### TABLE OF CONTENTS

<table>
<thead>
<tr>
<th></th>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Before driving</td>
<td>Adjusting and operating features such as door locks, mirrors, and steering column.</td>
</tr>
<tr>
<td>2</td>
<td>When driving</td>
<td>Driving, stopping and safe-driving information.</td>
</tr>
<tr>
<td>3</td>
<td>Interior features</td>
<td>Air conditioning and audio systems, as well as other interior features for a comfortable driving experience.</td>
</tr>
<tr>
<td>4</td>
<td>Maintenance and care</td>
<td>Cleaning and protecting your vehicle, performing do-it-yourself maintenance, and maintenance information.</td>
</tr>
<tr>
<td>5</td>
<td>When trouble arises</td>
<td>What to do if the vehicle needs to be towed, gets a flat tire, or is involved in an accident.</td>
</tr>
<tr>
<td>6</td>
<td>Vehicle specifications</td>
<td>Detailed vehicle information.</td>
</tr>
<tr>
<td>7</td>
<td>For US owners</td>
<td>Reporting safety defects for US owners.</td>
</tr>
<tr>
<td></td>
<td>Index</td>
<td>Alphabetical listing of information contained in this manual.</td>
</tr>
</tbody>
</table>
## TABLE OF CONTENTS

### 1 Before driving

1-1. Key information .................................. 2
  Keys ..................................................... 2

1-2. Opening, closing and locking the doors .................. 3
  Wireless remote control ....................... 3
  Side doors ............................................... 5
  Back door ................................................ 9

1-3. Adjustable components ........................... 12
  Front seats ........................................... 12
  Rear seats ............................................ 14
  Driving position memory system .................. 21
  Head restraints ....................................... 23
  Seat belts ............................................. 24
  Steering wheel ....................................... 30
  Inside rear view mirror ......................... 31
  Outside rear view mirrors ....................... 32
  Roof luggage carrier ................................ 34

1-4. Opening and closing the windows and moon roof ......... 37
  Power windows ...................................... 37
  Power quarter windows ............................ 40
  Moon roof ............................................. 41

1-5. Refueling ........................................... 44
  Opening the fuel tank cap ....................... 44

1-6. Anti-theft system .................................. 47
  Engine immobilizer system ..................... 47
  Alarm .................................................. 49
  Theft prevention labels (U.S.A.) .................. 51

1-7. Safety information .................................. 52
  Correct driving posture ......................... 52
  SRS airbags .......................................... 54
  Front passenger occupant classification system .. 67
  Child restraint systems ......................... 72
  Installing child restraints ....................... 75

### 2 When driving

2-1. Driving procedures ................................ 88
  Driving the vehicle .................................. 88
  Starting the engine .................................. 95
  Automatic transmission .......................... 98
  Turn signal lever ................................... 102
  Parking brake ........................................ 103

2-2. Instrument cluster ................................ 104
  Gauges and meters .................................. 104
  Indicators and warning lights .................... 107
  Trip information display ....................... 110
2-3. Operating the lights and windshield wipers .......................... 112
   Headlight switch ........................................ 112
   Fog light switch ........................................ 114
   Windshield wipers and washer .......................... 115
   Rear window wiper and washer .......................... 118
   Headlight cleaner switch ................................. 119

2-4. Using other driving systems ................................. 120
   Cruise control .............................................. 120
   Rear view monitor system .................................. 123
   Lexus night view system ................................. 126
   AHC (Active Height Control Suspension) ................. 130
   AVS (Adaptive Variable Suspension) ....................... 138
   Four-wheel drive system .................................. 139
   Driving assist systems .................................... 142

2-5. Driving information ........................................ 146
   Off-road precautions .................................... 146
   Cargo and luggage ........................................ 151
   Vehicle load limits ....................................... 155
   Winter driving tips ....................................... 156
   Trailer towing .............................................. 160
   Dinghy towing .............................................. 170

3-1. Using the air conditioning system and defogger ............ 172
   Automatic air conditioning system (without navigation system) ........................................ 172
   Rear air conditioning controls ........................... 180
   Rear window and outside rear view mirror defoggers ........................................ 182

3-2. Using the audio system .................................. 183
   Audio system type (without navigation system) ........ 183
   Using the radio ............................................ 185
   Using the cassette player ................................ 194
   Using the CD player ...................................... 197
   Optimal use of the audio system ......................... 204
   Using the steering switches .............................. 206
   Rear seat audio system ................................... 209

3-3. Using the interior lights .................................. 212
   Interior lights list ........................................ 212

3-4. Using the storage features ................................ 215
   List of storage features .................................. 215
# TABLE OF CONTENTS

## 3-5. Other interior features
- Sun visors ........................................ 221
- Vanity mirror .................................. 222
- Clock ........................................... 223
- Outside temperature display .............. 224
- Ashtrays ....................................... 225
- Cigarette lighter ............................. 227
- Power outlet .................................. 228
- Seat heaters ................................... 230
- Coat hooks .................................... 232
- Armrest ........................................ 233
- Floor mats .................................... 234
- Luggage compartment features .......... 235
- Garage door opener ......................... 237
- Compass ...................................... 242
- Lexus Link System .......................... 246

## 4. Maintenance and care

### 4-1. Maintenance and care
- Cleaning and protecting the vehicle exterior .......... 260
- Cleaning and protecting the vehicle interior .......... 262

### 4-2. Maintenance
- Maintenance requirements .... 265
- General maintenance .......... 267
- Emission inspection and maintenance (I/M) programs .... 270

### 4-3. Do-it-yourself maintenance
- Do-it-yourself service precautions ........... 271
- Hood ........................................... 275
- Engine compartment ...................... 276
- Tires ........................................ 292
- Tire inflation pressure ................. 302
- Wheels ....................................... 306
- Air conditioning filter ................. 308
- Wireless remote control battery .......... 309
- Checking and replacing fuses .............. 311
- Light bulbs .................................. 320

## 5. When trouble arises

### 5-1. Essential information
- If your vehicle needs to be towed .................. 328
- If you think something is wrong ................. 333
- Fuel pump shut off system ................. 334
- Event data recorder .................... 335
5-2. Steps to take in an emergency .............................. 337

- If a warning light turns on or a warning buzzer sounds.............. 337
- If you have a flat tire............................................. 346
- If the engine will not start ...................................... 357
- If the shift lever cannot be shifted from P .......................... 358
- If you lose your keys .............................................. 359
- If the battery is discharged........................................ 360
- If your vehicle overheats ........................................... 363
- If the vehicle becomes stuck...................................... 366

6 Vehicle specifications

6-1. Specifications................................................. 368
- Maintenance data................................................. 368
- Fuel information................................................... 378
- Tire information.................................................... 381

6-2. Customization .................................................. 389
- Customizable features ............................................. 389

6-3. Initialization ..................................................... 393
- Items to initialize................................................... 393

7 For US owners

- Reporting safety defects for U.S.A. owners....................... 396

Alphabetical index ................................................. 398

What to do if......................................................... 406
Headlights (low beam) P. 112
Headlights (high beam) P. 112
Hood P. 275
Parking and front side marker lights P. 112
Front turn signal lights P. 102
Fog lights P. 114
Windshield wipers P. 115
Moon roof P. 41
Outside rear view mirrors P. 32
Tires
  ● Rotation  P. 292
  ● Replacement  P. 346
  ● Inflation pressure  P. 376
  ● Information  P. 381

Roof luggage carrier*  P. 34

Side door  P. 5

Tail lights  P. 112

Rear window defogger  P. 182

Rear window wiper  P. 118

Back door  P. 9

License plate lights  P. 112

Rear turn signal lights  P. 102

*: If equipped
- Driving position memory switches  P.21
- Door lock switch  P.5,9
- Window lock switch  P.38
- Power window switches  P.37
Shift lever P. 98
Active height control switch P. 130
Damping pattern selector switch P. 138
Shift lock override button P. 358
Driving mode selector switch P. 100
Seat heater switches P. 230
Four wheel drive control lever P. 139
<table>
<thead>
<tr>
<th>Pictorial index</th>
<th>Instrument panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headlight switch</td>
<td>P. 112</td>
</tr>
<tr>
<td>Turn signal lever</td>
<td>P. 102</td>
</tr>
<tr>
<td>For light switch</td>
<td>P. 114</td>
</tr>
<tr>
<td>Windshield wipers and washer switch</td>
<td>P. 115</td>
</tr>
<tr>
<td>Rear window wiper and washer switch</td>
<td>P. 118</td>
</tr>
<tr>
<td>Glove box</td>
<td>P. 215</td>
</tr>
<tr>
<td>Power outlet</td>
<td>P. 228</td>
</tr>
<tr>
<td>Cigarette lighter</td>
<td>P. 227</td>
</tr>
<tr>
<td>Ashtray</td>
<td>P. 225</td>
</tr>
<tr>
<td>Ignition switch</td>
<td>P. 95</td>
</tr>
<tr>
<td>Cruise control switch</td>
<td>P. 120</td>
</tr>
<tr>
<td>Hood lock release lever</td>
<td>P. 275</td>
</tr>
<tr>
<td>Fuel filler door opener</td>
<td>P. 44</td>
</tr>
</tbody>
</table>
A
Without navigation system

Trip information display  P.110

Clock  P.223

Outside temperature display  P.224

Security indicator light  P.47,49

Audio system  P.183

Front passenger’s seat belt reminder switch  P.67,340

Antenna switch  P.193

Center differential lock/unlock switch  P.139

Air conditioning system  P.172

Rear window defogger switch  P.182

AIRBAG ON and OFF indicator  P.67

Rear air conditioning switch  P.180

Outside rear view mirror defogger switch  P.182

xiii
A

With navigation system

Navigation system*

Outside temperature display P. 224
Security indicator light P. 47, 49
Emergency flashers
Antenna switch P. 193

Center differential lock/unlock switch P. 139
Rear window defogger switch P. 182
Rear air conditioning switch P. 180

Clock P. 223
Front passenger’s seat belt reminder switch P. 67, 340

AIRBAG ON and OFF indicator P. 67
Audio system*

Outside rear view mirror defogger switch P. 182
- Power quarter window switches: P.40
- Roll sensing of curtain shield airbags off switch: P.65
- Lexus night view system on-off knob*: P.126
- Power rear view mirror control switches: P.32
- Tire pressure warning reset switch: P.294

*: If equipped  
*: Refer to “Navigation System Owner’s Manual”
For your information

**Main Owner’s Manual**

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.

All specifications provided 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.

Depending on specifications, the vehicle shown in the illustration may differ from your vehicle in terms of color and equipment.

**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.

**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, active traction control system, vehicle stability control system, active height control system, adaptive variable suspension 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.

Unwanted noise may occur in the reception of the mobile two-way radio.
### 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 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.

### Leak detection pump (for the U.S.A. and Canada)

This pump performs fuel evaporation leakage check. This check is conducted several hours after the engine is turned off. You may hear a sound coming from underneath the luggage compartment for several minutes, however this does not indicate a malfunction.

### CAUTION

**General precautions while driving**

Driving under the influence: Never drive your vehicle when under the influence of alcohol or drugs that have impaired your ability to operate your vehicle. Alcohol and certain drugs delay reaction time, impair judgment and reduce coordination, which could lead to an accident that will hurt or kill you, your occupants or others.

Defensive driving: Always drive defensively. Anticipate mistakes that other drivers or pedestrians might make and be ready to avoid accidents.

Driver distraction: Always give your full attention to driving. Anything that distracts the driver, such as adjusting controls, talking on a cellular phone or reading can result in a collision with resulting death or serious injury to you, your occupants or others.

**General precaution regarding children’s safety**

Never leave children unattended in the vehicle, and never allow children to have or use the key.

Children may be able to start the vehicle or shift the vehicle into neutral. There is also a danger that children may injure themselves by playing with the cigarette lighter, the windows, the moon roof, or other features of the vehicle. In addition, heat build-up or extremely cold temperatures inside the vehicle can be fatal to children.
Symbols used throughout this manual

**Cautions & Notices**

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NOTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>

**Safety symbol**

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

xviii
Before driving

1-1. Key information ........................... 2
   Keys ........................................... 2

1-2. Opening, closing and locking
   the doors ..................................... 3
   Wireless remote control ................. 3
   Side doors .................................... 5
   Back door ..................................... 9

1-3. Adjustable components .......... 12
   Front seats ................................ 12
   Rear seats ................................... 14
   Driving position memory
     system .................................... 21
   Head restraints .............................. 23
   Seat belts ................................... 24
   Steering wheel .............................. 30
   Inside rear view mirror .................. 31
   Outside rear view mirrors ............. 32
   Roof luggage carrier ..................... 34

1-4. Opening and closing the
   windows and moon roof ....... 37
   Power windows ............................ 37
   Power quarter windows .......... 40
   Moon roof ................................... 41

1-5. Refueling ................................. 44
   Opening the fuel tank cap ........... 44

1-6. Anti-theft system ................. 47
   Engine immobilizer system ....... 47
   Alarm ........................................ 49
   Theft prevention labels
     (U.S.A.) .................................... 51

1-7. Safety information ............... 52
   Correct driving posture ............ 52
   SRS airbags ............................... 54
   Front passenger occupant
     classification system .......... 67
   Child restraint systems .......... 72
   Installing child restraints ....... 75
1-1. Key information

Keys

The following keys are provided with the vehicle.

1. Master keys
2. Valet key
3. Key number plate
4. Flat key

■ When required to leave a key to the vehicle with a parking attendant

Lock the glove box as circumstances demand. (→P. 216)
Carry the master key for your own use and leave the valet key only with the attendant.

■ Key number plate

Keep the plate in a safe place such as your wallet, not in the vehicle. In the event that a key is lost, a new key can be made at your Lexus dealer using the key number plate.

⚠️ NOTICE

■ To prevent key damage

- Do not subject the keys to strong shocks, expose them to high temperatures by placing them in direct sunlight, or get them wet.
- Do not expose the keys to electromagnetic materials or attach any material that blocks electromagnetic waves to the key surface.
1-2. Opening, closing and locking the doors

Wireless remote control

The wireless remote control can be used to lock/unlock the vehicle and the back door from outside the vehicle.

- 1 Locks all doors
- 2 Unlocks all doors
- 3 Opens the windows and moon roof (push and hold)
- 4 Sounds alarm (push and hold) (→ P. 49)

■ 2-step unlocking function

When you push the UNLOCK button, the driver’s door is unlocked. Pushing the button again within 3 seconds unlocks the other doors.

■ Operation signals

Doors: A buzzer sounds and the emergency flashers flash to indicate that the doors have been locked/unlocked. (Locked: Once; Unlocked: Twice)

Windows and moon roof: A buzzer sounds when the windows and moon roof begin to open.

■ Door lock buzzer

If a door is not fully closed, a buzzer sounds for 10 seconds if an attempt to lock the door is made. Fully close the door to stop the buzzer, and lock the vehicle once more.

■ Security feature

If a door is not opened within approximately 30 seconds after the vehicle is unlocked, the anti-theft system automatically locks the vehicle again.
1-2. Opening, closing and locking the doors

- **Low battery**
  If the wireless remote control does not function or if it only operates very close to the vehicle, the battery may be low. (→ P. 309)

- **Customization**
  Settings (e.g. 2-step unlocking function) can be changed. (→ P. 389)

- **Certification for wireless remote control (for vehicles sold in the U.S.A.)**
  
  **NOTE:**
  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.
  - 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.

- **Certification for wireless remote control (for vehicles sold in Canada)**
  
  **NOTE:**
  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.
1-2. Opening, closing and locking the doors

Side doors

The vehicle can be locked/unlocked using a key, wireless remote control or door lock switch.

■ Key

1. Locks all doors
2. Closes the windows and moon roof (turn and hold)
3. Unlock all doors

Turning the key unlocks the driver’s door. Turning the key again unlocks the other doors.

4. Opens the windows and moon roof (turn and hold)

■ Wireless remote control

→ P. 3

■ Door lock switch

1. Locks all doors
2. Unlocks all doors
1-2. Opening, closing and locking the doors

**Inside lock button**

1. Locks the door
2. Unlocks the door

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

**Locking the front doors from the outside without a key**

The door cannot be locked if either of the front doors is open and the key is in the ignition switch.

**Rear door child-protector lock**

The door cannot be opened from inside the vehicle when the locks are set.

These locks can be set to prevent children from opening the rear doors. Push down rear door switches to lock the rear doors.
1-2. Opening, closing and locking the doors

Automatic door locking and unlocking systems

The following functions can be set or canceled:

<table>
<thead>
<tr>
<th>Function</th>
<th>Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shift position linked door locking function</td>
<td>Shifting the shift lever out of “P” locks all doors.</td>
</tr>
<tr>
<td>Shift position linked door unlocking function</td>
<td>Shifting the shift lever to “P” unlocks all doors.</td>
</tr>
<tr>
<td>Speed linked door locking function</td>
<td>All doors are locked when the vehicle speed is approximately 12 mph (20 km/h) or higher.</td>
</tr>
<tr>
<td>Driver’s door linked door unlocking function</td>
<td>All doors are unlocked when the driver’s door is opened within 10 seconds after turning the ignition key to the “LOCK” position.</td>
</tr>
</tbody>
</table>

Setting and canceling the functions

To switch between setting and canceling, follow the procedure below:

**STEP 1**

Close all the doors and turn the ignition key to the “ON” position.
(Perform step 2 within 10 seconds.)

**STEP 2**

Shift the shift lever to “P” or “N”, press and hold the driver’s door lock switch (1 or 2) for 5 seconds then release.

The shift lever and switch positions corresponding to the desired function to be set or canceled are shown as follows.
1-2. Opening, closing and locking the doors

<table>
<thead>
<tr>
<th>Function</th>
<th>Shift lever position</th>
<th>Switch position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shift position linked door locking function</td>
<td>“P”</td>
<td>1</td>
</tr>
<tr>
<td>Shift position linked door unlocking function</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Speed linked door locking function</td>
<td>“N”</td>
<td>1</td>
</tr>
<tr>
<td>Driver’s door linked door unlocking function</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>

When the setting or canceling operation is complete, all doors are locked and then unlocked.

**Customization**

Settings (e.g. unlocking function using a key) can be changed. (†→P. 389)

---

**CAUTION**

**To prevent an accident**

Observe the following precautions while driving the vehicle. Failing to do so may result in a door opening and an occupant falling out, resulting in death or serious injury.

- Always use a seat belt.
- Always lock all doors.
- Ensure that all doors are properly closed.
- Do not pull the inside handle of the front door while driving.
- Set the rear door child protector locks when children are seated in the rear seat.
1-2. Opening, closing and locking the doors

Back door

The back door can be locked/unlocked using a key, wireless remote control or door lock switch.

- **Key**
  - Unlocks the door
  - Locks the door
  - Open the door

- **Wireless remote control**
  → P. 3

- **Door lock switch**
  - Locks the door
  - Unlocks the door
1-2. Opening, closing and locking the doors

**Inside lock button**

1. Unlocks the door
2. Locks the door
3. Open the door

**Back door child-protector lock**

The door cannot be opened from inside the vehicle when the lock is set.

This lock can be set to prevent children from opening the back door. Move the lever to the LOCK position.
1-2. Opening, closing and locking the doors

Rear step bumper

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

CAUTION

Observe the following precautions. Falling to do so may result in death or serious injury.

■ While driving

● Keep the back door closed.
  This not only keeps personal belongings from being thrown out, but also prevents exhaust gases from entering the vehicle.

● Do not get on the rear step bumper.

NOTICE

■ To prevent damage to the back door components

● Do not apply any force, paint or let any other foreign matter on the damper.

● Make sure there is nothing in the doorway before closing.

● Do not allow more than one person to get on the rear step bumper at a time.
1-3. Adjustable components

Front seats

1. Seat position fore/aft control switch
2. Seatback angle control switch
3. Seat cushion (front) angle control switch
4. Vertical height control switch
5. Lumbar support control switch
CAUTION

- **Reclining adjustment**
  Do not recline the seat more than necessary when the vehicle is in motion, to reduce the risk of sliding under the lap belt.
  If the seat is too reclined during an accident, the lap belt may slide past the hips and apply restraint forces directly to the abdomen or your neck may contact the shoulder belt, increasing the risk of death or serious injury.

- **When adjusting the front passenger’s seat from the driver’s seat**
  Wait until a passenger is seated or have gotten off the front passenger’s seat before operating the switch to avoid injuring the passenger.
To adjust the seatback angle, pull the seatback angle lever

- Second seat

- Third seat
1.3. Adjustable components

**Tumbling second seats and third seat entry**

For easy access to the third seat, perform **STEP 1** and **STEP 2** in “Tumbling second seats”. (→P.15)

- **Before tumbling second seats**

  Stow the seat belt buckles and lower the head restraints to the lowest position.

- **Tumbling second seats**

  **STEP 1**

  Pull the seatback angle levers and fold the second seats down.

  When returning the second seats to their original position, lift them up until they lock.

  **STEP 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.

  When returning the second seats to their original position, lift them down until they lock.
1-3. Adjustable components

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

When returning the second seats to their original position, put the holding strap into the pocket.

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

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

■ Returning second seats.

Reverse the steps above.

If you cannot raise the seatback because of the locked seat belt, release the lock.

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

Before tumbling third seats

- Stow the seat belts and buckles, and lower the head restraints to the lowest position.

- Use the seat belt hangers to prevent the belts from being tangled.

Tumbling third seats

- Pull the seatback angle levers and fold the third seats.

- When returning the third seats to their original position, lift them up until they lock.
1-3. Adjustable components

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

When returning the third seats to their original position, slide them forward to their locked position while lifting down with the lever, and then completely lift them down.

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

When returning the third seats to their original position, put the holding strap into the pocket.

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

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

■ Returning third seats.
Reverse the steps above.
Removing third seats

- **Before removing third seats**
  Perform **STEP 1** and **STEP 2** in “Tumbling third seats”. (→ P.17)

- **Removing third seats**
  Remove the lever cover and pull the lock release lever. Lift up the rear side of the seat and pull the whole seat backward.

  When returning the third seats to their original position, put the front side of the seat, pull the lever and then put the rear side.

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

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

- **Returning third seats**
  Reverse the steps above.
## 1-3. Adjustable components

### CAUTION

#### Seat adjustment

Do not recline the seat more than necessary when the vehicle is in motion, to reduce the risk of sliding under the lap belt. If the seat is too reclined during an accident, the lap belt may slide past the hips and apply restraint forces directly to the abdomen or your neck may contact the shoulder belt, increasing the risk of death or serious injury.

#### When tumbling the seat

- Do not sit on or place anything on the tumbled seatback while driving.
- Be sure to install the seat hook covers on the seat hooks, or you may get burned when they become hot.

#### When removing or reinstalling the seat

- 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.
- Do not leave the removed seat loose in the vehicle.
- Do not sit on or place anything on the removed seat.

#### When returning the seatback to the upright position

Observe the following precautions. Failure to do so may result in death or serious injury.

- Press forward and rearward on the top of the seatback and pull up the edge of the bottom cushion.
- Check that the seat belts are not twisted or caught under the seat.
- Arrange the seat belts in the proper positions for ready use.

### NOTICE

#### To avoid damaging the seat and seatbelt

- The seat belts and the buckles must be stowed before you fold down the seatbacks.
- Avoid putting heavy loads on the removed seat.
Your preferred driving position (the position of the driver’s seat, steering wheel and outside rear view mirrors) can be entered into the computer’s memory and recalled with the touch of a button. Two different driving positions can be entered into memory.

- **Entering a position to memory**
  
  Check that the shift lever is set in “P”.

