.

This mode is available when the vehicle is stopped. When you start the vehicle, the normal mode is automatically selected.

STARTING AND DRIVING

NOTICE

The normal mode is automatically selected when the vehicle begins to move in the low mode. So be careful when you drive in any place where the overhead height is limited.

(b) Automatic leveling function

Regardless of the number of occupants or the luggage loading condition, the vehicle height is always automatically adjusted to a fixed height in any mode.

However, the vehicle height cannot be raised if the vehicle load exceeds the limits. (See page 265.)

(c) Vehicle height mode changing condition

To change the vehicle height, it is necessary to meet the following 3 conditions.

- The engine should be running.
- All the side doors and back door should be closed.
- The height control "OFF" indicator light should go off.

When selecting a mode with the four-wheel drive control lever at "H", there is a vehicle speed limit. Refer to the following table.

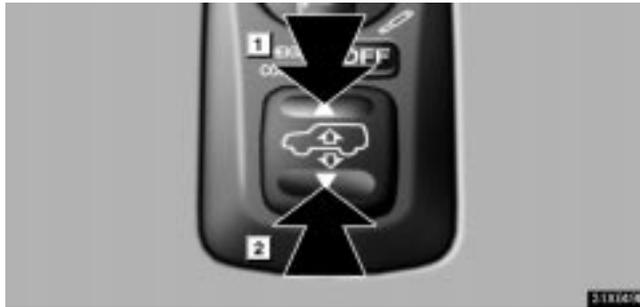
Yes= The mode can be selected.
No = The mode cannot be selected.

	Low mode	Normal mode	High mode
At vehicle stoppage	Yes	Yes	Yes
Under about 30 km/h (19 mph)	No	Yes	Yes
About 30 km/h (19 mph) or over	No	Yes	No

In the following cases the active height control suspension does not operate even if the above conditions are all met.

- The brake pedal has been depressed for longer than about 5 seconds with the vehicle stopped.
- The suspension fluid temperature is lower than -30°C (-22°F). If the engine is warmed up, the suspension fluid temperature will be raised as the inside of the engine compartment becomes warmer. Then the active height control suspension becomes operable.
- Driving on bumpy roads, which may cause the suspension to fully elongate.
- The steering wheel is operated abruptly more than 3/4 turn with center differential lock system activated.

(d) Vehicle height adjustment



► **1** Higher **2** Lower

To change the mode, push the height select switch on either side of “▲” and “▼”.

The height control indicator light indicates which mode is selected. (See page 268.)

NOTICE

- *If you change the vehicle height frequently, the pump may overheat. To prevent this, the active height control suspension should be stopped temporarily for a minute between selections. Operate it again.*

- *Before you lower the vehicle height with the height select switch, check under the vehicle to make sure that nothing to damage the vehicle or no one to be injured is there and the underbody of the vehicle does not touch the ground.*
- *After unloading, the height of a vehicle equipped with the active height control suspension becomes slightly higher than the normal vehicle height. Take sufficient care where the overhead height is restricted.*

The vehicle height cannot be raised if the vehicle load exceeds the following limits:

- Up to 4 occupants* plus about 300 kg (661 lb.) in the normal mode
- Up to 4 occupants* plus about 170 kg (375 lb.) in the high mode

*About 68 kg (150 lb.) for a person

If the above load capacity is exceeded, the desired vehicle height may not be obtained even if the height select switch is pushed. (If the vehicle height cannot be raised in the normal mode and the height control indicator indicates “LO”, this is because the vehicle is loaded too heavily. Under these conditions, drive your vehicle with due care.)

If the vehicle height cannot be raised even after unloading, push the height select switch on the “▼” side and then on the “▲” side. If this does not work, turn off the ignition once and then turn on. Operate the select switch again.

STARTING AND DRIVING

If the vehicle height is adjusted on the slope, or with the selector lever in a position other than “P” or “N” while the vehicle is stopped, you may hear a sound caused by the expansion and contraction of the propeller shaft.

- **Selecting the high mode:**

Push the height select switch on the “▲” side when the vehicle speed is under about 30 km/h (19 mph).

To change the normal mode to high, push the switch once.

To change the low mode to high, push the switch twice. It takes about 30 seconds until the low mode changes to the high mode.

- **Selecting the normal mode:**

To change the high mode to normal, push the height select switch on the “▼” side once.

To change the low mode to normal, push the height select switch on the “▲” side once.

- **Selecting the low mode:**

Push the height select switch on the “▼” side while the vehicle is stopped.

To change the high mode to low, push the switch twice.

To change the normal mode to low, push the switch once.

NOTICE

Do not select the low mode on bumpy roads. If the underbody of the vehicle touches the rugged road surface, the vehicle may be damaged.

Even if the engine is stopped while the vehicle height is being lowered, the operation continues for up to 12 seconds.

(e) Turning off the active height control suspension

To turn off the active height control suspension with the vehicle stopped, push the height control switch. The height control “OFF” indicator light comes on and the vehicle height is fixed in the same mode as the height control switch is pushed.

This status is memorized in the system even after the engine is stopped.

If you push the switch again, the height control “OFF” indicator light goes out and the active height control suspension is turned on.

 **CAUTION**

If you drive through deep water over about 500 mm (20 in.) in depth, put the vehicle height in the HI (High) mode with the height select switch and then turn off the active height control suspension by pushing the height control switch. Drive your vehicle at 30 km/h (19 mph) or lower speed.

NOTICE

- *When jacking up or installing tire chains, be sure to turn off the active height control suspension and stop the engine. Otherwise, the vehicle height may change because of the automatic leveling function, resulting in an accident.*
- *If your vehicle must be towed, put the vehicle height in the normal mode and turn off the active height control suspension. Otherwise, the vehicle height may change because of the automatic leveling function, resulting in an accident.*
- *If your vehicle gets ditched, turn off the active height control suspension with the height control switch. Otherwise, the vehicle height may change because of the automatic leveling function, resulting in an accident.*

Even after the active height control suspension is turned off with the height control switch, if the vehicle speed exceeds 30 km (19 mph), the active height control automatically selects the normal mode.

STARTING AND DRIVING

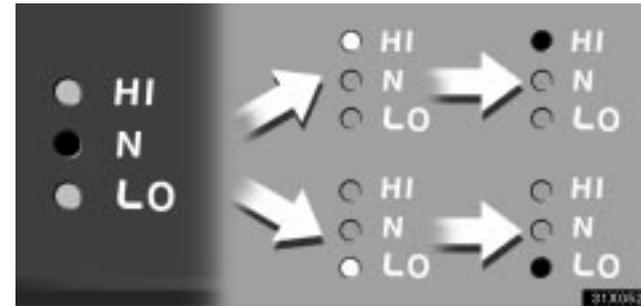
(f) Height control indicator lights



- ▶ 1 Height control indicator lights
- ▶ 2 Height control "OFF" indicator light

When the ignition switch is turned on, all the indicator lights come on. The indicator light showing the present mode only remains on and all other lights go off after a few seconds. This means the system operates correctly.

If you change the vehicle height mode, the indicator lights change as follows:



▶ ○: *Blinking* ●: *Illuminating*

When changing the vehicle height from the normal mode to high:

1. The "N" (normal) mode indicator light goes off and the "HI" (high) mode indicator light blinks.
2. After the vehicle height control reaches the high mode, the high mode indicator light remains on.

With the active height control suspension turned off, if you operate the height select switch or the vehicle height is changing depending on the vehicle speed, the vehicle height control enters the ready mode. In this case, the height control indicator lights change as follows:

1. The present mode indicator light comes on and at the same time the ready mode indicator light blinks.
2. When the active height control suspension is turned on, the present mode indicator light goes off and the ready mode indicator light blinks. (The vehicle height changes.)

3. After the vehicle height has changed completely, the changed mode indicator light stays on.

If the vehicle is loaded heavily, the vehicle height cannot be raised even if the height select switch is operated. If the underbody of the vehicle has touched the surface on bumpy roads, the vehicle height cannot be lowered with the height select switch. The height control indicator lights change as follows:

1. The present mode indicator light goes off and the selected mode indicator light blinks.
2. The selected mode indicator light goes off. (The vehicle height does not change.) The present mode indicator light comes on again.

Height control “OFF” indicator light: When the ignition switch is turned on, this light comes on. If it goes out after a few seconds, the active height control suspension operates correctly. If you push the height control switch, the active height control is turned off. The height control “OFF” indicator light comes on.

In the following cases, there is a problem somewhere in your active height control suspension. Although there is no problem to continue normal driving, have the active height control suspension checked by your Lexus dealer as soon as possible.

- The height control “OFF” indicator light does not come on when the ignition switch is turned on.
- The height control “OFF” indicator light blinks.

(g) Operation in cold weather

The active height control suspension does not operate in cold weather when the suspension fluid temperature drops below -30°C (-22°F).

In this case, operating the height select switch does not change the vehicle height. The vehicle height control enters the ready mode and the selected height control indicator light blinks. The active height control becomes operable if the engine is warmed up with the suspension fluid temperature being raised within normal operating limits. The vehicle changes to the selected height when the vehicle height control is in the ready mode.

When the suspension fluid temperature is around -30°C (-22 °F), the vehicle height cannot be raised even within the available load capacity. After warming up the engine, push the control switch on the “▼” side once and then on the “▲” side to select the desired vehicle height.

It takes longer to change the vehicle height when the suspension fluid temperature drops below -15°C (5°F).

STARTING AND DRIVING

(h) Parking and stopping tips

If you immediately stop the engine to park the vehicle after off-road driving, the vehicle height is lowered slightly as the vehicle becomes cool. When parking, make sure there is nothing that will be in contact with the underbody of the vehicle. When you start the engine, the vehicle returns to the previous height.

If you park the vehicle for a long time, the vehicle height may gradually lower. When parking for a long time, make sure there is nothing that will come in contact with the underbody of the vehicle. When you start the engine, the vehicle returns to the previous height.

If you stop the engine, the vehicle height may change in accordance with the change in the temperature. When you start the engine, the vehicle returns to the previous height.

(i) Installing or removing heavy equipment

If you install or remove heavy equipment exceeding 15 kg (33 lb.), the front torsion bar should be adjusted. Consult your Lexus dealer.

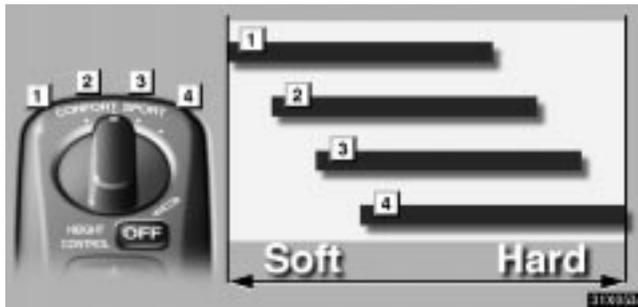
(j) Active height control failure warning

If there is a problem somewhere in the active height control suspension, the normal mode is automatically selected. If this occurs, the height control "OFF" indicator light blinks and the vehicle height control cannot be activated until the malfunction is corrected.

Stop the engine and start it again. If the height control "OFF" indicator light goes out, the active height control suspension returns to normal. If the height control "OFF" indicator blinks again, bring your vehicle to your Lexus dealer as soon as possible and have it checked.

ADAPTIVE VARIABLE SUSPENSION (AVS)

This adaptive variable suspension adjusts the damping effect on the shock absorbers with the damping mode select switch. Select one of the 4 modes which is suited to the driving conditions with the damping mode select switch to provide good riding comfort and stability.



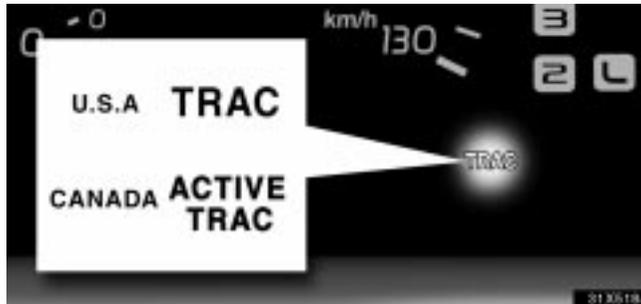
- ▶ **1** For driving on a bumpy road
- 2** For ordinary driving such as in the city traffic
- 3** For moderate high speed driving
- 4** For sporty type driving such as on winding mountain roads and high speed driving

We recommend you to select the mode **2** for ordinary driving. The damping effect will be changed automatically to provide good riding comfort.

When your vehicle is loaded heavily or you are driving in an unpaved road, the mode **3** or **4** will be recommended. To provide good vehicle stability, the damping effect will be harder than for ordinary driving mode.

With the four-wheel drive control lever at "L", the damping effect suitable for off-road driving will be provided.

ACTIVE TRACTION CONTROL SYSTEM



► Active traction control system indicator light

The active traction control system automatically helps control the spinning of 4 wheels which may occur when accelerating on slippery road surfaces, by controlling the output of the brake and engine. Thus, the system assists driver to control the driving power of 4 wheels. When you turn the ignition switch on, the active traction control system always turns on automatically, and the active traction control indicator light will come on. The indicator light will go off after a few seconds.

When active traction control is applied, the active traction control system indicator light blinks.

You may hear a sound in the engine compartment for a few seconds when the engine is started or just after the vehicle begins to move. This means that the active traction control system is in the self-check mode, and does not indicate malfunction. When the active traction control system is operating, you may feel vibration or hear noise of your vehicle, caused by operation of the brakes. This indicates the system is functioning properly.

When getting the vehicle out of mud or new snow, etc., the active traction control system will help operate to prevent the wheels from spinning.



► Active traction control system failure warning

This light warns when there is a problem somewhere in the active traction control system or vehicle stability control system.

If the "VSC/TRAC" warning light comes on, have your vehicle checked by your Lexus dealer as soon as possible.

STARTING AND DRIVING

The brake actuator temperature increases during the active traction control system or vehicle stability control system operating. If the brake actuator temperature becomes too high while the active traction control system or vehicle stability control system is operating, a buzzer will start to sound intermittently to indicate that the active traction control system can no longer operate. In this case, immediately stop your vehicle at a safe place. If the system continues to operate, the buzzer sound changes from intermittent to continuous. (The continuous buzzer sound will stop after about 3 seconds.) At the time the "VSC/TRAC" warning light will come on and the active traction control system temporarily stops operating in order to protect the brake actuator. (Although the active traction control system does not operate, there is no problem to continue your driving.) The system will be automatically restored after a short time and "VSC/TRAC" warning light goes off if the accelerator pedal is released.

When the "ABS" warning light comes on, the active traction control system is not operating.

The "VSC/TRAC" warning light will come on when the ignition key is turned to "ON", and will go off after a few seconds.

The "VSC/TRAC" warning light may stay on for 60 seconds after the ignition key is turned to the "ON" position. It is normal if it goes off after a few seconds.

Depressing the brake pedal repeatedly may turn on the "VSC/TRAC" warning light. It is normal if it goes off after a few seconds.

When the "VSC/TRAC" warning light comes on, the active traction control system is not operating, but there is no problem if you continue to drive.

In the following cases, contact your Lexus dealer:

- The "VSC/TRAC" warning light does not come on after the ignition is turned to on.
- The "VSC/TRAC" remains on after the ignition is turned to on.



CAUTION

Under certain slippery road conditions, full traction of the vehicles and power to 4 wheels may not be maintained, even though the active traction control system is in operation. Do not drive the vehicle under any speed or maneuvering conditions which will cause the vehicle to lose traction. In situations where the road surface is covered with ice or snow, your vehicle should be fitted with snow tires or tire chains. Always drive at an appropriate and cautious speed for the road conditions present.

STARTING AND DRIVING

VEHICLE STABILITY CONTROL SYSTEM



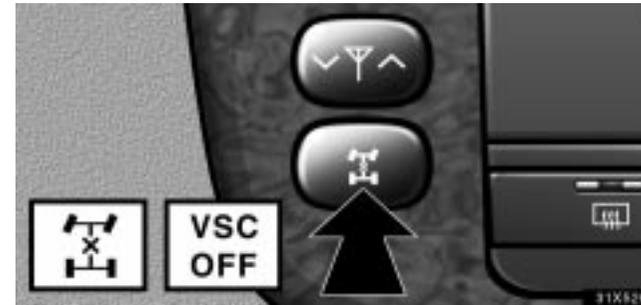
The vehicle stability control system helps provide integrated control of the systems such as anti-lock brakes, traction control, engine control, etc. This system automatically controls the output of the brakes or engine to help prevent the vehicle from skidding under adverse conditions.

When you turn the ignition switch on, the slip indicator light will come on. The slip indicator light will go off after a few seconds

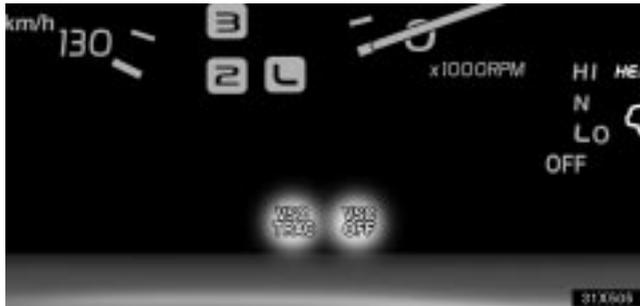
If the vehicle is going to skid during driving, the slip indicator light flashes and an alarm sounds intermittently.

The vehicle stability control system activates when the vehicle speed is about more than 15 km/h (9 mph).

You may hear a sound in the engine compartment for a few seconds when the engine is started or just after the vehicle begins to move. This means that the vehicle stability control is in the self-check mode and does not indicate a malfunction.



Pushing the center differential lock button automatically turns the vehicle stability control system off. At this time, the "VSC OFF" indicator comes on with the center differential lock indicator light. (For details, see "Four-wheel drive system" on page 250.)



► **Vehicle stability control system failure warning**

These lights warn when there is a problem somewhere in the vehicle stability control system or active traction control system.

If the “VSC/TRAC” warning light and “VSC OFF” indicator light come on, have your vehicle checked by your Lexus dealer as soon as possible. However, there is no problem even if the “VSC/TRAC” warning light comes on when the brake actuator temperature becomes high. (For details, see “Active traction control system” on page 272.)

When the “ABS” warning light comes on, the vehicle stability control system is not operating.

The lights will come on when the ignition key is turned to “ON”, and will go off after a few seconds.

The lights may stay on for 60 seconds after the ignition key is turned to the “ON” position. It is normal if they go off after a few seconds.

Depressing the brake pedal repeatedly may turn on the lights. It is normal if they go off after a few seconds.

When the “VSC/TRAC” warning light and “VSC OFF” indicator light come on, the vehicle stability control system is not operating, but there is no problem if you continue to drive.

In the following cases, contact your Lexus dealer:

- The “VSC/TRAC” warning light, “VSC OFF” indicator light and slip indicator light do not come on after the ignition is turned to on.
- The “VSC/TRAC” warning light and “VSC OFF” indicator light remain on after the ignition is turned to on.
- The “VSC OFF” indicator light comes on while driving without pushing the center differential lock switch.



CAUTION

- **Active traction control system, vehicle stability control system and anti-lock brake system are electronic systems designed to help the driver maintain control under adverse conditions. They are not a substitute for safe driving practices. Factors including speed, road conditions and driver steering input can all affect whether active traction control system, vehicle stability control system and anti-lock brake system will be effective in preventing a loss of control. Always keep safety driving in mind. If the slip indicator light flashes, sounding an alarm, special care should be taken while driving.**

STARTING AND DRIVING

- Only use tires of specified size. The size, manufacturer, brand and tread pattern for all 4 tires should be the same. If you use the tires other than specified, or different type or size, the vehicle stability control system may not function correctly. When replacing the tires or wheels, contact your Lexus dealer. (See "Checking and replacing tires" on page 397.)

VARIABLE GEAR RATIO STEERING SYSTEM

The variable gear ratio steering system adjusts the wheel turning angle depending on the vehicle speed and how much you turn the steering wheel.

The vehicle wheel turning angle will be changed with a smaller degree of wheel maneuvering when you are driving at very low speed such as when putting your vehicle into a garage.

In the following cases, to prevent the system from overheating, the system could be temporarily deactivated with the change in the center position of the steering wheel. This is not a malfunction. After the cause of the problem is eliminated, the system will return to normal automatically after a few minutes.

- If you continue maneuvering the steering wheel when the vehicle is stopped or running at very low speed
- If you continue driving holding the steering wheel to the extreme right or left
- If you maneuver the steering wheel immediately after starting the engine at less than about -30°C (-22°F)

While the system is not functioning, a larger degree of wheel maneuvering is needed during driving at low speed. If the center position of the steering wheel is changed frequently, have your vehicle inspected at your Lexus dealer.

CAUTION

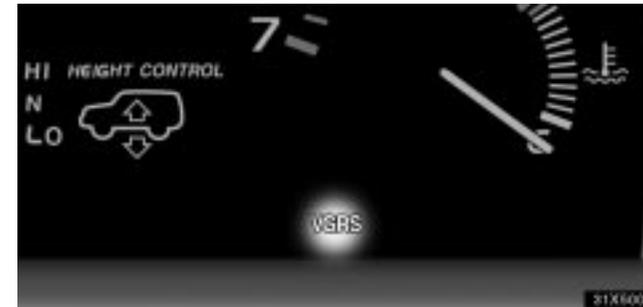
Take due care especially when driving at low speed as the vehicle changes direction in greater proportion to the steering wheel maneuvering.

NOTICE

Do not disconnect the battery with the steering wheel turned, or the center position of the steering wheel could be slightly and temporarily changed. However, after driving for a short while, the system will return to normal and the center position of the steering wheel will be in the appropriate position.

The light will flash if you disconnect and reconnect the battery terminal. This is because the system is reset temporarily. However, it is no problem to drive. To turn off the light, drive for a short while. The system will be set automatically and return to normal.

Variable gear ratio steering system failure warning



This light warns that there is a problem somewhere in the variable gear ratio steering system.

The light will come on when the ignition key is turned to "ON" and will go off after a few seconds.

If the light comes on while driving, the system is not working. Although conventional steering operates when maneuvered, a larger degree of wheel maneuvering (than at the time when the system is functioning properly) is needed when driving at low speed. At this time, the center position of the steering wheel could be changed. Although it is no problem to continue driving, have your vehicle repaired at your Lexus dealer.

STARTING AND DRIVING

In the following cases, contact your Lexus dealer.

- The warning light does not come on after the ignition key is turned to "ON".
- The warning light remains on after the ignition key is turned to "ON".
- The warning light comes on while driving.

BRAKE SYSTEM

This brake system has 2 independent hydraulic circuits. If either circuit should fail, the other will still work. However, the pedal will be harder to press, and your stopping distance will increase. Also, the brake system warning light may come on.

CAUTION

Do not drive your vehicle with only a single brake system. Have your brakes fixed immediately.

Brake booster

The brake booster uses brake fluid pressurized by the pump to power-assist the brakes. If the brake booster fails during driving, the brake system warning light comes on and buzzer sounds continuously. In this case, the brakes may not work properly. If they do not work well, depress the brake pedal firmly. If the brake system warning light comes on, immediately stop your vehicle and contact your Lexus dealer.

The brake system warning light may stay on for about 60 seconds after the ignition key is turned to the "ON" position. It is normal if the light turns off after a while.

Depressing the brake pedal repeatedly may turn on the brake system warning light and buzzer. It is normal if the light goes out and the buzzer stops sounding after a few seconds.

You may hear a small sound in the engine compartment after the engine is started or the brake pedal is depressed repeatedly. This is a pump pulsating sound of the brake system, and it is not a malfunction.

CAUTION

- **Do not pump the brake pedal if the engine stalls. Each push on the pedal uses up your brake fluid pressure reserve.**
- **Even if the power assist is completely lost, the brakes will still work. But you will have to push the pedal hard, much harder than normal. And your braking distance will increase.**

Anti-lock brake system

The anti-lock brake system is designed to automatically help prevent lock-up of the wheels during a sudden brake or braking on slippery road surfaces. This assists in providing directional stability and steering performance of the vehicle under these circumstances.

Effective way to press the ABS brake pedal: When the anti-lock brake system function is in action, you may feel the brake pedal pulsating and hear a noise. In this situation, to let the anti-lock brake system work for you, just hold the brake pedal down more firmly. Do not pump the brake in a panic stop. This will result in reduced braking performance.

The anti-lock brake system becomes operative after the vehicle has accelerated to a speed in excess of approximately 10 km/h (6 mph). It stops operating when the vehicle decelerates to a speed below approximately 5 km/h (3 mph).

Depressing the brake pedal on slippery road surfaces such as on a manhole cover, a steel plate at a construction site, joints in a bridge, etc. on a rainy day tends to activate the anti-lock brake system.

You may hear a click or motor sound in the engine compartment for a few seconds when the engine is started or just after the vehicle begins to move. This means that the anti-lock brake system is in the self-check mode, and does not indicate a malfunction.

When the anti-lock brake system is activated, the following conditions may occur. They do not indicate a malfunction of the system:

- You may hear the anti-lock brake system operating and feel the brake pedal pulsating and the vibrations of the vehicle body and steering wheel. You may also hear the motor sound in the engine compartment even after the vehicle is stopped.
- At the end of the anti-lock brake system activation, the brake pedal may move a little to the forward.

STARTING AND DRIVING



CAUTION

Do not overestimate the anti-lock brake system: Although the anti-lock brake system assists in providing vehicle control, it is still important to drive with all due care and maintain a moderate speed and safe distance from the vehicle in front of you, because there are limits to the vehicle stability and effectiveness of steering wheel operation even with the anti-lock brake system on.

If tire grip performance exceeds its capability, or if hydroplaning occurs during high speed driving in the rain, the anti-lock brake system does not provide vehicle control.

Anti-lock brake system is not designed to shorten the stopping distance: Always drive at a moderate speed and maintain a safe distance from the vehicle in front of you. Compared with vehicles without an anti-lock brake system, your vehicle may require a longer stopping distance in the following cases:

- Driving on rough, gravel or snow-covered roads.
- Driving with tire chains installed.

- Driving over the steps such as the joints on the road.
- Driving on roads where the road surface is pitted or has other differences in surface height.

Install all 4 tires of specified size at appropriate pressure: The anti-lock brake system detects vehicle speeds using the speed sensors for respective wheels' turning speeds. The use of tires other than specified may fail to detect the accurate turning speed resulting in a longer stopping distance.

“ABS” warning light



The light comes on when the ignition key is turned to the “ON” position. If the anti-lock brake system and the brake assist system work properly, the light turns off after a few seconds. Thereafter, if either of the systems malfunctions, the light comes on again.

When the “ABS” warning light is on (and the brake system warning light is off), the anti-lock brake system, the brake assist system, the active traction control system and/or the vehicle stability control system do/does not operate, but the brake system still operates conventionally.

When the “ABS” warning light is on (and the brake system warning light is off), the anti-lock brake system does not operate so that the wheels could lock up during a sudden braking or braking on slippery road surfaces.

If either of the following conditions occurs, this indicates a malfunction somewhere in the components monitored by the warning light system. Contact your Lexus dealer as soon as possible to service the vehicle.

- The light does not come on when the ignition key is turned to the “ON” position, or remains on.
- The light comes on while you are driving.

A warning light turning on briefly during operation does not indicate a problem.



CAUTION

If the “ABS” warning light remains on together with the brake system warning light, immediately stop your vehicle at a safe place and contact your Lexus dealer.

In this case, not only the anti-lock brake system will fail but also the vehicle will become extremely unstable during braking.

Either of the following conditions may occur, but do not indicate a malfunction:

- The light may stay on for about 60 seconds after the ignition key is turned to the “ON” position. It is normal if it turns off after a while.
- Depressing the brake pedal repeatedly may turn on the light. It is normal if it turns off after a few seconds.

STARTING AND DRIVING

Brake assist system

When you slam the brakes on, the brake assist system judges as an emergency stop and provides more powerful braking for a driver who cannot hold down the brake pedal firmly.

When you slam the brakes on, more powerful braking will be applied. At this time, you may hear a sound in the engine compartment and feel the vibrations of the brake pedal. This does not indicate a malfunction.

The brake assist system becomes operative after the vehicle has accelerated to a speed in excess of approximately 10 km/h (6 mph). It stops operating when the vehicle decelerates to a speed below approximately 5 km/h (3 mph).

The brake assist system may not work for about 60 seconds after the engine is started.

For an explanation of this system's warning light, see "ABS warning light" on page 58 or 281.

Drum-in-disc type parking brake system

Your vehicle has a drum-in-disc type parking brake system. This type of brake system needs bedding-down of the brake shoes periodically or whenever the parking brake shoes and/or drums are replaced.

Have your Lexus dealer perform the bedding-down.

BRAKE PAD WEAR LIMIT INDICATORS



The brake pad wear limit indicators on your disc brakes give a warning noise when the brake pads are worn to the extent that replacement is required.

If you hear a squealing or scraping noise while driving, have the brake pads checked and replaced by your Lexus dealer as soon as possible. Expensive rotor damage can result if the pads are not replaced when needed.

SECTION 3-2

STARTING AND DRIVING

Driving tips

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OFF-ROAD VEHICLE PRECAUTIONS



This vehicle belongs to the utility vehicle class, which has higher ground clearance and narrower tread in relation to the height of its center of gravity to make it capable of performing in a wide variety of off-road applications. Specific design characteristics give it a higher center of gravity than ordinary passenger cars. This vehicle design feature causes this type of vehicle to be more likely to rollover. And, utility vehicles have a significantly higher rollover rate than other types of vehicles. An advantage of the higher ground clearance is a better view of the road allowing you to anticipate problems. It is not designed for cornering at the same speeds as ordinary passenger cars any more than low-slung sports cars designed to perform satisfactorily under off-road conditions. Therefore, sharp turns at excessive speeds may cause rollover.

CAUTION

Always observe the following precautions to minimize the risk of serious personal injury or damage to your vehicle:

- In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt. Therefore, the driver and all passengers should fasten their seat belts whenever the vehicle is moving.
- Avoid sharp turns or abrupt maneuvers, if at all possible. Failure to operate this vehicle correctly may result in loss of control or vehicle rollover causing death or serious injury.
- Loading cargo on the roof luggage carrier will make the center of the vehicle gravity higher. Avoid high speeds, sudden starts, sharp turns, sudden braking or abrupt maneuvers, otherwise it may result in loss of control or vehicle rollover due to failure to operate this vehicle correctly.
- Always slow down in gusty crosswinds. Because of its profile and higher center of gravity, your vehicle is more sensitive to side winds than an ordinary passenger car. Slowing down will allow you to have better control.

- When driving off-road or in rugged terrain, do not drive at excessive speeds, jump, make sharp turns, strike objects, etc. This may cause loss of control or vehicle rollover causing death or serious injury. You are also risking expensive damage to your vehicle's suspension and chassis.
- Do not drive horizontally across steep slopes. Driving straight up or straight down is preferred. Your vehicle (or any similar off-road vehicle) can tip over sideways much more easily than forward or backward.

BREAK-IN PERIOD

Drive gently and avoid high speeds.

You need not follow a break-in schedule with your new Lexus. But following a few simple tips for the first 1600 km (1000 miles) can add to the future economy and long life of your vehicle:

- Avoid full throttle acceleration when starting and driving.
- Avoid racing the engine.
- Try to avoid hard stops during the first 300 km (200 miles).
- Do not drive for a long time at any single speed, either fast or slow.
- Do not tow a trailer during the first 800 km (500 miles).

OPERATION IN FOREIGN COUNTRIES

If you plan to drive your Lexus in another country ...

First, comply with the vehicle registration laws.

Second, confirm the availability of the correct fuel (unleaded and minimum octane rating).

DRIVING TIPS

TIPS FOR DRIVING IN VARIOUS CONDITIONS

- Always slow down in gusty crosswinds. This will allow you much better control.
- Drive slowly onto curbs and, if possible, at a right angle. Avoid driving onto high, sharp-edged objects and other road hazards. Failure to do so can lead to severe tire damage such as a tire burst.
Drive slowly when passing over bumps or travelling on a bumpy road. Otherwise, the impact could cause severe damage to the tires and/or wheels.
- When parking on a hill, turn the front wheels until they touch the curb so that the vehicle will not roll. Apply the parking brake, and place the transmission in "P". If necessary, block the wheels.
- Washing your vehicle or driving through deep water may get the brakes wet. To see whether they are wet, check that there is no traffic near you and then press the pedal lightly. If you do not feel a normal braking force, the brakes are probably wet. To dry them, drive the vehicle cautiously while lightly pressing the brake pedal with the parking brake applied. If they still do not work safely, pull to the side of the road and call a Lexus dealer for assistance.

CAUTION

- Before driving off, make sure the parking brake is fully released and that the parking brake reminder light is off.
- Do not leave your vehicle unattended while the engine is running.
- Do not rest your foot on the brake pedal while driving. It can cause dangerous overheating, needless wear, and poor fuel economy.
- To drive down a long or steep hill, reduce your speed and downshift. Remember, if you ride the brakes excessively, they may overheat and not work properly. See page 247.
- Be careful when accelerating, upshifting, downshifting or braking on a slippery surface. The abrupt change in engine speed, such as sudden acceleration or engine braking, could cause the vehicle to spin or skid.
- Do not drive in excess of the speed limit. Even if the legal speed limit permits it, do not drive over 140 km/h (85 mph) unless your vehicle has high-speed capability tires. Driving over 140 km/h (85 mph) may result in tire failure, loss of control and possible injury. Be sure to consult a tire dealer to determine whether the tires on your vehicle are high-speed capability tires or not before driving at such speeds.

- Do not continue normal driving when the brakes are wet. If they are wet, your vehicle will require a longer stopping distance, and it may pull to one side when the brakes are applied. Also, the parking brake will not hold the vehicle securely.
- If you drive through deep water over about 500 mm (20 in.) in depth, put the vehicle height in the HI (High) mode with the active height select switch and then turn off the active height control suspension by pushing the height control switch. Drive your vehicle at 30 km/h (19 mph) or lower speed.

OFF-ROAD DRIVING PRECAUTIONS

When driving your vehicle off-road, please observe the following precautions to ensure your driving enjoyment and to help prevent the closure of areas to off-road vehicles.

- a. Drive your vehicle only in areas where off-road vehicles are permitted to travel.
- b. Respect private property. Get owner's permission before entering private property.
- c. Do not enter areas that are closed. Honor gates, barriers and signs that restrict travel.
- d. Stay on established roads. When conditions are wet, driving techniques should be changed or travel delayed to prevent damage to roads.

For owners in U.S. mainland, Hawaii and Puerto Rico:

To obtain additional information pertaining to driving your vehicle off-road, consult the following organizations.

- State and Local Parks and Recreation Departments
- State Motor Vehicle Bureau
- Recreational Vehicle Clubs
- U.S. Forest Service and Bureau of Land Management

DRIVING TIPS



CAUTION

Always observe the following precautions to minimize the risk of serious personal injury or damage to your vehicle:

- Drive carefully when off the road. Do not take unnecessary risks by driving in dangerous places.
- Do not grip the steering wheel spokes when driving off-road. A bad bump could jerk the wheel and injure your hands. Keep both hands and especially your thumbs on the outside of the rim.
- Always check your brakes for effectiveness immediately after driving in sand, mud, water or snow.
- After driving through tall grass, mud, rock, sand, rivers, etc., check that there is no grass, bush, paper, rags, stone, sand, etc. adhering or trapped on the underbody. Clear off any such matter from the underbody. If the vehicle is used with these materials trapped or adhering to the underbody, a breakdown or fire could occur.
- In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a seat belt. Therefore, the driver and all passengers should fasten their seat belts whenever the vehicle is moving.

- When driving off-road or in rugged terrain, do not drive at excessive speeds, jump, make sharp turns, strike objects, etc. This may cause loss of control or vehicle rollover causing death or serious injury. You are also risking expensive damage to your vehicle's suspension and chassis.

NOTICE

- *If driving through water, such as when crossing shallow streams, first check the depth of the water and the bottom of the river bed for firmness. Drive slowly and avoid deep water.*
- *Take all necessary safety measures to ensure that water damage to the engine or other components does not occur.*
Water entering the engine air intake will cause severe engine damage.
Water can wash the grease from wheel bearings, causing rusting and premature failure, and may also enter the differentials, transmission and transfer case, reducing the gear oil's lubricating qualities.
- *Sand and mud that has accumulated in brake drums and around brake discs may affect braking efficiency and may damage brake system components.*

- ***Always perform a maintenance inspection after each day of off-road driving that has taken you through rough terrain, sand, mud, or water. For scheduled maintenance information, refer to the "Owner's Manual Supplement / Scheduled Maintenance".***

WINTER DRIVING TIPS

Make sure you have a proper freeze protection for engine coolant.

Only use "Toyota Super Long Life Coolant" or similar high quality ethylene glycol based non-silicate, non-amine, non-nitrite, and non-borate coolant with long-life hybrid organic acid technology.

See "Checking the engine coolant level" on page 373 for details of coolant type selection.

"Toyota Super Long Life Coolant" is pre-mixed with 50% coolant and 50% deionized water. This coolant provides protection down to about -35°C (-31 °F)

NOTICE

Do not use plain water alone.

Check the condition of the battery and cables.

Cold temperatures reduce the capacity of any battery, so it must be in top shape to provide enough power for winter starting. Page 408 tells you how to visually inspect the battery. Your Lexus dealer and most service stations will be pleased to check the battery charge level.

DRIVING TIPS

Make sure the engine oil viscosity is suitable for the cold weather.

See page 371 for recommended viscosity. Leaving a heavy summer oil in your vehicle during winter months may cause harder starting. If you are not sure about which oil to use, call your Lexus dealer - they will be pleased to help.

Check the electronic ignition system for loose connections or obvious damage.

Keep the door locks from freezing.

Squirt lock de-icer or glycerine into the locks to keep them from freezing.

Use a washer fluid containing an antifreeze solution.

This product is available at your Lexus dealer and most auto parts stores. Follow the manufacturer's directions for how much to mix with water.

NOTICE

Do not use engine antifreeze or any other substitute because it may damage your vehicle's paint.

Do not use your parking brake when there is a possibility it could freeze.

When parking, put the transmission into "P" and block the front wheels. Do not use the parking brake, or snow or water accumulated in and around the parking brake mechanism may freeze the parking brake, making it hard to release.

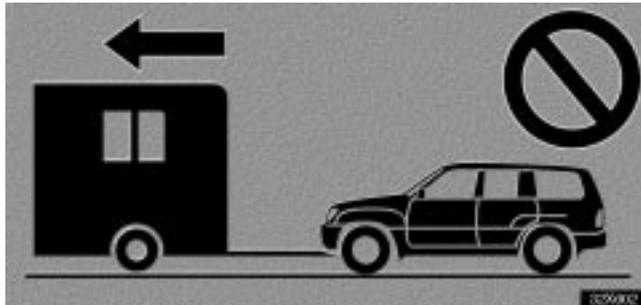
Keep ice and snow from accumulating under the fenders.

Ice and snow built up under your fenders can make steering difficult. During bad winter driving, stop and check under the fenders occasionally.

Depending on where you are driving, we recommend you carry some emergency equipment.

Some of the things you might put in the vehicle are tire chains, window scraper, bag of sand or salt, flares, small shovel, jumper cables, etc.

DINGHY TOWING



Your vehicle is not designed to be dinghy towed (with four wheels on the ground) behind a motorhome.

NOTICE

Do not tow your vehicle with four wheels on the ground. This may cause serious damage to your vehicle.

TRAILER TOWING

Your vehicle is designed primarily as a passenger-and-load carrying vehicle. Towing a trailer will have an adverse effect on handling, performance, braking, durability and driving economy (fuel consumption, etc.). Your safety and satisfaction depend on the proper use of correct equipment and cautious driving habits. For your safety and the safety of others, you must not overload your vehicle or trailer. Lexus warranties do not apply to damage or malfunction caused by towing a trailer for commercial purposes. Ask your local Lexus dealer for further details before towing.

CAUTION

When disconnecting a trailer, put the vehicle height in the "LO" (Low) mode and push the height control switch to turn off the active height control suspension. Otherwise, the vehicle height may be changed because of the automatic leveling function, resulting in an accident. For details, see "Active height control suspension (AHC)" on page 262.

DRIVING TIPS

Weight limits

Before towing, make sure the total trailer weight, gross vehicle weight, gross axle weight and trailer tongue load are all within the limits.

The total trailer weight and tongue load can be measured with platform scales found at a highway weighing station, building supply company, trucking company, junk yard, etc.

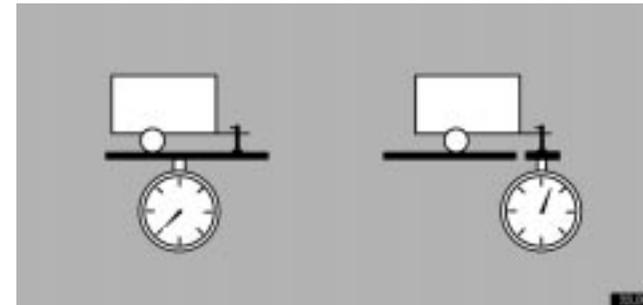


► *Certification label*

CAUTION

- The maximum gross trailer weight (trailer weight plus cargo weight) must never exceed 2268 kg (5000 lb.) for vehicles with equipped. For details, contact your Lexus dealer. If towing a trailer and cargo weighing over 907 kg (2000 lb.), it is necessary to use a sway control device with sufficient capacity. The combination of the gross trailer weight added to the total weight of the vehicle, occupants and vehicle cargo must never exceed a total of 4945 kg (10900 lb.). Exceeding the maximum weight of the trailer, the vehicle, or the vehicle and trailer combination, can cause an accident resulting in serious personal injuries.
- Trailer hitch assemblies have different weight capacities established by the hitch manufacturer. Even though the vehicle may be physically capable of towing a higher weight, the operator must determine the maximum weight rating of the particular hitch assembly and never exceed the maximum weight rating specified for the trailer hitch. Exceeding the maximum weight rating set by the trailer hitch manufacturer can cause an accident resulting in serious personal injuries.

- The gross vehicle weight must not exceed the Gross Vehicle Weight Rating (GVWR) indicated on the Certification Label. The gross vehicle weight is the sum weight of the unloaded vehicle, driver, passengers, luggage, hitch and trailer tongue load. It also includes the weight of any special equipment installed on your vehicle.
- The load on either the front or rear axle resulting from distribution of the gross vehicle weight on both axles must not exceed the Gross Axle Weight Rating (GAWR) listed on the Certification Label.
- Maximum tongue weight for a weight carrying hitch is 227 kg (500 lb.).



► *Total trailer weight*

► *Tongue load*

- The trailer cargo load should be distributed so that the tongue load is 9 to 11 % of the total trailer weight, not exceeding the maximum of 227 kg (500 lb.).
- Never load the trailer with more weight in the back than in the front. About 60 % of the trailer load should be in the front half of the trailer and the remaining 40 % in the rear.

DRIVING TIPS

Tow hitch receiver



A tow hitch receiver should be installed as shown before towing.

CAUTION

- **Never attempt to remove or install a tow hitch. For removal or installation, contact your authorized Lexus dealer.**
- **A tow hitch receiver is rated for weight carrying towing only up to 2268 kg (5000 lb.) Only use this tow hitch receiver on your vehicle. Do not use this tow hitch receiver on any other vehicle.**

Hitches

- Use only weight carrying hitch hardware designed for the total trailer weight with the factory installed hitch.
- If you wish to install an aftermarket hitch, the hitch must be bolted securely to the vehicle frame and installed according to the hitch manufacturer's instructions.
- Lexus recommends the ball mount assembly be removed when not towing to prevent injury and to prevent damage in the event of a rear end collision. After removing the ball mount assembly, install the grommet to the hitch to prevent entry of dirt and mud.

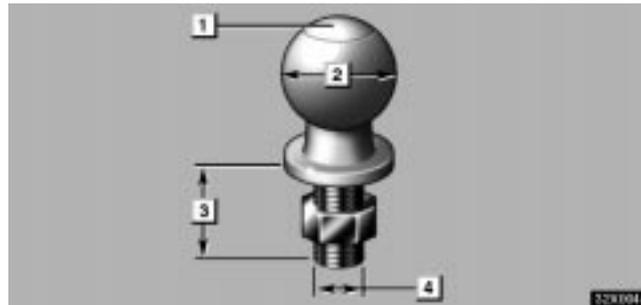
Trailer ball

Follow these easy steps to properly determine the correct trailer ball for your application:

1. Determine the correct trailer ball size for the trailer coupler. Most couplers are stamped with the required trailer ball size. The sizes you'll most likely find stamped on the coupler are:

<u>Trailer Class</u>	<u>Typical Trailer Ball Size</u>
III	2 in.
II	2 in.
I	1 7/8 in.

2. Select the appropriate trailer ball to match or exceed the gross trailer weight rating of the trailer. The trailer ball load rating should be printed on the top of the ball.

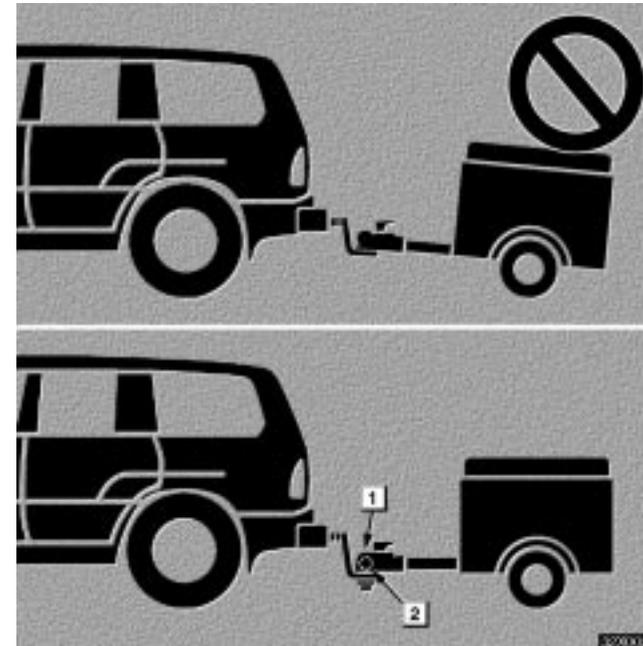


- **1 Trailer ball load rating** **2 Ball diameter**
3 Shank length **4 Shank diameter**

3. When mounted in the ball mount, the threaded ball shank must protrude beyond the bottom of the lock washer and nut at least 2 threads. The trailer ball shank must be matched to the ball mount hole diameter size.

Matching trailer ball height to trailer coupler height

No matter which class of tow hitch applies, for a safe trailer hookup, the trailer ball setup on must be the proper height for the coupler on the trailer.



- **1 Coupler** **2 Trailer ball**

DRIVING TIPS

Brakes and safety chains

- Lexus recommends trailers with brakes that conform to any applicable federal and state/provincial regulations.
- A safety chain must always be used between the towing vehicle and the trailer. Leave sufficient slack in the chain for turns. The chain should cross under the trailer tongue to prevent the tongue from dropping to the ground in case it becomes damaged or separated. For correct safety chain procedures, consult your Lexus dealer.



CAUTION

- If the total trailer weight exceeds 453 kg (1000 lb.), trailer brakes are required.
- Never tap into your vehicle's hydraulic system as it will lower its braking effectiveness.
- Never tow a trailer without using a safety chain securely attached to both the trailer and the vehicle. If damage occurs to the coupling unit or hitch ball, there is possible danger of the trailer wandering over into another lane.

Tires

- Ensure that your vehicle's tires are properly inflated. Adjust the tire inflation pressure to the recommended cold tire inflation pressure indicated below:

Tire inflation pressure, kPa (kgf/cm² or bar, psi)

Front 220 (2.2, 32))

Rear 240 (2.4, 35)

- The trailer tires should be inflated to the pressure recommended by the trailer manufacturer in respect to the total trailer weight.

Trailer lights



- Your vehicle is equipped with a wire harness stored in the rear end underbody. Some models are fitted with a socket for trailer lights under the rear bumper. Use either of them to connect and operate the trailer lights. However, the trailer lights must comply with federal, state/provincial and local regulations. See your local recreational vehicle dealer or rental agency for the correct type of wiring and relays for your trailer. Check for correct operation of the turn signals and stop lights each time you hitch up. Direct splicing may damage your vehicle's electrical system and cause a malfunction of your lights.

Break-in schedule

- Lexus recommends that you do not tow a trailer with a new vehicle or a vehicle with any new power train component (engine, transmission, differential, wheel bearing, etc.) for the first 800 km (500 miles) of driving.

Maintenance

- If you tow a trailer, your vehicle will require more frequent maintenance due to the additional load. For this information, please refer to the scheduled maintenance information in the "Owner's Manual Supplement / Scheduled Maintenance".
- Retighten all fixing bolts of the towing ball and bracket after approximately 1000 km (600 miles) of trailer driving.

Connecting a trailer

Stop your vehicle and a trailer in line and perform the following:

1. Put the active height control suspension in the "LO" (low) mode. Turn the ignition switch off or push the height control switch to turn off the active height control suspension.
2. Connect a trailer.
3. Turn the ignition switch on or push the height control switch to turn on the active height control suspension. Select the "N" (normal) mode with the height select switch.

When a vehicle loaded with 4 occupants tows a trailer of about 1800 kg (4000 lb.) with more than about 180 kg (400 lb.) tongue load, the normal mode may not be selected with the height control indicator "LO". However, there is no problem to continue normal driving. Drive with sufficient care because of large load.