  **STEP 1** Turn the ignition key to the “ON” position.
  
  **STEP 2** Adjust the driver’s seat, steering wheel, and outside rear view mirrors to the desired positions.

  While pushing the “SET” button, push button “1” or “2” until the signal beeps.

  If the selected button has already been preset, the previously recorded position will be overwritten.

- **Recalling the memorized position**
  
  Check that the shift lever is set in “P”.

  **STEP 1** Turn the ignition key to the “ON” position.

  **STEP 2** Push button “1” or “2” to recall the desired position.
1-3. Adjustable components

- **Retained accessory power**
  Each memorized position (except for the steering wheel position) can be activated within 30 seconds after the corresponding driver’s door is opened, even if the key is removed from ignition switch.

- **If any position memory button is pushed while the adjustments are being made**
  The operation will stop. To reactivate the system, push the desired button (“1” or “2”) again.

- **If the battery is disconnected**
  The memorized positions must be reset because the computer’s memory is erased when the battery is disconnected.

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Seat adjustment caution</strong></td>
</tr>
<tr>
<td>Take care during seat adjustment that the seat does not strike the rear passenger or squeeze your body against the steering wheel.</td>
</tr>
<tr>
<td>If this happens, you can stop the movement by pressing another seat position memory button.</td>
</tr>
</tbody>
</table>
1-3. Adjustable components

Head restraints

Before driving

1. Vertical adjustment
   Push and hold the lock release button when lowering the head restraint.

2. Angle adjustment *

3. Removal
   Pull the head restraint up while pushing the lock release button.

*: Front seats only

Adjusting the height of the head restraints

Make sure that the head restraints are adjusted so that the center of the head restraint is closest to the top of your ears.

Head restraints of different seats

The head restraints are specially designed for the seats on which they are installed.

CAUTION

Head restraint precautions

Observe the following precautions regarding the head restraints. Failure to do so may result in death or serious injury.

- Adjust the head restraints to the correct position at all times.
- Do not drive with the head restraints removed.
Make sure that all occupants are wearing their seat belts before driving the vehicle.

- **Correct use of the seat belts**
  1. Extend the shoulder belt so that it comes fully over the shoulder, but does not come into contact with the neck or slide off the shoulder.
  2. Position the lap belt as low as possible over the hips.
  3. Adjust the position of the seatback. Sit up straight and well back in the seat.
  4. Do not twist the seat belt.

- **Fastening and releasing the seat belt**
  - **Front, second and third (outboard seats) seat belt**
    1. **Fastening the belt**
       - Push the tab into the buckle until a clicking sound is heard.
    2. **Releasing the belt**
       - Press the release button.
Third (center seat) seat belt

1. Fastening the belt
   Push the tab into the buckle until a clicking sound is heard.
2. Releasing the belt
   Press the release button.

- Adjusting the height of the belt (front, second and third outboard seat)
  Move the height adjuster up and down as needed until you hear a click.
  Push and hold the lock release button when lowering.

- Adjusting the length of the belt (third center seat)
  Remove excess length by pulling the free end of the belt.
1-3. Adjustable components

**Seat belt pretensioners (front seats)**

The pretensioner helps the seat belt to quickly restrain the occupant by retracting the seat belt when the vehicle is subjected to certain types of severe frontal collision.

The pretensioner may not activate in the event of a minor frontal impact, a side impact or a rear impact.

<table>
<thead>
<tr>
<th>Emergency locking retractor (ELR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The retractor will lock the belt during a sudden stop or on impact. It may also lock if you lean forward too quickly. A slow, easy motion will allow the belt to extend, and you can move around fully.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Automatic locking retractor (ALR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>When a passenger’s shoulder belt is completely extended and 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 (CRS) firmly. To free the belt again, fully retract the belt and then pull the belt out once more. (→P. 75)</td>
</tr>
</tbody>
</table>
1-3. Adjustable components

■ Pregnant women

Obtain medical advice and wear the seat belt in the proper way. (→P. 24)

Women who are pregnant should position the lap belt as low as possible over the hips in the same manner as other occupants. Extend the shoulder belt completely over the shoulder and position the belt across the chest. Avoid belt contact over the rounding of the abdominal area.

If the seat belt is not worn properly, not only a pregnant woman, but also the fetus could suffer death or serious injury as a result of sudden braking or a collision.

■ People suffering illness

Obtain medical advice and wear the seat belt in the proper way. (→P. 24)

■ Child seat belt usage

The seat belts of your vehicle were principally designed for persons of adult size.

● Use a child restraint system appropriately for the child, until the child become large enough to properly wear the vehicle’s seat belt. (→P. 72)

● When the child becomes large enough to properly wear the vehicle’s seat belt, follow the instructions on P. 24 regarding seat belt usage.

■ Replacing the belt after the pretensioner has been activated

The seat belts cannot be used if a pretensioner has activated. After an accident, have your Lexus dealer inspect the pretensioners and replace them, if necessary.
1.3. Adjustable components

■ 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.

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
</table>
| ■ Wearing a seat belt  
Observe the following precautions to reduce the risk of injury in the event of sudden braking or an accident. Failing to do so may cause death or serious injury.  
● Ensure that all passengers wear a seat belt.  
● Always wear a seat belt properly.  
● Each seat belt should be used by one person only. Do not use a seat belt for more than one person at the same time, including children.  
● Children should be seated in the rear seat and always use a seat belt and/or an appropriate child restraint system.  
● Do not recline the seat any more than necessary to achieve a proper seating position. The seat belt is most effective when the occupants are sitting up straight and well back in the seats.  
● Do not wear the shoulder belt under your arm.  
● Always wear your seat belt low and snug across your hips. |
CAUTION

- **Seat belt damage and wear**
  - Do not damage the seat belts by allowing the belt, plate or buckle to be jammed in the door.
  - Inspect the seat belt system periodically. Check for cuts, fraying, and loose parts. Do not use a damaged seat belt until it is replaced. Damaged seat belts cannot protect an occupant from death or serious injury.
  - Ensure that the belt and tab are locked and the belt is not twisted. If the seat belt does not function correctly, immediately contact your Lexus dealer.
  - Replace the seat assembly, including the belts, if your vehicle has been involved in a serious accident, even if there is no obvious damage.
  - Do not attempt to install, remove, modify, disassemble or dispose of a seat belt. Have any necessary repairs carried out by your Lexus dealer. Inappropriate handling of the pretensioner may cause it to activate or operate improperly and may cause death or serious injury.

- **Using a seat belt extender**
  - Do not wear 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, because the belt will not securely hold the child restraint system, increasing the risk of death or serious injury in the event of a collision.
  - The personalized extender may not be safe on another vehicle, when used by another person, or at a different seating position other than the one originally intended.

NOTICE

- **When using a seat belt extender**
  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 the extender itself.
1-3. Adjustable components

Steering wheel

The steering wheel can be adjusted to a comfortable position while the key is inserted in the ignition switch.

Auto tilt away and auto return

When the ignition key is removed, the steering wheel returns to its stowed position by moving up and away to enable easier driver entry and exit.

Insert the key into the ignition switch returns the steering wheel to the original position.

CAUTION

While driving

Do not adjust the steering wheel. Doing so may cause the driver to mishandle the vehicle and an accident, resulting in death or serious injury.
1-3. Adjustable components
Inside rear view mirror

In the “AUTO” mode, sensors are used to detect the headlights of vehicles behind and automatically reduces the reflected light.

**To prevent sensor error**

To ensure correct functioning of the sensors, do not touch or cover the sensors.

**CAUTION**

**While driving**

Do not adjust the position of the mirror. Doing so may lead to mishandling of the vehicle and an accident, or resulting in death or serious injury.

**Turning “AUTO” mode on/off**

The indicator comes on when “AUTO” mode is turned ON.

The anti-glare mirror default mode is “AUTO”. The anti-glare mirror is automatically set to “AUTO” whenever the ignition key is turned to the “ON” position.
1-3. Adjustable components

Outside rear view mirrors

Mirror angle can be adjusted using the switch when the ignition key is in “ACC” or “ON” position.

1. Select the mirror to adjust (“L”: left or “R”: right)
2. Adjust the mirror up, down, in, or out using the switch

Folding the mirrors

Press the switch.
Pressing again will extend the mirrors.

□ When the mirrors are fogged up
Turn on the outside rear view mirror defoggers to defog the mirrors. (→P.182)

□ Auto anti-glare function
When the anti-glare inside rear view mirror is set to “AUTO” mode, the outside rear view mirrors will activate in conjunction with the anti-glare inside rear view mirror to reduce reflected light. (→P.31)
Linked mirror function when reversing

The outside rear view mirrors will automatically angle downwards when the vehicle is reversing in order to give a better view of the ground. However, this function will not operate when the mirror select switch is in the neutral position (neither “L” nor “R” selected).

One-touch adjustment of the mirror angle

A desired mirror face angle can be entered to memory and adjusted with the touch of a button. (→P. 21)

**CAUTION**

While driving

Observe the following precautions. Failing to do so may result in losing control of the vehicle and cause an accident, resulting in death or serious injury.

- Do not adjust the mirrors.
- Do not drive with the mirrors folded back.
- Before driving, be sure to extend mirrors and make an adjustment properly.

When the mirror defoggers are operating

Do not touch the mirror surface as the mirror surface becomes hot.

**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.
1-3. Adjustable components

Roof luggage carrier (if equipped)

Adjusting the position of cross rails

1. Cross rails
2. Roof rails

**STEP 1**

- **Side knobs**
- **Upper knob**

Turn the knobs counterclockwise to release the cross rails.

**STEP 2**

Slide the cross rails to the appropriate position for loading luggage and turn the side knobs clockwise to tighten the cross rails securely.
3- Adjustable components

Before driving

Turn the upper knobs clockwise to fix the cross rails to the appropriate length.

CAUTION

■ Cross rail adjustment
Make sure the cross rails are locked 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.

■ When loading cargo
Observe the following precautions.

● 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. (→ P. 368)

● 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 143 lb. (70 kg) cargo weight on the roof luggage carrier.
### 1-3. Adjustable components

<table>
<thead>
<tr>
<th>NOTICE</th>
</tr>
</thead>
</table>
| **Cross rail adjustment**  
Do not remove the cross rail stoppers, or the moon roof may be damage when it is tilted. |
| **When loading the luggage**  
Be careful not to scratch the surface of the moon roof. |
1-4. Opening and closing the windows and moon roof

Power windows

The power windows can be opened and closed using the following switches.

1. Closing
2. One-touch closing*
3. Opening
4. One-touch opening*

*: Pushing the switch in the opposite direction will stop window travel partway.
1-4. Opening and closing the windows and moon roof

**Lock switch**

Press the switch down to lock passenger window switches.

Use this switch to prevent children from accidentally opening or closing a passenger window.

- The power windows can be operated when
  - The ignition key must be in the “ON” position.
- **Linked door lock window operation**
  - The power windows can be opened and closed using the key. (→P. 5)
  - The power windows can be opened using the wireless remote control. (→P. 3)
- **Retained accessory power**
  - The power windows can be operated for approximately 45 seconds even after the ignition key is turned to the “ACC” or “LOCK” position. They cannot, however, be operated once the driver’s or front passenger’s door is opened.
- **Jam protection function**
  - If an object becomes caught between the window and the window frame, window travel is stopped and the window is opened slightly.
- **Customization**
  - Settings (e.g. linked door lock operation) can be changed. (→P. 389)
Before driving

**CAUTION**

- **Closing the windows**
  
  Observe the following precautions. Failing to do so may result in death or serious injury.
  
  ● Check to make sure that all passengers do not have any part of their body in a position where it could be caught when a window is being operated.
  
  ● Do not allow children to operate the power windows. Closing a power window on someone can cause death or serious injury.

- **Jam protection function**
  
  ● 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 closes.
1-4. Opening and closing the windows and moon roof

Power quarter windows

The power quarter windows can be opened and closed using the following switches.

- For the left quarter window
- For the right quarter window

■ The power quarter windows can be operated when
The ignition key must be in the “ON” position.

▲ CAUTION

■ Closing the quarter windows
Observe the following precautions. Failing to do so may result in serious injury.

- Check to make sure that all passengers do not have any part of their body in a position where it could be caught when a window is being operated.
- Do not allow children to operate the power quarter windows. Closing a power quarter window on someone can cause serious injury.
1-4. Opening and closing the windows and moon roof

**Moon roof**

Use the overhead switches to open, close, and tilt the moon roof up and down.

- **Opening and closing**

  1. **Open**
     - Stops just before it is opened fully. Press the switch again to fully open.
  2. **Close**
     - To stop partway, press the switch lightly.

- **Tilt up and down**

  1. **Tilt up**
  2. **Tilt down**
     - To stop partway, press the switch lightly.
1-4. Opening and closing the windows and moon roof

The moon roof can be operated when
  The ignition key must be in the “ON” position.

Linked door lock moon roof operation
  ● The moon roof can be opened and closed using the key. (→P. 5)
  ● The moon roof can be opened using the wireless remote control. (→P. 3)

Retained accessory power
  The moon roof can be operated for approximately 45 seconds even after the ignition key is turned to the “ACC” or “LOCK” position. It cannot, however, be operated once the driver’s or front passenger’s door is opened.

Jam protection function
  If an object is detected between the moon roof and the frame while closing or tilting down, travel is stopped and the moon roof opens slightly.

Sunshade
  The sunshade can be opened and closed manually. However, the sunshade will open automatically when the moon roof is opened.

When the battery is disconnected
  The moon roof must be initialized in order to ensure proper operation.

  **STEP 1.** Push and hold the “SLIDE” switch or “TILT” switch until the moon roof is closed fully.

  **STEP 2.** To ensure the initialization is complete, make sure automatic opening and closing functions work properly.

Customization
  Settings (e.g. linked door lock operation) can be changed. (→P. 389)
■ Opening the moon roof
  Observe the following precautions.
  Failing to do so may cause death or serious injury.
  ● Do not allow any passengers to put their hands or heads outside the vehicle while it is moving.
  ● Do not sit on top of the moon roof.

■ Closing the moon roof
  Observe the following precautions.
  Failing to do so may result in death or serious injury.
  ● Check to make sure that all passengers do not have any part of their bodies in a position where they could be caught when the moon roof is being operated.
  ● Do not allow children to operate the moon roof.
    Closing the moon roof on someone can cause death or serious injury.

■ Jam protection function
  ● 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 closes.
Perform the following steps to open the fuel tank cap.

■ Before refueling the vehicle
  Stop the engine and ensure that all the doors and windows are closed.

■ Opening the fuel tank cap

 STEP 1
Pull the lever.

 STEP 2
Turn the fuel tank cap slowly to open.

 STEP 3
Hang the fuel tank cap on the back of the fuel filler door.
1-5. Refueling

Closing the fuel tank cap

After refueling, turn the fuel tank cap clockwise until you hear a click. The cap will revolve slightly in the opposite direction once released.

■ Fuel types
  Use premium unleaded gasoline. (91 Octane Rating [Research Octane Number 96] or higher)

■ Fuel tank capacity
  Approximately 25.4 gal. (96 L, 21.1 Imp. gal.)
### CAUTION

**Refueling the vehicle**

Observe the following precautions while refueling the vehicle. Failure to do so, may result in death or serious injury.

- Touch the vehicle or some other metal surface to discharge any static electricity. Sparks resulting from discharging static electricity may cause the fuel vapors to ignite.
- Always hold the grips on the fuel tank cap and turn it slowly to remove it. A whooshing sound may be heard when the fuel tank cap is loosened. Wait until the sound cannot be heard before fully removing the cap. In hot weather, pressurized fuel may spray out the filler neck and cause injury.
- Do not allow anyone that has not discharged static electricity from their bodies to come close to an open fuel tank.
- Do not inhale vaporized fuel. Fuel contains substances that are harmful if inhaled.
- Do not smoke while refueling the vehicle. Doing so may cause the fuel to ignite and cause a fire.
- Do not return to the vehicle or touch any person or object that is statically charged. This may cause static electricity to build up, resulting in a possible ignition hazard.

**When replacing the fuel tank cap**

Do not use anything but a genuine Lexus fuel tank cap designed for your vehicle. Failure to do so may cause a fire or other incident which may result in death or serious injury.

### NOTICE

**Refueling**

Do not spill fuel during refueling. Failing to do so may damage the vehicle, such as causing the exhaust systems to operate abnormally or damaging fuel system components or the vehicle’s painted surface.
1-6. Anti-theft system

Engine immobilizer system

The vehicle’s keys have built-in transponder chips that prevent the engine from starting if the key has not been previously registered in the vehicle’s on-board computer.

The indicator light flashes after the key has been removed from the ignition switch to indicate that the system is operating.

■ Conditions that may cause the system to malfunction

● If the grip portion of the key is in contact with a metallic object.
● If the key is in close proximity to or touching a key to the security system (key with a built-in transponder chip) of another vehicle.

■ Certifications for the engine immobilizer system

► For vehicles sold in the U.S.A.

FCC ID: MOZRI-20BTY

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.

► For vehicles sold in Canada

This device complies with RSS-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.
### CAUTION

- **Certifications for the engine immobilizer system**
  
  Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

### NOTICE

- **For proper system operation**
  
  Do not modify, remove or disable the engine immobilizer system. If any unauthorized changes or modifications are made, the proper operation of the system cannot be guaranteed.
The system sounds the alarm and flashes the vehicle lights when an attempt to steal the vehicle is detected.

■ Triggering of the alarm
The alarm is triggered in the following situations.

● A locked door is unlocked or opened in any way other than using the wireless remote door lock function or key. (The doors will lock again automatically)

● The hood is opened while the vehicle is locked.

■ Setting the alarm system
Close the doors and hood, and lock all doors. The system will be set automatically after 30 seconds.

The indicator light changes from being on to flashing when the system is set.

■ Deactivating or stopping the alarm
Do one of the following to deactivate or stop the alarm.

● Unlock the doors.

● Start the engine. (The alarm will be deactivated or stopped after a few seconds.)
Items to check before locking the vehicle
To prevent unexpected triggering of the alarm and vehicle theft, make sure of the following.
- Nobody is in the vehicle.
- The windows and moon roof are closed before the alarm is set.
- No valuables or other personal items are left in the vehicle.

Triggering of the alarm
The alarm may be triggered in the following situations.
(Stopping the alarm deactivates the alarm system.)
- A person inside the vehicle opens a door or hood.
- The battery is recharged or replaced when the vehicle is locked.

Panic mode
When PANIC is pushed and held, an alarm will sound to deter any person from trying to break into or damage your vehicle.
To stop the alarm, push any button on the wireless remote control.
1-6. Anti-theft system

Theft prevention labels (U.S.A.)

These labels are attached to the vehicle to reduce vehicle theft by facilitating the tracing and recovery of parts from stolen vehicles. Do not remove under penalty of law.
Correct driving posture

Drive with a good posture as follows:

1. Sit upright and well back in the seat.
2. Adjust the position of the seat forward or backward to ensure the pedals can be reached and easily depressed to the extent required. (→P.12)
3. Adjust the seatback so that the controls are easily operable.
4. Adjust the tilt and telescopic positions of the steering wheel downward so the airbag is facing your chest. (→P. 30)
5. Lock the head restraint in place with the center of the head restraint closest to the top of your ears. (→P. 23)
6. Wear the seat belt correctly. (→P. 24)
1-7. Safety information

CAUTION

While driving

Do not adjust the position of the driver’s seat.
Doing so could cause the driver to lose control of the vehicle.

Do not place a cushion between the driver or passenger and the seatback.
A cushion may prevent correct posture from being achieved, and reduce the effectiveness of the seat belt and head restraint, increasing the risk of death or serious injury to the driver or passenger.

Do not place anything under the front seats.
Objects placed under the front seats may become jammed in the seat tracks and stop the seat from locking in place. This may lead to an accident. The adjustment mechanism may also be damaged.

Adjusting the seat position

Do not recline the seat more than necessary when the vehicle is in motion, to reduce the risk of sliding under the lap belt.
If the seat is too reclined during an accident, the lap belt may slide past the hips and apply restraint forces directly to the abdomen or your neck may contact the shoulder belt, increasing the risk of death or serious injury.

Take care when adjusting the seat position to ensure that other passengers are not injured by the moving seat.

Do not put your hands under the seat or near the moving parts to avoid injury. Fingers or hands may become jammed in the seat mechanism.
1-7. Safety information
SRS airbags

The SRS airbags inflate when the vehicle is subjected to certain types of severe impacts that may cause significant injury to the occupants. They work together with the seat belts to help reduce the risk of death or serious injury.

Front airbags
1 Driver airbag/front passenger airbag
   Can help protect the head and chest of the driver and front passenger from impact with interior components.

Side and curtain shield airbags
2 Side airbags
   Can help protect the torso of the front seat occupants.

3 Curtain shield airbags
   Can help protect primarily the head of front seat occupants and second seat outboard occupants.
Before driving

Airbag system components

1. Front passenger airbag
2. Airbag sensor assembly
3. Front passenger occupant classification indicator light
4. Occupant detection sensor
5. SRS warning light
6. Driver airbag
7. Front passenger’s seat belt buckle switch
8. Driver’s seat belt buckle switch
9. Driver’s seat position sensor
10. Front airbag sensor
11. Curtain shield airbag
12. Side airbag
13. Curtain shield airbag sensor
14. Side and curtain shield airbag sensor

Your vehicle is equipped with ADVANCED AIRBAGS designed based on US motor vehicle safety standards (FMVSS208). The airbag system controls airbag deployment power for the driver and front passenger. The driver airbag system consists of the driver seat’s position sensor etc. The front passenger’s airbag system consists of the front passenger occupant classification sensor etc.

The main SRS airbag system components are shown above. The SRS airbag system is controlled by the airbag sensor assembly. The airbag sensor assembly consists of a saffing sensor and an airbag sensor.
In certain types of severe frontal or side impacts, the SRS airbag system triggers the airbag inflators. A chemical reaction in the inflators quickly fills the airbags with non-toxic gas to help restrain the motion of the occupants.

■ If the SRS airbags deploy (inflate)

● Bruising and slight abrasions may result from contact with a deploying (inflating) SRS airbag.

● A loud noise and white powder will be emitted.

● Parts of the airbag module (steering wheel hub, airbag cover and inflator) as well as the front seats, and parts of the front pillar and roof side rail, may be hot for several minutes. The airbag itself may also be hot.

● The windshield may crack.

■ Operating conditions (front airbags)

● The SRS front airbags will deploy if the severity of the frontal impact is above the designed threshold level, comparable to an approximate 15 mph (25 km/h) collision when the vehicle impacts 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.

● The SRS front passenger airbag will not activate if there is not passenger sitting in the front passenger seat. However, the front passenger airbag may deploy if luggage is put in the seat or the seat belt is fastened, even if the seat is unoccupied.
1-7. Safety information

■ Operating conditions (side airbags)
- The SRS side airbags are designed to inflate when the passenger compartment is subjected to a severe impact from the side.
- The SRS side airbag on the passenger seat will not activate if there is no passenger sitting in the front passenger seat. However, the side airbag on the passenger seat may deploy if luggage is put in the seat or the seat belt is fastened, even if the seat is unoccupied.

■ Operating conditions (curtain shield airbags)
The SRS curtain shield airbags are designed to inflate when the passenger compartment is subjected to a severe impact from the side or vehicle rollover.

■ Conditions under which the SRS airbags may deploy (inflate), other than a collision
The SRS front airbags may also deploy if a serious impact occurs to the underside of your vehicle. Some examples are shown in the illustration.

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

The SRS curtain shield airbags may also deploy under the situations shown in the illustration.