DRIVING TIPS

Disconnecting a trailer

Stop your vehicle and a trailer in line and perform the following:

1. Put the active height control suspension in the "LO" mode. (Make sure the vehicle height is in the "LO" mode by pushing the height select switch on the "▼" side.)
2. Turn the ignition switch off or push the height control switch to turn off the active height control suspension.
3. Set the supporting leg of a trailer on the ground and raise the hitch by 100 mm (4 in.)
4. Turn the ignition switch on or push the height control switch to turn on the active height control suspension.
5. Wait for about 20 seconds until the rear vehicle height is lowered by the automatic leveling function.
6. Make sure the hitch is disconnected. If not, raise the hitch higher and repeat steps 2 through 5.
7. Move the vehicle forward in the "LO" mode where the hitch does not touch anything in the "N" mode.
8. Put the active height control suspension in the "N" mode.

Pre-towing safety check

- Check that your vehicle remains level when a loaded or unloaded trailer is hitched. Do not drive if the vehicle has an abnormal nose-up or nose-down condition, and check for improper tongue load, overload, worn suspension or other possible causes.
- Make sure the trailer cargo is securely loaded so that it cannot shift.
- Check that your rear view mirrors conform to any federal, state/provincial or local regulations. If they do not, install required rear view mirrors appropriate for towing purposes.

Trailer towing tips

When towing a trailer, your vehicle will handle differently than when not towing. The three main causes of vehicle-trailer accidents are driver error, excessive speed and improper trailer loading. Keep these in mind when towing:

- Before starting out, check the operation of the lights and all vehicle-trailer connections. After driving a short distance, stop and recheck the lights and connections. Practice turning, stopping and backing with a trailer in an area away from traffic until you learn the feel.
- Backing with a trailer is difficult and requires practice. Grip the bottom of the steering wheel and move your hand to the left to move the trailer to the left. Move your hand to the right to move the trailer to the right. (This procedure is generally opposite to that when backing without a trailer.) Also, just turn the steering wheel a little at a time, avoiding sharp or prolonged turning. Have someone guide you when backing to reduce the risk of an accident.
- Because stopping distance may be increased, vehicle-to-vehicle distance should be increased when towing a trailer. For each 16 km/h (10 mph) of speed, allow at least one vehicle and trailer length between you and the vehicle ahead. Avoid sudden braking as you may skid, resulting in jackknifing and loss of control. This is especially true on wet or slippery surfaces.
- Avoid jerky starts or sudden acceleration.
- Avoid jerky steering and sharp turns. The trailer could hit your vehicle in a tight turn. Slow down before making a turn to avoid the need of sudden braking.
- Remember that when making a turn, the trailer wheels will be closer than the vehicle wheels to the inside of the turn. Therefore, compensate for this by making a larger than normal turning radius with your vehicle.
- Crosswinds and rough roads will adversely affect handling of your vehicle and trailer, causing sway. Pay attention to the rear from time to time to prepare yourself for being passed by large trucks or buses, which may cause your vehicle and trailer to sway. If swaying happens, firmly grip the steering wheel and reduce speed immediately but gradually. Never increase speed. If it is necessary to reduce speed, brake slowly. Steer straight ahead. If you make no extreme correction with the steering or brakes, your vehicle and trailer will stabilize.
- Be careful when passing other vehicles. Passing requires considerable distance. After passing a vehicle, do not forget the length of your trailer and be sure you have plenty of room before changing lanes.
- In order to maintain efficient engine braking and electrical charging performance, do not use overdrive. Transmission must be "4" position.
- Because of the added load of the trailer, your vehicle's engine may overheat on hot days (at temperatures over 30°C [85°F]) when going up a long or steep grade with a trailer. If the engine coolant temperature gauge indicates overheating, immediately turn off the air conditioning (if in use), pull your vehicle off the road and stop in a safe spot.

DRIVING TIPS

See “If your vehicle overheats” on page 312.

- Always place wheel blocks under both the vehicle and trailer wheels when parking. Apply the parking brake firmly. Put the transmission in “P”. Avoid parking on a slope with a trailer, but if it cannot be avoided, do so only after performing the following:
 1. Apply the brakes and keep them applied.
 2. Have someone place wheel blocks under both the vehicle and trailer wheels.
 3. When the wheel blocks are in place, release your brakes slowly until the blocks absorb the load.
 4. Apply the parking brake firmly.
 5. Shift into “P” and turn off the engine.

When restarting out after parking on a slope:

1. With the transmission in “P” position, start the engine. Be sure to keep the brake pedal depressed.
2. Shift into the “3”, “2”, “L” or “R” position.
3. Release the parking brake and brake pedal and slowly pull or back away from the wheel blocks. Stop and apply your brakes.
4. Have someone retrieve the blocks.

CAUTION

- **Do not exceed 72 km/h (45 mph) or the posted towing speed limit, whichever is lower. Because instability (swaying) of a towing vehicle-trailer combination usually increases as the speed increases, exceeding 72 km/h (45 mph) may cause loss of control.**
- **Slow down and downshift before descending steep or long downhill grades. Do not make sudden downshifts.**
- **Avoid holding the brake pedal down too long or too frequently. This could cause the brakes to overheat and result in reduced braking efficiency.**

HOW TO SAVE FUEL AND MAKE YOUR VEHICLE LAST LONGER

Improving fuel economy is easy - just take it easy. It will help make your vehicle last longer, too. Here are some specific tips on how to save money on both fuel and repairs:

- **Keep your tires inflated at the correct pressure.** Check the pressure every two weeks, or at least once a month. Underinflation causes tire wear and wastes fuel.
- **Do not carry unneeded weight in your vehicle.** Excess weight puts a heavier load on the engine, causing greater fuel consumption.
- **Avoid lengthy warm-up idling.** Once the engine is running smoothly, begin driving - but gently. Remember, however, that on cold winter days this may take a little longer.
- **Accelerate slowly and smoothly.** Avoid jackrabbit starts.
- **Avoid long engine idling.** If you have a long wait and you are not in traffic, it is better to turn off the engine and start again later.
- **Avoid engine over-revving.** Use a gear position suitable for the road on which you are traveling.
- **Avoid continuous speeding up and slowing down.** Stop-and-go driving wastes fuel.
- **Avoid unnecessary stopping and braking.** Maintain a steady pace. Try to time the traffic signals so you only need to stop as little as possible or take advantage of through streets to avoid traffic lights. Keep a proper distance from other vehicles to avoid sudden braking. This will also reduce wear on your brakes.
- **Avoid heavy traffic or traffic jams whenever possible.**
- **Do not rest your foot on the brake pedal.** This causes premature wear, overheating and poor fuel economy.
- **Maintain a moderate speed on highways.** The faster you drive, the greater the fuel consumption. By reducing your speed, you will cut down on fuel consumption.
- **Keep the front wheels in proper alignment.** Avoid hitting the curb and slow down on rough roads. Improper alignment not only causes faster tire wear but also puts an extra load on the engine, which, in turn, wastes fuel.
- **Keep the bottom of your vehicle free from mud, etc.** This not only lessens weight but also helps prevent corrosion.

DRIVING TIPS

- **Keep your vehicle tuned-up and in top shape.** A dirty air cleaner, improper valve clearance, dirty plugs, dirty oil and grease, brakes not adjusted, etc. all lower engine performance and contribute to poor fuel economy. For longer life of all parts and lower operating costs, keep all maintenance work on schedule, and if you often drive under severe conditions, see that your vehicle receives more frequent maintenance. (For scheduled maintenance information, please refer to the “Owner’s Manual Supplement / Scheduled Maintenance”.)

CAUTION

Never turn off the engine to coast down hills. Your power steering and brake booster will not function without the engine running. Also, the emission control system operates properly only when the engine is running.

VEHICLE LOAD LIMITS

Vehicle load limits include total load capacity, seating capacity, towing capacity and cargo capacity. Follow the load limits shown below.

Total load capacity: 545 kg (1200 lb.)

Total load capacity means combined weight of occupants, cargo and luggage. Tongue load is included when trailer towing.

Seating capacity: Total 8 (Front 2, Rear 6)

Seating capacity means the maximum number of occupants whose weight is supposed to be 68 kg (150 lb.) per person. Depending on the weight of person, the seating capacity given may exceed the total load capacity.

NOTICE

Even if the number of occupants are within the seating capacity, do not exceed the total load capacity.

Towing capacity: 2268 kg (5000 lb.)

Towing capacity means the maximum gross trailer weight (trailer weight plus its cargo weight) that your vehicle is able to tow.

Cargo capacity

Cargo capacity may increase or decrease depending on the size (weight) and the number of occupants. For details, see “Capacity and distribution” that follows.

 **CAUTION**

Do not apply the load more than each load limit. That may cause not only damage to the tires, but also deterioration to the steering ability and braking ability, causing an accident.

CARGO AND LUGGAGE**Stowage precautions**

When stowing cargo and luggage in or on the vehicle, observe the following:

- Put cargo and luggage in the luggage compartment when at all possible. Be sure all items are secured in place.
- Be careful to keep the vehicle level. Placing the weight as far forward as possible helps maintain vehicle balance.
- For better fuel economy, do not carry unnecessary weight.

 **CAUTION**

- **To prevent cargo and luggage from sliding forward during braking, do not stack anything in the luggage compartment higher than the seatbacks. Keep cargo and luggage low, as close to the floor as possible.**

DRIVING TIPS

- Never allow anyone to ride in the luggage compartment. It is not designed for passengers. They should ride in their seats with their seat belts properly fastened. Otherwise, they are much more likely to suffer serious bodily injury, in the event of sudden braking or a collision.
- Do not drive with objects left on top of the instrument panel. They may interfere with the driver's field of view. Or they may move during sharp vehicle acceleration or turning, and impair the driver's control of the vehicle. In an accident they may injure the vehicle occupants.

NOTICE

Do not load the vehicle beyond the vehicle capacity weight specified on the tire pressure label.

Capacity and distribution

Cargo capacity depends on the total weight of the occupants.

(Cargo capacity) = (Total load capacity) – (Total weight of occupants)

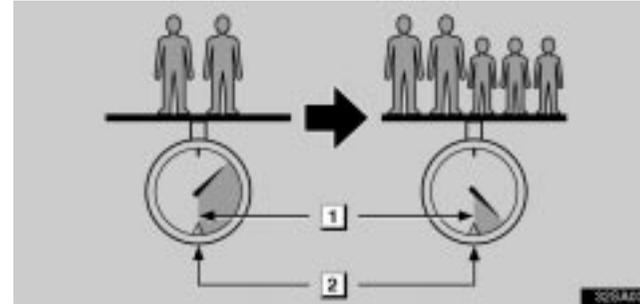
Steps for determining correct load limit

1. Locate the statement "The combined weight of occupants and cargo should never exceed XXX pounds" on your vehicle's placard.
2. Determine the combined weight of the driver and passengers that will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX kilograms or XXX pounds.
4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the "XXX" amount equals 1400 lbs. and there will be five 150 lb. passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs. $1400 - 750 (5 \times 150) = 650$ lbs.
5. Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.

6. If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

For details about trailer towing, see page 291.

Example on your vehicle



► **1** *Cargo capacity* **2** *Total load capacity*

In case that 2 people with the combined weight of 166 kg (366 lb.) are riding in your vehicle with the total load capacity of 545 kg (1200 lb.), the available amount of cargo and luggage load capacity will be as follows:

$$545 \text{ kg} - 166 \text{ kg} = 379 \text{ kg.}$$

$$(1200 \text{ lb.} - 366 \text{ lb.} = 834 \text{ lb.})$$

From this condition, if 3 more passengers with the combined weight of 176 kg (388 lb.) get on, the available cargo and luggage load will be reduced as follows:

$$379 \text{ kg} - 176 \text{ kg} = 203 \text{ kg.}$$

$$(834 \text{ lb.} - 388 \text{ lb.} = 446 \text{ lb.})$$

DRIVING TIPS

As shown in the above example, if the number of occupants increases, the cargo and luggage load equaling the combined weight of occupants who got on later must be reduced. In other words, if the increase in the number of occupants causes the excess of the total load capacity (combined weight of occupants plus cargo and luggage load), you have to reduce the cargo and luggage on your vehicle.

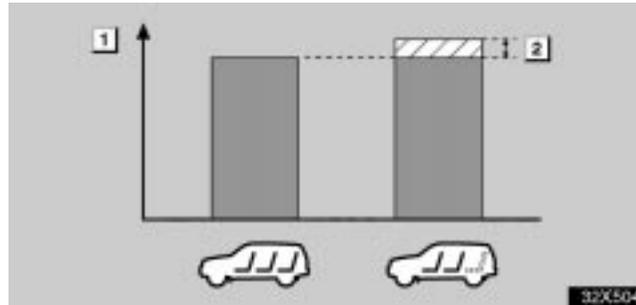
For details about total load capacity, see "Vehicle load limits" on page 302.



CAUTION

Even if the total load of occupant's weight and the cargo load is less than the total load capacity, do not apply the load unevenly. That may cause not only damage to the tire but also deterioration to the steering ability due to unbalance of the vehicle, causing an accident.

Seating configuration variation



- ▶ **1** *Cargo capacity*
- 2** *Weight of removed third seat*

In case of removing the third seat, it is possible to load as much cargo as the weight of the removed seat.

$(\text{Cargo capacity}) = (\text{Total load capacity}) - (\text{Total weight of occupants}) + (\text{Weight of the removed third seat})$

Third seat weight:

Right	20 kg (44 lb.)
Left	20 kg (44 lb.)

SECTION 4

IN CASE OF AN EMERGENCY

In case of an emergency

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If your vehicle becomes stuck	324
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IN CASE OF AN EMERGENCY

IF YOUR ENGINE STALLS WHILE DRIVING

If your engine stalls while driving

1. Reduce your speed gradually, keeping a straight line. Move cautiously off the road to a safe place.
2. Turn on your emergency flashers.
3. Try starting the engine again.

If the engine will not start, see "If your vehicle will not start".



CAUTION

If the engine is not running, the power assist for the brakes and steering will not work, so steering and braking will be much harder than usual.

IF YOUR VEHICLE WILL NOT START

(a) Simple checks

Before making these checks, make sure you have followed the correct starting procedure instructions in "How to start the engine" on page 242 and that you have sufficient fuel. Since your vehicle is equipped with the engine immobilizer system, also check whether the other keys will start the engine. If they work, your key may be broken. Have the key checked at your Lexus dealer. If none of your keys work, there may be a malfunction in the immobilizer system. Call your Lexus dealer. See "Keys" on page 8.

If the engine is not turning over or is turning over too slowly -

1. Check that the battery terminals are tight and clean.
2. If the battery terminals are O.K., switch on the interior light.
3. If the light is out, dim or goes out when the starter is cranked, the battery is discharged. You may try jump starting. See "(c) Jump starting" for further instruction.

If the light is O.K., but the engine still will not start, it needs adjustment or repair. Call a Lexus dealer, Roadside Assistance or Customer Service Assistance. (See "Foreword".)

NOTICE

Do not pull- or push-start the vehicle. It may damage the vehicle or cause a collision when the engine starts. Also the three-way catalytic converter may overheat and become a fire hazard.

If the engine turns over at its normal speed but will not start -

1. The engine may be flooded because of repeated cranking. See "(b) Starting a flooded engine" for further instructions.
2. If the engine still will not start, it needs adjustment or repair. Call a Lexus dealer, Roadside Assistance or Customer Service Assistance. (See "Foreword".)

(b) Starting a flooded engine

If the engine will not start, your engine may be flooded because of repeated cranking.

If this happens, turn the ignition key to "START" with the accelerator pedal fully depressed, and hold the key at this position for about 30 seconds. Then the cranking hold function stops cranking automatically, and you can try starting the engine with your foot off the accelerator pedal.

If the engine does not start, wait a few minutes and try again.

If the engine still will not start, it needs adjustment or repair. Call a Lexus dealer, Roadside Assistance or Customer Service Assistance. (See "Foreword".)

(c) Jump starting

To avoid serious personal injury and damage to your vehicle which might result from battery explosion, acid burns, electrical burns, or damaged electronic components, these instructions must be followed precisely.

If you are unsure about how to follow this procedure, we strongly recommend that you seek help from your Lexus dealer, Roadside Assistance or Customer Service Assistance. (See "Foreword".)

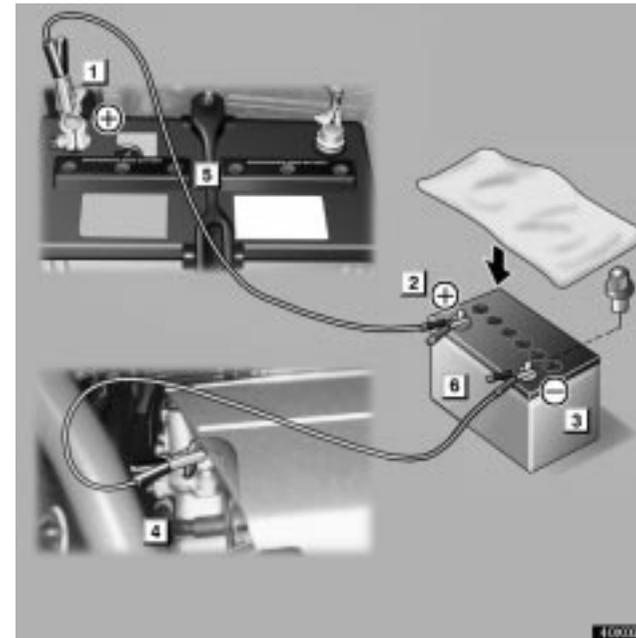
IN CASE OF AN EMERGENCY

CAUTION

- Batteries contain sulfuric acid which is poisonous and corrosive. Wear protective safety glasses when jump starting, and avoid spilling acid on your skin, clothing, or vehicle.
- If you should accidentally get acid on yourself or in your eyes, remove any contaminated clothing and flush the affected area with water immediately. Then get immediate medical attention. If possible, continue to apply water with a sponge or cloth while en route to the medical office.
- The gas normally produced by a battery will explode if a flame or spark is brought near. Use only standardized jumper cables and do not smoke or light a match while jump starting.

NOTICE

The battery used for boosting must be 12 V. Do not jump start unless you are sure that the booster battery is correct.



► **5** Discharged battery **6** Booster battery

JUMP STARTING PROCEDURE

1. If the booster battery is installed in another vehicle, make sure the vehicles are not touching. Turn off all unnecessary lights and accessories.

IN CASE OF AN EMERGENCY

2. If required, remove all the vent plugs from the booster battery. Lay a cloth over the open vents on the booster battery. (This helps reduce the explosion hazard, personal injuries and burns.)

If the booster battery is an extended maintenance interval battery, it is not necessary to remove the vent plugs.

3. If the engine in the vehicle with the booster battery is not running, start it and let it run for about 5 minutes. During jump starting, run the engine at about 2000 rpm with the accelerator pedal lightly depressed.

4. Locate positive (+) and negative (-) terminals of each battery. Connect the jumper cables in the exact order (**1** **2** **3** **4**) shown in the illustration.

- 1** Connect a positive (red) jumper cable clamp to the positive (+) terminal of the discharged battery.
- 2** Connect the clamp at the other end of the positive (red) cable to the positive (+) terminal of the booster battery.
- 3** Connect a negative (black) cable clamp to the negative (-) terminal of the booster battery.
- 4** Connect the clamp at the other end of the negative (black) cable to a solid, stationary, unpainted metallic point (e.g. engine hanger) away from the battery. Do not connect it to or near any part that moves when the engine is cranked.



CAUTION

When making the connections, to avoid serious injury, do not lean over the battery or accidentally let the jumper cables or clamps touch anything except the correct battery terminals or the ground.

5. Start your engine in the normal way. After starting, run it at about 2000 rpm for several minutes with the accelerator pedal lightly depressed.

6. Carefully disconnect the cables in the exact reverse order: the negative cable and then the positive cable.

7. Carefully dispose of the battery cover cloths which may now contain sulfuric acid.

8. If removed, replace all the battery vent plugs.

If the cause of your battery discharging is not apparent (for example, lights left on), you should have it checked at your Lexus dealer.

IN CASE OF AN EMERGENCY

IF YOU CANNOT INCREASE THE ENGINE SPEED

If the engine speed does not increase when the accelerator pedal is depressed, the electronic throttle control system may be faulty. Move the vehicle to a safe place by means of creeping and call a Lexus dealer for assistance:

1. Depress the brake pedal and shift to the "D" position.
2. Gradually release the brake pedal, and the vehicle starts to move by creeping. After arriving at a safe place, stop the vehicle and call a Lexus dealer for assistance.

CAUTION

- The above method of moving the vehicle is for emergency. Use it only for moving minimum distances to a safe place.
- Be especially careful to prevent erroneous pedal operation.

IF YOUR VEHICLE OVERHEATS

If your engine coolant temperature gauge indicates overheating, if you experience a loss of power, or if you hear a loud knocking or pinging noise, the engine has probably overheated.

When the engine overheats

Pull safely off the road, stop the vehicle and turn on your emergency flashers. Put the transmission in "P" and apply the parking brake.

A: If steam is coming from your engine:

Turn off the engine. Leave the hood closed until there is no sign of steam or coolant. Your engine could have been seriously damaged already. Call your Lexus dealer for assistance.

CAUTION

To help avoid personal injury, keep the hood closed until there is no steam. Escaping steam or coolant is sign of very high pressure.

B: If no steam is coming from your engine:

Leave the engine running and turn off the air conditioning. Check the following.

- Is the cooling fan operating?
- Is the coolant in the acceptable range?
- Is the engine drive belt O.K.?

 CAUTION
<ul style="list-style-type: none">• When the engine is running, keep hands and clothing away from the moving fan and engine drive belt.• Do not attempt to remove the radiator cap when the engine and radiator are hot. Serious injury could result from scalding hot fluid and steam blown out under pressure.

If the cooling fan is not operating or the coolant is not in the acceptable range, turn off the engine and call your Lexus dealer.

If both conditions are O.K., after the engine coolant temperature has cooled to normal, continue driving your vehicle.

If the engine coolant temperature does not cool down, or your vehicle overheats again, have it checked as soon as possible by your Lexus dealer.

IF YOU HAVE A FLAT TIRE

1. **Reduce your speed gradually, keeping a straight line. Move cautiously off the road to a safe place - well away from the traffic. Avoid stopping on the center divider of a highway. Park on a level spot with firm ground.**
2. **Stop the engine and turn on your emergency flashers.**
3. **Firmly set the parking brake and put the transmission in "P".**
4. **Have everyone get out of the vehicle on the side away from traffic.**
5. **Read the following instructions thoroughly.**

 CAUTION
<p>When jacking, be sure to observe the following to reduce the possibility of personal injury:</p> <ul style="list-style-type: none">• Turn off the active height control suspension by pushing the active height control switch.• Follow jacking instructions.• Do not put any part of your body under a vehicle supported by a jack. Personal injury may occur.• Do not start or run the engine while your vehicle is supported by the jack.

IN CASE OF AN EMERGENCY

- Stop the vehicle on a level firm ground, firmly set the parking brake and put the transmission in “P”. Block the wheel diagonally opposite to the one being changed if necessary.
- Make sure to set the jack properly in the jack point. Raising the vehicle with jack improperly positioned will damage the vehicle or may allow the vehicle to fall off the jack and cause personal injury.
- Never get under the vehicle when the vehicle is supported by the jack alone.
- Use the jack only for lifting your vehicle during wheel changing.
- Do not raise the vehicle with someone in the vehicle.
- When raising the vehicle, do not place any objects on top of or underneath the jack.
- Raise the vehicle only high enough to remove and change the tire.

NOTICE

Do not continue driving with a deflated tire. Driving even a short distance can damage a tire and wheel beyond repair.



► *On the left side of the luggage compartment*

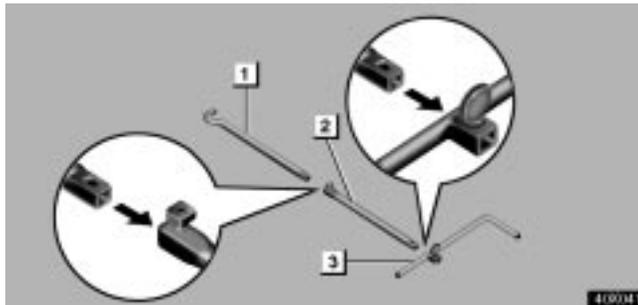
1 Tool bag 2 Jack

1. Get the tool, jack and spare tire.

To prepare yourself for an emergency, you should familiarize yourself with the use of the jack and each tool, and their storage locations.

When storing the jack, put it into place and secure to prevent it from flying forward during a collision or sudden braking.

IN CASE OF AN EMERGENCY



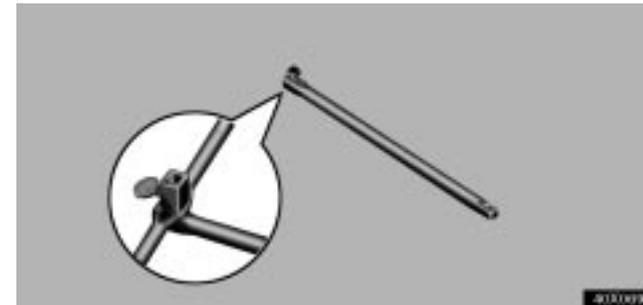
- **1 Jack handle end** **2 Jack handle extension**
3 Jack handle

To remove the spare tire under the luggage compartment:

Put a jack handle, jack handle extensions and jack handle end together as shown in the illustration.

CAUTION

Make sure they are securely fixed with the screws.

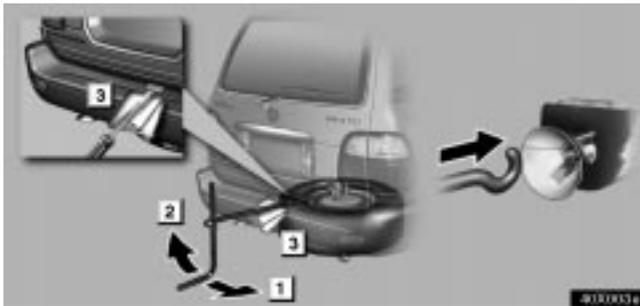


When connecting a jack handle extension with a jack handle end, use a jack handle to tighten the bolts on the joints as shown in the illustration. When connecting the jack handle with extension, tighten the wing bolt on the joint securely. Make sure the hollow meets the bolt on every joint when you tighten the bolts.

NOTICE

Tighten all the joints securely. Otherwise, the extension may come off and it may damage the paint or vehicle body.

IN CASE OF AN EMERGENCY



► **1 Lower 2 Raise 3 Paper**

To remove the spare tire:

1. Remove the spare tire carrier lid using a slotted screwdriver.
2. Insert the end of the jack handle extension into the lowering screw and turn it counterclockwise with the handle, making sure the handle remains firmly fitted onto the jack handle extension.
3. After the tire is lowered completely to the ground, remove the holding bracket.

When storing the spare tire, put it in place with the outer side of the wheel facing up. Then secure the tire, taking care that the tire goes straight up without catching on any other part, to prevent it from flying forward during a collision or sudden braking.

NOTICE

Tighten the spare tire clamp bolt to hold the spare wheel carrier by the hook securely.



2. Block the wheel diagonally opposite the flat tire to keep the vehicle from rolling when it is jacked up.

When blocking a wheel, place a wheel block in front of the front wheels or behind the rear wheels.



► *Paper for protecting surface*

3. Remove the wheel ornament.

Pry off the wheel ornament, using the beveled end of the wheel ornament remover as shown.

! CAUTION

Do not try to pull off the ornament by hand. Take due care in handling the ornament to avoid unexpected personal injury.



4. Loosen all the wheel nuts.

Always loosen the wheel nuts before raising the vehicle.

Turn the wheel nuts counterclockwise to loosen them. To get maximum leverage, fit the wrench to the nut so that the handle is on the right side, as shown above. Grab the wrench near the end of the handle and pull up on the handle. Be careful that the wrench does not slip off the nut.

Do not remove the nuts yet - just unscrew them about one-half turn.

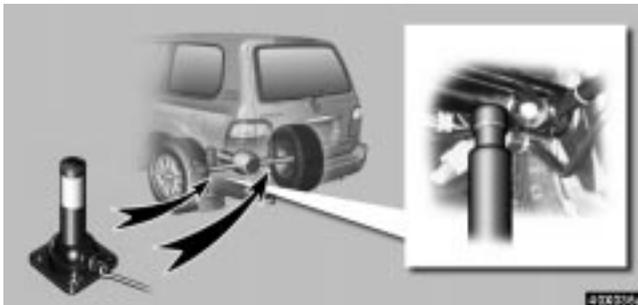
! CAUTION

Never use oil or grease on the bolts or nuts. The nuts may loosen and the wheels may fall off, which could cause a serious accident.

IN CASE OF AN EMERGENCY



► *Front*



► *Rear*

JACK POINTS:

Front - Under the chassis frame side rail at the No.2 body mount bracket

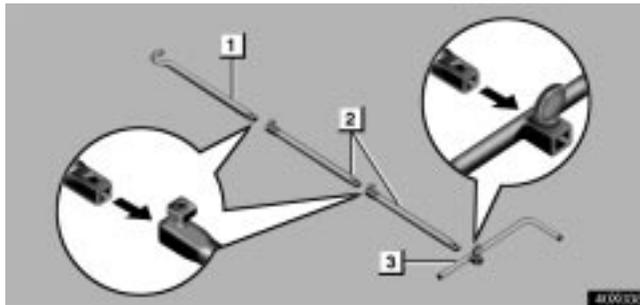
Left rear - Under the rear axle housing

Right rear - Under the bracket on the rear axle housing

5. Position the jack at the jack points as shown.

Make sure the jack is positioned on a level and solid surface.

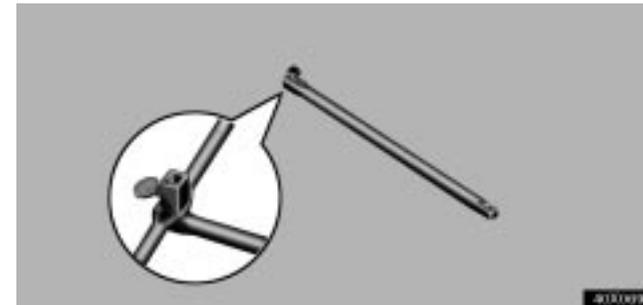
IN CASE OF AN EMERGENCY



- ▶ **1 Jack handle end**
- 2 Jack handle extensions**
- 3 Jack handle**

Put a jack handle, jack handle extensions and jack handle end together as shown in the illustration.

CAUTION
Make sure they are securely fixed with the screws.



When connecting a jack handle extension with a jack handle end, use a jack handle to tighten the bolts on the joints as shown in the illustration. When connecting the jack handle with extension, tighten the wing bolt on the jack handle securely. Make sure the hollow meets the bolt on any joint when you tighten the bolts.

NOTICE
Tighten all the joints securely. Otherwise, the extension may come off and it may damage the paint or vehicle body.

IN CASE OF AN EMERGENCY



6. After making sure no one is in the vehicle, raise it high enough so that the spare tire can be installed.

Allow for the fact that you need more ground clearance when putting on the spare tire than when removing the flat tire.

To raise the vehicle, insert the jack handle extension into the jack (it is a loose fit) and turn it clockwise with the handle, making sure the handle remains firmly fitted onto the jack handle extension. As the jack touches the vehicle and begins to lift, double-check that it is properly positioned.



CAUTION

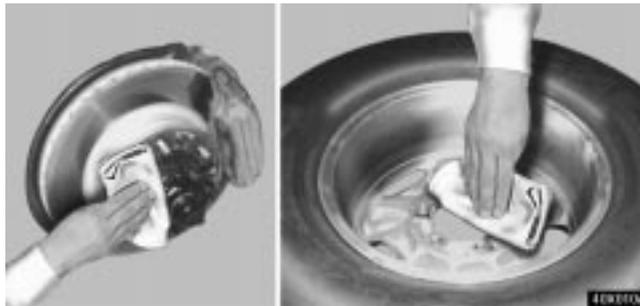
Never get under the vehicle when the vehicle is supported by the jack alone.



7. Remove the wheel nuts and remove the flat tire.

Lift the flat tire straight off and put it aside.

Roll the spare wheel into position and align the holes in the wheel with the bolts. Then lift up the wheel and get at least the top bolt started through its hole. Wiggle the tire and press it back over the other bolts.



Before putting on the wheel, remove any corrosion on the mounting surfaces with a wire brush or such. Installation of wheels without good metal-to-metal contact at the mounting surface can cause wheel nuts to loosen and eventually cause a wheel to come off while driving. Therefore after the first 1600 km (1000 miles), check to see that the wheel nuts are tight.



8. Reinstall all the wheel nuts finger tight.

Reinstall the wheel nuts and tighten them as much as you can by hand. Press the tire back and see if you can tighten them more.



CAUTION

Never use oil or grease on the bolts or nuts. Doing so may lead to overtightening the nuts and damaging the bolts. The nuts may loosen and the wheels may fall off, which could cause a serious accident. If there is oil or grease on any bolt or nut, clean it.

IN CASE OF AN EMERGENCY



9. Lower the vehicle completely and tighten the wheel nuts.

To lower the vehicle, turn the jack handle extension counterclockwise with the handle, making sure the handle remains firmly fitted onto the jack handle extension.

Use only the wheel nut wrench to tighten the nuts. Do not use other tools or any additional leverage other than your hands, such as a hammer, pipe or your foot. Make sure the wrench is securely engaged over the nut.

Tighten each nut a little at a time in the order shown. Repeat the process until all the nuts are tight.

⚠ CAUTION

- When lowering the vehicle, make sure all portions of your body and all other persons around will not be injured as the vehicle is lowered to the ground.
- Have the wheel nuts tightened with torque wrench to 131 N·m (13.4 kgf·m, 97 ft·lbf.), as soon as possible after changing wheels. Otherwise, the nuts may loosen and the wheels may fall off, which could cause a serious accident.

IN CASE OF AN EMERGENCY



10. Reinstall the wheel ornament.

Put the wheel ornament into position and then tap it firmly with the side or heel of your hand to snap it into place.

CAUTION

Take due care in handling the ornament to avoid unexpected personal injury.

11. After changing the wheel, check the air pressure of the replaced tire. Stow all the tools, jack and flat tire securely.

If the pressure of the replaced tire is low, drive slowly to the nearest service station and fill to the correct pressure.

Do not forget to reinstall the tire valve cap as dirt and moisture could get into the valve core and possibly cause air leakage. If the cap is missing, put a new one on as soon as possible.

This is the same procedure for changing or rotating your tires.

CAUTION

Before driving, make sure all the tools, jack and flat tire are securely in place in their storage location to reduce the possibility of personal injury during a collision or sudden braking.

IN CASE OF AN EMERGENCY

IF YOUR VEHICLE BECOMES STUCK

If your vehicle becomes stuck in snow, mud, sand, etc. then you may attempt to rock the vehicle free by moving it forward and backward.

Turn off the active traction control system to become unstuck to allow the tires to spin enough to remove the vehicle from the obstruction. (For details, see “Vehicle stability control system” on page 274.)



CAUTION

Do not attempt to rock the vehicle free by moving it forward and backward if people or objects are anywhere near the vehicle. During the rocking operation the vehicle may suddenly move forward or backward as it becomes unstuck, causing injury or damage to nearby people or objects.

NOTICE

If you rock your vehicle, observe the following precautions to prevent damage to the transmission and other parts.

- *Do not depress the accelerator pedal while shifting the selector lever or before the transmission is completely shifted to forward or reverse gear.*
- *Do not race the engine and avoid spinning the wheels.*
- *If your vehicle remains stuck after rocking the vehicle several times, consider other ways such as towing.*

IF YOUR VEHICLE NEEDS TO BE TOWED

If towing is necessary, we recommend you to have it done by your Lexus dealer or a commercial tow truck service. In consultation with them, have your vehicle towed using either (a) or (b).

- (a) Towing with a wheel lift type truck
- (b) Using a flat bed truck
- (c) Never tow with a sling type truck

Only when you cannot receive a towing service from a Lexus dealer or commercial tow truck service, tow your vehicle carefully in accordance with the instructions given in “(d) Emergency towing” on page 329.

Proper equipment will help ensure that your vehicle is not damaged while being towed. Commercial operators are generally aware of the state/provincial and local laws pertaining to towing.

Your vehicle can be damaged if it is towed incorrectly. Although most operators know the correct procedure, it is possible to make a mistake. To avoid damage to your vehicle, make sure the following precautions are observed. If necessary, show this page to the tow truck driver.

TOWING PRECAUTIONS:

Use a safety chain system for all towing, and abide by the state/provincial and local laws. The wheels and axle on the ground must be in good condition. If they are damaged, use a towing dolly.



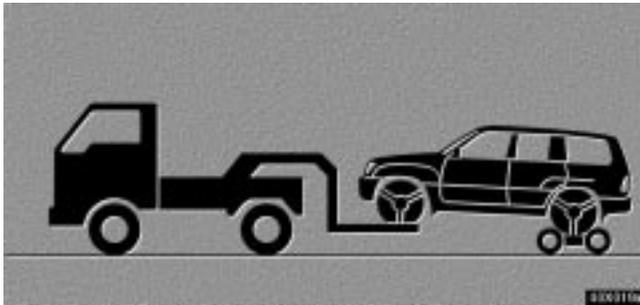
CAUTION

When your vehicle is towed, put the vehicle height in the “N” (Normal) mode and push the height control switch to turn off the height control suspension. Otherwise, the vehicle height may be changed because of the automatic leveling function, resulting in an accident. For details, see “Active height control suspension (AHC)” on page 262.

IN CASE OF AN EMERGENCY

(a) Towing with a wheel lift type truck

- From front

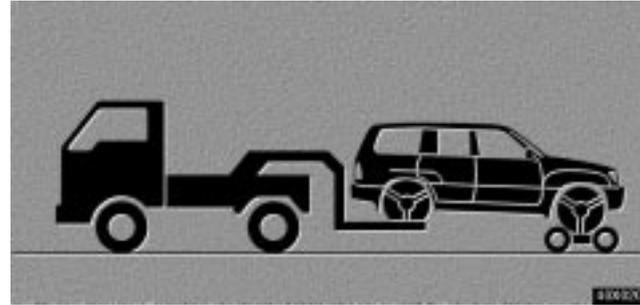


Use a towing dolly under the rear wheels.

NOTICE

Never tow a vehicle with an automatic transmission from the front with rear wheels on the ground, as this may cause serious damage to the transmission.

- From rear

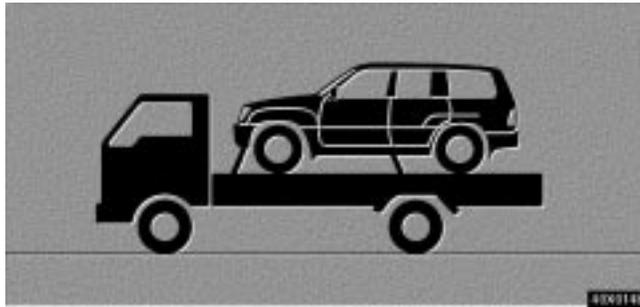


Use a towing dolly under the front wheels.

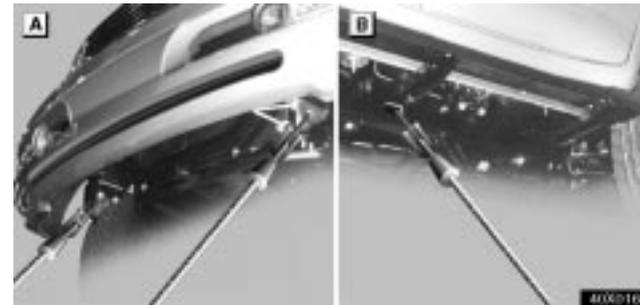
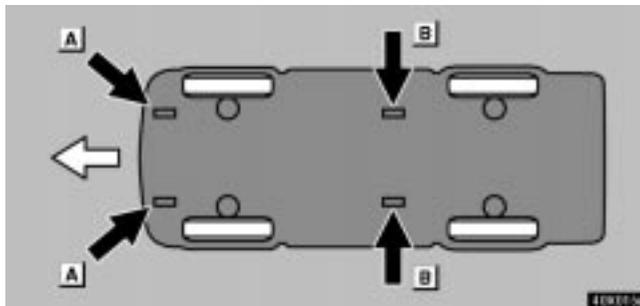
NOTICE

Never tow a vehicle with an automatic transmission from the rear with front wheels on the ground, as this may cause serious damage to the transmission.

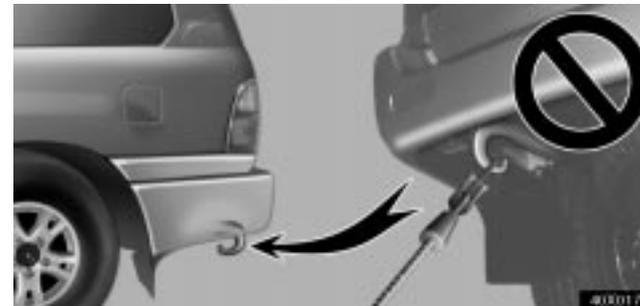
(b) Using a flat bed truck



- Tie down points



If your Lexus is transported by a flat bed, it should be tied down at locations A and B as shown above.

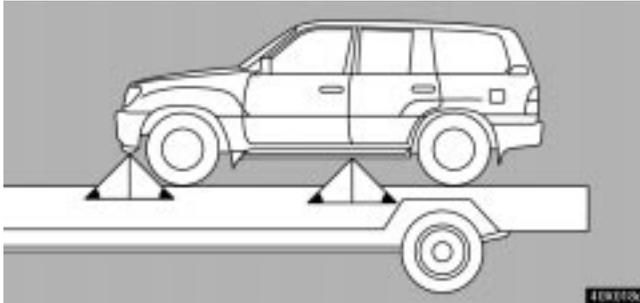


► Rear emergency towing hook

NOTICE
Do not use the rear emergency towing hook.

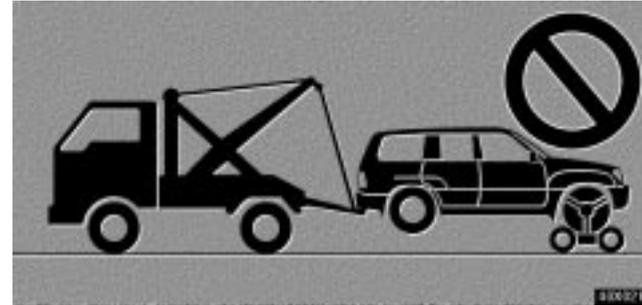
IN CASE OF AN EMERGENCY

- Tie down angle



If you use chains or wires to tie down your vehicle, the angles shaded black must be at 45°.

- (c) Towing with a sling type truck



NOTICE

Do not tow with a sling type truck, either from the front or rear. This may cause body damage.

IN CASE OF AN EMERGENCY

(d) Emergency towing



If towing is necessary, we recommend you to have it done by your Lexus dealer or a commercial tow truck service.

If towing service is not available in an emergency, your vehicle may be temporarily towed by a cable or chain secured to the emergency towing hook. Use extreme caution when towing the vehicle.

NOTICE

Never tow a vehicle from the rear with four wheels on the ground. This may cause serious damage to the transmission.

A driver must be in the vehicle to steer it and operate the brakes.

Towing in this manner may be done only on hard-surfaced roads for a short distance and at low speeds. Also, the wheels, axles, drive train, steering and brakes must all be in good condition.

CAUTION

Use extreme caution when towing the vehicle. Avoid sudden starts or erratic driving maneuvers which would place excessive stress on the emergency towing hook and towing cable or chain. The hook and towing cable or chain may break and cause serious injury or damage.

NOTICE

- ***Do not use front and rear eyelets. It is not designed for towing.***
- ***Use only a cable or chain specifically intended for use in towing vehicles. Securely fasten the cable or chain to the towing hook provided.***

Before towing, check that the center differential is unlocked. (The indicator light must be off with the ignition on.) Release the parking brake and put the transmission in "N". The ignition key must be in "ACC" (engine off) or "ON" (engine running).

IN CASE OF AN EMERGENCY



CAUTION

If the engine is not running, the power assist for the brakes and steering will not work so steering and braking will be much harder than usual.

Emergency towing hook precautions:

- Before emergency towing, check that the hook is not broken or damaged and that the installation bolts are not loose.
- Fasten the towing cable or chain securely to the hook.
- Do not jerk the hook. Apply steady and even force.
- To avoid damaging the hook, do not pull from the side or at a vertical angle. Always pull straight ahead.



CAUTION

If the emergency towing hook is used to get out when your vehicle becomes stuck in the mud, sand or other condition from which the vehicle cannot be driven out under its own power, make sure to observe the precautions mentioned below. Otherwise, excessive stress will be put on the hook and the towing cable or chain may break, causing serious injury or damage.

- If the towing vehicle can hardly move, do not forcibly continue the towing. Contact your Lexus dealer or a commercial tow truck service for assistance.
- Tow the vehicle as straight ahead as possible.
- Keep away from the vehicle during towing.

Tips for towing a stuck vehicle:

The following methods are effective to use when your vehicle is stuck in the mud, sand or other condition from which the vehicle cannot be driven out under its own power. Use extreme caution when towing the vehicle. In addition, keep away from the vehicles and towing cable or chain when towing.

- Remove the sand and soil in the front and the back of the tires.
- Place stones or wood under the tires.

**IF YOU CANNOT SHIFT
AUTOMATIC TRANSMISSION
SELECTOR LEVER**



If you cannot shift the selector lever, use the shift lock override button as follows:

- 1 Turn the ignition key to "LOCK" or "ACC". Make sure the parking brake is applied. Pry up the cover with a flat-bladed screwdriver or equivalent.



- 2 Insert your finger, the screwdriver or equivalent into the hole to push down the shift lock override button. You can shift the selector lever while pushing the button.

For your safety, keep the brake pedal depressed.

Be sure to have the system checked by your Lexus dealer as soon as possible.

IN CASE OF AN EMERGENCY

LEXUS LINK SYSTEM (U.S.A. ONLY)



The Lexus Link System is an in-vehicle communications service that provides you with enhanced safety, security and convenience. With an active subscription you can push the “SERVICES” button for operator assistance or in an emergency situation such as a vehicle accident (in which the airbag was activated), you will automatically be connected to the Lexus Link Call Center which will assist you and/or send help 24 hours a day, 7 days a week.

The Lexus Link System can also record your voice or your conversation with the Lexus Link Call Center Advisor.

Safety information for the Lexus Link System

Important!: Read this information before using the Lexus Link System.

EXPOSURE TO RADIO FREQUENCY SIGNALS

The Lexus Link System is installed in your vehicle as a low power radio transmitter and receiver. When the ignition is turned to the “ON” position, it receives and also sends out radio frequency (RF) signals.

In August 1996, the Federal Communications Commission (FCC) adopted RF exposure guidelines with safety levels for mobile wireless phones. Those guidelines are consistent with the safety standards previously set by both U.S. and international standards bodies.

- ANSI C95.1 (1992)*1
- NCRP Report 86 (1986)*2
- ICNIRP (1996)*3

*1: American National Standards Institute

*2: National Council on Radiation Protection and Measurements

*3: International Commission on Non-Ionizing Radiation Protection

IN CASE OF AN EMERGENCY

Those standards were based on comprehensive and periodic evaluations of the relevant scientific literature. Over 120 scientists, engineers, and physicians from universities, government health agencies, and industry reviewed the available body of research to develop the ANSI Standard (C95.1).

The design of the Lexus Link System complies with the FCC guidelines in addition to those standards.

Information for using the Lexus Link System

The Lexus Link System is a subscription-based service. To obtain any of the Lexus Link services you must have enrolled with the Lexus Link Call Center and have an active subscription. It is important to be aware that an active subscription is required to receive safety and security services.

To learn more about your subscription status or how to renew or extend your subscription, please push the "SERVICES" button and speak to the Lexus Link Advisor, or you may dial toll free 1- 800- 25 Lexus (Toll- Free) (1- 800- 255- 3987) and select the option for Lexus Link. If you are not enrolled, you will hear the explanation about Lexus Link System. The actual message is shown on "Audible voice prompts" on page 340. If you push the "SERVICES" button again, the services enrollment call will be announced. To cancel the enrollment call, push the "SERVICES" button one more time.

NOTICE

This system is only operational in GPS (Global Positioning System) and analog cellular coverage areas. Services may not be available in an area where the GPS and analog cellular phone signals cannot be received.

IN CASE OF AN EMERGENCY

When the ignition is turned to the “ON” position, “The Lexus Link System is active” is announced to inform you that the system is on. If your Lexus Link subscription expires, you will hear “The Lexus Link System is not active. To activate your Lexus Link System, press the “SERVICES” button now. To learn more about your subscription status or how to renew or extend your subscription, please push the “SERVICES” button to speak to a Lexus Link Advisor, or you may dial toll free 1-800-25 Lexus (Toll-Free) (1-800-255-3987) and select the option for Lexus Link. If problems are detected in the Lexus Link System, you will hear “A Lexus Link System error has been detected. Please contact your Lexus dealer.” If you hear this message, take your vehicle to your Lexus dealer.

In some cases, even if your subscription has expired, you may hear “The Lexus Link System is active”. This is due to the time delay required to process the deactivation of your Lexus Link System. During this period, when you push the “SERVICES” button, your call will be forwarded to enrollment. Once the deactivation process has been completed, you will hear “The Lexus Link System is not active”.

NOTICE

The voice prompt messages are the primary means to let you know the status of your subscription. It is important to be aware that an active subscription is required to receive safety and security services. If these voice prompt messages are disabled and you desire to have them re-activated, contact your Lexus dealer.