- The angle of vehicle tip-up is marginal.
- The vehicle skids and hits a curb stone.
Types of collisions that may not deploy the SRS airbag (front airbags)

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. But, whenever a collision of any type causes sufficient forward deceleration of the vehicle, deployment of the SRS front airbags may occur.

- Collision from the side
- Collision from the rear
- Vehicle rollover

Types of collisions that may not deploy the SRS airbag (side and curtain shield airbags)

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.

- Collision from the side to the vehicle body other than the passenger compartment
- Collision from the side at an angle

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

- Collision from the front
- Collision from the rear
- Vehicle rollover
Before driving

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

- Collision from the front
- Collision from the rear
- Pitching end over end
When to contact your Lexus dealer

In the following cases, contact your Lexus dealer as soon as possible. Do not disconnect the battery cables before contacting your Lexus dealer.

- Any of the SRS airbags have been inflated.

- The front of the vehicle is damaged or deformed, or the vehicle was involved in an accident that was not severe enough to cause the SRS airbags to inflate.

- A portion of the doors is damaged or deformed, or the vehicle was involved in an accident that was not severe enough to cause the SRS side airbags and curtain shield airbags to inflate.

- The pad section of the steering wheel or dashboard is scratched, cracked or otherwise damaged.

- The surface of the seats with the side airbag is scratched, cracked, or otherwise damaged.

- The portion of the front, center and rear pillar garnish, or roof interior containing the curtain shield airbags is scratched, cracked or otherwise damaged.
CAUTION

SRS airbag precautions

Observe the following precautions regarding the airbags. Failure to do so may cause death or serious injury.

- The driver and all passengers in the vehicle must wear their seat belts properly. The SRS airbags are supplemental devices to be used with the seat belts.
- 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 2 - 3 in. (50 - 75 mm) of inflation, placing yourself 10 in. (250 mm) 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 10 in. (250 mm) 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 10 in. (250 mm) 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.
  - 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.
CAUTION

SRS airbag precautions

- If the seat belt extender has been connected to the driver’s seat belt buckle but the seat belt extender has not also been fastened to the latch plate of the driver’s seat belt, the SRS driver’s airbag system will judge that the driver is wearing the seat belt even though the seat belt has not been connected. In this case, the driver’s airbag may not activate correctly in a collision, resulting in death or serious injury in the event of collision. Be sure to wear the seat belt with the seat belt extender.

- 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.

- Improperly seated and/or restrained infants and children can be killed or seriously injured by a deploying airbag. 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 seats of the vehicle and properly restrained. The rear seats are the safest for infants and children. (➔P.72)
## CAUTION

### SRS airbag precautions

- Do not sit on the edge of the seat or lean against the dashboard.
- Do not allow a child to sit on the knees of a front passenger while the vehicle is moving.
- Do not drive the vehicle while the driver or passenger have items resting on their knees.
- Do not lean against the door, the roof side rail or the front, center and rear pillars.
- Do not allow anyone to kneel on the front passenger seat toward the door or put their head or hands outside the vehicle.
1-7. Safety information

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRS airbag precautions</td>
</tr>
</tbody>
</table>

- Do not attach anything to or lean anything against areas such as the dashboard or steering wheel pad. These items can become projectiles when SRS driver and front passenger airbags deploy.

- Do not attach anything to areas such as the door, windshield glass, side door glass, front, center and roof side garnish, roof interior or assist grip.

- Do not hang coat hangers or other hard objects on the coat hooks. All of these items could become projectiles and seriously injure or kill you, should the SRS curtain shield airbag deploy.

- Do not use seat accessories which cover the front seat as they may interfere with inflation of the front passenger airbag.

- Do not use seat accessories which cover the parts where the SRS side airbags inflate as they may interfere with inflation of the airbags.

- Do not strike or apply significant levels of force to the area of the SRS airbag components shown on P. 55. Doing so can cause the SRS airbags to malfunction.

- Do not touch any of the component parts immediately after the SRS airbags have deployed (inflated) as they may be hot.

- If breathing becomes difficult after the SRS airbag has deployed, open a door or window to allow fresh air in, or leave the vehicle if it is safe to do so. Wash off any residue as soon as possible to prevent skin irritation.

- If the areas where the SRS airbags are stored, such as the steering wheel pad and front pillar garnish, are damaged or cracked, have them replaced by your Lexus dealer.
### CAUTION

**Modification and disposal of SRS airbag system components**

Do not dispose of your vehicle or perform any of the following modifications without consulting your Lexus dealer. The SRS airbag may malfunction or deploy (inflate) accidentally, causing death or serious injury.

- Installation, removal, disassembly and repair of the SRS airbags
- Repairs, modifications, removal or replacement of the steering wheel, instrument panel, dashboard, seats or seat upholstery, front, side and rear pillars or roof side rail
- Repairs or modifications of the front fender, front bumper, or side of the occupant compartment
- Installation of snow plows, winches, etc. to the front grille (bull bars, kangaroo bar etc.)
- Modifications to the vehicle’s suspension system
- Installation of electronic devices such as mobile two-way radios or CD players
- Modifications to your vehicle for a person with a physical disability.

### Deactivating the curtain shield airbags in a vehicle rollover

**ON/OFF (Pressing longer)**

The RSCA OFF (roll sensing of curtain shield airbags off) indicator light turns on.

(Only when the ignition key is in the “ON” position.)
This switch only should be used
In a situation where the inflation is not desired (such as during extreme off road driving).

Operating conditions when the RSCA OFF indicator turns on
- The curtain shield airbag and seat belt pretensioner will not activate in a vehicle rollover.
- The curtain shield airbag will activate in a severe side impact.

⚠️ CAUTION ⚠️

While normal driving
Make sure the RSCA OFF indicator light is not turned on. If it is left on, the curtain shield airbag will not activate in the event of an accident, which may cause death or serious injury.
Your vehicle is equipped with a front passenger occupant classification system. This system detects the conditions of the front passenger seat and activates or deactivates the devices for front passenger.

### Condition and operation in the front passenger occupant classification system

**Adult**

<table>
<thead>
<tr>
<th>Indicator/warning light</th>
<th>AIRBAG ON and AIRBAG OFF indicator lights</th>
<th>ON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SRS warning light</td>
<td>Off</td>
</tr>
<tr>
<td></td>
<td>Front passenger’s seat belt reminder light</td>
<td>Flashing$^2$</td>
</tr>
</tbody>
</table>

### Devices

- Front passenger airbag
- Side airbag on the front passenger seat
- Curtain shield airbag in the front passenger side
- Front passenger’s seat belt pretensioner

$^1$ SRS warning light
$^2$ AIRBAG OFF indicator light
$^3$ AIRBAG ON indicator light
$^4$ Front passenger’s seat belt reminder light
### Child**3** or child restraint system**4**

<table>
<thead>
<tr>
<th>Indicator/ warning light</th>
<th>AIRBAG ON and AIRBAG OFF indicator lights</th>
<th>OFF<strong>5</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SRS warning light</td>
<td>Off</td>
</tr>
<tr>
<td>Front passenger’s seat belt reminder light</td>
<td>Flashing<strong>2</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Devices</th>
<th>Front passenger airbag</th>
<th>Deactivated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Side airbag on the front passenger seat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Curtain shield airbag</td>
<td>Activated</td>
</tr>
<tr>
<td></td>
<td>in the front passenger side</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Front passenger’s seat belt pretensioner</td>
<td></td>
</tr>
</tbody>
</table>

### Unoccupied

<table>
<thead>
<tr>
<th>Indicator/ warning light</th>
<th>AIRBAG ON and AIRBAG OFF indicator lights</th>
<th>Not illuminated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SRS warning light</td>
<td>Off</td>
</tr>
<tr>
<td>Front passenger’s seat belt reminder light</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Devices</th>
<th>Front passenger airbag</th>
<th>Deactivated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Side airbag on the front passenger seat</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Curtain shield airbag</td>
<td>Activated</td>
</tr>
<tr>
<td></td>
<td>in the front passenger side</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Front passenger’s seat belt pretensioner</td>
<td>Deactivated</td>
</tr>
</tbody>
</table>
There is a malfunction in the system

<table>
<thead>
<tr>
<th>Indicator/ warning light</th>
<th>AIRBAG ON and AIRBAG OFF indicator lights</th>
<th>OFF</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SRS warning light</td>
<td>On</td>
</tr>
<tr>
<td></td>
<td>Front passenger’s seat belt reminder light</td>
<td>Off</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Devices</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Front passenger airbag</td>
<td>Deactivated</td>
<td></td>
</tr>
<tr>
<td>Side airbag on the front passenger seat</td>
<td>Activated</td>
<td></td>
</tr>
<tr>
<td>Curtain shield airbag in the front passenger side</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front passenger’s seat belt pretensioner</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1: The system judges a person of adult size as an adult. When a smaller adult sits in the front passenger seat, the system may recognize him/her as a child depending on his/her physique and posture.

*2: In the event the front passenger does not wear a seat belt.

*3: When a larger child who has outgrown a child restraint system sits in the front passenger seat, the system may recognize him/her as an adult depending on his/her physique or posture.

*4: Never install a real-facing child restraint system on the front passenger seat. A forward-facing child restraint system should only be installed on the front passenger seat when it is unavoidable. (→P. 72)

*5: In case indicator is not illuminated, consult this manual as for installing the child restraint system properly. (→P. 75)
CAUTION

Front passenger occupant classification system precautions

Observe the following precautions regarding front passenger occupant classification system.

Failure to do so may cause death or serious injury.

- Wear the seat belt properly.
- Make sure the front passenger’s seat belt tab has not been left inserted into the buckle before someone sits in the front passenger seat.
- Make sure the AIRBAG OFF indicator light is not illuminated when using the seat belt extender for the front passenger seat. If the AIRBAG OFF indicator light is illuminated, disconnect the extender tongue from the seat belt buckle, then reconnect the seat belt. Reconnect the seat belt extender after making sure the AIRBAG ON indicator light is illuminated. If you use the seat belt extender while the AIRBAG OFF indicator light is illuminated, the front passenger airbag and side airbag on the front passenger side may not activate correctly, which could cause death or serious injury in the event of collision.
- Do not apply a heavy load to the front passenger seat.
- Do not put weight on the front passenger seat by putting your hands or feet on the front passenger seat seatback from the second seat passenger seat.
- Do not let a second seat passenger lift the front passenger seat with their feet or press on the seatback with their legs.
- Do not put objects under the front passenger seat.
- Do not recline the front passenger seatback so far that it touches a second seat. This may cause the AIRBAG OFF indicator light to be illuminated, which indicates that the passenger’s airbags will not deploy in the event of a severe accident. If the seatback touches the second seat, return the seatback to a position where it does not touch the second seat. Keep the front passenger seatback as upright as possible when the vehicle is moving. Reclining the seatback excessively may lessen the effectiveness of the seat belt system.
### CAUTION

#### Front passenger occupant classification system precautions

- If an adult sits in the front passenger seat, the AIRBAG ON indicator light is illuminated. If the AIRBAG OFF indicator is illuminated, ask the passenger to sit up straight, well back in the seat, feet on the floor, and with the seat belt worn correctly. If the AIRBAG OFF indicator still remain illuminated, either ask the passenger to move to the second seat, or if that is not possible, move the front passenger seat fully rearward.

- When it is unavoidable to install the forward-facing child restraint system on the front passenger seat, install the child restraint system on the front passenger seat in the proper order. (→P. 75)

- Do not remove the front seat.

- Do not kick the front passenger seat or subject it to severe impact. Otherwise, the SRS warning light may come on to indicate a malfunction on the detection system. In this case, contact your Lexus dealer immediately.

- Child restraint systems installed on the second seat should not contact the front seat backs.
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. The laws of all 50 states of the U.S.A. and Canada now require the use of child restraint systems.

### Points to remember

Studies have shown that installing a child restraint on a rear seat is much safer than installing one to the front passenger seat.

- Choose a child restraint system appropriate to the age and size of the child.
- For installation details, follow the instructions provided with the child restraint system.
  - General installation instructions are provided in this manual. (→P. 75)

### Types of child restraints

Child restraint systems are classified into the following 3 types according to the age and size of the child.

- Infant seat
1-7. Safety information

▶ Convertible seat

▶ Booster seat

■ When the child restraint system is not in use
  Leave the child restraint system properly secured on the seat. Do not store the restraint loosely on a passenger seat or in the luggage compartment.

■ Selecting an appropriate child restraint system
  Get an appropriate child restraint system for the child. If a child is too large for a child restraint system, sit the child on a rear seat and use the vehicle’s seat belt. (→P. 24)
Child restraint precautions

- For effective protection in automobile accidents and sudden stops, a child must be properly restrained, using a seat belt or child restraint system depending on the 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.

- Lexus strongly urges the use of a proper child restraint system that 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 even if the AIRBAG OFF indicator light illuminates. 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 even if the AIRBAG OFF indicator light illuminates, 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.

- 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 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 airbags and curtain shield airbags inflate, and the impact could cause death or serious injury to the child.

- 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.
Follow the child restraint system manufacturer’s instructions. Firmly secure the child restraints using the seat belt. If using the lower anchorages, use the top strap as well, and be sure to secure both firmly.

1. Seat belts equipped with a child restraint locking mechanism (ALR/ELR belts except driver’s and third center seat belts) (→P. 24)

2. Child restraint lower anchorages

   Lower anchorages are provided for the left and center second seat. (Buttons displaying the location of the anchorages are attached to the seats.)

3. Anchor bracket
   (for top strap)

   Anchor brackets are provided for all second seats.
Installing child restraints using a seat belt (child restraint lock function belt)

**Rear facing child seat — Infant/convertible**

**STEP 1**
Place the child seat on the second or third outboard seat facing the rear of the vehicle.

**STEP 2**
Run the seat belt through the child seat and insert the plate into the buckle. Make sure that the belt is not twisted.

**STEP 3**
Fully extend the shoulder belt and then allow it to retract slightly in order to activate the ALR lock mode.

Lock mode allows the seat belt to retract only.
While pushing the child seat down into the seat, allow the shoulder belt to retract until the child seat is securely in place.

After the shoulder belt has retracted to a point where there is no slack in the belt, pull the belt to check that it cannot be extended.

**Forward facing — Convertible child seat**

1. Place the child seat on the seat facing the front of the vehicle.
2. Run the seat belt through the child seat and insert the plate into the buckle. Make sure that the belt is not twisted.
3. Fully extend the shoulder strap and then allow it to retract slightly into the ALR lock mode.
   - Lock mode allows the seat belt to retract only.
While pushing the child seat into the seat, allow the shoulder belt to retract until the child seat is securely in place.

After the shoulder belt has retracted to a point where there is no slack in the belt, pull the belt to check that it cannot be extended.

Booster seat

Place the child seat on the seat facing the front of the vehicle.

Sit the child in the child seat. Fit the seat belt to the child seat according to the manufacturer’s instructions and insert the plate into the buckle. Make sure that the belt is not twisted.

Check that the shoulder belt is correctly positioned over the child’s shoulder, and that the lap belt is as low as possible. (→P. 24)
Installing child restraints using a seat belt (2-point type seat belt)

Rear facing child seat — Infant/convertible

**STEP 1**
Place the child seat on the third center seat facing the rear of the vehicle.

**STEP 2**
Run the seat belt through the child seat and insert the plate into the buckle. Make sure that the belt is not twisted.

**STEP 3**
While pushing the child seat down into the seat, allow the belt to tight by pulling its free end until the child seat is securely in place.
Removing a child restraint installed with a seat belt

Push the buckle release button and fully retract the seat belt.

Installation with child restraint lower anchorages

Fold the seatback forward and then back to the 1st lock position (most upright position) until it locks into place.

Take off the cover between the seat cushion and seatback and confirm the position of the lower anchorages below the symbol in the seatback.
- **Type A**

  Latch the hooks of the lower straps onto the anchorages.

  If the child restraint has a top strap, the top strap should be latched onto the anchorage.

  For owners in Canada:
  The symbol on a child restraint system indicates the presence of a lower anchorage system.

- **Type B**

  Latch the buckles onto the anchorages.

  If the child restraint has a top strap, the top strap should be latched onto the anchorage.

  For owners in Canada:
  The symbol on a child restraint system indicates the presence of a lower anchorage system.
Child restraint systems with a top strap

**STEP 1**
Secure the child restraint using a seat belt or lower anchors, and remove the head restraint.

**STEP 2**
Take off the carpet, latch the hook onto the anchor bracket and tighten the top strap.
Make sure the top strap is securely latched.

**STEP 3**
Replace the head restraint.
Before driving

Laws and regulations pertaining to anchorages

Anchorages conform to FMVSS225 or CMVSS210.2. Child restraint systems conforming to FMVSS213 or CMVSS213 specifications can be used. This vehicle is designed to conform to the SAE J1819.

CAUTION

When installing a booster seat

- Do not fully extend the shoulder belt to prevent the belt from going to ALR lock mode: (→P. 26)
- ALR mode causes the belt to tighten only which could cause injury or discomfort to the child.
- Do not allow the child to play with the seat belt or the child could be killed or seriously injured.
CAUTION

When installing a child restraint system

Follow the directions given in the child restraint system installation manual and fix the child restraint system securely in place. If the child restraint system is not correctly fixed in place, the child may be seriously injured or even killed in the event of sudden braking or an accident.

- If the driver’s seat interferes with the child restraint system and prevents it from being attached correctly, attach the child restraint system to the right-hand rear seat.
- Child restraint system installed on the third seat should not contact the second seatbacks.
- Only put a forward facing or booster child seat on the front seat when unavoidable. When installing a forward facing or booster child restraint on the front passenger seat, move the seat as far back as possible even if the AIRBAG OFF indicator light illuminates. Failing to do so may result in death or serious injury if the airbags deploy (inflate).
- When a booster seat is installed, always ensure that the shoulder belt is positioned across the center of the child’s shoulder. The belt should be kept away from the child’s neck, but not so that it could fall off the child’s shoulder. Failing to do so may result in death or serious injury in the event of an accident or sudden braking.
- Ensure the belt and tab are securely locked and that the seat belt is not twisted.
- Push and pull the child seat in different directions to be sure it is secure.
- Follow all installation instructions provided by the child restraint system manufacturer.
Before driving

CAUTION

■ Do not use a seat belt extender
  If a seat belt extender is used when installing a child restraint system, 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 a collision.

■ To correctly attach a child restraint system to the anchorages
  When using the lower anchorages, be sure that there are no foreign objects around the anchorages and that the seat belt is not caught behind the child seat. Make sure the child restraint system is securely attached, or it may cause death or serious injury to the child in the event of a sudden stop or accident.
1.7 Safety information
When driving

2-1. Driving procedures .......... 88
   Driving the vehicle .......... 88
   Starting the engine .......... 95
   Automatic transmission ...... 98
   Turn signal lever ............ 102
   Parking brake ............... 103

2-2. Instrument cluster .......... 104
   Gauges and meters .......... 104
   Indicators and warning lights .. 107
   Trip information display .... 110

2-3. Operating the lights and windshield wipers .......... 112
   Headlight switch ............ 112
   Fog light switch ............ 114
   Windshield wipers and washer .......... 115
   Rear window wiper and washer .......... 118
   Headlight cleaner switch .... 119

2-4. Using other driving systems .......... 120
   Cruise control .......... 120
   Rear view monitor system .... 123
   Lexus night view system .... 126
   AHC (Active Height Control Suspension) .......... 130
   AVS (Adaptive Variable Suspension) .......... 138
   Four-wheel drive system ... 139
   Driving assist systems .... 142

2-5. Driving information .......... 146
   Off-road precautions .......... 146
   Cargo and luggage .......... 151
   Vehicle load limits .......... 155
   Winter driving tips .......... 156
   Trailer towing ............ 160
   Dinghy towing .......... 170
2-1. Driving procedures
Driving the vehicle

The following procedures should be observed to ensure safe driving.

- **Starting the engine (→P. 95)**
- **Driving**
  - **STEP 1:** With the brake pedal depressed, shift the shift lever to “D”.  
    (→P. 98)
  - **STEP 2:** Release the parking brake.  
    (→P. 103)
  - **STEP 3:** Gradually release the brake pedal and gently push the accelerator pedal to accelerate the vehicle.
- **Stopping**
  - **STEP 1:** With the shift lever in “D”, push the brake pedal.
  - **STEP 2:** If necessary, set the parking brake.
    When the vehicle is stopped for an extended period of time, shift the shift lever to “P” or “N”.  
    (→P. 98)
- **Parking the vehicle**
  - **STEP 1:** With the shift lever in “D”, push the brake pedal.
  - **STEP 2:** Set the parking brake.  
    (→P. 103)
  - **STEP 3:** Shift the shift lever to “P”.  
    (→P. 98)
  - **STEP 4:** Turn the ignition key to stop the engine.
  - **STEP 5:** Lock the door, making sure that you have the key on your person.

- **Starting on a steep incline**
  - **STEP 1:** Firmly set the parking brake and shift the shift lever to “D”.
  - **STEP 2:** Gently depress the accelerator pedal.
  - **STEP 3:** Release the parking brake.
- **Breaking in your new Lexus**
  To extend the life of the vehicle, the following precautions are recommended to observe:
  
  - For the first 200 miles (300 km):
    - Avoid sudden stops.
  
  - For the first 500 miles (800 km):
    - Do not tow a trailer.
  
  - For the first 1000 miles (1600 km):
    - Do not drive at extremely high speeds.
    - Avoid sudden acceleration.
    - Do not drive continuously in the low gears.
    - Do not drive at a constant speed for extended periods.

- **Operating your vehicle in a foreign country**
  Comply with the relevant vehicle registration laws and confirm the availability of the correct fuel. (→P. 370)
2-1. Driving procedures

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
</table>
| **When starting the vehicle**  
Always keep your foot on the brake pedal while stopped with the engine running. This prevents the vehicle from creeping. |
| **When driving the vehicle**  
- Do not drive if you are unfamiliar with the location of the brake and accelerator pedals to avoid depressing the wrong pedal. Accidentally depressing the accelerator pedal instead of the brake pedal will result in sudden acceleration that may lead to an accident that could result in death or serious injury.  
- Do not drive the vehicle over or stop the vehicle near flammable materials.  
- Do not let the vehicle roll backwards while the shift lever is in a driving position, or roll forward while the shift lever is in “R”. Doing so may cause the engine to stall or lead to poor brake and steering performance, resulting in an accident or damage to the vehicle.  
- If the smell of exhaust is noticed inside the vehicle, open the windows and check that the back door is closed. Large amounts of exhaust in the vehicle can cause driver drowsiness and eventually, death. Have the cause of the problem inspected immediately.  
- Do not under any circumstances shift the shift lever to “P”, “R” or “N” while the vehicle is moving. Doing so can cause significant damage to the transmission and may result in a loss of vehicle control.  
- Do not shift the shift lever to “N” while the vehicle is moving. Doing so may cause the engine brake not to operate properly and lead to an accident.  
- Do not turn the engine off while driving. The power steering and brake booster systems will not operate properly if the engine is off. |
### 2-1. Driving procedures

#### CAUTION

**When driving the vehicle**

- Use engine braking (downshift) to maintain a safe speed when driving down a steep hill. Using the brakes continuously may cause the brakes to overheat and lose effectiveness. (→ P. 99)
- When stopped on an inclined surface, use the brake pedal and parking brake to prevent the vehicle from rolling backward or forward and causing an accident.
- Be careful when driving on slippery surfaces, as the vehicle may spin or skid when downshifting, rapidly accelerating, braking or turning.
- Do not adjust the position of the steering wheel, the seat, or the inside or outside rear view mirrors while driving. Doing so may result in a loss of vehicle control that can cause accidents that may result in death or serious injury.
- Always check that all passengers’ arms, heads or other parts of their bodies are not outside the vehicle, as this may result in death or serious injury.
- Do not drive in excess of the speed limit. Even if the legal speed limit permits it, do not drive over 85 mph (140 km/h) unless your vehicle has high-speed capability tires. Driving over 85 mph (140 km/h) 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.
- 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.

---

<table>
<thead>
<tr>
<th>2</th>
<th>When driving the vehicle</th>
<th>91</th>
</tr>
</thead>
</table>
CAUTION

When shifting the shift lever

Be careful not to shift the shift lever with the accelerator pedal depressed. This may lead to unexpected rapid acceleration of the vehicle that may cause an accident and result in death or serious injury.

When the vehicle is stopped

• Do not race the engine.
  If the vehicle is in any gear other than “P” or “N” the vehicle may accelerate suddenly and unexpectedly, and may cause an accident.

• Do not leave the vehicle with the engine running for a long time.
  If such a situation cannot be avoided, park the vehicle in an open space and check that exhaust fumes do not enter the vehicle interior.

• Always keep a foot on the brake pedal while the engine is running to prevent an accident caused by the vehicle moving.

When the vehicle is parked

• Do not leave glasses, cigarette lighters, spray cans, or soft drink cans in the vehicle when it is in the sun.
  Failure to do so may result in the following:
  • Gas may leak from a cigarette lighter or spray can, and may lead to a fire.
  • The temperature inside the vehicle may cause the plastic lenses and plastic material of eye glasses to deform or crack.
  • Soft drink cans may fracture, causing the contents to spray over the interior of the vehicle, and may also cause a short circuit in the vehicle’s electrical components.

• Always apply the parking brake, shift the shift lever to “P”, stop the engine and lock the vehicle.
  Do not leave the vehicle unattended while the engine is running.

• Do not touch the exhaust pipe while the engine is running or immediately after turning the engine off.
  Doing so may cause burns.

• Do not leave the engine running in an area with snow build up, or where snow is expected to fall.
  Exhaust gases may enter the vehicle and cause gas poisoning.
### CAUTION

<table>
<thead>
<tr>
<th>When taking a nap in the vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always turn the engine off.</td>
</tr>
<tr>
<td>Otherwise, you may accidentally move the shift lever or press the accelerator pedal, which could cause an accident or fire due to abnormal engine overheating. Additionally, if the vehicle is parked in a poorly ventilated area, exhaust fumes may enter the vehicle and cause gas poisoning.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>When braking the vehicle</th>
</tr>
</thead>
</table>
| When the brakes are wet, drive more cautiously.  
  Braking distance increases when the brakes are wet, and may cause one side of the vehicle to brake differently than the other side. Also the parking brake may not securely hold the vehicle. |
| If the brake assist function does not operate, do not follow other vehicles closely and avoid downhill or sharp turns that require braking.  
  In this case, braking is still possible, but it will require more force on the pedal than usual. Braking distance may also increase. |
| Do not pump the brake pedal if the engine stalls.  
  Each push on the pedal uses up your reserved brake fluid pressure. |
| The brake system consists of 2 individual hydraulic systems: if one of the systems fails, the other will still operate. In this case, the brake pedal should be depressed more firmly than usual and braking distance becomes longer.  
  Do not drive your vehicle with only a single brake system. Have your brakes fixed immediately. |
<table>
<thead>
<tr>
<th>NOTICE</th>
</tr>
</thead>
</table>
| **■ While driving the vehicle**
Do not use the accelerator pedal or depress accelerator and brake pedals together to hold the vehicle on a hill. |
| **■ When parking the vehicle**
Always put the shift lever in “P”. Failure to do so may cause the vehicle to move or the vehicle may accelerate suddenly if the accelerator pedal is accidentally depressed. |
| **■ Avoiding damage to vehicle parts**
- Do not turn the steering wheel fully in either direction and hold it there for a long time.
  Doing so may damage the power steering pump.
- When driving over bumps in the road, drive as slowly as possible to avoid damaging the wheels, underside of the vehicle, etc. |
| **■ If you hear a squealing or scraping noise (brake pad wear limit indicators)**
Have your Lexus dealer check and replace the brake pads as soon as possible. The rotor damage can result if the pads are not replaced when needed.
It is dangerous to drive the vehicle when the wear limits of the brake pads and/or that of the brake discs are exceeded. |
| **■ If you get a flat tire while driving**
A flat or damaged tire may cause the following situations. Hold the steering wheel firmly and gradually press the brake pedal to slow down the vehicle.
- It may be difficult to control your vehicle.
- The vehicle will make abnormal sounds.
- The vehicle will behave abnormally.
Replace a flat tire with a new one. (→P. 346) |
2-1. Driving procedures
Starting the engine

■ Ignition switch

1. LOCK:
The steering wheel is locked and the key can be removed.

2. ACC:
Some electrical components such as the audio system can be used.

3. ON:
All electrical components can be used.

4. START

■ Starting the engine

STEP 1 Check that the parking brake is set.
STEP 2 Check that the shift lever is set in “P”.
STEP 3 Sit in the driver’s seat and firmly depress the brake pedal.
STEP 4 Turn the ignition key to the “START” position and start the engine.

■ Turning the key from “ACC” to “LOCK”

STEP 1 Shift the shift lever to “P”.
STEP 2 Push in the key and turn to the “LOCK” position.
2.1. Driving procedures

- **Steering lock release**

  When starting the engine, the ignition switch may seem stuck in the “LOCK” position. To free it, turn the ignition key while turning the steering wheel slightly in either direction.

- **If the engine does not start**

  The engine immobilizer system may not have been deactivated. (→ P. 47)

- **Starting the engine using the flat key**

  1. **STEP 1** Remove the flat key from its case. Insert the key into the ignition switch.

  2. **STEP 2** Bring the key case close to the ignition switch within 10 seconds as indicated by an arrow.

  3. **STEP 3** Put the key case away when the indicator light goes out. This means the engine immobilizer system has turned off.

  4. **STEP 4** Start the engine within 60 seconds after the indicator light goes off.
■ Cranking hold function
  Once you turn the ignition key to “START” position and release it, the function continues to crank the engine in “ON” position until it starts. If the engine has not started, the function stops after about 25 seconds. Wait a few seconds and restart it.

■ Leak detection pump
  Several hours after the engine is turned off, you may hear a sound coming from underneath the luggage compartment for several minutes. This is normal operation and does not indicate a malfunction.

[CAUTION]

■ When starting the engine
  Always start the engine while sitting in the driver’s seat. Do not press the accelerator pedal while starting the engine under any circumstances. Doing so may cause an accident resulting in death or serious injury.

■ When driving
  Do not turn the ignition switch to the “LOCK” position while driving. If, in an emergency, you must turn the engine off while the vehicle is moving, turn the key only to the “ACC” position.

[NOTICE]

■ To prevent battery discharge
  Do not leave the ignition key in the “ACC” or “ON” position for long periods without the engine running.

■ When starting the engine
  ● Do not race a cold engine.
  ● If the engine becomes difficult to start or stalls frequently, have the engine checked immediately.
Select a shift position appropriate for the driving conditions.

Shifting the shift lever

While the ignition key is in the “ON” position, depress the brake pedal and move the shift lever.
## Shift position uses

<table>
<thead>
<tr>
<th>Shift position</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>Parking the vehicle or starting the engine</td>
</tr>
<tr>
<td>R</td>
<td>Reversing</td>
</tr>
<tr>
<td>N</td>
<td>Neutral</td>
</tr>
<tr>
<td>D</td>
<td>Normal driving*</td>
</tr>
<tr>
<td>4</td>
<td>Position for engine braking</td>
</tr>
<tr>
<td>3,2</td>
<td>Position for more powerful engine braking</td>
</tr>
<tr>
<td>L</td>
<td>Position for maximum engine braking</td>
</tr>
</tbody>
</table>

*: To improve fuel consumption and reduce noises, set the shift lever in the “D” position for normal driving.
1. Driving procedures

■ Selecting a driving mode

The following patterns can be selected to suit current driving and operating conditions.

1. Normal mode
2. Power mode
   - For powerful acceleration and driving in mountainous regions.
3. “2nd STRT” (second start)
   - For starting on slippery road surfaces, such as on snow.
   - Press “2nd” to return to normal mode.
- **Downshifting restrictions**
  Keep the engine rpm from going into red zone. The maximum allowable speed is as follows:

<table>
<thead>
<tr>
<th>Downshifting</th>
<th>Maximum speed mph (km/h)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“L”</td>
</tr>
<tr>
<td>4→3</td>
<td>32 (51)</td>
</tr>
<tr>
<td>3→2</td>
<td>21 (35)</td>
</tr>
<tr>
<td>2→1</td>
<td>9 (14)</td>
</tr>
</tbody>
</table>

- **When driving with the cruise control system**
  The engine brake will not operate when downshifting from “D” to “4”. (→P. 120)

- **“2nd STRT” mode automatic deactivation**
  “2nd STRT” mode is automatically deactivated if the engine is turned off after driving in “2nd STRT” mode.

- **If the shift lever cannot be shifted from “P”**
  →P. 358
2-1. Driving procedures

Turn signal lever

- Turn signals can be operated when
  The ignition key is in the “ON” position.

- If the indicators flash faster than usual
  Check that a light bulb in the front or rear turn signal lights has not burned out.
### 2-1. Driving procedures

#### Parking brake

1. **Sets the parking brake**
   - Fully set the parking brake while depressing the brake pedal.
2. **Releases the parking brake**

<table>
<thead>
<tr>
<th>NOTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Before driving</strong></td>
</tr>
<tr>
<td>Fully release the parking brake. Driving the vehicle with the parking brake set will lead to brake components overheating, which may affect braking performance and increase brake wear.</td>
</tr>
</tbody>
</table>
The units used on the speedometer may differ depending on the target region.

The following gauges, meters and display illuminate when the ignition key is turned to the “ON” position.

1. Voltmeter
   Displays the charge state.

2. Speedometer
   Displays the vehicle speed.

3. Tachometer
   Displays the engine speed in revolutions per minute.

4. Engine oil pressure gauge
   Displays the engine oil pressure.

5. Engine coolant temperature gauge
   Displays the engine coolant temperature.
When driving

Instrument panel light control

The brightness of the instrument panel lights can be adjusted.

1. Darker
2. Brighter
2-2. Instrument cluster

⚠️ NOTICE

- **To prevent damage to the engine and its components**
  - Do not let the indicator needle of the tachometer enter the red zone, which indicates the maximum engine speed.
  - The engine may be overheating if the engine coolant temperature gauge is in the red zone ("H"). In this case, immediately stop the vehicle in a safe place. Check the engine after it has cooled completely. (→P. 363)

- **While driving**
  - When the voltmeter indicates more than 19 V or less than 9 V, the battery may be malfunctioning. Have your vehicle checked at your Lexus dealer.
  - When the engine oil pressure gauge does not work properly, immediately stop the engine and contact your Lexus dealer.
2-2. Instrument cluster

Indicators and warning lights

The indicator and warning lights on the instrument cluster and center panel inform the driver of the status of the vehicle’s various systems.

► Instrument cluster

The units used on the speedometer and some indicators may differ depending on the target region.

► Center panel
2-2. Instrument cluster

**Indicators**
The indicators inform the driver of the operating state of the vehicle’s various systems.

- **Turn signal indicator** (→P.102)
- **Headlight high beam indicator** (→P.112)
- **Headlight indicator** (→P.112)
- **Tail light indicator** (→P.112)
- **Cruise control indicator** (→P.120)
- **Slip indicator** (→P.142)
- **Roll sensing of curtain shield airbags off indicator** (→P.65)
- **“PWR” mode indicator** (→P.100)
- **Automatic transmission second start indicator** (→P.100)
- **Active height control indicator** (→P.130)
- **Vehicle stability control system OFF indicator** (→P.143)
- **Center differential lock indicator** (→P.143)
- **Active traction control system indicator** (→P.143)
- **Active traction control system indicator** (→P.143)
- **“AIRBAG ON/OFF” indicator** (→P.67)
- **Automatic transmission indicator** (→P.99)

(U.S.A.)

(Canada)
When driving

**CAUTION**

**If a safety system warning light does not come on**

Should a safety system light such as ABS and the SRS airbag warning lights not come on when the ignition key is turned to the “ON” position, this could mean that these systems are not available to help protect you in an accident, which could result in death or serious injury. Have the vehicle inspected by your Lexus dealer immediately if this occurs.

**Warning lights**

Warning lights inform the driver of malfunctions in the indicated vehicle’s systems. (→P. 337)

*: These lights turn on when the ignition key is turned to the “ON” position to indicate that a system check is being performed. They will turn off after the engine is started, or after a few seconds. There may be a malfunction in a system if the lights do not come on, or if the lights do not turn off. Have the vehicle inspected by your Lexus dealer.
2-2. Instrument cluster

Trip information display

The trip information display presents the driver with a variety of driving-related data. Display items can be switched by pushing the "MODE" switch.

### Trip information

- **Average vehicle speed**
  
  Displays the average vehicle speed since the engine was started or the function was reset.

  The function can be reset by pushing the "RESET" switch for longer than one second when the average vehicle speed is displayed.

- **Driving distance**
  
  Displays the driving distance since engine was started or the function was reset.

  The function can be reset pushing the "RESET" switch for longer than one second when the driving distance is displayed.
When driving

■ Driving range
Displays the estimated maximum distance that can be driven with the quantity of fuel remaining.

This distance is computed based on your average fuel consumption. As a result, the actual distance that can be driven may differ from that displayed.

■ Average fuel consumption
Displays the average fuel consumption since the vehicle was last refueled.

■ Current fuel consumption
Displays the current rate of fuel consumption.

■ Changing the unit shown on the display

**STEP 1** Push and hold the "MODE" switch until the unit flashes.

**STEP 2** Push the "RESET" switch to change the unit. The unit on the outside temperature display is also changed.

**STEP 3** Push the "MODE" switch.
2-3. Operating the lights and windshield wipers

Headlight switch

The headlights can be operated manually or automatically.

- The side marker, parking, tail, license plate and instrument panel lights turn on.
- The headlights and all lights listed above turn on.
- The headlights and all the lights listed above turn on and off automatically. (When the ignition key is turned to the “ON” position.)

### Turning on the high beam headlights

1. With the headlights on, push the lever forward to turn on the high beams.

2. Pull the lever back to the center position to turn the high beams off.

3. Pull the lever toward you to turn on the high beams.

   Release to turn them off. You can flash the high beams with the headlights on or off.
Daytime running light system
To make your vehicle more visible to other drivers, the headlights turn on automatically (at a reduced intensity) whenever the engine is started and the parking brake is released. Daytime running lights are not designed for use at night.

Headlight control sensor
The sensor may not function properly if an object is placed on the sensor, or anything that blocks the sensor is affixed to the windshield. Doing so interferes with the sensor detecting the level of ambient light and may cause the automatic headlight system to malfunction.

Automatic light off system
The headlights and tail lights turn off 30 seconds after a door is opened or closed if the ignition key has been turned to the “ACC” or “LOCK” while the headlights are turned on. (The lights turn off immediately if the LOCK button on the key is pressed after all doors are locked.)

To turn the lights on again, turn the ignition key to the “ON” position, or turn the light switch “OFF” once and then back to the or position.

Customization
Settings (e.g. light sensor sensitivity) can be changed. (→P. 389)

NOTICE
To prevent battery discharge
Do not leave the lights on longer than necessary when the engine is not running.
2-3. Operating the lights and windshield wipers

Fog light switch

The fog lights improve visibility in difficult driving conditions, such as in rain or fog. They can be turned on only when the headlights are on low beam.
11-3. Operating the lights and windshield wipers

Windshield wipers and washer

With “AUTO” selected, the wipers will operate automatically when the sensor detects falling rain. The system automatically adjusts wiper timing in accordance with rain volume and vehicle speed.

- Sensor sensitivity (low)
- Sensor sensitivity (high)
- Rain-sensing wiper operation
- Low speed wiper operation
- High speed wiper operation
- Wash/wipe operation

- The windshield wiper and washer can be operated when
  The ignition key is in the “ON” position.

- Dripping prevention wiper sweep
  After washing and wiping operation several times, the wipers operate one more time after a short delay to prevent dripping.
  However, the last sweep will not happen if the vehicle is traveling above 106 mph (170 km/h).

- Effects of vehicle speed on wiper operation
  With the settings other than “AUTO” also, the time until drip prevention wiper sweep occurs is changed depending on vehicle speed.
  With “LO” selected, wiper operation will be switched from low speed to intermittent wiper operation only when the vehicle is stationary.
2-3. Operating the lights and windshield wipers

■ Rain drop sensor

The sensor judges the amount of raindrops.

■ If no windshield washer fluid sprays

Check that the washer nozzles are not blocked if there is washer fluid in the windshield washer fluid reservoir.

■ In extremely hot or cold weather

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

■ Windshield wiper features

● The rear window and outside rear view mirror defoggers automatically turn on when you operate the wipers.

■ Customization

Settings (e.g. drip prevention function) can be changed. (→P. 389)

⚠ CAUTION

■ Caution regarding the use of windshield wipers in “AUTO” mode

The windshield wipers may operate unexpectedly if the sensor is touched or the windshield is subject to vibration in “AUTO” mode. Take care that your fingers or anything else do not become caught in the windshield wipers.
### 2.3. Operating the lights and windshield wipers

<table>
<thead>
<tr>
<th>NOTICE</th>
</tr>
</thead>
</table>
| ■ **When the windshield is dry**  
  Do not use the wipers, as they may damage the windshield.  
| ■ **When there is no washer fluid spray from the nozzle**  
  Damage to the washer fluid pump may be caused if the lever is pulled toward you and held continually. |
2-3. Operating the lights and windshield wipers
Rear window wiper and washer

- The rear window wiper and washer can be operated when
  The ignition key is in the “ON” position.
- Dripping prevention wiper sweep
  After washing and wiping operation several times, the wipers operate one more
  time after a short delay to prevent dripping.
- Effect of vehicle and shift position on wiper operation
  ● With “HI” selected, wiper operation will be switched from low speed to intermit-
    tent wiper operation only the vehicle is stationary.
  ● With “LO” or “OFF” selected, the rear window wiper sweeps once when you
    shift the shift lever to “R” while windshield wipers operating or with 17 seconds
    from their deactivation.

⚠️ NOTICE

- When the rear window is dry
  Do not use the wipers, as they may damage the rear window.
2-3. Operating the lights and windshield wipers

**Headlight cleaner switch (if equipped)**

Washer fluid can be sprayed on the headlights.

Press the switch to clean the headlights.

- The headlight cleaner can be operated when
  When the ignition key is in the “ON” position and the headlight switch is turned ON.

**NOTICE**

- **When the washer fluid tank is empty**
  Do not use this function when the washer fluid tank is empty. This may cause the washer cleaner motor to overheat.
Use the cruise control to maintain a set speed without using the accelerator.

- **Set the vehicle speed**

  Turn the “ON-OFF” button ON.

  Push the button once more to deactivate the cruise control.

  Accelerate or decelerate to the desired speed and press the lever down to set the cruise control speed.

- **Adjusting the speed setting**

  - Increase speed
  - Decrease speed

  Hold the lever until the desired speed setting is obtained.

  Fine adjustment of the set speed (approximately 1.0 mph [1.6 km/h]) can be made by lightly pressing the lever up or down and releasing it.
2-4. Using other driving systems

Cruise control can be set when
- The shift lever is in the “D” or “4”.
- Vehicle speed is between approximately 25 mph (40 km/h) and 125 mph (200 km/h).

Accelerating
The vehicle can be accelerated normally. After acceleration, the set speed resumes.

Automatic cruise control cancelation
The set speed is automatically canceled in any of the following situations.
- Actual vehicle speed falls more than 10 mph (16 km/h) below the preset vehicle speed
- Actual vehicle speed is below 25 mph (40 km/h)
- VSC is activated

If the cruise control indicator light flashes
Turn the “ON-OFF” button off once, and then reactivate the system. If the cruise control speed cannot be set or if the cruise control cancels immediately after being activated, there may be a malfunction in the cruise control system. Have the vehicle inspected by your Lexus dealer.
2-4. Using other driving systems

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
</table>
| ■ To avoid operating the cruise control by mistake  
  Keep the “ON-OFF” button off when not in use.  |
| ■ Situations unsuitable for cruise control  
  Do not use cruise control in any of the following situations.  
  Doing so may result in control of the vehicle being lost and could cause serious or fatal accident.  |
  ● In heavy traffic  
  ● On roads with sharp bends  
  ● On slippery roads, such as those covered with rain, ice or snow  
  ● On steep hills  
  ● On winding roads |
2-4. Using other driving systems
Rear view monitor system (if equipped)

The rear view monitor system assists the driver by displaying an image of the view behind the vehicle while reversing. The image is displayed in reverse on the screen. This allows the image to appear in the same manner as that of the rear view mirror.

Rear view image is displayed when the shift lever is in “R”.

If you move the lever out of “R”, the screen returns to the previous one.

Displayed area

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.
2-4. Using other driving systems

Rear view monitor system camera

In the following cases, it may be difficult to see the images on the screen, even when the system is functioning correctly.

- In the dark (e.g. at night).
- If the temperature near the lens is extremely high or low.
- If water droplets get on the camera, or when humidity is high (e.g. when it rains).
- If foreign matter (e.g. snow or mud) get on the camera lens.
- If the sun or headlights are shining directly into the camera lens.

Smear effect

If a bright light (e.g., sunlight reflected off the vehicle body) is picked up by the camera, a smear effect* peculiar to the camera may occur.

*: Smear effect—A phenomenon that occurs when a bright light (e.g., 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.
CAUTION

Observe these precautions to avoid an accident that could result in death or serious injuries.

Never depend solely on the monitor system when reversing.
Always check visually and with the mirrors to confirm your intended path is clear.
Depicted distances between objects and flat surfaces differ from actual distances.
Do not use the system if the back door is open.

Conditions which may affect the rear view monitor system

If the back of the vehicle is hit, the camera’s position and mounting angle may change. Contact your Lexus dealer.
Rapid temperature changes, such as when hot water is poured on the vehicle in cold weather, may cause the system to function abnormally.
If the camera lens is dirty, it cannot transmit a clear image. Rinse with water and wipe with a soft cloth. If extremely dirty, wash with a mild cleanser and rinse.
The displayed image may be darker and moving images may be slightly distorted when the system is cold.
The Lexus night view system assists the driver by displaying a monochrome image of the view in front of the vehicle while driving at night.

Near-infrared rays are irradiated forward and an image converted from its irradiated light is shown on the head-up display.

The image is shown ranging from the tip of the low beam to the high beam.

1 Near-infrared floodlight
2 Near-infrared camera
3 Head-up display
4 Automatic light control sensor

■ Turning on the system and adjusting the brightness of the display

1 ON/OFF
“MAIN” indicator light comes on when the system is on.

Darker
Brighter

If the display is too bright, you cannot see surroundings through the windshield clearly.
The Lexus night view system can be operated when
- The ignition key is in the “ON” position.
- It is dark outside.
- The headlights are on.

When all the above conditions are met, the head-up display shutter opens automatically and the image sent from the head-up display is shown on the windshield.

“BEAM” indicator
- When the vehicle starts moving with the system on, the near-infrared floodlight is irradiated and the “BEAM” indicator light comes on.

Conditions unfavorable to correct operation
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.
- 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 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.
### CAUTION

**While driving**
- 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.
- 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.