When you push the “- VOL +” button on the “- ” side immediately followed by the “PLAY” button, you can hear an explanation about the Lexus Link System. However, this function is not available when you are recording or hearing a playback. See “Audible voice prompts” on page 340 for a written version of this recorder message.

The basic subscriber service package is available free of charge for the first year.

NOTICE

Do not remove the Lexus Link fuse and wiring harness with the ignition on, or an emergency call will be placed to the Lexus Link Call Center.

Automatic notifications

If an airbag deploys, an emergency signal is sent automatically to the Lexus Link Call Center. In your vehicle, the system announces “Placing an emergency call to the Lexus Link Center.” In response to the signal, Lexus Link Advisor will attempt to communicate with you first. If the Advisor cannot get any response from you, the Advisor will locate your vehicle through the GPS, call the nearest emergency services provider, describe the situation and your location. If necessary, the Advisor will transfer your call to the emergency services operator.

If the theft deterrent system on your vehicle is activated, the Lexus Link System on your vehicle will automatically call the Lexus Link Call Center. The Advisor will attempt to contact you to determine whether the alarm is valid.

If you report to the Lexus Link Call Center that your vehicle has been stolen, the Advisor will locate, track and provide location information to the appropriate law enforcement authority. To protect subscriber privacy, the Lexus Link Call Center will not provide the location of a vehicle to anyone other than a law enforcement authority.

If you accidentally activate the vehicle alarm, push the “UNLOCK” button on the wireless remote control key within 55 seconds after the alarm was set off, or insert the key into the door keyhole or ignition switch. The Lexus Link System will cancel the theft call.

NOTICE

- ***Once the emergency button is pushed, an emergency call cannot be cancelled.***
- ***This system is only operational in GPS and analog cellular coverage areas. Upon subscription expiration, all Lexus Link services (i.e. automatic notification, emergency call functions, service call functions, door locking/unlocking function) are deactivated.***

IN CASE OF AN EMERGENCY

Manual emergency calling



You can place an emergency call manually. Open the cover and push the emergency button. You will hear “Placing an emergency call to Lexus Link Center.” Upon reception of your call, the Advisor will locate your vehicle and contact you to assess the situation. If necessary, the Advisor will alert the nearest emergency service provider. This emergency call should only be made in life-threatening situations.

If your vehicle is stolen, call the Lexus Link Call Center at 1-800-25-LEXUS (Toll-Free) (1-800-255-3987). The Center will locate, track and provide location information to the appropriate police authority. To protect subscriber privacy, the Lexus Link Call Center will not provide the location of a vehicle to anyone other than a law enforcement authority.

NOTICE

This system is only operational in GPS and analog cellular coverage areas. Upon subscription expiration, all Lexus Link services (i.e. automatic notification, emergency call functions, service call functions, door locking/unlocking function) are deactivated.

Other Services



When you push the “SERVICES” button, you will hear “Calling the Lexus Link Center”. When the Advisor receives your location and ID from the system, the Advisor provides you with the service. The services provided will depend on the level of service package selected.

For details about various services that are available, contact your Lexus dealer, or push the “SERVICES” button and speak to the Lexus Link Advisor, or you may dial toll free 1-800-25 Lexus (Toll-Free) (1-800-255-3987) and select the option for Lexus Link.

To cancel a services call, push the “SERVICES” button a second time. “Lexus Link call cancelled” will be announced.

If any problem concerning the Lexus Link System occurs during driving, the system will announce “A Lexus Link System error has been detected. Please contact your Lexus dealer.” If you hear this message, take your vehicle to your Lexus dealer.

Lexus Link services may not be available if:

- The components or wire harnesses for the system are damaged;
- The Lexus Link Call Center is not operational;
- The antenna does not work properly due to vehicle damage;
- In a weak or non-analog cellular coverage area;
- In area where the GPS signal is weak or cannot be received;
- The Lexus Link subscription has expired.

NOTICE

Upon subscription expiration, all Lexus Link services (i.e. automatic notification, emergency call functions, service call functions) are deactivated.

IN CASE OF AN EMERGENCY

Door Locking/Unlocking by Lexus Link System

The Lexus Link System will allow your vehicle to be locked and unlocked remotely.

If you find that your vehicle has not been locked, call the Lexus Link Call Center 1-800-25-LEXUS (Toll-Free) (1-800-255-3987), the Lexus Link Advisor can assist in locking your vehicle.

In case you are locked out, call the Lexus Link Call Center 1-800-25 Lexus (Toll-Free) (1-800-255-3987), a Lexus Link Advisor can assist in unlocking your vehicle.

NOTICE

You must provide the Lexus Link operator with your Lexus Link PIN (Personal Identification Number) or personal security word, before they lock/unlock your vehicle. However, the Lexus Link System will not be able to lock or unlock your vehicle if it has been parked for 48 hours or more after the ignition is turned off. Upon subscription expiration, all Lexus Link services (i.e. automatic notification, emergency call functions, service call functions, door locking/unlocking function) are deactivated.

Memo record



- **1** "REC" button **2** "PLAY" button
3 "- VOL +" button

During a service call, you can record a conversation with the Lexus Link Call Center Advisor. This function is very convenient for drivers so they do not have to take notes while driving.

"REC" button: Push this button to record information or a conversation with Lexus Link Call Center. To stop recording, push the button again. Up to 5 minutes of recording time is available.

When you push the "REC" button, all previous messages are deleted and the system begins recording your new message.

IN CASE OF AN EMERGENCY

At the start of recording, "Recording" will be announced. At the end of recording, you will hear "Recording complete". If there are only 15 seconds left for recording, two chimes sound. If the recording memory is full, "Recording time exceeded" will be announced and recording will be terminated.

If you push this button while you are hearing a playback of recording, it terminates the playback and recording will start. At this time, the previous recording will be erased.

"PLAY" button: Push this button to play the recorded conversation. "Playback Complete" is announced when the playback is complete. To stop the operation, push the button again. "Playback Cancelled" is announced. The volume has a total of seven positions/levels available.

"- VOL +" button: Push this button on either side to adjust the volume. When you change the volume, one chime sounds.

IN CASE OF AN EMERGENCY

Audible voice prompts

The following table shows the voice responses from the Lexus Link System.

Voice phrase: Explanation about Lexus Link System		
<p>This is the Lexus Link system. Integrating global positioning satellite and wireless communication technology into your Lexus and providing enhanced safety, security, and convenience. At the touch of a button, or automatically in the event of an accident, you are connected to a Lexus Link Advisor who will assist you - 24 hours a day, 7 days a week where GPS and cellular coverage is available. The Lexus Link System also has an audio recorder allowing you to record reminders to yourself or information from a Lexus Link Advisor.</p> <p>To contact a Lexus Link Advisor, press the "SERVICES" button. The Lexus Link System will inform the advisor of your vehicle's current location and your identity. The advisors can handle a wide variety of services, such as giving directions to shops, gas stations, ATMs, restaurants and roadside assistance with location. Services available will depend on the service package you selected.</p>	<p>In an emergency, press the emergency services button on your Lexus Link console. It is marked with a red ambulance. Upon receiving your call, the advisor will assess the situation and, if necessary, alert the nearest emergency services provider. The emergency button should only be used in life threatening situations.</p> <p>If your Lexus detects that an airbag deployment may have occurred, the Lexus Link System will automatically send an emergency message to the Lexus Link Call Center.</p> <p>The system will also automatically contact the call center if the security system alarm goes off. An advisor will first contact you to determine if the alarm is valid. Upon your confirmation, the advisor will then provide the vehicle location to the police.</p>	<p>If you accidentally set off the alarm, press the remote door unlock, or insert your key in the door lock or ignition within 55 seconds. This will prevent the Lexus Link System from placing a theft call.</p> <p>The volume control lets you adjust the volume level for Lexus Link calls, system prompts, and memos. Press the plus key to increase volume and the minus key to decrease it.</p> <p>To record a memo or a call, press the key labeled "REC". When you are finished recording, press the "REC" button again. To listen to the memo, press the "PLAY" button. You can record one message up to five minutes long. When you record a new memo, all of the previous memos will be erased.</p> <p>For more detailed information on the use, features and limitations of this system, please consult your Lexus Link Owner's Manual.</p>

IN CASE OF AN EMERGENCY

Voice phrase	Description
The Lexus Link System is active.	The system is operational with the ignition on.
Placing an emergency call to Lexus Link Center	Emergency call is placed.
Calling the Lexus Link Center	Service call is placed.
Lexus Link Call cancelled	Service call is cancelled.
Previous attempt to call the Lexus Link Center was unsuccessful.	The attempt to call the Lexus Link Center was unsuccessful.
Recording	The recording will start.
Recording complete	The recording is complete.
Recording time exceeded	The recording memory is now full.
Playback complete	The playback is complete.
Playback cancelled	The playback is cancelled.
A Lexus Link System error has been detected. Please contact your Lexus dealer.	An error has been detected with the Lexus Link System. Contact your Lexus dealer.

Voice phrase	Description
The Lexus Link System is not active. To activate your Lexus Link System, press the "SERVICES" button now.	Message notifies vehicle occupants that the subscription has expired.
Your Lexus Link subscription has expired. Services are not available.	You operated a Lexus Link button despite an expired subscription. Your Lexus Link subscription has expired, push the "Services" button a second time to reactivate.
No cellular service available. Unable to contact the Call Center.	In cellular coverage areas without analog coverage, you cannot use the Lexus Link System. Unable to contact the Lexus Link Call Center until you have cellular coverage.

IN CASE OF AN EMERGENCY

Lexus Link transceiver antenna



The Lexus Link transceiver antenna is removable. Before taking the vehicle to an automatic car wash, disconnect the antenna by unscrewing it from the roof mount. When you remove the antenna, make sure the ignition is turned off.

Use only the supplied or an approved antenna. Unauthorized antennas, modifications, or attachments could damage the Lexus Link System and may violate FCC regulations.



CAUTION

Persons who use a medical appliance like a pacemaker should not touch or come in close contact with the antenna while the vehicle is ignition on. Otherwise, the analog cellular signals may produce improper operation of a medical appliance.

NOTICE

- *Do not contact with the antenna, this may affect quality of transceiver's operation and may cause the unit to operate at a higher power level than needed.*
- *If you forget reattaching the Lexus Link transceiver antenna, the Lexus Link System may not function properly.*
- *To prevent damage to the antenna, make sure it is removed before driving your vehicle through an automatic car wash.*

IF YOU LOSE YOUR KEYS OR LOCK YOURSELF OUT

You can purchase a new key at your Lexus dealer if you can give them the key number and master key.

Even if you lose only one key, contact your Lexus dealer to make a new key. If you lose all your master keys, you cannot make new keys; the whole engine immobilizer system must be replaced.

See the suggestion given in “Keys” on page 8.

You can use the wireless remote control system with the new key. Contact your Lexus dealer for detailed information.

If your keys are locked in the vehicle and you cannot get a duplicate, many Lexus dealers can still open the door for you using special tools. If your vehicle is equipped with Lexus Link System, call the Lexus Link Call Center 1-800-25-LEXUS (Toll-Free) (1-800-255-3987). Once you provide the Lexus Link Call Center Advisor with your Lexus Link PIN (Personal Identification Number), or personal security word, they will unlock your vehicle.

NOTICE

You must provide the Lexus Link operator with your Lexus Link PIN (Personal Identification Number) or personal security word, before they lock/unlock your vehicle. However, the Lexus Link System will not be able to lock or unlock your vehicle if it has been parked for 48 hours or more after the ignition is turned off. Upon subscription expiration, all Lexus Link services (i.e. automatic notification, emergency call functions, service call functions) are deactivated.

If you must break a window to get in, we suggest breaking the smallest side window because it is the least expensive to replace. Be extremely cautious to avoid glass cuts.

SECTION 5

MAINTENANCE

Maintenance

Maintenance requirements	346
General maintenance	347
Does your vehicle need repairing?	350
Emissions inspection and maintenance (I/M) programs	351

For scheduled maintenance information, please refer to the “Owner’s Manual Supplement / Scheduled Maintenance”.

MAINTENANCE

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 "Owner's Guide", "Owner's Manual Supplement" 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 the "Owner's Manual Supplement / Scheduled Maintenance" are those required to be serviced at regular intervals.

For details of your maintenance schedule, read the "Owner's Manual Supplement / Scheduled Maintenance".

It is recommended that only genuine Lexus parts be used for maintenance or for the repair of the emission control system.

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", "Owner's Manual Supplement" 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 - reliably and economically.

Your copy of the repair order is proof that all required maintenance has been performed for warranty coverage. 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", "Owner's Manual Supplement" 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 or qualified service shop for their advice.



CAUTION

Make these checks only with adequate ventilation if you run the engine.

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 416 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 cold. See page 373 for additional information.

Radiator, condenser and hoses

Check that the front of the radiator and condenser are clean and not blocked with leaves, dirt, or insects. See page 375 for additional information.

MAINTENANCE

Battery

Your Lexus has a maintenance free battery. You do not have to add distilled water. For longer life of the battery, however, see page 408 for additional information.

Brake fluid level

Make sure the brake fluid level is correct. See page 381 for additional information.

Engine oil level

Check the level on the dipstick with the engine turned off and the vehicle parked on a level spot. See page 370 for additional information.

Suspension fluid level

Make sure the suspension fluid level is correct. See page 383 for additional information.

Power steering fluid level

Check the level through the reservoir. The level should be in the "HOT" or "COLD" range depending on the fluid temperature. See page 382 for additional information.

Exhaust system

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 caution" on page 239.)

Vehicle interior

Items listed below should be checked regularly, 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 working. Check headlight aim.

Service reminder indicators and warning buzzers

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

Steering wheel

Check that it has the specified free play. Be alert for changes in steering condition, such as hard steering, excessive free play or strange noise.

Seats

Check that all front seat controls such as seat adjusters, seatback recliner, etc. operate smoothly. Check that the head restraints move up and down smoothly and that the locks hold securely in any latched position. For folding-down rear seatbacks, swing-up rear seat cushions and detachable third seats, check that the latches lock securely.

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 the proper clearance and free play. Check the brake booster function.

Brakes

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

Parking brake

Check that the lever has the proper travel and that, on a safe incline, your vehicle is held securely with only the parking brake applied.

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.

Vehicle exterior

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

Wheel nuts

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

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 and back door, operate smoothly and all latches lock securely. Make sure the engine hood secondary latch secures the hood when the primary latch is released.

Tire inflation pressure

Check the pressure with a gauge every two weeks, or at least once a month and adjust as shown on the tire and loading information label. See page 384 for additional information.

Tire surface

Check the tires carefully for cuts, damage or excessive wear. See page 397 for additional information.

MAINTENANCE

Tire rotation

Rotate the tires according to the maintenance schedule. (For scheduled maintenance information, please refer to the “Owner’s Manual Supplement / Scheduled Maintenance”.) See page 396 for additional information.

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 floors, vehicle pulls to one side when braking
- Engine coolant temperature continually higher than normal
- Engine continually runs hot; oil pressure gauge stays low.

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.

EMISSION INSPECTION AND MAINTENANCE (I/M) PROGRAMS

Some states have vehicle emission inspection programs which include OBD (On-Board Diagnostics) checks.

The OBD system monitors the operation of the emission control system. When the OBD system determines that a problem exists somewhere in the emission control system, the malfunction indicator lamp comes on. In this case, your vehicle may not pass the I/M test and need to be repaired. Contact your Lexus dealer to service the vehicle.

Even if the malfunction indicator lamp does not come on, your vehicle may not pass the I/M test as readiness codes have not been set in the OBD system.

Readiness codes are automatically set during ordinary driving. However, when the battery is disconnected or run down, the codes are erased. Also, depending on your driving habits, the codes may not be completely set.

Also, if the malfunction indicator lamp had come on recently due to temporary malfunction such as a loose fuel tank cap, your vehicle may not pass the I/M test.

The malfunction indicator lamp will go off after taking several driving trips, but the error code in the OBD system will not be cleared unless about 40 trips or more are taken.

If your vehicle does not pass the I/M test and the malfunction indicator lamp does not come on, contact your Lexus dealer to prepare the vehicle for re-testing.

SECTION 6-1

SERVICE PROCEDURES AND SPECIFICATIONS

Introduction

Vehicle identification	354
Theft prevention labels	355
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Do-it-yourself service precautions	357
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INTRODUCTION

VEHICLE IDENTIFICATION



The vehicle identification number (VIN) is the legal identifier for your vehicle. This number is on the left top of the instrument panel and can be seen through the windshield from outside.

This is the primary identification number for your Lexus. It is used in registering the ownership of your vehicle.



The vehicle identification number (VIN) is also on the Certification Label.



The engine number is stamped on the engine block as shown.

THEFT PREVENTION LABELS (U.S.A. ONLY)



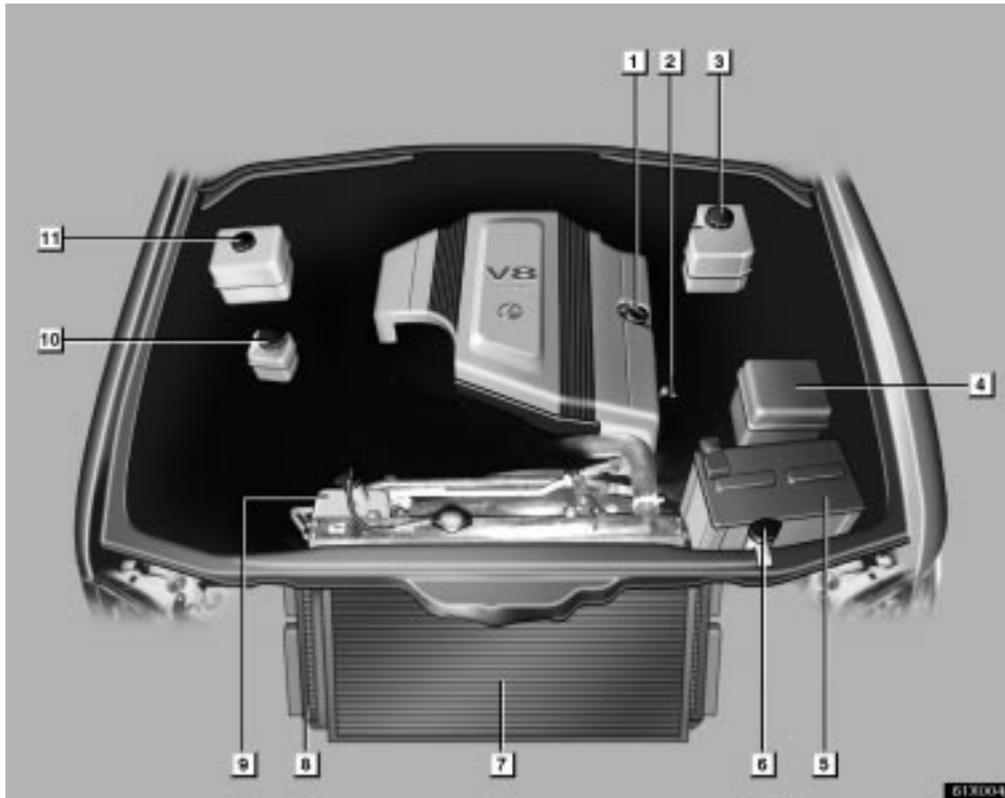
Your new vehicle carries theft prevention labels which are approximately 56 mm (2.20 in.) by 16 mm (0.63 in.).

The purpose of these labels is to reduce the incidence of vehicle thefts by facilitating the tracing and recovery of parts from stolen vehicles. The label is designed so that once it is applied to a surface, any attempt to remove it will result in destroying the integrity of the label. Transferring these labels intact from one part to another will be impossible.

NOTICE

You should not attempt to remove the theft prevention labels as it may violate certain state or federal laws.

ENGINE COMPARTMENT OVERVIEW



- 1 Engine oil filler cap
- 2 Engine oil level dipstick
- 3 Brake fluid reservoir
- 4 Fuse box
- 5 Battery
- 6 Washer fluid tank
- 7 Condenser
- 8 Radiator
- 9 Engine coolant reservoir
- 10 Power steering fluid reservoir
- 11 Suspension fluid reservoir

DO-IT-YOURSELF SERVICE PRECAUTIONS

If you perform maintenance yourself, be sure to follow the correct procedure given in this Section.

You should be aware that improper or incomplete servicing may result in operating problems.

Performing do-it-yourself maintenance during the warranty period may affect your warranty coverage. Read the separate Lexus Warranty statement for details and suggestions.

This Section gives instructions only for those items that are relatively easy for an owner to perform. As explained in Section 5, there are still a number of items that must be performed by a qualified technician with special tools.

For information on tools and parts for do-it-yourself maintenance, see "Parts and tools" on page 358.

Utmost care should be taken when working on your vehicle to prevent accidental injury. Here are a few precautions that you should be especially careful to observe:



CAUTION

- When the engine is running, keep hands, clothing, and tools away from the moving fan and engine drive belt. (Removing rings, watches, and ties is advisable.)
- Right after driving, the engine compartment - the engine, radiator, exhaust manifold and power steering fluid reservoir and spark plug boots, etc. - will be hot. So be careful not to touch them. Oil, other fluids and spark plugs may also be hot.
- If the engine is hot, do not remove the radiator cap or loosen the drain plugs to prevent burning yourself.
- Do not smoke, cause sparks or allow open flames around fuel or the battery. Their fumes are flammable.
- Do not get under your vehicle with just the body jack supporting it. Always use automotive jack stands or other solid supports.
- Use eye protection whenever you work on or under your vehicle where you may be exposed to flying or falling material, fluid spray, etc.
- Be extremely cautious when working on the battery. It contains poisonous and corrosive sulfuric acid.

INTRODUCTION

NOTICE

- **Remember that battery and ignition cables carry high currents or voltages. Be careful of accidentally causing a short circuit.**
- **Add only “Toyota Super Long Life Coolant” or similar high quality ethylene glycol based non-silicate, non-amine, non-nitrite, and non-borate coolant with long-life hybrid organic acid technology to fill the radiator. “Toyota Super Long Life Coolant” is pre-mixed with 50% coolant and 50% deionized water.**
- **If you spill some of the coolant, be sure to wash it off with water to prevent it from damaging the parts or paint.**
- **Before closing the engine hood, check to see that you have not forgotten any tools, rags, etc.**
- **Do not drive with the air cleaner removed, or excessive engine wear could result. Also backfiring could cause a fire in the engine compartment.**
- **Do not overfill automatic transmission fluid, transfer oil and power steering fluid, or the transmission, transfer and power steering could be damaged.**
- **Be careful not to scratch the glass surface with the wiper frame.**

PARTS AND TOOLS

Here is a list of parts and tools you will need to perform do-it-yourself maintenance. Remember all Lexus parts are designed in metric sizes, so your tools must be metric.

Checking the engine oil level

Parts (if level is low):

- “Toyota Genuine Motor Oil” or equivalent
Oil grade: API grade SL “Energy-Conserving” or ILSAC multigrade engine oil. For recommended oil viscosity, see page 371.

Tools:

- Rag or paper towel
- Funnel (only for adding oil)

Checking the engine coolant level

Parts (if level is low):

- “Toyota Super Long Life Coolant” or similar high quality ethylene glycol based non-silicate, non-amine, non-nitrite, and non-borate coolant with long life hybrid organic acid technology.
“Toyota Super Long Life Coolant” is pre-mixed with 50% coolant and 50% deionized water.