**Conditions which may affect the Lexus night view system**
- If the front bumper is deformed in a collision, etc., the performance of the near-infrared floodlight will be affected. Have it repaired or replaced by your Lexus dealer.
- If you notice the inner lens of the near-infrared camera is dirty, have it inspected by your Lexus dealer.
- If the top of the windshield fogs up, the lens of the near-infrared camera will also fog up, resulting in deterioration of the system performance. Defog the windshield by pushing the windshield air flow button on the air conditioning.
- If the outside temperature is low, the head-up display may darken or it may take time to display the image with the system on.
- The automatic light control sensor may not function properly if an object is placed on the sensor, or anything that blocks the sensor is affixed to the windshield.

**To avoid injury**
- The near-infrared floodlight irradiates strong energy nut visible to the eyes. Do not stare at the floodlight at close range for a long time.
2-4. Using other driving systems

<note>

 NOTICE

■ To avoid damaging the head-up display
- Do not put anything in front of the head-up display shutter. It may hinder the opening or closing of the shutter.
- Do not let drinks spill on the head-up display.
- If an object gets caught in the shutter and it does not close securely, open the shutter with your hand and remove the object. The shutter will function properly after you turn the ignition off and then on.

</note>
2-4. Using other driving systems
AHC (Active Height Control Suspension)

AHC adjusts the vehicle height in accordance with driving conditions. There are 3 selectable modes, “HI” (high), “N” (normal), and “LO” (low).

■ Height control switch

1 “▲” (Up) switch
2 “▼” (Down) switch
3 “OFF” switch

Push while the vehicle is stopped. The “OFF” indicator light will come on, and the vehicle height will be fixed in the current mode. Push the switch again to turn the system back on.

■ AHC indicator lights

1 Height control mode indicators
2 Height control “OFF” indicator
Vehicle height modes

Press “▲” to step up one height mode, and “▼” to step down one height mode. (Ex. When in the low height mode, press “▲” once to switch to the normal height mode, and twice to switch to the high height mode.)

■ “HI” (high) height mode
Vehicle height is 1.6 in. (40 mm) higher at the front, and 2.0 in. (50 mm) higher at the rear than the normal mode height.
This mode is suitable when driving on bumpy roads or through water.
High height mode is only available when the vehicle speed is under 19 mph (30 km/h).

■ “N” (normal) height mode
The standard vehicle height. This mode is suitable for ordinary driving.

■ “LO” (low) height mode
Vehicle height is 2.0 in. (50 mm) lower at the front, and 1.6 in. (40 mm) lower at the rear than the normal mode height.
This mode allows easy access to the vehicle.
Low height mode is only available when the vehicle is stopped. When you start the vehicle, normal height mode is automatically selected.

Conditions for changing the vehicle height mode

Some modes may not be selectable depending on the vehicle speed when the four-wheel drive control lever is in the “H” position. Refer to the following table.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Low mode</th>
<th>Normal mode</th>
<th>High mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle stopped</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Under 19 mph (30 km/h)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>19 mph (30 km/h) or over</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
AHC indicator lights

If you change the vehicle height mode, the indicator lights change as follows:

- The current mode indicator light will turn off, and the selected mode indicator light will begin flashing.
- Once the change in vehicle height is complete, the selected mode indicator light will change from flashing to continuously lit.

If you press the height control switch while AHC is off, the current mode indicator light will turn on and the selected mode indicator light will begin flashing while the system starts up.

Once the system has started, the current mode indicator light will turn off.

Operating conditions

- The engine must be running.
- All side doors and the back door must be closed.

Automatic change in vehicle height when in the high mode

- If the vehicle speed exceeds 19 mph (30 km/h) with the four-wheel drive control lever in the "H" position, normal mode is automatically selected.
- If the vehicle speed exceeds 30 mph (50 km/h) with the four-wheel drive control lever in the "L" position, the vehicle height is lowered to 1.0 in. (25 mm) higher than the normal mode height. If the vehicle speed drops to 12 mph (20 km/h) or less, high mode is automatically resumed.
■ Extra high mode
If the vehicle becomes stuck, extra high mode may be automatically selected when
the vehicle height is in high mode with the four-wheel drive control lever in the “L”
position.
The vehicle height is raised to 2.8 in. (70 mm) higher than the normal mode height,
or slightly higher.
Extra high mode will change back to high mode when:
• The vehicle is no longer stuck
• The four-wheel drive control lever is shifted to a position other than “L”
● If you push “▼” when in extra high mode, normal mode is selected.
● Extra high mode cannot be manually selected.

■ Turning off the active height control suspension
● The system will remain off until the switch is pushed again, even if the ignition is
turned off.
● Even if AHC is turned off, the system automatically selects the normal mode if
the vehicle’s speed exceeds 19 mph (30 km/h).

■ Automatic leveling function
The vehicle is adjusted to a fixed height for each mode, regardless of the number of
occupants and the luggage load.
● However the vehicle cannot be raised if the vehicle load exceeds the following
limits:
  • Up to 4 occupants* plus approximately 661 lb. (300 kg) in the normal mode
  • Up to 4 occupants* plus approximately 375 lb. (170 kg) in the high mode
    *: average weight 150 lb. (68 kg) per person
● If the vehicle height cannot be raised when in the normal mode, and “LO” is lit
on the height mode indicator, the vehicle is loaded too heavily. Take extra care
when driving in this condition.
If the vehicle height cannot be raised even after unloading the vehicle, press
“▼” then “▲” on the height mode select switch. If the vehicle height still cannot
be raised, turn the ignition off then on again, then try once more.
2-4. Using other driving systems

- **If the vehicle height does not change**
  If the vehicle is loaded too heavily, or the undercarriage has come into contact with the road surface, the vehicle height cannot be raised/lowered. In this case, the indicator lights will change as follows:
  - The current mode indicator light will turn off, and the target mode indicator light will begin flashing.
  - The target mode indicator light will turn off, and the original mode indicator light will be lit once more. (The vehicle height does not change.)

- **In the following cases AHC will not operate**
  - The brake pedal has been depressed for longer than 5 seconds while the vehicle is stopped.
  - The suspension fluid temperature is lower than -22°F (-30°C).
  - Driving on bumpy roads which may cause the suspension to fully elongate.
  - If the steering wheel is abruptly turned more than 3/4 of a revolution with the center differential lock system activated.

- **Cold weather operation**
  It may take longer for the vehicle height to change if the suspension fluid temperature drops below -5°F (-15°C).
  AHC does not operate when the suspension fluid temperature drops below -22°F (-30°C).
  - In this case, the selected height mode indicator light will flash when the height mode select switch is pressed, however the vehicle height will not change. Once the engine has warmed the suspension fluid to within normal operating limits, AHC will begin operating and the vehicle height will automatically change to the selected mode.
  - When the suspension fluid is around -22°F (-30°C), the vehicle height may not be able to be raised, even if AHC is operating. In this case, push “▼” then “▲” on the height mode select switch after further warming the engine to select the desired vehicle height.
2.4. Using other driving systems

- **Parking and stopping tips**
  - If you immediately stop the engine after off-road driving, or park the vehicle for a long time, the vehicle height may gradually lower. When parking, make sure there is nothing under the vehicle that may come in contact with the underbody. The vehicle will return to the set height when the engine is started.
  - The vehicle height may change as the temperature changes when the engine is stopped. The vehicle will return to the set height when the engine is started.

- **Propeller shaft noise**
  - If the vehicle height is adjusted on a 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. This does not indicate a malfunction.

- **Continued system operation**
  - Even if the engine is stopped while the vehicle height is being lowered, operation will continue for up to 12 seconds.

- **Active height control failure warning**
  - If a malfunction occurs in the AHC system, normal mode is automatically selected.
    - The height control “OFF” indicator will blink, and AHC cannot be activated until the malfunction is corrected.
    - Stop the engine and start it again. If the height control “OFF” indicator light turns off, the system is operating correctly. If the indicator light continues to blink, have the vehicle checked at your Lexus dealer as soon as possible.
  - If the height control “OFF” indicator light does not come on when the ignition switch is turned on, there is a malfunction in the AHC system. You can continue normal driving, however have the vehicle checked by your Lexus dealer as soon as possible.

- **Installing or removing heavy equipment**
  - If the equipment exceeds 33 lb. (15 kg), the front torsion bar must be adjusted. See your Lexus dealer.
2-4. Using other driving systems

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Using the high and extra high modes</td>
</tr>
<tr>
<td>These modes should only be used for rough off-road conditions. Because the vehicle’s center of gravity is higher when in these modes, the vehicle may become unstable when turning abruptly, resulting in an accident.</td>
</tr>
<tr>
<td>■ When jacking up the vehicle or installing tire chains</td>
</tr>
<tr>
<td>Turn off the AHC and stop the engine, otherwise the vehicle height may change due to the automatic leveling function, resulting in an accident.</td>
</tr>
<tr>
<td>■ When driving through water deeper than 1.6 ft. (0.5 m)</td>
</tr>
<tr>
<td>Select the “HI” (high) mode and turn off AHC. Drive at 19 mph (30 km/h) or lower. Otherwise the vehicle height may change due to the automatic leveling function, resulting in an accident.</td>
</tr>
<tr>
<td>■ If your vehicle must be towed</td>
</tr>
<tr>
<td>Put the vehicle height in the normal mode and turn off AHC, otherwise the vehicle height may change due to the automatic leveling function, resulting in an accident.</td>
</tr>
<tr>
<td>■ If your vehicle becomes stuck in a ditch</td>
</tr>
<tr>
<td>Turn off AHC, otherwise the vehicle height may change due to the automatic leveling function, resulting in an accident.</td>
</tr>
</tbody>
</table>
2-4. Using other driving systems

![Notice]

**NOTICE**

- **To avoid damage to the vehicle**
  - If in the low mode, the vehicle automatically shifts to the normal mode when the vehicle is started. Take care when overhead height is limited.
  - After unloading, the vehicle height may be slightly higher than normal. Take care when overhead height is limited.
  - Before lowering the vehicle height, check that no-one is under the vehicle and the area is free of obstructions. Also check that the underbody of the vehicle will not touch the ground.
  - Do not select the low mode when driving on bumpy roads, as the underbody of the vehicle may contact the road surface.

- **Avoid rapid changes to the vehicle height**
  As the pump may overheat. Leave at least a minute between selections when changing the AHC mode.
2-4. Using other driving systems

AVS (Adaptive Variable Suspension)

AVS controls the suspension according to the road and driving conditions. Selecting an optimum driving mode allows good riding comfort and stability.

- For driving on a bumpy road
- For ordinary driving such as in the city traffic
- For moderate high speed driving
- For sporty type driving such as on winding mountain roads and high speed driving

Driving mode
- Mode 2 is suitable for ordinary driving.
- Mode 3 or 4 is suitable for heavy load or driving on an unpaved road.
- With the four-wheel drive control lever at “L”, the damping effect suitable for off-road driving will be provided.
2-4. Using other driving systems
Four-wheel drive system

Use the four-wheel drive control lever and center differential lock/unlock switch to select following transfer and center differential modes.

► Four-wheel drive control lever

1. "H" (high speed position)
   Normal driving on all types of roads.

2. "N" (neutral position)
   No power is delivered to the wheels.

3. "L" (low speed position)
   Driving requiring maximum power and traction such as climbing or descending steep hills, off-road driving, and hard pulling in sand or mud, etc.

► Center differential lock/unlock switch

Lock the center differential when your vehicle’s wheels get stuck in a ditch or when you are driving on a slippy or bumpy surface.

After the wheels are out of the ditch or off the slippy or bumpy surface, unlock the center differential.

The four-wheel drive control lever can be operated when

- The shift lever is in the "N" position, and
- The vehicle is stopped completely.
2-4. Using other driving systems

■ Advice for driving on slippery roads in “L” (low speed position)

● If you shift the four-wheel drive control lever to “L” and the shift lever to “2” while driving 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 shift 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 under 3,000 rpm when the wheels get unstuck).
  • The four-wheel drive control lever in the “L” position and the shift lever in the “L” position or the shift lever in the “D”, “4”, “3” or “2” with the transmission downshifting to first gear.
  • The four-wheel drive control lever in the “L” position and the shift lever in the “R” position.

■ The center differential lock/unlock button can be operated when

● The ignition key is in the “ON” position, and

● The four-wheel drive control lever is in the “H” or “L” position.

■ Locking/unlocking the center differential

● When the center differential is locked, VSC (vehicle stability control) is automatically turned off. (Center differential lock and “VSC OFF” indicator light come on.)

● When the operation is not completed, the center differential lock indicator blinks. If the indicator light does not go off when unlocking the center differential, drive straight ahead while accelerating or decelerating, or drive in reverse.

● The center differential lock system operation is not completed within 5 seconds while the cruise control system is set, cancel the cruise control system.
## 2.4. Using other driving systems

<table>
<thead>
<tr>
<th><strong>CAUTION</strong></th>
</tr>
</thead>
</table>
| ■ While driving  

Never move the four-wheel drive control lever if the wheels are slipping. Doing so may cause an accident resulting in death or serious injury. |

<table>
<thead>
<tr>
<th><strong>NOTICE</strong></th>
</tr>
</thead>
</table>
| ■ To prevent damage to the center differential  

- For normal driving on dry and hard surface roads, unlock the center differential.  
- Unlock the center differential after the wheels are out of the ditch or off the slippery or bumpy surface.  
- Do not push the center differential lock/unlock button when the vehicle is cornering or when its wheels are spinning freely off the ground. |
2-4. Using other driving systems
Driving assist systems

To help enhance driving safety and performance, the following systems operate automatically in response to various driving situations. Be aware, however, that these systems are supplementary and should not be relied upon too heavily when operating the vehicle.

- **ABS (Anti-lock Brake System)**
  Restraints the vehicle from slipping when driving on slick road surfaces or in the event of sudden braking.

- **BA (Brake Assist)**
  Generates an increased level of braking force after the brake pedal is depressed, when the system detects a panic stop situation.

- **VSC (Vehicle Stability Control)**
  Helps the driver to control skidding when swerving suddenly or turning on slippery road surfaces.

- **TRAC (Active Traction Control)**
  Maintains drive power and prevents the 4 wheels from spinning when starting the vehicle or accelerating on slippery roads.

- **VGRS (Variable Gear Ratio Steering)**
  Adjusts the wheel turning angle in accordance with the vehicle speed and steering wheel movement.

**When the VSC system is operating**

If the vehicle is in danger of slipping, the slip indicator light flashes and buzzer sounds to indicate that the VSC systems have been engaged.
2-4. Using other driving systems

**When the TRAC system is operating**

If the 4 wheels spin, the active traction control system indicator light flashes to indicate that the TRAC system have been engaged.

---

**To disable VSC system**

If the vehicle gets stuck in fresh snow or mud, VSC system may reduce power from the engine to the wheels. You may need to turn the system off to enable you to rock the vehicle in order to free it.

Push the center differential lock/unlock switch to turn off VSC system.

The center differential lock and “VSC OFF” indicator lights should come on.

Push the switch again to turn the system back on.
2-4. Using other driving systems

- Sounds and vibrations caused by the ABS, BA, VSC, TRAC and VGRS systems
  - A sound may be heard from the engine compartment when the engine is started or just after the vehicle begins to move. This sound does not indicate that a malfunction has occurred in any of these systems.
  - Any of the following conditions may occur when the above systems are operating. None of these indicates that a malfunction has occurred.
    - Vibrations may be felt through the vehicle body and steering.
    - A motor sound may be heard after the vehicle comes to a stop.
    - The brake pedal may pulsate slightly after the ABS is activated.
    - The brake pedal may move down slightly after the ABS is activated.

- VGRS is disabled in the following situations
  - During stopping or the steering wheel has been moved for a long time while driving at lower speeds.
  - After the engine is restarted at less than -22°F (-30°C).
  - If you disconnect the battery with the steering wheel turned, the center position of the steering wheel could be slightly and temporary changed. To initialize the VGRS, drive for a short while.
CAUTION

Any of the following conditions may result in an accident which could cause death or serious injury:

- **The ABS does not operate effectively when**
  - The limits of tire gripping performance have been exceeded.
  - The vehicle hydroplanes while driving at high speed on the wet or slick road.

- **Stopping distance when the ABS is operating on the wet or slick roads**
  The ABS is not designed to shorten the vehicle’s stopping distance. Always maintain a safe distance from the vehicle in front of you in the following situations.
  - When driving on dirt, gravel or snow-covered roads
  - When driving with tire chains
  - When driving over bumps in the road
  - When driving over roads with potholes or roads with uneven roads

- **TRAC may not operate effectively when**
  Directional control and power may not be achievable while driving on slippery road surfaces, even if the TRAC is operating.
  Do not drive the vehicle in conditions where stability and power may be lost.

- **When the VSC is activated**
  The slip indicator light flashes and a warning buzzer sounds. Always drive carefully. Reckless driving may cause an accident. Exercise particular care when the indicator light flashes and a buzzer sounds.

- **Replacing tires**
  Make sure that all tires are of the same size, brand, tread pattern and total load capacity. In addition, make sure that the tires are inflated to the specified tire pressure level.
  The ABS and VSC will not function correctly if different tires are fitted on the vehicle.
  Contact your Lexus dealer for further information when replacing tires or wheels.
2-5. Driving information

Off-road 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.

**Off-road vehicle feature**

- 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

**Off-road vehicle precautions**

Always observe the following precautions to help 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.

- 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.
Off-road driving

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.

- Drive your vehicle only in areas where off-road vehicles are permitted to travel.
- Respect private property. Get owner’s permission before entering private property.
- Do not enter areas that are closed. Honor gates, barriers and signs that restrict travel.
- Stay on established roads. When conditions are wet, driving techniques should be changed or travel delayed to prevent damage to roads.

Additional information for off-road driving

- 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
CAUTION

Off-road driving precautions
Always observe the following precautions to help 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.
- 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

To prevent the water damage
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 entering the automatic transmission will cause deterioration in shift quality, locking up of your transmission accompanied by vibration, and ultimately 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.
### NOTICE

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>When you drive through water</strong></td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
</tr>
<tr>
<td><strong>Inspection after off-road driving</strong></td>
<td></td>
</tr>
<tr>
<td>● Sand and mud that has accumulated in brake drums and around brake discs may affect braking efficiency and may damage brake system components.</td>
<td></td>
</tr>
<tr>
<td>● 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 “Warranty and Services Guide/Owner’s Manual Supplement/Scheduled Maintenance”.</td>
<td></td>
</tr>
</tbody>
</table>
2-5. Driving information
Cargo and luggage

Take notice of the following information about storage precautions, cargo capacity and load.

- Stow cargo and luggage in the luggage compartment whenever 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.

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 kg or XXX lbs.” 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 kg or XXX lbs.
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 x 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. (→P. 155)

**Example on your vehicle**

<table>
<thead>
<tr>
<th>Cargo capacity</th>
<th>Total load capacity</th>
</tr>
</thead>
</table>

When 2 people with the combined weight of 366 lb. (166 kg) are riding in your vehicle, which has a total load capacity of 1200 lb. (545 kg), the available amount of cargo and luggage load capacity will be as follows:

1200 lb. – 366 lb. = 834 lb. (545 kg – 166 kg = 379 kg)

In this condition, if 3 more passengers with the combined weight of 388 lb. (176 kg) get on, the available cargo and luggage load will be reduced as follows:

834 lb. – 388 lb. = 446 lb. (379 kg – 176 kg = 203 kg)

As shown in the above example, if the number of occupants increases, the cargo and luggage load equaling the combined weight of the occupants who got on later, by an amount. In other words, if an increase in the number of occupants causes an excess of the total load capacity (combined weight of occupants plus cargo and luggage load), you must reduce the cargo and luggage on your vehicle.
When 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: 44 lb. (20 kg)
- Left: 44 lb. (20 kg)
**CAUTION**

■ **Storage precautions**

- Do not stack anything in the luggage compartment higher than the seatbacks. Such items may be thrown about and possibly injure people in the vehicle during sudden braking or in an accident.

- Do not drive with objects on top of the instrument panel. They may interfere with the driver’s field of view or move during sharp acceleration or turning, thus impairing the driver’s control of the vehicle. In an accident they may injure the vehicle occupants.

- Secure all items in the occupant compartment, as they may shift and injure someone during an accident or sudden braking.

- 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 injury, in the event of sudden braking or a collision.

■ **Weight of the load**

- Do not exceed the maximum axle weight rating or the total vehicle weight rating.

- 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. Improper loading may cause deterioration of steering or braking control which may cause death or serious injury.
2-5. Driving information
Vehicle load limits

Vehicle load limits include total load capacity, seating capacity, towing capacity and cargo capacity.

- **Total load capacity: 1200 lb. (545 kg)**
  Total load capacity means the combined weight of occupants, cargo and luggage.

- **Seating capacity: 8 occupants (Front 2, Rear 6)**
  Seating capacity means the maximum number of occupants whose estimated average weight is 150 lb. (68 kg) per person.
  Even if the number of occupants are within the seating capacity, do not exceed the total load capacity.

- **Towing capacity: 6500 lb. (2948 kg)**
  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 weight and the number of occupants.

---

- **Total load capacity and seating capacity**
  These details are also described on the tire and loading information label. (→P. 302)

---

**CAUTION**

- **Overloading the vehicle**
  Do not overload the vehicle.
  It may not only cause damage to the tires, but also degrade steering and braking ability, resulting in an accident.
Winter driving tips

Carry out the necessary preparations and inspections before driving the vehicle in winter. Always drive the vehicle in a manner appropriate to the prevailing weather conditions.

**Pre-winter preparations**
- Use fluids that are appropriate to the prevailing outside temperatures.
  - Engine oil
  - Engine coolant
  - Washer fluid
- Have a service technician inspect the level and specific gravity of battery electrolyte.
- Have the vehicle fitted with four snow tires or purchase a set of tire chains for the rear tires.
  
  Ensure that all tires are the same size and brand, and that chains match the size of the tires.
Before driving the vehicle
Perform the following according to the driving conditions.

- Do not try to forcibly open a window or move a wiper that is frozen. Pour warm water over the frozen area to melt the ice. Wipe away the water immediately to prevent it from freezing.

- To ensure proper operation of the climate control system fan, remove any snow that has accumulated on the air inlet vents in front of the windshield.

- Remove any ice that has accumulated on the vehicle chassis.

- Periodically check for and remove any excess ice or snow that may have accumulated in the wheel well or on the brakes.

When driving the vehicle
Accelerate the vehicle slowly and drive at a reduced speed suitable to road conditions.

When parking the vehicle
Park the vehicle and move the shift lever to “P” without setting the parking brake. The parking brake may freeze up, preventing it from being released.
Selection tire chains

Use the correct tire chain size when mounting the snow chains. Chain size is regulated for each tire size.

- Side chain (3.5 mm [0.14 in.] in diameter)
- Cross chain (4 mm [0.16 in.] in diameter)

Regulations on the use of snow chains

- Regulations regarding the use of tire chains vary according to location and type of road. Always check local regulations before installing chains.
- Retighten the chains after driving 1/4 - 1/2 mile (0.5 - 1.0 km).

Snow chain installation

Observe the following precautions when installing and removing chains.

- Install and remove tire chains in a safe location.
- Install tire chains on the rear tires.
- Install tire chains following the instructions provided in the accompanying instructions.
### CAUTION

- **Driving with snow tires**
  
  Observe the following precautions to reduce the risk of accidents.
  
  Failing to do so may result in a loss of vehicle control and cause death or serious injury.
  
  - Use tires of the size specified for your vehicle.
  - Maintain the specified level of tire inflation pressure.
  - Do not drive in excess of 75 mph (120 km/h), regardless of the type of snow tires being used.
  - Snow tires should be installed on all wheels.

- **Driving with snow chains**
  
  Observe the following precautions to reduce the risk of accidents.
  
  Failing to do so may result in the vehicle being unable to be driven safely, and may cause death or serious injury.
  
  - Do not drive in excess of the speed limit specified for the tire chains being used, or 30 mph (50 km/h), whichever is lower.
  - Avoid driving on bumpy road surfaces or over potholes.
  - Avoid sudden turns and braking, as use of chains may adversely affect vehicle handling.
  - Slow down sufficiently before entering a curve to ensure that vehicle control is maintained.

### NOTICE

- **Repairing or replacing snow tires**
  
  Request repairs of and obtain replacement snow tires from Lexus dealers or legitimate tire retailers.
  
  This is because the removal and attachment of snow tires affects the operation of the tire pressure warning valves and transmitters.

- **Fitting tire chains**
  
  The tire pressure warning valves and transmitters may not function correctly when tire chains are fitted.
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 fuel consumption. For your safety and the safety of others, do not overload the vehicle or trailer.

Lexus warranties do not apply to damage or malfunction caused by towing a trailer for commercial purposes.

- **Weight limits**
  Confirm that the total trailer weight, gross vehicle weight, gross axle weight and trailer tongue load are all within the limits.

- **Gross vehicle weight**
  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. Also included is the weight of any special equipment installed on your vehicle.

- **Gross axle weight**
  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.
**Trailer tongue load**

The trailer cargo load should be distributed so that the tongue load is 9 to 11% for weight carrying hitch or 15% for weight distributing hitch of the total trailer weight, not exceeding the following.

- Weight carrying hitch: 650 lb. (295 kg)
- Weight distributing hitch: 975 lb. (442 kg)

\[
\text{Tongue load} / \text{Total trailer weight} \times 100 = 9 \text{ to } 11\% \text{ or } 15\%
\]

The total trailer weight and tongue load can be measured with platform scales found at a highway weighing stations, building supply companies, trucking companies, junk yards, etc.

---

**Towing a trailer**

Contact your Lexus dealer for further information about additional requirements such as a towing kits, etc.

---

**Hitch**

Trailer hitch assemblies have different weight capacities established by the hitch manufacturer. Even though the vehicle may be rated for towing a higher weight, the operator must never exceed the maximum weight rating specified for the trailer hitch.
Selecting trailer ball

Use the correct trailer ball for your application.

1. **Trailer ball load rating**
   Matches or exceeds the gross trailer weight rating of the trailer.

2. **Ball diameter**
   Matches the size of the trailer coupler. Most couplers are stamped with the required trailer ball size.

3. **Shank length**
   Protrudes beyond the bottom of the lock washer and nut at least 2 threads.

4. **Shank diameter**
   Matches the ball mount hole diameter size.
2-5. Driving information

Connecting trailer lights

Use the wire harness stored in the rear end under body.

■ When connecting and disconnecting a trailer

► Connecting
   
   **STEP 1** Set the active height control suspension to “LO” mode.
   **STEP 2** Turn off the ignition switch or the active height control suspension.
   **STEP 3** Connect the trailer.
   **STEP 4** Turn on the switch that was turned off on step 2.
   **STEP 5** Set the active height control suspension to “N” mode.

► Disconnecting
   
   **STEP 1** Set the active height control suspension to “LO” mode.
   **STEP 2** Turn off the ignition switch or the active height control suspension.
   **STEP 3** Set the supporting leg of the trailer on the ground and raise the hitch by 4 in. (100 mm).
   **STEP 4** Turn on the switch that was turned off on step 2.
   **STEP 5** Wait until vehicle height is stabilized.
   **STEP 6** Make sure the hitch is disconnected. If the hitch does not disconnect, raise the hitch higher and repeat steps 2 through 5.
   **STEP 7** Move the vehicle forward in the “LO” mode to a point where the hitch does not touch anything in the “N” mode.
   **STEP 8** Set the active height control suspension in the “N” mode.
Before towing

Check that the following conditions are met:

- The vehicle’s tires are properly inflated. (→P. 302)
- Trailer tires are inflated according to the trailer manufacturer’s recommendation.
- All trailer lights work.
- All lights work each time you connect them.
- The trailer ball is set up at the proper height for the coupler on the trailer.
- The vehicle remains level when a loaded or unloaded trailer is hitched. Do not drive if the vehicle is not level, and check for improper tongue load, overloading, worn suspension, or other possible causes.
- The trailer cargo is securely loaded.
- The rear view mirrors conform to all applicable federal, state/provincial or local regulations. If they do not, install rear view mirrors appropriate for towing purposes.

Break-in schedule

Lexus recommends that you do not use a new vehicle or a vehicle with any new power train components (engine, transmission, differential, wheel bearings, etc.) to tow a trailer for the first 500 miles (800 km) of driving.

Maintenance

- If you tow a trailer, your vehicle will require more frequent maintenance due to the additional load. (See “Warranty and Services Guide/Owner’s Manual Supplement/Scheduled Maintenance”.)
- Retighten the fixing bolts of the towing ball and bracket after approximately 600 miles (1000 km) of trailer towing.
CAUTION

To avoid accident or injury
- The total trailer weight (trailer weight plus the weight of cargo) must not exceed 6500 lb. (2948 kg).
- If a trailer and cargo weight over 2000 lb. (907 kg), use a sway control device with sufficient capacity.
- The gross combined weight (sum of your vehicle weight plus its load and the total trailer weight) must not exceed 12400 lb. (5625 kg).
- Do not exceed the trailer hitch assembly weight, gross vehicle weight, gross axle weight and trailer tongue load capacities.
- Never load more weight in the back than in the front of the trailer. About 60% of the load should be in the front half of the trailer, and the remaining 40% in the rear.
- Set the vehicle height to the “LO” mode and turn off the active height control suspension to prevent the vehicle height from automatically changing.
- The tow hitch receiver installed on your vehicle must never be used on another vehicle.

Hitches
- If you wish to install a trailer hitch, contact your Lexus dealer.
- Use only a hitch that conforms to the total trailer weight requirement.
- Follow the directions supplied by the hitch manufacturer.
- Lubricate the hitch ball with a light coat of grease.
- Remove the trailer hitch whenever you are not towing a trailer. After removing the hitch, seal any mounting hole in the vehicle body to prevent entry of any substances into the vehicle.

When towing a trailer
- If the total trailer weight exceeds 1000 lb. (453 kg), trailer brakes are required.
- Never tap into your vehicle’s hydraulic system, as this will lower the vehicle’s 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 danger of the trailer wandering into another lane.
2-5. Driving information

NOTICE

- When installing a trailer hitch
  - Use only the position recommended by your Lexus dealer. Do not install the trailer hitch on the bumper; this may cause body damage.
  - Do not use axle-mounted hitches, as they can cause damage to the axle housing, wheel bearings, wheels or tires.

- Brakes
  Lexus recommends trailers with brakes that conform to all applicable federal and state/provincial regulations.

- Safety chain
  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 the case that it becomes damaged or separated. For the correct safety chain installation procedure, ask your Lexus dealer.

- Do not directly splice trailer lights
  Directly splicing trailer lights may damage your vehicle’s electrical system and cause a malfunction.

Trailer towing tips

Your vehicle will handle differently when towing a trailer. The 3 main causes of vehicle-trailer accidents are driver error, excessive speed and improper trailer loading. Keep the following in mind when towing.

- Before starting out, check the trailer lights and the vehicle-trailer connections. Recheck after driving a short distance.

- Practice turning, stopping and reversing with the trailer attached in an area away from traffic until you become accustomed to the feel of the vehicle.
Reversing with a trailer attached 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 right. (This is generally opposite to reversing without a trailer attached.) Avoid sharp or prolonged turning. Have someone guide you when reversing to reduce the risk of an accident.

As stopping distance is increased when towing a trailer, vehicle-to-vehicle distance should be increased. For each 10 mph (16 km/h) of speed, allow at least one vehicle and trailer length.

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, and slow down before making turns.

Note that when making a turn, the trailer wheels will be closer than the vehicle wheels to the inside of the turn. Compensate by making a larger than normal turning radius.

Crosswinds and rough roads will adversely affect handling of your vehicle and trailer, causing sway. Periodically check the rear to prepare for being passed by large trucks or buses, which may cause your vehicle and trailer to sway. If swaying occurs, firmly grip the steering wheel, reduce speed immediately but gradually, and steer straight ahead. Never increase speed. If you make no extreme correction with the steering or brakes, your vehicle and trailer will stabilize.

Take care 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 shift range position must be in 4.
Due to the added load of the trailer, your vehicle’s engine may overheat on hot days (at temperatures over 85°F [30°C] when driving up a long or steep grade. 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. (→P. 363)

Always place wheel blocks under both the vehicle and the trailer wheels when parking. Apply the parking brake firmly, and put the transmission in P. Avoid parking on a slope, but if unavoidable, 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 the 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 after parking on a slope:

1. With the transmission in the “P” position, start the engine. Be sure to keep the brake pedal pressed.
2. Shift into 3, 2, 1, or “R” position (if reversing).
3. Release the parking brake and brake pedal, and slowly pull or back away from the wheel blocks. Stop and apply the brakes.
4. Have someone retrieve the blocks.
### CAUTION

#### To avoid an accident

- Do not exceed 45 mph (72 km/h) or the posted towing speed limit, whichever is lower. A instability (swaying) of the towing vehicle-trailer combination increases as speed increases, exceeding 45 mph (72 km/h) 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 applying the brakes too frequently.

This could cause the brakes to overheat and result in reduced braking efficiency.
Your vehicle is not designed to be dinghy towed (with 4 wheels on the ground) behind a motor home.

⚠️ NOTICE

- To avoid serious damage to your vehicle
  Do not tow your vehicle with four wheels on the ground.
3-1. Using the air conditioning system and defogger........ 172
   Automatic air conditioning system (without navigation system)........ 172
   Rear air conditioning controls.............................. 180
   Rear window and outside rear view mirror defoggers........... 182

3-2. Using the audio system ........ 183
   Audio system type (without navigation system)........ 183
   Using the radio............................. 185
   Using the cassette player....... 194
   Using the CD player.................. 197
   Optimal use of the audio system.......................... 204
   Using the steering switches.............................. 206
   Rear seat audio system........ 209

3-3. Using the interior lights ....... 212
   Interior lights list ......................... 212

3-4. Using the storage features........ 215
   List of storage features........ 215

3-5. Other interior features....... 221
   Sun visors .................................. 221
   Vanity mirror ................................ 222
   Clock........................................ 223
   Outside temperature display.................. 224
   Ashtrays........................................ 225
   Cigarette lighter........................ 227
   Power outlet................................ 228
   Seat heaters ................................ 230
   Coat hooks.................................. 232
   Armrest........................................ 233
   Floor mats.................................. 234
   Luggage compartment features........ 235
   Garage door opener............ 237
   Compass...................................... 242
   Lexus Link System................ 246

171
Airflow and outlets are automatically selected according to the temperature setting.

Owners of models equipped with a navigation system should refer to the “Navigation System Owner’s Manual”.

Automatic air conditioning system (without navigation system)
Using the automatic mode

STEP 1 Press \( \text{auto} \).

\( \rightarrow \) The air conditioning system will begin to operate. Air outlets and fan speed are automatically selected according to the temperature setting.

STEP 2 Press \( \text{auto} \) to switch to “AUTO” mode.

\( \rightarrow \) Automatically switches between outside air and recirculated air modes.

STEP 3 Turn \( \text{temp} \) to adjust the desired temperature.

Adjusting the settings

■Adjusting the temperature setting

Turn \( \text{temp} \) to adjust the desired temperature.

■ Adjusting the fan speed

Press \( \text{fan up} \) (increase) or \( \text{fan down} \) (decrease) on the control.

Press \( \text{fan off} \) to turn the fan off.
3-1. Using the air conditioning system and defogger

**Changing the air outlets**

Press [MODE].

The air outlets switch each time the button is pressed.

1. Air flows to the upper body.
2. Air flows to the upper body and feet.
3. Air flows to the feet.
4. Air flows to the feet and the windshield defogger operates.
Switching between outside air and recirculated air modes
Press .

The mode switches between (recycles air inside the vehicle), (automatic mode) and (introduces air from outside the vehicle) modes each time the button is pressed.

When the system is switched to automatic mode, the air conditioning mode system operates automatically.

Defogging the windshield

Press .

The air conditioning system control operates automatically.

Recirculated air mode will automatically switch to outside air mode.

Adjusting the sensitivity of the air intake control in automatic mode

Press and hold until the “AUTO” indicator light flashes.
3-1. Using the air conditioning system and defogger

Turn to adjust the desired sensitivity.

From -3 (low) to 3 (high) can be set.

Adjusting the position of and opening and closing the air outlets

**Center outlets**

1. Direct air flow to the left or right, up or down
2. Turn the knob to open or close the vent

**Side outlets**

1. Direct air flow to the left or right
2. Direct air flow up or down
3. Turn the knob to open or close the vent
Lower outlets

Direct airflow to the up or down.
When defogging the windshield, it is recommended that you close the lower vent.
3-1. Using the air conditioning system and defogger

■ Using the automatic mode
  Fan speed is adjusted automatically in accordance with the temperature setting and ambient conditions. As a result, the following may occur.
  ● The system may switch automatically to recirculated mode when the coolest temperature setting is selected in summer.
  ● Immediately after the switch is pressed, the fan may stop for a while until warm or cool air is ready to follow.
  ● Cool air may flow to the area around the upper body when the heater is on.

■ Using the system in recirculated air mode
  The window will fog up more easily if the recirculated air mode is used for an extended period.

■ Window defogger feature
  Recirculated air mode may automatically switch to outside air mode in situations where the windows need to be defogged.

■ Outside temperature approaches 32°F (0°C).
  The air conditioning system may not operate even when the button is pressed.

■ When the indicator light on the button flashes
  Press the button and turn off the air conditioning system before turning it on once more. There may be a problem in the air conditioning system if the indicator light continues to flash. Turn the air conditioning system off and have it inspected by your Lexus dealer.

■ Automatic mode for air intake control
  In automatic mode, the system detects exhaust gas and other pollutants and automatically switches between outside air and recirculated air modes.
  When the air conditioning is OFF, and the fan is operating, turning the “AUTO” mode ON will activate the air conditioning system.
3-1. Using the air conditioning system and defogger

**CAUTION**

- To prevent the windshield from fogging up
  
  Do not use during cool air operation in extremely humid weather. The difference between the temperature of the outside air and that of the windshield can cause the outer surface of the windshield to fog up, blocking your vision.

**NOTICE**

- To prevent battery discharge
  
  Do not leave the automatic air conditioning system on longer than necessary when the engine is stopped.
3-1. Using the air conditioning system and defogger

Rear air conditioning controls

![Diagram of rear air conditioning controls]

<p>| | | | | | |</p>
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Automatic mode</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Air flow control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Fan speed control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Temperature control</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Off</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Rear air conditioning ON/OFF switch</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Using the automatic mode**

**STEP 1** Press or .

**STEP 2** Use to adjust the desired temperature.

**Adjusting the settings**

- **Adjusting the temperature setting**
  Use to adjust the desired temperature.

- **Adjusting the fan speed**
  Touch any switch of (decrease ↔ increase).
  Press to turn the fan off.
3-1. Using the air conditioning system and defogger

■ Changing the air outlets

Touch any switch of .

1. Air flows to the upper body.
2. Air flows to the upper body and feet.
3. Air flows to the feet.

arrow: warm air
arrow: cool air
3-1. Using the air conditioning system and defogger
Rear window and outside rear view mirror defoggers

These features are used to defog the rear window, and to remove raindrops, dew and frost from the outside rear view mirrors.

■ Rear window defogger switch

ON/OFF

■ Outside rear view mirror defogger switch

ON/OFF

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

⚠️ CAUTION

■ When the outside rear view mirror defoggers are on
Do not touch the rear view mirror surfaces, as they can become very hot and burn you.
3-2. Using the audio system

Audio system type (without navigation system)

 Owners of models equipped with a navigation system should refer to the “Navigation System Owner’s Manual”.

CD player with changer, cassette player and AM/FM radio.

Using cellular phones

Interference may be heard through the audio system’s speakers if a cellular phone is being used inside or close to the vehicle while the audio system is operating.
3-2. Using the audio system

<table>
<thead>
<tr>
<th>NOTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ To prevent battery discharge</td>
</tr>
<tr>
<td>Do not leave the audio system on longer than necessary with the engine off.</td>
</tr>
<tr>
<td>■ To avoid damaging the audio system</td>
</tr>
<tr>
<td>Take care not to spill drinks or other fluids over the audio system.</td>
</tr>
</tbody>
</table>
3-2. Using the audio system
Using the radio

Press ☻ or ☼ to choose either an AM or FM band.
3-2. Using the audio system

**Setting station presets (excluding XM® satellite radio)**

**STEP 1.** Search for desired stations by turning \( \text{ or pressing } \) or \( \text{ on } \).

**STEP 2.** Press and hold one of the preset stations (1 - 6) until you hear a beep.

**Scanning radio stations (excluding XM® satellite radio)**

■ **Scanning the preset radio stations**

**STEP 1.** Press and hold \( \) until you hear a beep. Preset stations will be played for a few seconds each.

**STEP 2.** When the desired station is reached, press \( \) once again.

■ **Scanning all radio stations within range**

**STEP 1.** Press \( \)

“SCAN” appears on the display and all stations with reception will be played for a few seconds each.

**STEP 2.** When the desired station is reached, press \( \) once again.

**RDS (Radio Data System)**

This feature allows your radio to receive station identification information and program information (classical, jazz, etc.) from radio stations which broadcast this information.

■ **Receiving RDS broadcasts**

**STEP 1.** Press \( \) or \( \) on the \( \) during FM reception.
The type of program changes each time the button is pressed.

- ROCK
- EASYLIS (Easy listening)
- CLS/JAZZ (Classical music and Jazz)
- R & B (Rhythm and Blues)
- INFORM (Information)
- RELIGION
- MISC (Miscellaneous)
- ALARM (Emergency messages)

If the system receives no RDS stations, “NO PTY” appears on the display.

STEP 2 Press , or or on.

The radio seeks scans the station by the relevant program type.

■ Displaying radio text messages

Press .

If MSG is shown on the display, a text message will be displayed.

If the text continues past the end of the display, ➤ is displayed. Press and hold until you hear a beep.
3-2. Using the audio system

■ Traffic announcement

Press .

“TRAF SEEK” appears on the display, and the radio will start seeking any station broadcasting traffic program information.

If no traffic program station is found, “NO TRAF INFO” appears on the display.

XM® satellite radio (if equipped)

■ Receiving XM® satellite radio

Press until “SAT” appears on the display.

The display changes as follows each time the button is pressed.

AM → SAT1 → SAT2 → SAT3

Turn to select a desired channel from all the categories or or on to select a desired channel in the current category.

■ Presetting XM® satellite radio channels

Select the desired channel. Press one of the preset stations (1 - 6) and hold until you hear a beep.

■ Changing the channel category

Press or on .
3-2. Using the audio system

■ Scanning XM® satellite radio channels
  ● Scanning channels in the current category
    
    **STEP 1** Press .
    “SCAN” appears on the display.
    
    **STEP 2** When the desired channel is reached, press the button once again.
  
  ● Scanning preset channels
    
    **STEP 1** Press until you hear a beep.
    “SCAN” appears on the display.
    
    **STEP 2** When the desired channel is reached, press the button once again.

■ Displaying text information
  Press .
  The display will show up to 10 characters.
  The display changes as follows each time the button is pressed.
  ● CH NAME
  ● TITLE (SONG/PROGRAM TITLE)
  ● NAME (ARTIST NAME/FEATURE)
  ● CH NUMBER
3-2. Using the audio system

When the battery is disconnected
All preset stations are erased.

Reception sensitivity

● Maintaining perfect radio reception at all times is difficult due to the continually changing position of the antenna, differences in signal strength and surrounding objects, such as trains, transmitters, etc.

● To maintain clear radio reception, do not attach metallic window tinting or other metallic objects to the antenna wire mounted inside the right-hand rear quarter window. Ask your Lexus dealer for details.

XM® satellite radio

The optional Lexus genuine satellite radio tuner and antenna allows you to receive and play XM satellite radio broadcasts. (Subscription is required. Not available in Hawaii and Alaska.)*

● XM® subscriptions
For detailed information about XM® satellite radio or to subscribe, visit XM® on the web at www.xmradio.com or call (800) 967-2346.

● Radio ID
You will need the radio ID when activating XM® service or reporting a problem. Select “CH000” using the , and the receiver’s 8-character ID number will appear.

● Satellite tuner
The tuner supports only Audio Services (Music and Talk) and the accompanying Text Information of XM® satellite radio.

*: Terms and services provided by XM® Radio are subject to change without notice.
### If the satellite radio does not operate normally

If a problem occurs with the XM<sup>®</sup> tuner, a message will appear on the display. Refer to the table below to identify the problem, and take the suggested corrective action.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ANTENNA</strong></td>
<td>The XM&lt;sup&gt;®&lt;/sup&gt; antenna is not connected. Check whether the XM&lt;sup&gt;®&lt;/sup&gt; antenna cable is attached securely.</td>
</tr>
<tr>
<td></td>
<td>There is a short-circuit in the antenna or the surrounding antenna cable. See a Lexus certified dealer.</td>
</tr>
<tr>
<td><strong>UPDATING</strong></td>
<td>You have not subscribed to XM&lt;sup&gt;®&lt;/sup&gt; satellite radio. The radio is being updated with the latest encryption code. Contact XM&lt;sup&gt;®&lt;/sup&gt; satellite radio for subscription information. When a contract is canceled, you can choose “CH000” and all free-to-air channels.</td>
</tr>
<tr>
<td></td>
<td>The premium channel you selected is not authorized. Wait for about 2 seconds until the radio returns to the previous channel or “CH001”. If it does not change automatically, select another channel. If you want to listen to the premium channel, contact XM&lt;sup&gt;®&lt;/sup&gt; satellite radio.</td>
</tr>
<tr>
<td><strong>NO SIGNAL</strong></td>
<td>The XM&lt;sup&gt;®&lt;/sup&gt; signal is too weak at the current location. Wait until your vehicle reaches a location with a stronger signal.</td>
</tr>
<tr>
<td><strong>LOADING</strong></td>
<td>The unit is acquiring audio or program information. Wait until the unit has received the information.</td>
</tr>
<tr>
<td><strong>OFF AIR</strong></td>
<td>The channel you selected is not broadcasting any programming. Select another channel.</td>
</tr>
<tr>
<td><strong>-----</strong></td>
<td>There is no song/program title or artist name/feature associated with the channel at that time. No action needed.</td>
</tr>
</tbody>
</table>
3-2. Using the audio system

The channel you selected is no longer available. Wait for about 2 seconds until the radio returns to the previous channel or "CH001. If it does not change automatically, select another channel.

Contact the XM® Listener Care Center at (800) 967-2346 during the following hours*.

Monday - Saturday: 6 a.m. - 2 a.m. Sunday: 8 a.m. - 8 p.m. Central Standard Time

*: Subject to change without notice.

■ Certifications for the radio tuner

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 trying one or more of the following:

● Reorienting or relocating the receiving antenna.
● Increasing the separation between the equipment and receiver.
● Connecting the equipment into an outlet on a circuit different from that to which the receiver connected.
● Consulting the dealer or an experienced radio/TV technician for help.
### Power antenna

1. **Down**
2. **Up-Max. 33.5 in. (850 mm)**

When you turn on the radio, the antenna will extend to its previous position.