Tools:

- Funnel (only for adding coolant)

Checking brake fluid

Parts (if level is low):

- FMVSS No. 116 DOT 3 or SAE J1703 brake fluid

Tools:

- Rag or paper towel
- Funnel (only for adding fluid)

Checking power steering fluid

Parts (if level is low):

- Automatic transmission fluid DEXRON® II or III

Tools:

- Rag or paper towel
- Funnel (only for adding fluid)

Checking suspension fluid AHC

Parts (if level is low):

- Suspension fluid AHC

Tools:

- Rag or paper towel
- Funnel (only for adding fluid)

Checking battery condition

Tools:

- Warm water
- Baking soda
- Grease
- Conventional wrench (for terminal clamp bolts)

Checking and replacing the blade type fuses

Parts (if replacement is necessary):

- Fuse with same amperage rating as original

Checking the cartridge type fuses

Parts (if replacement is necessary):

- Genuine Lexus fuse or equivalent with same amperage rating as original

Adding washer fluid

Parts:

- Water
- Washer fluid containing antifreeze (for winter use)

Tools:

- Funnel

SECTION 6-2

SERVICE PROCEDURES AND SPECIFICATIONS

Engine

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Used engine oil	369
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Checking the engine coolant level	373
Checking the radiator and condenser	375
Spark plugs	375

ENGINE

SPECIFICATIONS

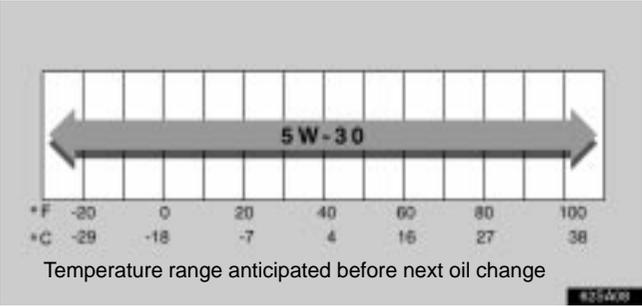
– GENERAL

Model	2UZ-FE
Type	8 cylinder V type, 4 cycle, gasoline
Bore and stroke	94.0 X 84.0 mm (3.70 X 3.30 in.)
Displacement	4664 cm ³ (284.6 cu.in.)
Valve clearance (engine cold) Intake Exhaust	0.15 - 0.25 mm (0.006 - 0.010 in.) 0.25 - 0.35 mm (0.010 - 0.014 in.)
Drive belt tension	Automatic adjustment

– FUEL

Fuel type	Only UNLEADED
Octane rating	87 (Research octane number 91) or higher

- LUBRICATION SYSTEM

Oil capacity Drain and refill with filter without filter	6.8 L (7.2 qt., 6.0 Imp.qt.) 6.4 L (6.8 qt., 5.6 Imp.qt.)
Oil grade	API grade SL "Energy-Conserving" or ILSAC multigrade engine oil
Recommended oil viscosity	SAE 5W-30 

NOTE:

"Toyota Genuine Motor Oil" is filled in your Lexus vehicle. Use Lexus approved "Toyota Genuine Motor Oil" or equivalent to satisfy the above grade and viscosity. Please contact your Lexus dealer for further details.

ENGINE

– COOLING SYSTEM

Capacity	15.4 L (16.3 qt., 13.6 Imp.qt.)
Coolant type	“Toyota Super Long Life Coolant” or similar high quality ethylene glycol based non-silicate, non-amine, non-nitrite, and non-borate coolant with long-life hybrid organic acid technology Do not use plain water alone.

NOTE:

“Toyota Super Long Life Coolant” is filled in your Lexus vehicle at factory fill. In order to avoid technical problems, only use “Toyota Super Long Life Coolant” or similar high quality ethylene glycol based non-silicate, non-amine, non-nitrite, and non-borate coolant with long-life hybrid organic acid technology. Please contact your Lexus dealer for further details.

– IGNITION SYSTEM

Spark plug – Make	DENSO NGK	SK20R11 IFR6A11
– Gap		1.1 mm (0.043 in.)

– ELECTRICAL SYSTEM

Battery – Open voltage at 20°C (68°F):	12.6 - 12.8 V	Fully charged
	12.2 - 12.4 V	Half charged
	11.8 - 12.0 V	Discharged
	[Voltage that is checked 20 minutes after the key is removed with all the lights turned off]	
– Charging rates	5A max.	

FUEL

Fuel type

Your vehicle must use only unleaded gasoline.

To help prevent gas station mixups, your Lexus has a smaller fuel tank opening. The special nozzle on pumps with unleaded fuel will fit it, but the larger standard nozzle on pumps with leaded gas will not.

At a minimum, the gasoline you use should meet the specifications of ASTM D4814 in the U.S.A. and CGSB 3.5-M93 in Canada.

NOTICE

Do not use leaded gasoline. Use of leaded gasoline will cause the three-way catalytic converter to lose its effectiveness and the emission control system to function improperly. Also, this can increase maintenance costs.

Octane rating

Select Octane Rating 87 (Research Octane Number 91) or higher. For improved vehicle performance, the use of premium unleaded gasoline with an Octane Rating of 91 (Research Octane Number 96) or higher is recommended.

Use of unleaded fuel with an octane number or rating lower than stated above will cause persistent heavy knocking. If severe, this will lead to engine damage.

If your engine knocks ...

If you detect heavy knocking even when using the recommended fuel, or if you hear steady knocking while holding a steady speed on level roads, consult your Lexus dealer.

However, occasionally, you may notice light knocking for a short time while accelerating or driving up hills. This is normal and there is no need for concern.

Gasoline containing detergent additives

Lexus recommends the use of gasoline that contains detergent additives to avoid build-up of engine deposits.

However, all gasoline sold in the U.S. contains detergent additives to keep clean and/or clean intake systems.

Quality gasoline

Automotive manufacturers in the U.S., Europe and Japan have developed a specification for quality fuel named World-Wide Fuel Charter (WWFC) that is expected to be applied world wide. The WWFC consists of four categories that depend on required emission levels. In the U.S., category 3 has been adopted. The WWFC improves air quality by providing for better emissions in vehicle fleets, and customer satisfaction through better vehicle performance.

ENGINE

Cleaner burning gasoline

Cleaner burning gasoline, including reformulated gasoline that contains oxygenates such as ethanol or MTBE is available in many areas.

Lexus recommends the use of cleaner burning gasoline and appropriately blended reformulated gasoline. These types of gasoline provide excellent vehicle performance, reduce vehicle emissions, and improve air quality.

Oxygenates in gasoline

Lexus allows the use of oxygenate blended gasoline where the oxygenate content is up to 10% ethanol or 15% MTBE. If you use gasohol in your Lexus, be sure that it has an octane rating no lower than 87.

Lexus does not recommend the use of gasoline containing methanol.

Gasoline containing MMT

Some gasoline contain an octane enhancing additive called MMT (Methylcyclopentadienyl Manganese Tricarbonyl).

Lexus does not recommend the use of gasoline that contains MMT. If fuel containing MMT is used, your emission control system may be adversely affected. The Malfunction Indicator Lamp on the instrument cluster may come on. If this happens, contact your Lexus dealer for service.

Gasoline quality

In a very few cases, you may experience driveability problems caused by the particular gasoline that you are using. If you continue to have unacceptable driveability, try changing gasoline brands. If this does not rectify your problem, then consult your Lexus dealer.

NOTICE

- ***Do not use gasohol other than stated above. It will cause fuel system damage or vehicle performance problems.***
- ***If drivability problems are encountered (poor hot starting, vaporizing, engine knock, etc.), discontinue its use.***

- *Take care not to spill gasohol during refueling. Gasohol may cause paint damage.*

Fuel tank capacity

96 L (25.4 gal., 21.1 Imp.gal.)

FUEL PUMP SHUT OFF SYSTEM

The fuel pump shut off system stops supplying fuel to the engine when the engine stalls or an airbag inflates upon collision. To restart the engine after the fuel pump shut off system activates, turn the ignition switch to "ACC" or "LOCK" once and start it.

**CAUTION**

Inspect the ground under the vehicle before restarting the engine. If you find that liquid has leaked onto the ground, it is the fuel system that has been damaged and it is in need of repair. In this case, do not restart the engine.

ENGINE

FACTS ABOUT ENGINE OIL CONSUMPTION

Functions of engine oil

Engine oil has the primary function of lubricating and cooling the inside of the engine, and plays a major role in maintaining the engine in proper working order.

Engine oil consumption

It is normal that an engine should consume some engine oil during normal engine operation. The causes of oil consumption in a normal engine are as follows.

- Oil is used to lubricate pistons, piston rings and cylinders. A thin film of oil is left on the cylinder wall when a piston moves downwards in the cylinder. High negative pressure generated when the vehicle is decelerating sucks some of this oil into the combustion chamber. This oil as well as some part of the oil film left on the cylinder wall is burned by the high temperature combustion gases during the combustion process.
- Oil is also used to lubricate the stems of the intake valves. Some of this oil is sucked into the combustion chamber together with the intake air and is burned along with the fuel. High temperature exhaust gases also burn the oil used to lubricate the exhaust valve stems.

The amount of engine oil consumed depends on the viscosity of the oil, the quality of the oil and the way the vehicle is driven.

More oil is consumed by high-speed driving and frequent acceleration and deceleration.

A new engine consumes more oil, since its pistons, piston rings and cylinder walls have not become conditioned.

Oil consumption: Max. 1.0 L per 1000 km (1.1 qt./600 miles, 0.9 Imp.qt./600 miles)

When judging the amount of oil consumption, keep in mind that the oil may have become diluted, making it difficult to judge the true level accurately.

For example, if a vehicle is used for repeated short trips and consumes a normal amount of oil, the dipstick may not show any drop in the oil level at all, even after 1000 km (600 miles) or more. This is because the oil is gradually becoming diluted with fuel or moisture, making it appear that the oil level has not changed.

The diluting ingredients evaporate out when the vehicle is then driven at high speeds, as on an expressway, making it appear that oil is excessively consumed after driving at high speeds.

Importance of engine oil level check

One of the most important points in proper vehicle maintenance is to keep the engine oil at the optimum level so that oil function will not be impaired. Therefore, it is essential that the oil level be checked regularly. Lexus recommends that the oil level be checked every time you refuel the vehicle.

NOTICE

Failure to check the oil level regularly could lead to serious engine trouble due to insufficient oil.

For detailed information on oil level check, see "Checking the engine oil level" described below.

USED ENGINE OIL

CAUTION

- Used engine oil contains potentially harmful contaminants which may cause skin disorders such as inflammation or skin cancer, so care should be taken to avoid prolonged and repeated contact with it. To remove used engine oil from your skin, wash thoroughly with soap and water.
- Dispose of used oil and used oil filters only in a safe and acceptable manner. Do not dispose of used oil and used oil filters in household trash, in sewers or onto the ground. Call your Lexus dealer or a service station for information concerning recycling or disposal.
- Do not leave used oil within the reach of children.

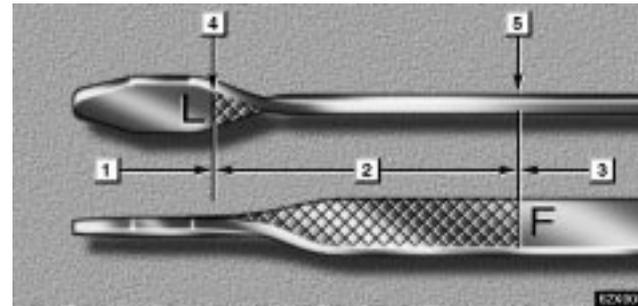
ENGINE

CHECKING THE ENGINE OIL LEVEL



With the engine at operating temperature and turned off, check the oil level on the dipstick.

1. To get a true reading, the vehicle should be on a level ground. After turning off the engine, wait a few minutes for the oil to drain back into the bottom of the engine.
2. Pull the dipstick out, hold a rag under the end and wipe it clean.
3. Standing up on the left side of the vehicle, reinsert the dipstick in the direction so that the "ENGINE OIL" on top should be read correctly and push it in as far as it will go, or the reading will not be correct.



► **1 Add oil 2 O.K. 3 Too full**

4. Pull the dipstick out and look at the oil level while holding a rag under the end. If it is between the full line (**5**) and the low line (**4**), it is O.K.

NOTICE

Be careful not to drop the engine oil on the vehicle components.



If the oil level is below or only slightly above the low line, add engine oil of the same type as already in the engine.

Remove the oil filler cap and add engine oil a little at a time, checking the dipstick. We recommend that you use a funnel when adding oil. The approximate quantity of oil needed to fill between the low line and the full line on the dipstick is indicated below for reference.

When the level reaches within the correct range, return the filler cap and turn the cap clockwise until you hear a click.

Oil quantity. L (qt., Imp. qt.) 1.5 (1.6, 1.3)

NOTICE

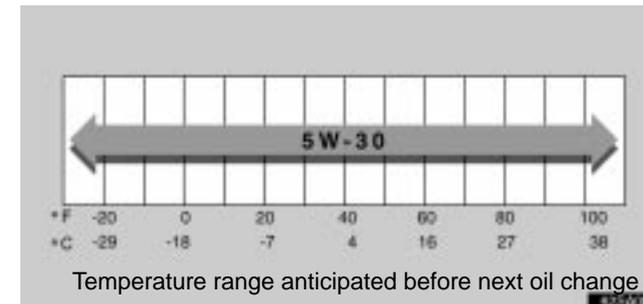
- **Be careful not to spill the engine oil on the vehicle components.**
- **Avoid overfilling, or the engine could be damaged.**
- **Check the oil level on the dipstick once again after adding the oil.**

Engine oil selection

“Toyota Genuine Motor Oil” is filled in your Lexus vehicle. Use Lexus approved “Toyota Genuine Motor Oil” or equivalent to satisfy the following grade and viscosity.

Oil grade: API grade SL “Energy-Conserving” or ILSAC multigrade engine oil.

Recommended viscosity: SAE 5W-30



SAE 5W-30 is the best choice, for good fuel economy, and good starting in cold weather.

If SAE 5W-30 oil is not available, SAE 10W-30 oil may be used. However, it should be replaced with SAE 5W-30 at the next oil change.

ENGINE

Oil identification marks



► **API Service Symbol**

► **ILSAC Certification Mark**

Either or both API registered marks are added to some oil containers to help you select the oil you should use.

- The API Service Symbol is located anywhere on the outside of the container.

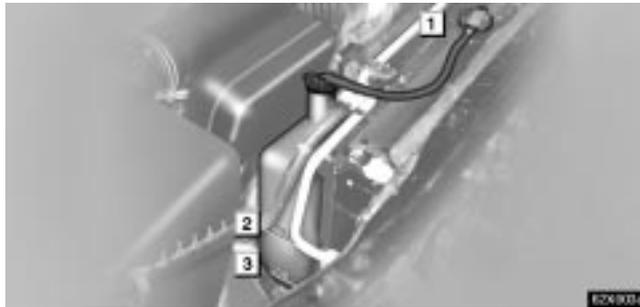
The top portion of the label shows the oil quality by API (American Petroleum Institute) designation such as SL. The center portion of the label shows the SAE viscosity grade such as SAE 5W-30. “Energy-Conserving”, shown in the lower portion, indicates that the oil has fuel-saving capabilities.

- The ILSAC (International Lubricant Standardization and Approval Committee) Certification Mark is displayed on the front of the container.

To ensure excellent lubrication performance for your engine, “Toyota Genuine Motor Oil” is available, which has been specifically tested and approved for all Lexus engines.

Please contact your Lexus dealer for further details about “Toyota Genuine Motor Oil”.

CHECKING THE ENGINE COOLANT LEVEL



► **1** Radiator cap **2** Upper line **3** Lower line

Look at the see-through coolant reservoir when the engine is cold. The coolant level is satisfactory if it is between the “FULL” and “LOW” lines on the reservoir. If the level is low, add the coolant. (For the coolant type, see “Coolant type selection” described below.)

The coolant level in the reservoir will vary with engine temperature. However, if the level is on or below the “LOW” line, add coolant. Bring the level up to the “FULL” line.

If the coolant level drops within a short time after replenishing, there may be a leak in the system. Visually check the radiator, hoses, engine coolant filler cap, radiator cap and drain cock and water pump.

If you can find no leak, have your Lexus dealer test the radiator cap pressure and check for leaks in the cooling system.

CAUTION

To prevent burning yourself, do not remove the radiator cap when the engine is hot.

ENGINE

Coolant type selection

Use of improper coolants may damage your engine cooling system.

Only use "Toyota Super Long Life Coolant" or similar high quality ethylene glycol based non-silicate, non-amine, non-nitrite, and non-borate coolant with long-life hybrid organic acid technology. (Coolant with long-life hybrid organic acid technology consists of the combination of low phosphates and organic acids.)

"Toyota Super Long Life Coolant" is pre-mixed with 50% coolant and 50% deionized water. This coolant provides protection down to about -35°C (-31°F).

Lexus recommends "Toyota Super Long Life Coolant" which has been tested to ensure that it will not cause corrosion nor result in malfunction of your engine coolant system with proper usage. "Toyota Super Long Life Coolant" is formulated with long-life hybrid organic acid technology and has been specifically designed to avoid engine cooling system malfunction on Lexus vehicles.

Please contact your Lexus dealer for further details.

NOTICE

Do not use plain water alone.

CHECKING THE RADIATOR AND CONDENSER

If either of the above parts are extremely dirty or you are not sure of their condition, take your vehicle to a Lexus dealer.

CAUTION

To prevent burning yourself, be careful not to touch the radiator or condenser when the engine is hot.

NOTICE

To prevent damage to the radiator and condenser, do not perform the work by yourself.

SPARK PLUGS



Your engine is fitted with iridium-tipped spark plugs.

NOTICE

Use only iridium-tipped spark plugs and do not adjust gaps for your engine performance and smooth drivability.

SECTION 6-3

SERVICE PROCEDURES AND SPECIFICATIONS

Chassis

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CHASSIS

SPECIFICATIONS

– DIFFERENTIAL

Oil capacity Front Rear	1.6 L (1.7 qt., 1.4 Imp.qt.) 3.3 L (3.5 qt., 2.9 Imp.qt.)
Oil type	Hypoid gear oil API GL-5
Oil viscosity	Above -18°C (0°F): SAE 90 Below -18°C (0°F): SAE 80W or SAE 80W-90

– TRANSFER

Oil capacity	1.3 L (1.4 qt., 1.1 Imp.qt.)
Oil type	Gear oil API GL-4 or GL-5
Recommended oil viscosity	SAE 75W-90

– BRAKES

Pedal clearance	116 mm (4.57 in.) Min. *1
Pedal free play	1 - 6 mm (0.04 - 0.24 in.)
Brake pad wear limit	1.0 mm (0.04 in.)
Parking brake lining wear limit	1.0 mm (0.04 in.)
Parking brake adjustment	4 - 6 clicks *2
Fluid type	SAE J1703 or FMVSS No. 116 DOT 3

*1: Minimum pedal clearance when depressed with the force of 490 N (50 kgf, 110 lbf.) with the engine running

*2: Parking brake adjustment when pulled with the force of 196 N (20 kgf, 44 lbf.)

CHASSIS

– CHASSIS LUBRICATION

Wheel bearings	Lithium base wheel bearing grease, NLGI No.2
Steering knuckles	Molybdenum-disulfide lithium base chassis grease, NLGI No.2
Propeller shafts Spider Slide yoke	Lithium base chassis grease, NLGI No.2 Molybdenum-disulfide lithium base chassis grease, NLGI No.2 or lithium base chassis grease, NLGI No.2

– AUTOMATIC TRANSMISSION

Fluid capacity Drain and refill	Up to 3.0 L (3.2 qt., 2.6 Imp.qt.)
Fluid type	Toyota Genuine ATF WS*

*Change automatic transmission fluid only as necessary. Generally, it is necessary to change automatic transmission fluid only if your vehicle is driven under one of the Special Operating Conditions listed in your "Owner's Manual Supplement / Scheduled Maintenance". When changing the automatic transmission fluid, use only "Toyota Genuine ATF WS" (ATF JWS3324 or NWS9638) to aid in assuring maximum transmission performance.

NOTICE

Using automatic transmission fluid other than "Toyota Genuine ATF WS" may cause deterioration in shift quality, locking up of your transmission accompanied by vibration, and ultimately damage the automatic transmission of your vehicle.

CHASSIS

– STEERING

Free play	Less than 40 mm (1.6 in.)
Power steering fluid	Automatic transmission fluid DEXRON® II or III

– SUSPENSION

Fluid type	Suspension fluid AHC
------------	----------------------

– TIRES AND WHEELS

Tire size	P275/60R18 111H
Tire inflation pressure Recommended cold tire inflation pressure	
Normal driving	Front 200 kPa (2.0 kgf/cm ² or bar, 29 psi) Rear 220 kPa (2.2 kgf/cm ² or bar, 32 psi)
Trailer towing	Front 220 kPa (2.2 kgf/cm ² or bar, 32 psi) Rear 240 kPa (2.4 kgf/cm ² or bar, 35 psi)
Wheel size	18 x 8 JJ
Wheel nut torque	131 N·m (13.4 kgf·m, 97 ft·lbf.)

NOTE:

For complete information on tires (e.g. replacing tires or replacing wheels), see “Checking tire inflation pressure” through “Aluminum wheel precautions” on page 384 through 402.

CHECKING BRAKE FLUID



To check the fluid level, simply look at the see-through reservoir. The level should be between the “MAX” and “MIN” lines on the tank.

It is normal for the brake fluid level to go down slightly as the brake pads wear or when the fluid level in the accumulator is high.

If the reservoir needs frequent refilling, it may indicate a serious mechanical problem.

If the level is low, add FMVSS No.116 DOT 3 or SAE J1703 brake fluid to the brake reservoir.

Refilling brake fluid:

1. Turn the ignition switch off.
2. Depress the brake pedal more than 40 times.
3. Remove the reservoir cap by hand. Add brake fluid up to the “MAX” line.

If you do not follow the procedure above, the reservoir may overflow.

Use only newly opened brake fluid. Once opened, brake fluid absorbs moisture from the air, and excess moisture can cause a dangerous loss of braking efficiency.



CAUTION

Take care when filling the reservoir because brake fluid can harm your hands or eyes and damage painted surfaces. If fluid gets in your eyes, flush them with clean water immediately. If you still feel uncomfortable with your eyes, go to the doctor.

NOTICE

If you spill some of the fluid, be sure to wipe it off to prevent it from damaging the parts or paintwork.

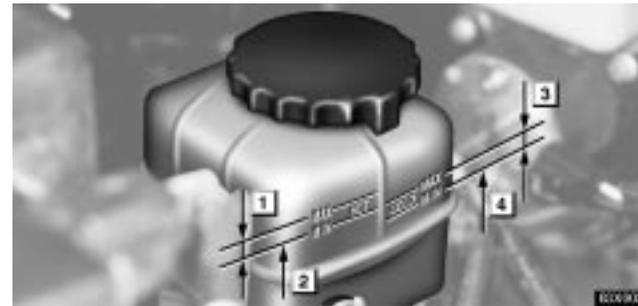
CHASSIS

CHECKING POWER STEERING FLUID



Check the fluid level on the dipstick. If necessary, add automatic transmission fluid DEXRON® II or III.

If the vehicle has been driven around 80 km/h (50 mph) for 20 minutes (a little more in frigid temperatures), the fluid is hot (60°C - 80°C or 140°F - 175°F). You may also check the level when the fluid is cold (about room temperature, 10°C - 30°C or 50°F - 85°F) if the engine has not been run for about five hours.



- **1** If hot O.K. **2** If hot add **3** If cold O.K.
4 If cold add

Clean all dirt off the reservoir and look at the fluid level. If the fluid is cold, the level should be in the “COLD” range. Similarly, if it is hot, the fluid level should be in the “HOT” range. If the level is at the low side of the appropriate range, add automatic transmission fluid DEXRON® II or III to bring the level within the range.

To remove the reservoir cap, turn it counterclockwise and lift up. To reinstall it, turn it clockwise. After replacing the reservoir cap, visually check the steering box case, vane pump and hose connections for leaks or damage.

CAUTION

The reservoir may be hot so be careful not to burn yourself.

NOTICE

- *Avoid overfilling, or the power steering could be damaged.*
- *When adding the power steering fluid, avoid spilling it. The generator under the power steering reservoir could be damaged if fluid is spilled on it.*

CHECKING SUSPENSION FLUID AHC

► **1** "MAX" line **2** "MIN" line

Under the unloaded condition, check the Suspension Fluid AHC in the following way.

1. Start the engine and put the vehicle height in the "LO" (Low) mode and then "N" (Normal) mode.
2. Turn off the ignition switch about 30 seconds after the "N" (Normal) mode indicator light comes on.
3. Make sure the fluid level is between "MAX" and "MIN".

If the fluid level is lower than "MIN", have suspension fluid AHC filled by your Lexus dealer.

CHASSIS

NOTICE

Only use the Suspension fluid AHC for the active height control suspension. If you fill other fluids such as brake fluid, power steering fluid, engine oil, etc., the active height control suspension could be damaged.

CHECKING TIRE INFLATION PRESSURE



The recommended cold tire inflation pressures, tire size and the combined weight of occupants and cargo (vehicle capacity weight) are described on the tire and loading information label.

You should check the tire inflation pressure every two weeks, or at least once a month. And don't forget the spare! The pressure for the spare tire should be 220 kPa (2.2 kgf/cm² or bar, 32 psi).

The following instructions for checking tire inflation pressure should be observed:

- **The inflation pressure should be checked only when the tires are cold.** If your vehicle has been parked for at least 3 hours and has not been driven for more than 1.5 km or 1 mile since, you will get an accurate cold tire inflation pressure reading.
- **Always use a tire pressure gauge.** The appearance of the tire can be misleading. Besides, tire inflation pressures that are even just a few pounds off can degrade ride and handling.
- **Do not bleed or reduce tire inflation pressure after driving.** It is normal for the tire inflation pressure to be higher after driving.
- **Never exceed the vehicle capacity weight.** The passengers and luggage weight should be located so that the vehicle is balanced.