---

<table>
<thead>
<tr>
<th><strong>CAUTION</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Extending the antenna</strong></td>
</tr>
<tr>
<td>Confirm that no one is close enough to get injured.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>NOTICE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>To prevent damage to the antenna</strong></td>
</tr>
<tr>
<td>Retract the antenna when entering or passing through low structures, such as a garage or an automatic car wash.</td>
</tr>
</tbody>
</table>
3-2. Using the audio system

Using the cassette player

Insert a cassette tape or press [ ] with a tape inserted.
3-2. Using the audio system

**Selecting a track**

- **Skip a number of tracks at a time.**
  
  **STEP 1** Press \( \) on \( \).  
  
  **STEP 2** Press \( \) until the number you want to skip appears.  
  
  9 tracks can be skipped at a time.

- **Rewind a number of tracks at a time.**
  
  **STEP 1** Press \( \) on \( \).  
  
  **STEP 2** Press \( \) until the number you want to rewind appears.  
  
  9 tracks can be rewound at a time.  
  
  Note that the number includes the current track.

**Using Dolby® Noise Reduction**

Press \( (\)\).  

Reduces the level of noise for tapes recorded with Dolby NR only.  

Dolby noise reduction is manufactured under license from Dolby Laboratories Licensing Corporation. DOLBY and the double-D symbol \( \) are registered trademarks of Dolby Laboratories.

**Canceling noise reduction, repeat play, rewind and fast forward**

To cancel \( (\)\) and \( (\)\) (RPT): Press the corresponding button.  

To cancel \( (\)\) and \( (\)\): Press the corresponding button or \( (\)\).

**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.
3-2. Using the audio system

■ When the cassette player does not operate correctly due to the cassette recording conditions

Forwarding to the beginning of a track, repeat, blank tape skip and fast-forward may not be possible in the following situations:

● The interval between tracks is less than 3 seconds (beginning of track and repeat playback) or less than 15 seconds (blank tape skip).

● When there is noise between 2 tracks.

● The beginning and end of subsequent tracks are not clearly defined.

■ Cleaning the cassette player

Cassette player components (heads, capstan, pinch rollers) should be cleaned at least once a month using a cleaning tape to remove dirt and dust that can easily build up.

■ Using long playing cassette tapes

Avoid using tapes with a length of more than 90 minutes, as the tape used is very thin and may become tangled in the cassette player.

⚠️ NOTICE

■ Cassette tapes that cannot be used

Do not use a cassette tape if it has been damaged or tangled or if its label is peeling off. Such tapes may affect playing speed and may also get stuck in the player.

■ Cassette player precautions

● Store cassette tapes away from direct sunlight.

● Do not insert anything other than cassette tapes into the cassette player.

● Do not apply oil to the cassette player.
3-2. Using the audio system

Using the CD player

Insert a CD or press \(\square\) with a CD inserted.
Loading a CD

■ Loading a single CD

**STEP 1** Press .

“WAIT” appears on the display.

**STEP 2** Insert a CD when the indicator on the slot turns from amber to green.

The display changes from “WAIT” to “LOAD”.

■ Loading multiple CDs

**STEP 1** Press and hold until you hear a beep.

“WAIT” appears on the display.

**STEP 2** Insert a CD when the indicator on the slot turns from amber to green.

The display changes from “WAIT” to “LOAD”.

The indicator on the slot turns to amber when the CD is inserted.

**STEP 3** Insert the next CD when the indicator on the slot turns from amber to green again.

Repeat the procedure for the remaining CDs.

To cancel the operation, press the or button. If you do not insert a CD within 15 seconds, loading will be canceled automatically.
3-2. Using the audio system

**Ejecting CDs**

- **Ejecting a CD**
  
  **STEP 1** To select the CD to be ejected, press (˅) or (˄).
  
  The number of the CD selected is shown on the display.

  **STEP 2** Press and remove the CD.

- **Ejecting all CDs**

  Press and hold until you hear a beep, then remove the CDs.

**Selecting, fast forwarding and scanning tracks**

- **Selecting a track**

  Press ˅ to move up ˄ to move down using until the desired track number appears on the display.

  To fast forward or rewind, press and hold (►) or (◄).

- **Scanning a CD**

  **STEP 1** Press .
  
  “SCAN” appears on the display.
  
  The first 10 seconds of each track will be played.

  **STEP 2** Press once again when the desired track is reached.
3-2. Using the audio system

**Selecting a CD**

■ To select a CD to play
Press \( \uparrow \) or \( \downarrow \) until the desired CD number appears on the display.

■ To scan loaded CDs
**STEP 1** Press and hold \( \uparrow \) until you hear a beep. The first 10 seconds of the first track on each CD will be played.
**STEP 2** Press \( \uparrow \) once again when the desired CD is reached.

**Random playback**

■ Current CD
Touch \( \uparrow \) (RAND).
Tracks are played in random order until the button is pressed once again.

■ All CDs
Press and hold \( \uparrow \) (RAND) until you hear a beep.
Tracks on all loaded CDs are played in random order until the button is pressed once again.

**Repeating a track or a disc**

■ Repeating a track
Press \( \uparrow \) (RPT).

■ Repeating a disc
Press and hold \( \uparrow \) (RPT) until you hear a beep.
Switching the display

Press .

Each time the button is pressed, the display changes in the order of Track no./ Elapsed time → CD title → Track name.

■ Canceling random, repeat and scan playback

Press  (RAND),  (RPT), or  once again.

■ When LOAD, ERROR or WAIT is shown on the display

LOAD: This indicates that the CD player has completed loading the CD.

ERROR: This indicates a trouble either in the CD or inside the player. The CD may be dirty, damaged, or inserted up-side down.

WAIT: Operation is stopped due to a high temperature inside the player. Wait for a while and then press . Contact your Lexus dealer if the CD still cannot be played back.

■ CD compatibility

Only music and other audio CDs with the mark shown at left can be used. CD-Rs, CD-ROMs and CDs with copy-protect features cannot be used.

■ CD player protection feature

To protect the internal components, playback is automatically stopped when a problem is detected.

■ If CDs are left inside the CD player or in the ejected position for extended periods

CDs may be damaged and may not play properly.

■ Lens cleaners

Do not use lens cleaners. Doing so may damage the CD player.
■ Discs and adapters that cannot be used

Do not use the following types of CDs, 3 in. (8 cm) CD adapters or dual discs. Doing so may damage the player and render the CD insert/eject function unusable.

- CDs that have a diameter that is not 4.7 in. (12 cm).

- Low-quality and deformed CDs.

- CDs with a transparent or translucent recording area.

- CDs that have tape, stickers or labels attached to them, or that have the label peeled off.
### NOTICE

**Player precautions**

Failure to follow the precautions below may result in damage to the CDs or the player itself.

- Do not insert anything other than CDs into the CD slot.
- Do not apply oil to the player.
- Store CDs away from direct sunlight.
- Never try to disassemble any part of the player.
- Do not insert more than one CD at a time.
3-2. Using the audio system

**Optimal use of the audio system**

Using the ADUDIO CONTROL function

### Changing modes

Pressing selects the mode to be change in the following order:

BAS → MID → TRE → FAD → BAL → ASL

1. Displays the current mode.
2. Changes the following settings.
   - Sound quality and volume balance.
   - The sound quality and balance setting can be changed to produce the best sound.
   - Automatic Sound Levelizer ON/OFF
### Adjusting sound quality

Turning adjusts the level.

<table>
<thead>
<tr>
<th>Sound quality mode</th>
<th>Mode displayed</th>
<th>Level</th>
<th>Turn to the left</th>
<th>Turn to the right</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-pitched tones*</td>
<td>BAS</td>
<td>-5 to 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mid-pitched tones*</td>
<td>MID</td>
<td>-5 to 5</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>High pitched tones*</td>
<td>TRE</td>
<td>-5 to 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front/rear volume balance</td>
<td>FAD</td>
<td>F7 to R7</td>
<td>Shifts to rear</td>
<td>Shifts to front</td>
</tr>
<tr>
<td>Left/right volume balance</td>
<td>BAL</td>
<td>L7 to R7</td>
<td>Shifts to left</td>
<td>Shifts to right</td>
</tr>
</tbody>
</table>

*: The sound quality level is adjusted individually in each radio, cassette tape or CD mode.

### Adjusting the Automatic Sound Levelizer (ASL)

Turning to the right turns ON the ASL, and turning to the left turns OFF the ASL.

ASL automatically adjusts the volume and tone quality according to the noise level as you drive your vehicle.
3-2. Using the audio system

Using the steering switches

Some audio features can be controlled using the switches on the steering wheel.

1. Volume
2. Radio: Select radio stations
   Cassette: Fast forward, rewind and selecting tracks
   CD: Select tracks and discs
3. DVD*: Select tracks, discs and chapter
4. Power on, select audio source
   *: If equipped

- **Turning on the power**
  
  Press \( \square \) when the audio system is turned OFF.

- **Changing the audio source**
  
  Press \( \triangle \) when the audio system is turned ON. The audio source changes as follows each time the button is pressed. If a cassette tape or CD is not inserted, that mode will be skipped.
  
  Vehiciles with CD player:
  
  \[ FM(1, 2) \rightarrow \text{cassette player} \rightarrow \text{CD player} \rightarrow \text{AM} \rightarrow \text{SAT (1, 2, 3)} \]

  Vehiciles with DVD player:
  
  \[ FM(1, 2) \rightarrow \text{cassette player} \rightarrow \text{DVD player} \rightarrow \text{AM} \rightarrow \text{SAT (1, 2, 3)} \]
3-2. Using the audio system

**Adjusting the volume**

Press “+” on to increase the volume and “-” to decrease the volume.

Hold down the button to continue increasing or decreasing the volume.

**Selecting a radio station**

1. **STEP 1** Press to select the radio mode.
2. **STEP 2** Press or on to select a radio station.
   - To scan for receivable stations, press and hold the switch until you hear a beep.
   - To step up or down the frequency, press and hold the switch ever after you hear a beep.

**Fast forwarding or rewinding the cassette**

1. **STEP 1** Press to select the cassette mode.
2. **STEP 2** Press and hold or on until you hear a beep.
   - To stop fast forwarding or rewinding, press the same switch.

**Selecting a track or chapter (DVD mode only for chapter selection)**

1. **STEP 1** Press to select the cassette mode, CD or DVD mode.
2. **STEP 2** Press or on to select the desired track or chapter.
   - Cassette mode only: you can skips maximum 9 tracks.
3-2. Using the audio system

Selecting a disc in the CD or DVD player

**STEP 1** Press to select the CD or DVD player.

**STEP 2** Press and hold or on until you hear a beep.

⚠️ **CAUTION**

- **To reduce the risk of an accident**
  - Exercise care when operating the audio switches on the steering wheel.
Rear seat audio system is designed for the rear passengers to enjoy a different audio mode from the one used on the front audio system*.

*: Vehicles with navigation system only — When the XM® satellite radio is selected in the front seat audio system, the “CD” or “DVD” mode cannot be selected in the rear seat audio system.

### Turning on the power and selecting audio source

- **Power**
  - Press the button when the rear seat audio system is turned OFF.
  - This system cannot be turned on if the front seat audio system is not turned on.

- **Changing the audio source**
  - Press the button when the rear seat audio system is turned ON. Pressing the button changes the audio source.
3-2. Using the audio system

**Adjusting the volume**

Turn \( \rightarrow \) to the right to increase the volume and left to decrease the volume.

**Selecting a radio station**

**STEP 1.** Press \( \text{SOURCE} \) to select the radio mode.

**STEP 2.** Press \( \text{AM/FM} \) to select the preferred radio station.

If \( \) is pressed and held until a beep is heard, the audio system automatically searches for a receivable frequency. If the button is pressed briefly, the system steps up or down to another frequency.

**Finding the start of the next track/fast forward and rewind**

**STEP 1.** Press \( \text{SOURCE} \) to select the cassette mode.

**STEP 2.** Press \( \) to skip to the beginning of the next track, or return to the beginning of the track currently being played.

9 tracks can be played back in this manner, including the track currently being listened to.

If \( \) is depressed, the audio system changes playback direction.
Selecting a CD track or CD

■ Selecting a track

STEP 1 Press \( \text{CD} \) to select the CD mode.

STEP 2 Press \( \text{TRACK} \) to select the desired track.

Press and hold \( \text{SEC/REV} \) to fast forward or rewind.

■ Selecting a CD

STEP 1 Press \( \text{CD} \) to select the CD mode.

STEP 2 Press \( \text{CD} \) to select the desired CD.
### 3-3. Using the interior lights

#### Interior lights list

Illuminated entry system: The various lights automatically turn on/off whether the doors are locked/unlocked and whether the doors are open/closed.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Running board lights</td>
</tr>
<tr>
<td>2</td>
<td>Vanity lights</td>
</tr>
<tr>
<td>3</td>
<td>Front personal lights (→ P. 213)</td>
</tr>
<tr>
<td>4</td>
<td>Rear personal lights (→ P. 213)</td>
</tr>
<tr>
<td>5</td>
<td>Front interior light (→ P. 213)</td>
</tr>
<tr>
<td>6</td>
<td>Rear interior light (→ P. 213)</td>
</tr>
<tr>
<td>7</td>
<td>Door courtesy lights</td>
</tr>
<tr>
<td>8</td>
<td>Glove box light</td>
</tr>
</tbody>
</table>

---

**Customization**

Setting (e.g. The time elapsed before lights turn off) can be changed. (→ P. 389)
3-3. Using the interior lights

**Interior lights**

**Front**

1. “ON”
2. “OFF”
3. “DOOR”

**Rear**

1. “DOOR”
2. “OFF”
3. “ON”

The interior lights are turned on/off by the illuminated entry system.

**Personal lights**

**Front**

1. “ON”
2. “OFF”
3-3. Using the interior lights

Rear

1 “ON”
2 “OFF”
3-4. Using the storage features

List of storage features

1. Card holder
2. Overhead console
3. Cup holders
4. Console box
5. Glove box
### 3-4. Using the storage features

#### Glove box

1. Open (pull lever)
2. Unlock with the master key
3. Lock with the master key

#### Glove box light

The glove box light turns on when the tail lights are on.

---

**CAUTION**

#### While driving

Keep the glove box closed.
Injuries may result in the event of an accident or sudden braking.

#### Console box

1. Upper box: Press the tab to open
2. Lower box: Lift the lever to open
Overhead console (if equipped)

The overhead console is useful for temporarily storing sunglasses and similar small items.

**CAUTION**

- While driving
  Keep the console box closed.
  Injuries may result in the event of an accident or sudden braking.

**CAUTION**

- Items that should not be left in the overhead console
  Do not leave glasses or lighters in the console.
  If the interior of the vehicle becomes hot, lighters may explode and glasses may warp or become cracked.

- While driving
  Do not leave the overhead console open. Items may fall out and cause injury.
Cup holders

■ Front

To open, press down and release the cup holder lid.

You can adjust or remove the separator inside.

1 Pull down the knob so that the cup holder swings down.
2 Push down the cup holder with holding the console box lid.

■ Rear

Rear end of the rear console

To open, press in and release the cup holder lid.
3-4. Using the storage features

► Left-side trim panel near the third seat

To open, pull out the cup holder lid.

► Right-side trim panel near the third seat

CAUTION

■ Items unsuitable for the cup holder
Do not place anything other than cups or aluminum cans in the cup holders. Other items may be thrown out of the holders in the event of an accident or sudden braking and cause injury. If possible, cover hot drinks to prevent burns.

■ When not in use
Keep the cup holders closed. Injuries may result in the event of an accident or sudden braking.
3-4. Using the storage features

Card holder
3-5. Other interior features

Sun visors

1. Forward position: Flip down.
2. Side position: Flip down, unhook, and swing to the side.
3. Side extender: Place in side position, then slide backwards.
4. Forward position with the sun visor in the position 2 or 3: Flip down
3-5. Other interior features
Vanity mirror

The light turns on when the cover is opened.
3-5. Other interior features

Clock

- Adjust clock

1. Adjust hours.
2. Adjust minutes.
3. Round the nearest hour.*
   *: e.g. 1:00 to 1:29 →1:00
   1:30 to 1:59 →2:00

- The clock is displayed when
  The ignition key is in the “ACC” or “ON” position.

- When the battery is disconnected
  The time display will automatically be set to 1:00.
3-5. Other interior features
Outside temperature display

The displayed temperature ranges from -22°F (-30°C) up to 122°F (50°C).

- Operating conditions
  The ignition key is in the “ON” position.
- When --- is displayed
  The system may be malfunctioning. Take your vehicle to your Lexus dealer.
3-5. Other interior features
Ashtrays

Front
Press in and release the lid to open.
Press down on the lock spring plate to remove.
Push the lid to close.

Rear
Pull the ashtray lid to open.
Pull the ashtray upwards to remove.
Pull the ashtray lid to open.
Pull out the ashtray with pressing on the snuffer bridge to remove.
<table>
<thead>
<tr>
<th><strong>CAUTION</strong></th>
</tr>
</thead>
</table>
| ■ When not in use  
  Keep the ashtray closed.  
  Injuries may result in the event of an accident or sudden braking. |

<table>
<thead>
<tr>
<th><strong>NOTICE</strong></th>
</tr>
</thead>
</table>
| ■ To prevent fire  
  • Fully extinguish matches and cigarettes before putting them in the ashtray, then make sure the ashtray is fully closed.  
  • Do not place paper or any other type of flammable object in the ashtray. |
3-5. Other interior features

Cigarette lighter

The cigarette lighter can be used when
The ignition key is in the “ACC” position.

**CAUTION**

- To avoid burns or fires
  - Do not touch the metal parts of the cigarette lighter.
  - Do not hold the cigarette lighter down. It could overheat and cause a fire.
  - Do not insert anything other than the cigarette lighter into the outlet.

Push the cigarette lighter in.
The cigarette lighter will pop up when ready for use.
3-5. Other interior features

Power outlet

The power outlet can be used for 12V accessories that run on less than 10A.

- Instrument panel

- Console box (without Navigation System)

- Console box (with Navigation System)
Luggage compartment

The power outlet can be used when
The ignition key is in the “ACC” or “ON” position.

NOTICE

To avoid damaging the power outlet
Close the power outlet lid when not in use.
Foreign objects or liquids that enter the power outlet may cause a short circuit.

To prevent the fuse from being blown
Do not use an accessory that uses more than 12V/10A.

To prevent battery discharge
Do not use the power outlet longer than necessary when the engine is not running.
3-5. Other interior features
Seat heaters

The seat heaters can be used when
The ignition key is in the “ON” position.

CAUTION

Burns
- Use caution when seating the following persons in a seat with the seat heater on to avoid the possibility of burns:
  - Babies, small children, the elderly, the sick and the disabled
  - Persons with sensitive skin
  - Persons who are fatigued
  - Persons who have taken alcohol or drugs that induce sleep (sleeping drugs, cold remedies, etc.)
- Do not cover the seat with anything when using the seat heater. Using the seat heater with a blanket or cushion increases the temperature of the seat and may lead to overheating.
3-5. Other interior features

⚠️ NOTICE

- **To prevent seat heater damage**
  - Do not put unevenly weighted objects on the seat and do not stick sharp objects (needles, nails, etc.) into the seat.

- **To prevent battery discharge**
  - Turn the switches off when the engine is not running.
3-5. Other interior features

Coat hooks

Press in and release the hook to use.

---

⚠️ CAUTION

- **Items that must not be hung on the hook**

  Do not hang a coat hanger, other hard or sharp object on the hook. If the side curtain airbags deploy, there items may become projectiles that cause death or serious injury.
3-5. Other interior features

Armrest

Pull the armrest down for use.

⚠️ NOTICE

- To prevent damage to the armrest
  - Do not place too much strain on the armrest.
3-5. Other interior features

Floor mats

Securely place a mat that matches the size of the space on the carpet.

Secure the floor mat using the hooks provided.

⚠️ CAUTION

■ When inserting the floor mat
Make sure the floor mat is properly placed on the vehicle carpet. If the floor mat slips and interferes with the movement of the pedals during driving, it may cause an accident.
3-5. Other interior features

Luggage compartment features

- **Tie-down hooks**
  
  Tie-down hooks are provided for securing loose items.

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

  The cargo net itself is not included as an original equipment.

- **Warning reflector holder**
  
  Hold the warning reflector with a band.

  The warning reflector itself is not included as an original equipment.
3-5. Other interior features

■ First-aid kit holder

Hold the first-aid kit with a band. The first-aid kit itself is not included as an original equipment.

⚠️ NOTICE

■ To prevent damage to the cargo net hooks

Avoid hanging things other than a cargo net on it.
3-5. Other interior features

Garage door opener

The garage door opener can be programmed to operate garage doors, gates, entry doors, door locks, home lighting systems, and security systems, and other devices.

The garage door opener (HomeLink® Universal Transceiver) is manufactured under license from HomeLink®.

Programming the HomeLink® (for U.S.A. owners)

The HomeLink® compatible transceiver in your vehicle has 3 buttons which can be programmed to operate 3 different devices. Refer to the programming method below appropriate for the device.

<table>
<thead>
<tr>
<th>Buttons</th>
<th>Indicator</th>
</tr>
</thead>
</table>

**Programming the HomeLink®**

**STEP 1**

Point the remote control for the device 1 to 3 in. (25 to 75 mm) from the HomeLink® control buttons.

Keep the indicator light on the HomeLink® in view while programming.
3-5. Other interior features

Press and hold down one of the buttons on the HomeLink® and the button on the transmitter. When the indicator light on the HomeLink® changes from a slow to a rapid flash after 20 seconds, you can release both buttons.

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, see 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 for 2 seconds and then remains lit. If your transmitter is the Rolling Code type, proceed to the heading “Programming a rolling code system”.

Repeat the steps above to program another device for each of the remaining HomeLink® buttons.
Programming a Rolling Code system (for U.S.A. owners)

If your device is Rolling Code equipped, follow the steps under the heading “Programming the HomeLink®” before proceeding with the steps listed below.

**STEP 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 operation manual supplied with the garage door opener for the location of the training button.

**STEP 2** Press the training button.

**STEP 3** Press and release the vehicle’s programmed HomeLink® button twice. The garage door may open.

If the garage door opens, 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® transceiver and operate the garage door.

**STEP 4** Repeat the steps above to program another rolling code system for any of the remaining HomeLink® buttons.

Programming an entry gate (for U.S.A. owners)/Programming all devices in the Canadian market

**STEP 1** Place your transmitter 1 to 3 in. (25 to 75 mm) away from the surface of the HomeLink®.

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

**STEP 2** Press and hold the selected HomeLink® button.

**STEP 3** Repeatedly press and release (cycle) the device’s remote control button for two seconds each until step 4 is complete.

**STEP 4** When the indicator light on the HomeLink® compatible transceiver start to flashing rapidly, release the buttons.
3-5. Other interior features

**STEP 5** Test the operation of the HomeLink® by pressing the newly programmed button. Check to see if the gate/device operates correctly.

**STEP 6** Repeat the steps above to program another device for each of the remaining HomeLink® buttons.

**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**

The individual HomeLink® buttons cannot be erased but can be reprogrammed. To reprogram a button, follow the “Programming the HomeLink®” instructions.

**Operating the HomeLink®**

Press the appropriate HomeLink® button. The HomeLink® indicator light on the HomeLink® transceiver should turn on.

The HomeLink® continues to send a signal for up to 20 seconds as long as the button is pressed.

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

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.
Before programming

- Install a new battery in the transmitter.
- The battery side of the transmitter must be pointed away from the HomeLink®.

Certification for the garage door opener

This device complies with Part 15 of the FCC Rules and with RSS-210 of the IC 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.

WARNING: This transmitter has been tested and complies with FCC and IC rules. Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the device.