Inspection and adjustment procedure



- ▶ **1 Tire valve**
- ▶ **2 Tire pressure gauge**

1. Remove the tire valve cap.
2. Press the tip of the tire pressure gauge to the tire valve.
3. Read the pressure using a graduation of the gauge.
4. In case that the tire inflation pressure is not within the prescribed range, insert the compressed air from the valve. In case of applying too much air, press the center of the valve and release the air to adjust.
5. After completing the tire inflation pressure measurement and adjustment, apply soap water to the valve and check the leakage.
6. Install the tire valve cap.

CHASSIS

If the gauge and the air pump are not available, have your vehicle checked by your Lexus dealer.

CAUTION

Be sure to reinstall the tire valve caps. Without the valve caps, dirt or moisture could get into the valve core and cause air leakage. If the caps have been lost, have new ones put on as soon as possible.

Incorrect tire inflation pressure may waste fuel, reduce the comfort of driving, reduce tire life and make your vehicle less safe to drive.

If a tire needs frequent refilling, have it checked by your Lexus dealer.

CAUTION

Keep your tires properly inflated. Otherwise, the following conditions may occur and cause an accident resulting in death or serious injuries.

Low tire pressure (underinflation):

- Excessive wear
- Uneven wear
- Poor handling
- Possibility of blowouts from overheated tire.
- Poor sealing of the tire bead
- Wheel deformation and/or tire separation
- A greater possibility of tire damage from road hazards

High tire pressure (overinflation):

- Poor handling
- Excessive wear
- Uneven wear
- A greater possibility of tire damage from road hazards

TIRE INFORMATION

Tire symbols

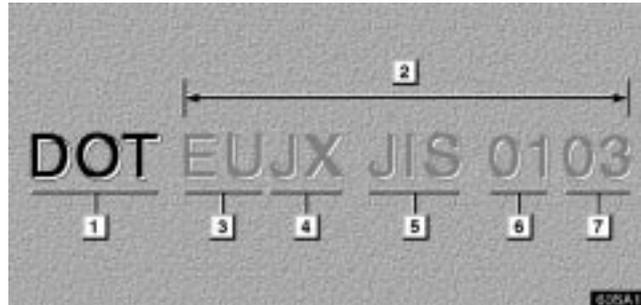


► The illustration indicates typical tire symbols.

CHASSIS

- 1 **Tire size:** For details, see “Tire size” on page 389.
- 2 **DOT and Tire Identification Number (TIN):** For details, see “DOT and Tire Identification Number (TIN)” on page 389.
- 3 **Location of tread wear indicators:** For details, see “Checking and replacing tires” on page 397.
- 4 **Tire ply composition and materials :** Plies mean a layer of rubber-coated parallel cords. Cords mean the strands forming the plies in the tire.
- 5 **Summer tire or all season tire:** An all season tire has “M+S” on the sidewall. The tire not marked with “M+S” is a summer tire. For details, see “Types of tires” on page 395.
- 6 **Radial tires or bias-ply tires:** A radial tire has “RADIAL” on the sidewall. The tire not marked with “RADIAL” is a bias-ply tire.
- 7 **“TUBELESS” or “TUBE TYPE”:** A tubeless tire does not have a tube inside the tire and air is directly filled in the tire. A tube type tire has a tube inside the tire and the tube maintains the air pressure.
- 8 **Load limit at maximum cold tire inflation pressure:** For details, see “Checking and replacing tires” on page 397.
- 9 **Maximum cold tire inflation pressure:** This means the pressure to which a tire may be inflated. For recommended cold tire inflation pressure, see “Tires and wheels” on page 380.
- 10 **Uniform tire quality grading:** For details, see “Uniform tire quality grading” that follows.

DOT and Tire Identification Number (TIN)

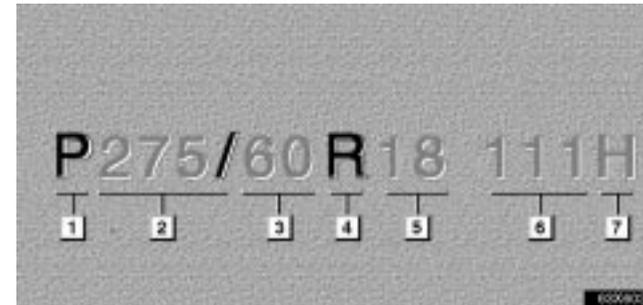


► The illustration indicates typical DOT and Tire Identification Number (TIN)

- 1 "DOT" symbol
- 2 Tire Identification Number (TIN)
- 3 Tire manufacturer's identification mark
- 4 Tire size code
- 5 Manufacturer's optional tire type code
- 6 Manufacturing week
- 7 Manufacturing year

The "DOT" symbol certifies that the tire conforms to applicable Federal Motor Vehicle Safety Standards.

Tire size



► The illustration indicates typical tire size.

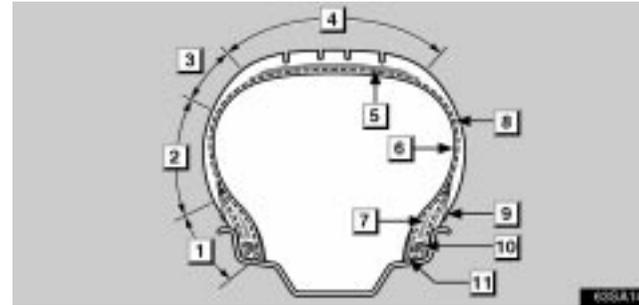
- 1 Tire use (P=Passenger car, T=Temporary use)
- 2 Section width (in millimeters)
- 3 Aspect ratio (tire height to section width)
- 4 Tire construction code (R=Radial, D=Diagonal)
- 5 Wheel diameter (in inch)
- 6 Load index (2 digits or 3 digits)
- 7 Speed symbol (alphabet with one letter)

CHASSIS



- ▶ **1** Section width
- ▶ **2** Tire height
- ▶ **3** Wheel diameter

Name of each section of tire



- ▶ **1** Bead
- ▶ **2** Sidewall
- ▶ **3** Shoulder
- ▶ **4** Tread
- ▶ **5** Belt
- ▶ **6** Inner liner
- ▶ **7** Reinforcing rubber
- ▶ **8** Carcass
- ▶ **9** Rim lines
- ▶ **10** Bead wires
- ▶ **11** Chafer

Uniform tire quality grading

This information has been prepared in accordance with regulations issued by the National Highway Traffic Safety Administration of the U.S. Department of Transportation. It provides the purchasers and/or prospective purchasers of Lexus vehicles with information on uniform tire quality grading.

Your Lexus dealer will help answer any questions you may have as you read this information.

DOT quality grades - All passenger vehicle tires must conform to Federal Safety Requirements in addition to these grades. Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width. For example: Treadwear 200 Traction AA Temperature A

Treadwear - The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and a half (1 - 1/2) times as well on the government course as a tire graded 100. The relative performance of tires 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 AA, A, B, C - The traction grades, from highest to lowest, are AA, A, B and C, and they represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

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

Temperature A, B, C - The temperature grades are A (the highest), B, and C, representing the tire'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 tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the Federal Motor Vehicle Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

Warning: The temperature grades for this tire are established for a tire that is properly inflated and not overloaded. Excessive speed, underinflation, or excessive loading, either separately or in combination, can cause heat buildup and possible tire failure.

CHASSIS

Tire related terms

Cold tire inflation pressure	Tire inflation pressure when the vehicle has been parked at least 3 hours or more, or it has not been driven more than 1.5 km or 1 mile under that condition.
Maximum inflation pressure	The maximum cold inflation pressure to which a tire may be inflated and shown on the sidewall of the tire
Recommended inflation pressure	Cold tire inflation pressure recommended by a manufacturer
Accessory weight	The combined weight (in excess of those standard items which may be replaced) of automatic transmission, power steering, power brakes, power windows, power seats, radio, and heater, to the extent that these items are available as factory-installed equipment (whether installed or not)
Curb weight	The weight of a motor vehicle with standard equipment including the maximum capacity of fuel, oil, and coolant, and, if so equipped, air conditioning and additional weight optional engine
Maximum loaded vehicle weight	The sum of — (a) Curb weight; (b) Accessory weight; (c) Vehicle capacity weight; and (d) Production options weight

CHASSIS

Normal occupant weight	68 kg (150 lb.) times the number of occupants specified in the second column of Table 1 that follows.
Production options weight	The combined weight of those installed regular production options weighing over 2.3 kg (5 lb.) in excess of those standard items which they replace, not previously considered in curb weight or accessory weight, including heavy duty brakes, ride levelers, roof rack, heavy duty battery, and special trim
Vehicle capacity weight (Total load capacity)	The rated cargo and luggage load plus 68 kg (150 lb.) times the vehicle's designated seating capacity
Intended outboard sidewall	(a) The sidewall that contains a whitewall, bears white lettering or bears manufacturer, brand, and/or model name molding that is higher or deeper than the same molding on the other sidewall of the tire, or (b) The outward facing sidewall of an asymmetrical tire that has a particular side that must always face outward when mounted on a vehicle.
Occupant distribution	Distribution of occupants in a vehicle as specified in the third column of Table 1 that follows.
Rim	A metal support for a tire or a tire and tube assembly upon which the tire beads are seated
Rim diameter (Wheel diameter)	Nominal diameter of the bead seat
Rim size designation	Rim diameter and width

CHASSIS

Rim type designation	The industry of manufacturer's designation for a rim by style or code
Rim width	Nominal distance between rim flanges
Vehicle maximum load on the tire	The load on an individual tire that is determined by distributing to each axle its share of the maximum loaded vehicle weight and dividing by two
Vehicle normal load on the tire	The load on an individual tire that is determined by distributing to each axle its share of the curb weight, accessory weight, and normal occupant weight (distributed in accordance with Table 1 that follows) and dividing by two
Weather side	The surface area of the rim not covered by the inflated tire

Table 1 – Occupant loading and distribution for vehicle normal load for various designated seating capacities

Designated seating capacity, Number of occupants	Vehicle normal load, Number of occupants	Occupant distribution in a normally loaded vehicle
2 through 4	2	2 in front
5 through 10	3	2 in front, 1 in second seat

TYPES OF TIRES

Determine what kind of tires your vehicle is originally equipped with.

1. Summer tires

Summer tires are high-speed capability tires best suited to highway driving under dry conditions.

Since summer tires do not have the same traction performance as snow tires, summer tires are inadequate for driving on snow-covered or icy roads. For driving on snow-covered or icy roads, we recommend using snow tires. If installing snow tires, be sure to replace all four tires.

2. All season tires

All season tires are designed to provide better traction in snow and to be adequate for driving in most winter conditions, as well as for use all year round.

All season tires, however, do not have adequate traction performance compared with snow tires in heavy or loose snow. Also, all season tires fall short in acceleration and handling performance compared with summer tires in highway driving.



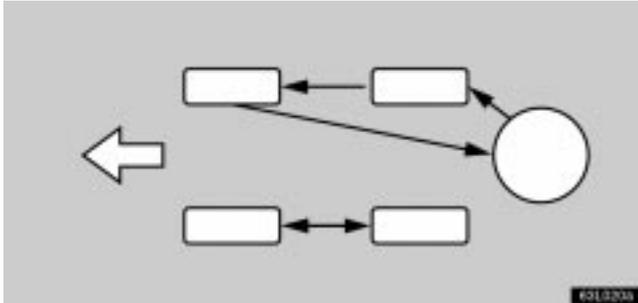
CAUTION

Do not mix summer and all season tires on your vehicle as this can cause dangerous handling characteristics, resulting in loss of control.

Do not use tires other than the manufacturer's designated tires, and never mix tires or wheels of the sizes different from the originals as this could result in loss of control and could cause death or serious injury.

CHASSIS

ROTATING TIRES



To equalize tire wear and help extend tire life, Lexus recommends that you rotate your tires according to the maintenance schedule. (For scheduled maintenance information, please refer to the “Owner’s Manual Supplement / Scheduled Maintenance”.) However, the most appropriate timing for tire rotation may vary according to your driving habits and road surface conditions.

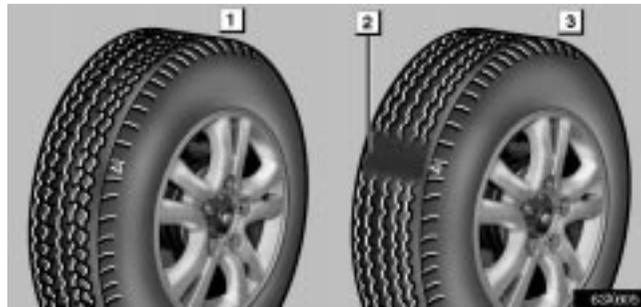
The wheel assemblies must be rotated as illustrated above.

When rotating tires, check for uneven wear and damage. Abnormal wear is usually caused by incorrect tire inflation pressure, improper wheel alignment, out-of-balance wheels, or severe braking.

Before storing radial, snow or studded tires, mark the direction of rotation and be sure to install them in the same direction when using them again. Tires should be stored in a cool dry place.

CHECKING AND REPLACING TIRES

When to replace your tires



- ▶ **1** New tread
- 2** Tread wear indicator
- 3** Worn tread

Replace the tires when the tread wear indicators show. The location of the tread wear indicators is shown by the “TWI” or “△” marks, etc., molded on the sidewall of each tire.

The tires on your Lexus have built-in tread wear indicators to help you know when the tires need replacement. When the tread depth wears to 1.6 mm (0.06 in.) or less, the indicators will appear. If you can see the indicators in two or more adjacent grooves, the tire should be replaced.

The effectiveness of snow tires is lost if the tread wears down below 4 mm (0.16 in.).

If you have tire damage such as cuts, splits, cracks deep enough to expose the fabric, or bulges indicating internal damage, the tire should be replaced.

If a tire often goes flat or cannot be properly repaired due to the size or location of a cut or other damage, it should be replaced. If you are not sure, consult with your Lexus dealer.

If an air loss occurs while driving, do not continue driving with a deflated tire. Driving even a short distance can damage a tire beyond repair.

Any tires which are over 6 years old must be checked by a qualified technician even if damage is not obvious.

Tires deteriorate with age even if they have never or seldom been used.

This also applies to the spare tire and tires stored for future use.

CHASSIS

Tire selection

When replacing a tire, use a tire of the same size and construction, and the same or greater maximum load as the originally installed tires. Also, all the tires must be the same brand and have the same tread patterns.

Using any other size or type of tire may seriously affect handling, ride, speedometer/odometer calibration, ground clearance, and clearance between the body and tires or snow chains.

Check that the maximum load of the replaced tire is greater than 1/2 of the Gross Axle Weight Ratings (GAWR) of either the front axle or the rear axle, whichever greater. As for the maximum load of the tire, see the load limit at maximum cold tire inflation pressure mentioned on the sidewall of the tire, and as for the Gross Axle Weight Ratings (GAWR), see the Certification Label. For details about the Certification Label and sidewall of the tire, see pages 354 and 387.

CAUTION

- **Observe the following instructions. Otherwise, an accident may occur resulting in death or serious injuries.**
- **Do not mix radial, bias belted, or bias-ply tires on your vehicle, as this may cause dangerous handling characteristics resulting in loss of control.**
- **Do not use tires other than the manufacturer's recommended size, as this may cause dangerous handling characteristics resulting in loss of control.**
- **Do not use tires of different brands, sizes, construction or tread patterns, as this may cause dangerous handling characteristics resulting in loss of control.**

It can cause dangerous handling characteristics, resulting in loss of control. If you need to change from conventional tires to radial tires or vice versa, replace them as a set.

INSTALLING SNOW TIRES AND CHAINS

When to use snow tires or chains

Snow tires or chains are recommended when driving on snow or ice.

On wet or dry roads, conventional or radial tires provide better traction than snow or studded tires.

Snow tire selection

If you need snow tires, select tires of the same size, construction and load capacity as the originally installed tires. Also, all the tires must be the same brand and have the same tread patterns.

Do not use tires other than stated above. Since your vehicle has radial tires as original equipment, make sure your snow tires also have radial construction. Do not install studded tires without first checking local regulations for possible restrictions.

CAUTION

Observe the following instructions. Otherwise, an accident may occur resulting in death or serious injuries.

- Do not use snow tires other than the manufacturer's recommended size, as this may cause dangerous handling characteristics resulting in loss of control.

- Do not use snow tires of different brands, sizes, construction or tread patterns, as this may cause dangerous handling characteristics resulting in loss of control.

Snow tire installation

Snow tires should be installed on all wheels.

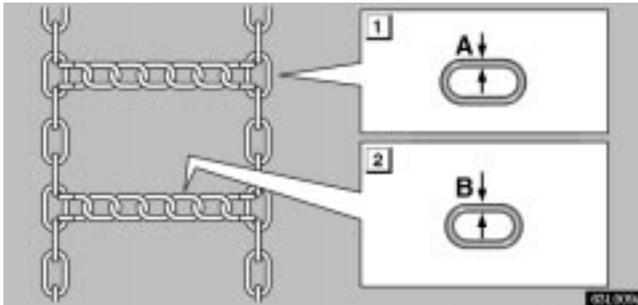
Installing snow tires on the rear wheels only can lead to an excessive difference in road grip capability between the front and rear tires which could cause loss of vehicle control.

CAUTION

- Do not drive with the snow tires incorrectly inflated.
- Never drive over 105 km/h (65 mph) with any type of snow tires.

CHASSIS

Tire chain selection



► **1** Side chain **2** Cross chain

Use the tire chains of correct size.

For 275/60R18 tires, use the following type chains.

	mm	(in.)
A: Diameter of side chain	3.5	(0.14)
B: Diameter of cross chain	4.0	(0.16)

Regulations regarding the use of tire chains vary according to location or type of road. Always check the local regulations before installing chains.

NOTICE

If the wrong combination of tire and chain is used, the chains could damage the vehicle body.

Chain installation

Install the chains on the rear tires as tightly as possible. Do not use tire chains on the front tires. Retighten chains after driving 0.5 - 1.0 km (1/4 - 1/2 mile).

When installing chains on your tires, carefully follow the instructions of the chain manufacturer.

CAUTION

- Do not exceed 50 km/h (30 mph) or the chain manufacturer's recommended speed limit, whichever is lower.
- Drive carefully avoiding bumps, holes, and sharp turns, which may cause the vehicle to bounce.
- Avoid sharp turns or locked-wheel braking, as use of chains may adversely affect vehicle handling.
- When driving with chains installed, be sure to drive carefully. Slow down before entering curves to avoid losing control of the vehicle. Otherwise an accident may occur.

REPLACING WHEELS

When to replace your wheels

If you have wheel damage such as bending, cracks or heavy corrosion, the wheel should be replaced.

If you fail to replace a damaged wheel, the tire may slip off the wheel or cause loss of handling control.

Replacement with used wheels is not recommended as they may have been subjected to rough treatment or high mileage and could fail without warning. Also, bent wheels which have been straightened may have hidden structural damage and therefore should not be used. Never use an inner tube in a leaking wheel which is designed for a tubeless tire.

Wheel selection

When replacing wheels, care should be taken to ensure that they are equivalent to those removed in load capacity, diameter, rim width, and offset.

Correct replacement wheels are available at your Lexus dealer.

A wheel of a different size or type may adversely affect handling, wheel and bearing life, brake cooling, speedometer/odometer calibration, stopping ability, headlight aim, bumper height, vehicle ground clearance, and tire or snow chain clearance to the body and chassis.



CAUTION

Observe the following instructions. Otherwise, an accident may occur resulting in death or serious injuries.

- Do not use wheels other than the manufacturer's recommended size, as this may cause dangerous handling characteristics resulting in loss of control.
- Do not use wheels of different brands, sizes and types, as this may cause dangerous handling characteristics resulting in loss of control.

CHASSIS

ALUMINUM WHEEL PRECAUTIONS

- When installing aluminum wheels, check that the wheel nuts are tight after driving your vehicle the first 1600 km (1000 miles).
- If you have rotated, repaired, or changed your tires, check that the wheel nuts are still tight after driving 1600 km (1000 miles).
- When using tire chains, be careful not to damage the aluminum wheels.
- Use only the Lexus wheel nuts and wrench designed for your aluminum wheels.
- When balancing your wheels, use only Lexus balance weights or equivalent and a plastic or rubber hammer.
- As with any wheel, periodically check your aluminum wheels for damage. If damaged, replace immediately.

SUSPENSION AND CHASSIS



CAUTION

Do not modify the suspension/chassis with lift kits, spacers, springs, etc. It can cause dangerous handling characteristics, resulting in loss of control.

SECTION 6-4

SERVICE PROCEDURES AND SPECIFICATIONS

Electrical components

Specifications	404
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Battery recharging precautions	411
Checking and replacing the blade type fuses	412
Checking the cartridge type fuses	414
Adding washer fluid	416
Replacing light bulbs	416

ELECTRICAL COMPONENTS

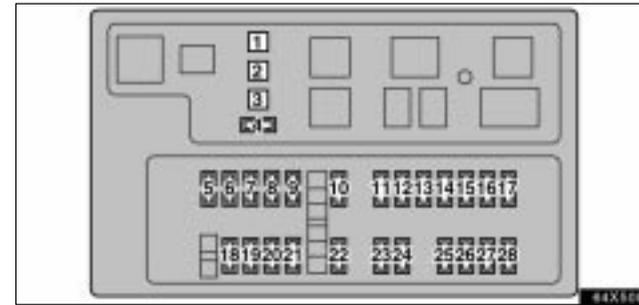
SPECIFICATIONS

- FUSE LOCATIONS

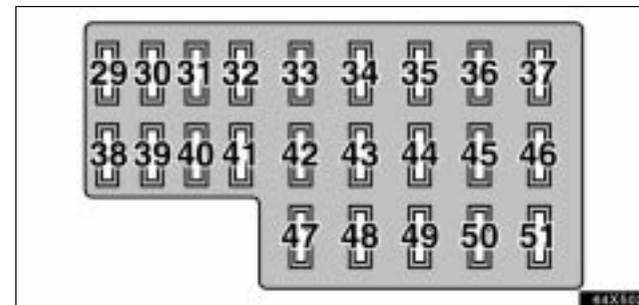


- ▶ **1** Engine compartment
- ▶ **2** Driver's side kick panel
- ▶ **3** Passenger's side kick panel

- FUSES

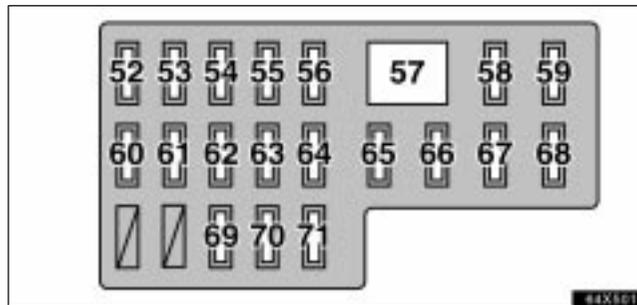


▶ Engine compartment



▶ Driver's side kick panel

ELECTRICAL COMPONENTS



► Passenger's side kick panel

No.	Fuse	AMPERE	CIRCUIT
1	ABS NO.2	40	Anti-lock brake system
2	ABS NO.1	50	Anti-lock brake system
3	AHC	50	Active height control suspension (AHC)
4	ST1	7.5	Multiport fuel injection system/Sequential multiport fuel injection
5	TOWING	30	Trailer lights
6	MIR HTR	15	Outside rear view mirror defogger
7	RR HTR	10	Rear air conditioning system
8	HAZ-TRN	15	Emergency flashers, Turn signal lights
9	ALT-S	7.5	Charging system
10	NV-IR	20	Lexus night view system
11	FR FOG	15	Fog lights
12	TOWING BRK	30	Trailer lights
13	HEAD CLNER	20	Headlight cleaner
14	FR-IG	10	Charging system
15	PANEL	7.5	Instrument panel light
16	TOWING TAIL	30	Trailer lights

ELECTRICAL COMPONENTS

No.	Fuse	AMPERE	CIRCUIT
17	TAIL	15	Parking lights, Tail lights
18	BAT	30	All components in "ECU-B2"
19	TEL	7.5	Lexus Link System
20	AMP	30	Audio system
21	EFI or ECD No.1	25	Multiport fuel injection system/Sequential multiport fuel injection system
22	AM2	15	All components in "IGN"
23	ETCS	10	Multiport fuel injection system/Sequential multiport fuel injection system
24	HORN	10	Horns
25	HEAD (RH-L WR)	10	Right-hand headlight (low beam)
26	HEAD (LH-L WR)	10	Left-hand headlight (low beam)
27	HEAD (RH-UPR)	20	Right-hand headlight (high beam)
28	HEAD (LH-UPR)	20	Left-hand headlight (high beam)
29	PWR OUTLET	15	Power outlets
30	CIG	15	Cigarette lighter

No.	Fuse	AMPERE	CIRCUIT
31	ACC	7.5	Instrument panel light
32	AM1	7.5	Multiport fuel injection system/Sequential multiport fuel injection system
33	DEFOG	20	Rear window defogger
34	AHC-B	15	Active height control suspension (AHC)
35	FUEL HTR	20	Fuel heater
36	POWER HTR	7.5	Power heater
37	AHC-IG	20	Active height control suspension (AHC)
38	EFI or ECD No.2	10	Emission control system
39	GAUGE 1	10	Gauges and meters
40	ECU-IG 1	10	Multiport fuel injection system/Sequential multiport fuel injection system
41	ECU-B1	10	Navigation system
42	DBL LOCK	15	Double lock system
43	BATT CHARGE	30	Charging system
44	A/C	15	Air conditioning system

ELECTRICAL COMPONENTS

45	STOP	15	Stop lights
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No.	Fuse	AMPERE	CIRCUIT
46	OBD-2	7.5	On-board diagnosis system
47	IDLE UP	7.5	Idle-up system
48	LH SEAT	30	Power seat system
49	DOOR	25	Power door lock system, Power windows
50	SUN ROOF	25	Electronic moon roof
51	RR WIPER	15	Rear wiper system
52	ECU-B2	10	Power door lock system, Power window
53	DIFF	20	Four-wheel drive system
54	WASHER	15	Windshield washer
55	RADIO	10	Audio system
56	DOME	10	Interior lights
57	VGRS	40	Variable gear ratio steering system
58	P/W (FL)	20	Power window
59	P/W (RL)	20	Power window
60	WIPER	25	Windshield wiper
61	ECU-IG 2	10	Rear air conditioning system

ELECTRICAL COMPONENTS

No.	Fuse	AMPERE	CIRCUIT
62	SEAT HTR	15	Seat heater
63	GAUGE 2	10	Back-up lights
64	MET	7.5	Gauges and meters
65	IGN	7.5	Multiport fuel injection system/Sequential multiport fuel injection system
66	SECURITY	7.5	Theft deterrent system
67	P/W (RR)	20	Power window
68	P/W (FR)	20	Power window
69	TIL & TEL	20	Tilt and telescopic steering
70	RR A/C	30	Rear air conditioning system
71	RH SEAT	30	Power seat system

CHECKING BATTERY CONDITION

Precautions

CAUTION

BATTERY PRECAUTIONS

The battery produces flammable and explosive hydrogen gas.

- Do not cause a spark by contacting the battery terminals with tools.
- Do not smoke or light a match near the battery.

The electrolyte contains poisonous and corrosive sulfuric acid.

- Avoid contact with eyes, skin or clothes.
- Never inhale or swallow electrolyte.
- Wear protective safety glasses when working near the battery.
- Keep children away from the battery.

EMERGENCY MEASURES

- If electrolyte gets in your eyes, flush your eyes with clean water for at least 15 minutes and get immediate medical attention. If possible, continue to apply water with a sponge or cloth while traveling to the medical office.

- If electrolyte gets on your skin, thoroughly wash the contacted area. If you feel a pain or burn, get medical attention immediately.
- If electrolyte gets on your clothes, there is a possibility of its soaking through to your skin, so immediately take off the exposed clothing and follow the procedure above, if necessary.
- If you accidentally to swallow electrolyte, drink a large quantity of water or milk. Follow with milk of magnesia, beaten raw egg or vegetable oil. Then go immediately for emergency help.

Checking battery exterior



► **1** *Terminals* **2** *Hold-down clamp*

Check the battery for corroded or loose connections, cracks, or loose hold-down clamps.

1. If the battery is corroded, wash it off with a solution of warm water and baking soda. Coat the terminals with grease to prevent further corrosion.
2. If the connections are loose, tighten the clamp bolts - but do not overtighten.
3. Tighten the hold-down clamp only enough to keep the battery firmly in place. Overtightening may damage the battery case.

ELECTRICAL COMPONENTS

NOTICE

- *Make sure the engine and all accessories are turned off before performing maintenance.*
- *When checking the battery, remove the ground cable first and reinstall it last.*
- *Be careful not to cause a short circuit with tools.*
- *Take care no solution gets into the battery when washing it.*

If the battery terminal is disconnected or the battery is run down...

- The variable gear ratio steering system is reset temporarily and “VGRS” warning light flashes after you reconnect the battery terminal. In this case, you should turn off the light and return the system to normal. To return the system to normal, see “Variable gear ratio steering system” on page 276.
- The moon roof may not operate automatically and the jam protection function will not operate correctly after you reconnect, replace or recharge the battery with the moon roof slide-opened or tilted up. In any of these cases, you should return the moon roof to normal. To return the moon roof to normal, see “Moon roof” on page 95.

Checking battery condition

(a) Checking by fluid level lines



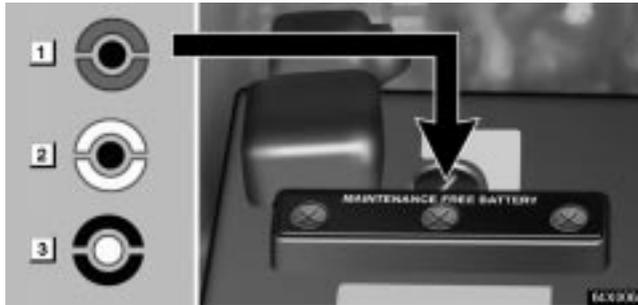
▶ **1** Upper line **2** Lower line

The fluid (electrolyte) level must be between the upper and lower lines.

When checking the fluid level, look at all six cells, not just one or two.

If the level is lower than the lower line, have the battery checked by your Lexus dealer.

(b) Checking by indicator



Check the battery condition by the indicator color.

- 1 BLUE - Good condition.
- 2 WHITE - Charging necessary. Have the battery checked by your Lexus dealer.
- 3 RED - Have the battery checked by your Lexus dealer.

NOTICE

Do not refill the battery with water.

BATTERY RECHARGING PRECAUTIONS

During recharging, the battery is producing hydrogen gas.

Therefore, before recharging:

1. If recharging with the battery installed on the vehicle, be sure to disconnect the ground cable.
2. Make sure the power switch on the recharger is off when connecting the charger cables to the battery and when disconnecting them.

 **CAUTION**

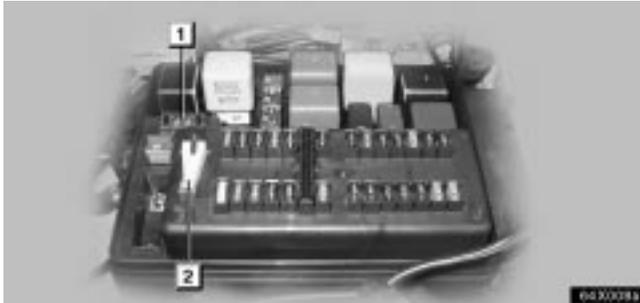
- Always charge the battery in an unconfined area. Do not charge the battery in a garage or closed room where there is not sufficient ventilation.
- Only do a slow charge (5 A or less). Charging at a quicker rate is dangerous. The battery may explode causing personal injuries.

NOTICE

Never recharge the battery while the engine is running. Also, make sure all accessories are turned off.

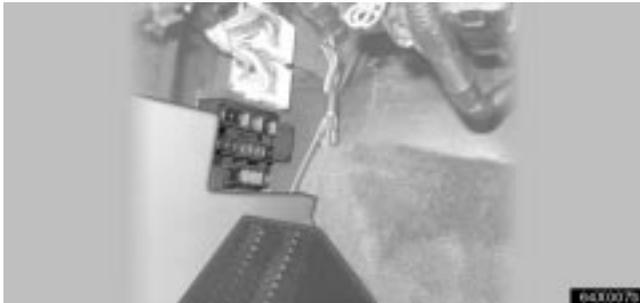
ELECTRICAL COMPONENTS

CHECKING AND REPLACING THE BLADE TYPE FUSES



► **Engine compartment**

1 Spare fuses **2** Pull-out tool



► **Driver's side kick panel**

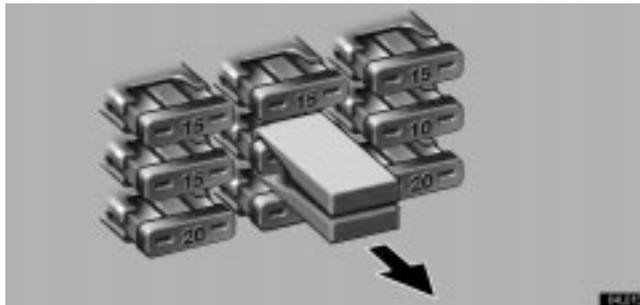


► **Passenger's side kick panel**

1. Turn the ignition switch off and open the fuse box lid.

Determine which fuse may be causing the problem. The lid of the fuse box shows the name of the circuit for each fuse.

ELECTRICAL COMPONENTS



2. Make sure the inoperative component is turned off. Pull the suspected fuse straight out with the pull-out tool and check it. If it has blown, push a new fuse into the clips.



► **Good**

► **Blown**

a. Look carefully at the fuse. If the thin wire is broken, the fuse has blown. If you are not sure or if it is too dark to see, try replacing the suspected fuse with one of the same value that you know is good.

b. Only install a fuse with the amperage rating designated on the fuse box lid.

If you do not have a spare fuse, in an emergency you can pull out the "DOME" or "CIG" fuse, which may be dispensable for normal driving, and use it if its amperage rating is the same.

If you cannot use one of the same amperage, use one lower than, but as close as possible to, the amperage. If the amperage is lower than that specified, the fuse might blow out again but this does not indicate anything wrong. Be sure to get the correct fuse as soon as possible and return the substitute to its original clips.

ELECTRICAL COMPONENTS

It is a good idea to purchase a set of spare fuses and keep them in your vehicle for emergencies.

If the new fuse immediately blows out, there is a problem with the electrical system. Have your Lexus dealer correct it as soon as possible.



CAUTION

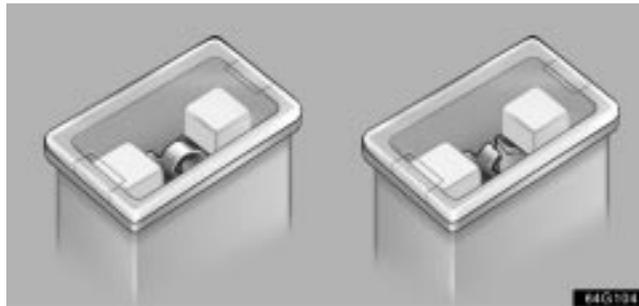
Never use a fuse with a higher amperage rating, or any other object, in place of a fuse. This may cause extensive damage and possibly a fire.

CHECKING THE CARTRIDGE TYPE FUSES



► *Engine compartment*

ELECTRICAL COMPONENTS



► **Good**

► **Blown**

If the headlights or other electrical components do not work and the blade type fuses are O.K., check the cartridge type fuses. If any of the cartridge type fuses are blown, they must be replaced.

If there is an overload in the circuits from the battery, the fuses are designed to blow before the entire wiring harness is damaged.



CAUTION

Always use a genuine Lexus fuse or equivalent for replacement. Never install an ordinary wire - even for a temporary fix. This may cause extensive damage and possibly a fire.

NOTICE

Before replacing the fuses, have the cause of electrical overload determined and repaired by your Lexus dealer.

ELECTRICAL COMPONENTS

ADDING WASHER FLUID



If the washer tank becomes nearly empty, add washer fluid.

You may use plain water as washer fluid. However, in cold areas where temperatures range below the freezing point, use washer fluid containing antifreeze. This product is available at your Lexus dealer and most auto parts stores. Follow the manufacturer's directions for how much to mix with water.

NOTICE

- ***Do not use engine antifreeze or any other substitute because it may damage your vehicle's paint.***
- ***Do not fill washer fluid over the "NORMAL" level.***

REPLACING LIGHT BULBS

The illustrations on the following pages show the locations of light bulbs. If it is necessary to replace a bulb, take your vehicle to your Lexus dealer as soon as possible. Use bulbs with the bulb numbers and wattage ratings given in the table.

CAUTION

- **To prevent burning yourself, do not replace the light bulbs while they are hot.**
- **Halogen bulbs have pressurized gas inside and require special handling. They can burst or shatter if scratched or dropped. Hold a bulb only by its plastic or metal case. Do not touch the glass part of a bulb with bare hands.**

NOTICE

Only use a bulb of the listed type.

The inside of the lens of exterior lights such as headlights may temporarily fog up when the lens becomes wet in the rain or in a car wash. This is not a problem because the fogging is caused by the temperature difference between the outside and inside of the lens, just like the windshield fogged up in the rain. However, if there is a large drop of water on the inside of the lens, or if there is water pooled inside the light, contact your Lexus dealer.

ELECTRICAL COMPONENTS

LIGHT LOCATION

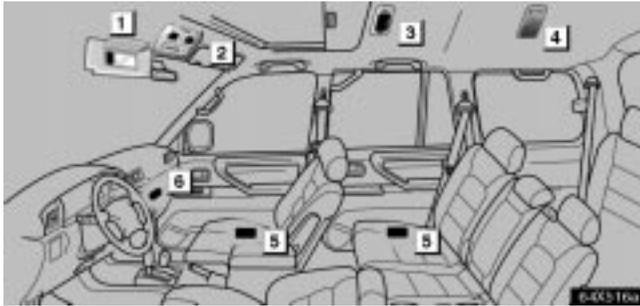


Light Bulbs	Bulb No.	W	Type
1 Headlights (High beam)	9005	60	A
2 Headlights (Low beam)	9006	55	B
3 Parking and front side marker lights	-	5	D
4 Fog light	-	55	C
5 Front turn signal lights	-	21	F



Light Bulbs	Bulb No.	W	Type
1 Rear turn signal lights	7440	21	D
2 Stop/tail lights	7443	21/5	D
3 Back-up lights	921	18	D
4 License plate lights	168	5	D

ELECTRICAL COMPONENTS



- A: HB3 halogen bulbs
- B: H1 halogen bulbs
- C: H3 halogen bulbs
- D: Wedge base bulbs
- E: Double end bulbs
- F: Single end bulbs

Light Bulbs	Bulb No.	W	Type
1 Vanity light	-	3	E
2 Personal light	-	5	F
3 Personal light	-	8	E
Interior light	-	8	E
4 Interior light	-	8	E
5 Door courtesy light	-	3	D
6 Glove box light	-	1.4	D

SECTION 6-5

SERVICE PROCEDURES AND SPECIFICATIONS

Body

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BODY

SPECIFICATIONS

– DIMENSIONS AND WEIGHTS

Overall length	4890 mm (192.5 in.)
Overall width	1940 mm (76.4 in.)
Overall height	1850 mm (72.8 in.)*
Wheelbase	2850 mm (112.2 in.)
Tread – Front – Rear	1620 mm (63.8 in.) 1615 mm (63.6 in.)
Vehicle capacity weight (occupants + cargo)	545 kg (1200lb.)
Towing capacity (trailer weight + cargo weight)	2268 kg (5000lb.)

*: Unladen vehicle

– FUEL TANK

Capacity	96 L (25.4 gal., 21.1 Imp.gal.)
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PROTECTING YOUR VEHICLE FROM CORROSION

Proper care of your Lexus can help ensure long-term corrosion prevention.

The most common causes of corrosion to your vehicle are:

- The accumulation of road salt, dirt and moisture in hard-to-reach areas under the vehicle.
- Chipping of paint or undercoating caused by minor accidents or by stones and gravel.

The following conditions will cause or accelerate corrosion of your vehicle, so it is important to keep your vehicle, particularly the underside, as clean as possible and to repair any damage to paint or protective coatings as soon as possible.

- The presence of road salt or dust control chemicals, salt in the air near the sea coast, industrial air pollution.
- High humidity, especially at temperatures just above freezing point.
- Certain parts of your vehicle are wet or damp for an extended period of time, even though other parts of the vehicle are dry.
- Components of the vehicle which are prevented from quick-drying due to lack of proper ventilation are exposed to high ambient temperature.

To help prevent corrosion on your Lexus, follow these guidelines:

Keep your vehicle clean by regular washing. In addition, observe the following points.

- If you drive on salted roads in the winter or if you live near the ocean, you should hose off the undercarriage at least once a month to minimize corrosion.
- High pressure water or steam is effective for cleaning the vehicle's underside and wheel housings. Pay particular attention to these areas as it is difficult to see all the mud and dirt. It will do more harm than good to simply wet the mud and debris without removing them. The lower edge of doors, rocker panels and frame members have drain holes which should not be allowed to clog with dirt as trapped water in these areas can cause corrosion.
- Wash the underside of the vehicle thoroughly when winter is over.

See "Washing and waxing" on page 422 for more tips.

Check the condition of your vehicle's paint and trim. If you find any chips or scratches in the paint, touch them up immediately to prevent corrosion from starting. If the chips or scratches have gone through the bare metal, have a qualified body shop make the repair.

BODY

Check the interior of your vehicle. Water and dirt can accumulate under the floor mats and could cause corrosion. Occasionally check under the mats to make sure the area is dry. Be particularly careful when transporting chemicals, cleansers, fertilizers, salt, etc. These should be transported in proper containers. If a spill or leak should occur, immediately clean and dry the area.

Use mud shields on your wheels. If you drive on salted or gravel roads, mud shields help protect your vehicle. Full-size shields, which come as near to the ground as possible, are the best. We recommend that the fittings and the area where the shields are installed be treated to resist corrosion. Your Lexus dealer will be happy to assist in supplying and installing the shields if they are recommended for your area.

Keep your vehicle in a well ventilated garage or a roofed place. Do not park your vehicle in a damp, poorly ventilated garage. If you wash your vehicle in the garage, or if you drive it covered with water or snow, your garage may be so damp and it will cause corrosion. Even if your garage is heated, a wet vehicle can corrode if the ventilation is poor.

WASHING AND WAXING

Washing your Lexus

Keep your vehicle clean by regular washing.

The following cases may cause weakness to the paint or corrosion to the body and parts. Wash your vehicle as soon as possible.

- When driving in a coastal area
- When driving on a road sprinkled with antifreeze
- When having coal tar, tree sap, bird droppings and carcass of an insect
- When driving in the areas where there is a lot of smoke, soot, dust, iron dust and chemical substances
- When the vehicle becomes remarkably dirty with dust and mud

Hand-washing your Lexus

Work in the shade and wait until the vehicle body is not hot to the touch.

1. Rinse off loose dirt with a hose. Remove any mud or road salt from the underside of the vehicle or in the wheel wells.
2. Wash with a mild car-wash soap, mixed according to the manufacturer's instructions. Use a soft cotton mitt and keep it wet by dipping it frequently into the wash water. Do not rub hard - let the soap and water remove the dirt.

Plastic wheel ornaments: The plastic wheel ornaments are damaged easily by organic substances. If any organic substance splashes an ornament, be sure to wash it off with water and check if the ornament is damaged.

 **CAUTION**

Do not attach the heavily damaged plastic wheel ornament. It may fly off the wheel and cause accidents while the vehicle is moving.

Aluminum wheels: Use only a mild soap or neutral detergent.

Urethane bumpers and side moldings: Wash carefully. Do not scrub with abrasive cleaners. The bumper and side molding faces are soft.

Road tar: Remove with turpentine or cleaners that are marked safe for painted surfaces.

NOTICE

Do not use organic substances (gasoline, kerosene, benzine or strong solvents), which may be toxic or cause damage.

3. Rinse thoroughly - dried soap can cause streaking. In hot weather you may need to rinse each section right after you wash it.

4. To prevent water spots, dry the vehicle using a clean soft cotton towel. Do not rub or press hard - you might scratch the paint.

Automatic car wash

NOTICE

To prevent damage to the antenna, make sure it is retracted before driving your vehicle through an automatic car wash.

Your vehicle may be washed in an automatic car wash, but remember that the paint can be scratched by some types of brushes, unfiltered washing water, or the washing process itself. Scratching reduces paint durability and gloss, especially on darker colors. The manager of the car wash should be able to advise you whether the process is safe for the paint on your vehicle.

Waxing your Lexus

Polishing and waxing is recommended to maintain the original beauty of your Lexus' finish.

Apply wax once a month or if the vehicle surface does not repel water well.

1. Always wash and dry the vehicle before you begin waxing, even if you are using a combined cleaner and wax.

2. Use a good quality polish and wax. If the finish has become extremely weathered, use a car-cleaning polish, followed by a separate wax. Carefully follow the manufacturer's instructions and precautions. Be sure to polish and wax the chrome trim as well as the paint.

BODY

3. Wax the vehicle again when water does not bead but remains on the surface in large patches.

Windshield washer nozzles: Make sure the washer nozzles do not become blocked. If a nozzle becomes blocked, contact your Lexus dealer to have the vehicle serviced.

NOTICE

If a nozzle becomes blocked, do not try to clear it with a pin or other object. The nozzle will be damaged.

CLEANING THE INTERIOR

CAUTION

- Be careful not to splash water or spill liquid on the floor. This may prevent the side airbags from activating correctly, resulting in serious injury.
- Do not wash the vehicle floor with water, or allow water to get onto the floor when cleaning the vehicle interior or exterior. Water may get into audio components or other electrical components above or under the floor carpet (or mat) and cause a malfunction; and it may cause body corrosion.

Leather Interior

Remove dirt using a soft cloth dampened with 5 % solution of neutral detergent for wool. Then thoroughly wipe off all traces of detergent with a clean damp cloth.

After cleaning or whenever any part of the leather gets wet, dry with a soft clean cloth. Allow the leather to dry in a ventilated shaded area.

NOTICE

- *If a stain should fail to come out with a neutral detergent, apply a cleaner that does not contain an organic solvent.*
- *Never use organic substances such as benzine, alcohol or gasoline, or alkaline or acid solutions for cleaning the leather as these could cause discoloring.*
- *Use of a nylon brush or synthetic fiber cloth, etc. may scratch the fine grained surface of the leather.*
- *Mildew may develop on soiled leather upholstery. Be especially careful to avoid oil spots. Try to keep your upholstery always clean.*
- *Long exposure to direct sunlight may cause the leather surface to harden and shrink. Keep your vehicle in a shaded area, especially in the summer.*
- *The interior of your vehicle is apt to heat up on hot summer days, so avoid placing on the upholstery items made of vinyl or plastic or containing wax as these tend to stick to leather when warm.*
- *Improper cleaning of the leather upholstery could result in discoloration or staining.*

**Synthetic Leather Areas
(Part of door panels)**

The synthetic leather areas may be easily cleaned with a mild soap or detergent and water.

First vacuum over the upholstery to remove loose dirt. Then, using a sponge or soft cloth, apply the soap solution to the synthetic leather. After allowing it to soak in for a few minutes to loosen the dirt, remove the dirt and wipe off the soap with a clean damp cloth. If all the dirt does not come off, repeat the procedure. Commercial foaming-type cleaners are also available which work well. Follow the manufacturer's instructions.

NOTICE

Do not use solvent, thinner, gasoline or window cleaner on the interior.

BODY

Carpets, Windows and Seat Belts

Begin by vacuuming thoroughly to remove as much dirt as possible. Several types of foam cleaners are available; some are in aerosol cans and others are powders or liquids which you mix with water to produce a foam. To shampoo the carpets, use a sponge or brush to apply the foam. Rub in overlapping circles. Do not apply water - the best results are obtained by keeping the carpet as dry as possible. Read the shampoo instructions and follow them closely.

The seat belts may be cleaned with mild soap and water or with lukewarm water.

Use a cloth or sponge. As you are cleaning, check the belts for excessive wear, fraying or cuts.

NOTICE

- *Use a good foam-type shampoo to clean the carpets.*
- *Do not use dye or bleach on the belts - it may weaken them.*
- *Do not use the belts until they become dry.*
- *The windows may be cleaned with any household window cleaner.*
- *When cleaning the inside of the rear window, be careful not to scratch or damage the heater wires.*

Air Conditioning Control Panel, Car Audio, Instrument Panel, Console Panel, and Switches

Use a soft damp cloth for cleaning.

Soak a clean soft cloth in water or lukewarm water then lightly wipe off any dirt.

NOTICE

- *Do not use organic substances (solvents, kerosene, alcohol, gasoline, etc.) or alkaline or acidic solutions. These chemicals can cause discoloring, staining or peeling of the surface.*
- *If you use cleaners or polishing agents, make sure their ingredients do not include the substances mentioned above.*
- *If you use a liquid car freshener, do not spill the liquid onto the vehicle's interior surfaces. It may contain the ingredients mentioned above. Immediately clean any spill using the method mentioned above.*

If you have any questions about the cleaning of your Lexus, your local Lexus dealer will be pleased to answer them.

SECTION 7

REPORTING SAFETY DEFECTS FOR U.S. OWNERS

Reporting safety defects for U.S. owners

Reporting safety defects for U.S. owners 428

REPORTING SAFETY DEFECTS FOR U.S. OWNERS

REPORTING SAFETY DEFECTS FOR U.S. OWNERS

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Toyota Motor Sales, U.S.A., Inc. (Toll-free: 1-800-25-LEXUS).

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Toyota Motor Sales, U.S.A., Inc.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 366-0123 in Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590. You can also obtain other information about motor vehicle safety from the Hotline.