CAUTION

- When programming a garage door or other remote control device
  The garage door may operate, so ensure people and objects are out of danger to prevent potential harm.

- Conforming to federal safety standards
  Do not use the HomeLink® compatible transceiver with any garage door opener or device that lacks safety stop and reverse features as required by federal safety standards.
  This includes any garage door that cannot detect an obstruction object. A door or device without these features increases the risk of death or serious injury.
The compass on the inside rear view mirror indicates the direction in which the vehicle is heading.

**Operation**

To turn the compass on or off, push “AUTO” for longer than 3 seconds.

**Displays and directions**

<table>
<thead>
<tr>
<th>Display</th>
<th>Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>North</td>
</tr>
<tr>
<td>NE</td>
<td>Northeast</td>
</tr>
<tr>
<td>E</td>
<td>East</td>
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<td>SE</td>
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<td>SW</td>
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<tr>
<td>W</td>
<td>West</td>
</tr>
<tr>
<td>NW</td>
<td>Northwest</td>
</tr>
</tbody>
</table>
Calibrating the compass

The direction display 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.

If you cross over a map boundary shown in illustration, the compass will deviate.
To obtain higher precision or perfect calibration, refer to the following.

■ Deviation calibration

**STEP 1** Stop the vehicle where it is safe to drive in a circle.

**STEP 2** Press “AUTO” until a number (1 to 15) appears on the compass display.

**STEP 3** Press “AUTO”, and referring to the map above, select the number of the zone where you are.
3-5. Other interior features

**STEP 4** Wait a few seconds until the compass direction is displayed. The calibration is complete.

**Circling calibration**

If “C” appears on the display, drive the vehicle at 5 mph (8 km/h) or less in a circle until a direction is displayed.

If there is not enough space to drive in a circle, drive around the block until the direction is displayed.

**Conditions unfavorable to correct operation**

The compass may not show the correct direction in the following conditions:

- The vehicle is stopped 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 car park/parking lot, under a steel tower, between buildings, roof car park/parking lot, near an intersection, near a large vehicle, etc.).
- The vehicle has become magnetized.
  (There is a magnet or metal object near the inside rear view mirror.)
- The battery has been disconnected.
- A door is open.
### CAUTION

- **While driving**
  - Do not adjust the display.
  - Be sure to adjust the display only when the vehicle is stopped.
- **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.

### NOTICE

- **To avoid the compass malfunctions**
  - Do not place magnets or any metal objects near the inside rear view mirror.
  - Doing this may cause a malfunction of the compass sensor.
- **To ensure normal operation of the compass**
  - 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.
  - During calibration, do not operate electric systems (moon roof, power windows, etc.) as they may interfere with the calibration.
3-5. Other interior features
Lexus Link System (if equipped)

The Lexus Link System is a communication service that uses Global Positioning System (GPS) data and cellular service to provide you with safety, security and convenience. This system is only operational in GPS and cellular coverage areas. Button operation and voice commands are used to operate the system. To operate the system, follow the voice guidance instructions. For details about service and subscription, call the Lexus Link Call Center at 1-800-25-LEXUS (1-800-255-3987) (toll-free).

■ Buttons

1. Voice keypad button
2. Volume control
3. Phone button
4. "SERVICES" button
5. Emergency button

■ Services

The Lexus Link System offers the following services.

- Airbag deployment notification (→P. 248)
- Emergency assistance (→P. 248)
- Stolen vehicle location assistance (→P. 249)
- Remote horn/lights and remote door lock/unlock (→P. 249)
- Advisor record (→P. 250)
- Personal calling (→P. 250)
- Other services (→P. 249)

Operating the Lexus Link System during a Bluetooth® phone call will terminate the Bluetooth phone call.
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 installed in your vehicle is a low power ratio transmitter and receiver. When the ignition switch is in the “ON” position, it receives and also sends 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.

- ICNIRP (International Commission on Non-Ionizing Radiation Protection) [1996]

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.
3-5. Other interior features

### Indicator and warning lights

<table>
<thead>
<tr>
<th>Operation indicator light</th>
</tr>
</thead>
<tbody>
<tr>
<td>If your subscription has expired, the operation indicator light will go off.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Warning light</th>
</tr>
</thead>
<tbody>
<tr>
<td>If the warning light (red light) comes on, have the vehicle inspected by your Lexus dealer.</td>
</tr>
</tbody>
</table>

### Airbag deployment notification

If an airbag deploys, an emergency call is automatically placed to the Lexus Link Call Center, and your vehicle's location is identified. The Lexus Link Advisor will attempt to contact you and assess the situation. The Advisor can quickly contact the nearest emergency services provider, describe the situation and request that assistance be sent to your location.

The Lexus Link Advisor can, if requested, connect you to an emergency services operator.

### Emergency assistance

When you press the button, a priority call is placed to the Lexus Link Call Center with your vehicle's location. At the Call Center, the Lexus Link Advisor can determine your vehicle's location, communicate with you, and, if appropriate, contact the nearest emergency service provider.

If you have accidentally pressed the button, tell the Lexus Link Advisor that you are not experiencing an emergency.
Stolen vehicle location assistance

If your vehicle is stolen, call the Lexus Link Call Center at 1-800-25-LEXUS (1-800-255-3987) (toll-free) and select the option for Lexus Link.

To protect subscribers’ privacy, the location of a vehicle will not be provided to anyone other than a law enforcement authority.

Remote horn/lights and remote door lock/unlock

The remote operations are performed by contacting the Lexus Link Call Center from the outside of the vehicle. When necessary, call the Lexus Link Call Center at 1-800-25-LEXUS (1-800-255-3987) (toll-free) and select the option for Lexus Link.

● In the case that you forget to lock the vehicle or you are locked out, the Lexus Link Call Center can send a signal to lock or unlock the vehicle remotely.

● In the case that you forget where you parked the vehicle, such as in a large parking lot, the Lexus Link Call Center can send a signal to flash the headlights and sound the horn to help you locate the vehicle.

When contacting the Lexus Link Call Center from the outside of the vehicle, you need the Lexus Link PIN (Personal Identification Number). Write the PIN down and carry it with you.

Other services

Press the button in the vehicle or call the Lexus Link Call Center at 1-800-25-LEXUS (1-800-255-3987) (toll-free), and then select the option for Lexus Link. The services provided will depend on the service plan level.
3-5. Other interior features

**Advisor record**

**Recording a conversation with an advisor**

Press the button to record a conversation. To stop recording, press the button again.

- Up to 2 minutes of recording time is available.
- Recording a new conversation deletes the previously recorded conversation.

**Playing the recorded conversation**

*STEP 1* Press the or button.

*STEP 2* Say “Advisor playback”.

Press the button again to stop the playback.

To restart the playback, press the button, say “Advisor playback” and then select either of the following methods.

- Say “Resume” to resume the playback.
- Say “Play” to start from the beginning.

**Personal calling**

The hands-free personal calling feature can be added to the Lexus Link System as an option. You can purchase a package of minutes that works best for you. As you make and receive calls, minutes are deducted from your plan. They are easily billed to a credit card that is kept on file so no separate phone bill is needed.

Personal calling universal voice recognition commands:

- “Help” The system will provide a list of available commands.
- “Clear” When you are entering digits, this command will erase the last digit entered.
- “Cancel” This command takes you from the current function to the “Lexus Link ready” prompt. If the last response from the system was “Lexus Link ready”, this command will exit voice mode.
Voice recognition error message:

- **“Pardon”** The system responds with this message if the system does not recognize your voice command properly. Say the command slowly again. After the third time this happens, the system will try to guess the command you are requesting. If correct, say “Yes”. If not, say “No”, and the system will prompt you with its next-best guess.

- **“Slower please”** The system responds with this message if you say a command before the system is ready to listen or if your voice command cannot be recognized because of substantial background noise. Try to wait slightly longer before speaking.

■ There are 5 ways to make a call.

► Dialing a specific number

**STEP 1** Press the button. When the system responds with “Lexus Link ready”, say “Dial”.

**STEP 2** When the system responds with “Phone number to dial please”, say the entire number you wish to dial without pausing.

**STEP 3** The system will repeat the number and ask “Yes or No”.

**STEP 4** Say “Yes” (or “No” to try again).

**STEP 5** The system responds with “Dialing” (your call will then be connected).

► Dialing digit-by-digit (“Digit Dial”)

“Digit Dial” enables you to dial a phone number by individual digit. This is helpful when there is background noise and also improves voice recognition.

**STEP 1** Press the button. When the system responds with “Lexus Link ready”, say “Digit dial”.

**STEP 2** When the system responds with “Digit please”, say the first digit of the number to be dialed and wait for it to be repeated back to you.

**STEP 3** Continue one digit at a time until all digits are entered.
3-5. Other interior features

**STEP 4** When finished, say “Dial”. The system responds with “Dialing” and your call is placed.

If you have problems storing a number using the continuous number method, you can store numbers one digit at a time using “Digit Store”. Simply follow the instructions above for “Digit Dial”, except say “Digit Store” in STEP 1 and “Store” in STEP 4.

▲ Dialing a phone number saved as a nametag

A nametag is a convenient way to store important or frequently called phone numbers for easy access at any time. To do this, choose a frequently-called number to store, the example below uses your home telephone number.

● How to store a nametag

**STEP 1** Press the button. When the system responds with “Lexus Link ready”, say “Store”.

**STEP 2** When the system responds with “Phone number to store, please”, say the entire number you wish to store with no pauses. The system will repeat the number and ask “Yes or No”.

**STEP 3** Say “Yes” (or “No” to try again).

**STEP 4** When the system responds with “Nametag, please”, say “home”.

**STEP 5** When the system responds with “About to store home. Does that sound OK?”, say “Yes” (or “No” to try again).

**STEP 6** The system responds with “Storing home”.

- The system can store up to 20 nametags.
- Try to use multi-syllable nametags such as “my home”, and “the office”.
- Try to avoid similar-sounding nametags like “Tim” and “Kim”.

When using the “Dial” and “Store” commands, the system will recognize 7, 10, and 11-digit phone numbers. When dialing or storing a phone number, you can say “zero” or “oh” for 0.
3-5. Other interior features

● How to place a call using a stored nametag

**STEP 1** Press the ☉ button. When the system responds with “Lexus Link ready”, say “Call”.

**STEP 2** When the system responds with “Nametag, please”, say the stored nametag.

**STEP 3** The system responds with “Calling [nametag]”.

● How to hear a list of your stored nametags

**STEP 1** Press the ☉ button. When the system responds with “Lexus Link ready”, say “Directory”.

**STEP 2** The system will list your nametags.

► Dialing the last number you called ("Redial")
You can dial the last number you called by using the “Redial” feature.

**STEP 1** Press the ☉ button. When the system responds with “Lexus Link ready”, say “Redial”.

**STEP 2** The system will respond with “Redialing [#]”.

► Dialing a number a Lexus Link Advisor downloaded to your vehicle

**STEP 1** Press the ☉ button. When the system responds with “Lexus Link ready”, say “Number recall”.

**STEP 2** The system will respond with “Connecting to number recall”.

■ Receiving a call
When someone calls you, you will hear a ring tone. Press the ☉ button to answer the call.

If you do not answer within 30 seconds, the system will terminate the incoming call.

■ Ending a call
When your call is finished, press the ☉ button to end the call.
3-5. Other interior features

- **Accessing voice mail and sending number tones to an automated phone system**

  You can access a voice mail system and respond to a number request from an automated phone system. When you receive the request for a number while in a call, press the \( \text{button} \) after saying the numbers one at a time, say “Dial”.

  If you do not say any commands within 5 seconds after pressing the button, or if you press the button twice, the system cannot receive the number tones you are trying to send. Press the button to try again.

- **How to retrieve your phone number**

  **STEP 1** Press the \( \text{button} \). When the system responds with “Lexus Link ready”, say “My number”.

  **STEP 2** The system responds with “Your number is [#]”. If the response is “Personal calling unavailable”, this means your personal calling feature is not yet active, this may take a few days from vehicle delivery. It could also mean that the personal calling service is not available in your area. Press the \( \text{button} \) to check with an Advisor. Now that you have your number, take a moment to practice by making your first call to your home phone. Remember, the system recognizes numbers better when you say them quickly.
3-5. Other interior features

- Verifying remaining units (minutes)
  - To verify remaining minutes
    **STEP 1** Press the button. When the system responds with “Lexus Link ready”, say “Units”.
    **STEP 2** When the system responds with “Verify or add”, say “Verify”.
    **STEP 3** The system responds with “You have [#] units remaining”.
  - To add more calling units (minutes)
    **STEP 1** Press the button. When the system responds with “Lexus Link ready”, say “Units”.
    **STEP 2** When the system responds with “Verify or add”, say “Add”.
    **STEP 3** The system responds with “Connecting to the Personal Calling Center”.

- Security code/locking your system
  The personal calling function can be locked using a 4-digit security code. While the system is locked, it is only possible to communicate with the Lexus Link Call Center.

  To turn on/off the security
    **STEP 1** Press the button. When the system responds with “Lexus Link ready”, say “Security”.
    **STEP 2** When the system responds with “Enter first digit of code please”, say your 4-digit code one digit at a time.
    **STEP 3** After the fourth digit, the system responds with “Security (code ####) is now on/off”.
Speech recognition information

The Lexus Link speech recognition systems use speech technology that is designed to understand a wide range of speakers of American English. However, the technology may not work as well if a regional or ethnic accent is encountered. If the speech recognition system does not work properly, refer to the following.

● The system does not recognize your command properly if noise is preset. Perform the following to improve voice command recognition.
  • Turn down or off the air conditioning system.
  • Slow down to reduce wind noise.
  • Close the windows and the moon roof to block outside noise.
  • Have all occupants be quiet so that the system does not recognize their conversation as a command.

● When to speak
Say a command within 5 seconds after the system prompts you to speak.

● How to speak
  • Speak forcefully and clearly.
  • Speak calmly and naturally.
  • The driver should speak while facing forward, and the passenger should speak facing the inside rear view mirror.
  • Avoid speaking with a rising intonation. Use a flat or falling intonation.

● Tips for one-word commands
  • The system recognizes only one word at a time for personal calling. (There are some exceptions, such as “Advanced services” and “My number”.)
  • When inputting the security codes or voice-activated keypad number, you must say them one digit at a time. When inputting a phone number, the speech recognition system can recognize 7, 10, and 11-digit numbers as well as the number 911.
• Tips for entering a phone number using the “Dial” and “Store” commands
  • You do not need to say “Dial”, “Store” or “Verify” after the phone number.
  • If the phone number entered is not 7, 10, or 11 digits, use the “Dial” or “Store” command.
  • Do not pause between the digits.
  • Speech recognition does not recognize the words “Hundred” or “Thousand”. Instead, say each digit.
  • Speech recognition often works better when the digits are combined smoothly into a single phrase.
  • If the system does not recognize your command properly, use the “Digit dial” command to enter one digit at a time.

• If problems continue
  • Say each one of the syllables in the word clearly.
  • Be sure to articulate each sound in the word.
  • If the system is confusing 2 commands that are similar, be sure to pronounce the distinction.
  • Avoid clipping short words and syllables.
  • Try speaking louder to prevent background noise from drowning out your voice.

• Audible voice prompts
  Some of the voice guidance instructions can be changed to Spanish. Press the button and ask a Lexus Link Advisor.

■ Information on Advanced services
  See the Lexus Link area of the Lexus website at www.lexus.com/lexuslink/ or call the Lexus Link Call Center at 1-800-25-LEXUS (1-800-255-3987)(toll-free) for more information.

■ Certification for the Lexus Link System

FCC ID: SCWTR-423-A2

NOTE:
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.
3-5. Other interior features

- **Lexus Link transceiver antenna**

  - Before using 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**

- **FCC WARNING**

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

  Radio Frequency Exposure. This device is approved for Mobile Application only and, to comply with applicable FCC radio frequency exposure regulations, must be used with a distance of at least 7.9 in. (20 cm) between the antenna and the body of any person at all time during use.

- **Caution regarding interference with electronic devices**

  Persons using medical devices such as a pacemaker should not touch or come in close contact with the antenna while the vehicle ignition is on. Otherwise, the cellular signals may cause a malfunction in the medical devices.

**NOTICE**

- **To avoid damage to the system**

  - Do not touch the antenna unless necessary, as this may affect transceiver quality and may cause the unit to operate at a higher power level than necessary.

  - Make sure the antenna is removed before driving through an automatic car wash.

- **To ensure the Lexus Link System functions correctly**

  Be sure to reattach the Lexus Link transceiver antenna.
4-1. Maintenance and care 260
  Cleaning and protecting the vehicle exterior 260
  Cleaning and protecting the vehicle interior 262

4-2. Maintenance 265
  Maintenance requirements 265
  General maintenance 267
  Emission inspection and maintenance (I/M) programs 270

4-3. Do-it-yourself maintenance 271
  Do-it-yourself service precautions 271
  Hood 275
  Engine compartment 276
  Tires 292
  Tire inflation pressure 302
  Wheels 306
  Air conditioning filter 308
  Wireless remote control battery 309
  Checking and replacing fuses 311
  Light bulbs 320
4-1. Maintenance and care

Cleaning and protecting the vehicle exterior

Perform the following to protect the vehicle and maintain it in prime condition.

- Working from top to bottom, liberally apply water to the vehicle body, wheel wells and underside of the vehicle to remove any dirt and dust.
- Wash the vehicle body using a sponge or soft cloth, such as a chamois.
- For hard-to-remove marks, use car wash soap and rinse thoroughly with water.
- Wipe away any water.
- If water no longer beads on clean paint, apply wax when the vehicle body is cool.

- **Automatic car washes**
  - Fold the mirrors back and retract the antenna before washing the vehicle.
  - Brushes used in automatic car washes may scratch the vehicle surface and harm your vehicle's paint.

- **High pressure automatic car washes**
  - Do not allow the nozzles of the car wash to come within close proximity of the windows. Before entering an automatic car wash, check that the fuel filler door is closed.

- **Aluminum wheels**
  - Remove any dirt immediately by using a neutral detergent. Do not use hard brushes or abrasive cleaners. Do not use strong or harsh chemical cleaners. Use the same mild detergent and wax as used on the paint.

- **Bumpers and side moldings**
  - Do not scrub with abrasive cleaners.
To prevent paint deterioration and corrosion on the body

- Wash the vehicle immediately in the following cases:
  - After driving near the sea coast
  - After driving on salted roads
  - If you see coal tar or tree sap on the paint surface
  - If you see dead insects or insect droppings on the paint
  - After driving in an area contaminated with soot, oily smoke, mine dust, iron powder or chemical substances
  - If the vehicle becomes heavily soiled in dust or mud
  - If liquids such as benzene and gasoline are spilled on the paint surface
- If the paint is chipped or scratched, have it repaired immediately.

⚠️ CAUTION

- Caution about the exhaust pipe
  Exhaust gasses cause the exhaust pipe to become quite hot. When washing the vehicle, be careful not to touch the pipe until it has cooled sufficiently, as touching a hot exhaust pipe can cause burns.

⚠️ NOTICE

- To protect your vehicle’s painted surfaces
  Do not use organic cleaners such as benzene or gasoline.

- Cleaning the exterior lights
  - Wash carefully. Do not use organic substances or scrub with a hard brush. This may damage the surfaces of the lights.
  - Do not apply wax on the surface of the lights. Wax may cause damage to the lenses.
The following procedures will help protect your vehicle's interior and keep it in top condition:

■ **Protecting the vehicle interior**
  Remove dirt and dust using a vacuum cleaner. Wipe dirty surfaces with a cloth dampened with lukewarm water.

■ **Cleaning the leather areas**
  ● Remove dirt and dust using a vacuum cleaner.
  ● Wipe any excess dirt and dust with a soft cloth dampened with diluted detergent.
    Use a diluted water solution of approximately 5% neutral wool detergent.
  ● Wring out any excess water from the cloth and thoroughly wipe off all remaining traces of detergent.
  ● Wipe the surface with a dry, soft cloth to remove any remaining moisture. Allow the leather to dry in shaded and ventilated area.

■ **Synthetic leather areas**
  ● Remove loose dirt using a vacuum cleaner.
  ● Apply a mild soap solution to the synthetic leather using a sponge or soft cloth.
  ● Allow the solution to soak in for a few minutes. Remove the dirt and wipe off the solution with a clean, damp cloth.
■ Cleaning the inside of the rear window

Do not use glass cleaner to clean the rear window, as this may cause damage to the rear window defogger heater wires. Use a cloth dampened with lukewarm water to gently wipe the window clean. Wipe the window in strokes running parallel to the heater wires.

■ Caring for leather areas

Lexus recommends cleaning the interior of the vehicle at least twice a year to maintain the quality of the vehicle’s interior.

■ Shampooing the carpets

There are several commercial foaming-type cleaners available. Use a sponge or brush to apply the foam. Rub in overlapping circles. Do not apply water. The excellent results are obtained by keeping the carpet as dry as possible.

■ Seat belts

Clean with mild soap and lukewarm water using a cloth or sponge. Also check the belts periodically for excessive wear, fraying or cuts.

⚠️ CAUTION

■ Water in the vehicle

- Be careful not to splash or spill liquid on the floor.
- Do not get any of the SRS components or wiring in the vehicle interior wet. (→P. 55)
  
  Electrical malfunction may cause the airbags to deploy or not function properly, resulting in death or serious injury.
4-1. Maintenance and care

<table>
<thead>
<tr>
<th>NOTICE</th>
</tr>
</thead>
</table>
| **Cleaning detergents**  
Do not use the following types of detergent, as they may discolor the vehicle interior or cause streaks or damage to painted surfaces.  
- Non-seat portions: Organic substances such as benzene or gasoline, alkaline or acidic solutions, dye, or bleach.  
- Seats: Acidic solutions, such as thinner, benzene, or alcohol. |
| **Preventing damage to leather surfaces**  
Observe the following precautions to avoid damage to and deterioration of leather surfaces.  
- Remove any dust or dirt on leather surfaces immediately.  
- Do not expose the vehicle to direct sunlight for extended periods of time. Park the vehicle in the shade, especially during summer.  
- Do not place items made of vinyl, plastic, or that contain wax on the upholstery, as they may stick to the leather surface if the vehicle interior heats up significantly. |
| **Water on the floor**  
Do not wash the vehicle floor with water. Vehicle systems such as the audio system may be damaged if water comes into contact with electrical components under the floor of the vehicle, and may also cause the body to rust. |
| **Cleaning the inside of the rear window**  
Be careful not to scratch or damage the heater wires or antenna. |
4-2. Maintenance

Maintenance requirements

To ensure safe and economical driving, day-to-day care and regular maintenance is essential. Lexus recommends the following maintenance.

- **General maintenance**
  Should be performed on a daily basis. This can be done by yourself or by a Lexus dealer.

- **Scheduled maintenance**
  Should be performed at specified intervals according to the maintenance schedule.
  
  For details about maintenance items and schedules, refer to the “Warranty and Services Guide/Owner’s Manual Supplement/Scheduled Maintenance”.

- **Do-it-yourself maintenance**
  You can perform some maintenance procedures yourself. Please be aware that do-it-yourself maintenance may affect warranty coverage.
  
  The use of Lexus service and repair manuals is recommended.
  
  For details about warranty coverage, see the separate “Owner’s Guide”, “Warranty and Services Guide”, “Owner’s Manual Supplement” or “Warranty Booklet”.

- **Repair and replacement**
  It is recommended that genuine Lexus parts be used for repair to ensure performance of each system. If non-Lexus parts are used in replacement or if a repair shop other than a Lexus dealer performs repairs, confirm the warranty coverage.
4-2. Maintenance

Allow inspection and repairs to be performed by a Lexus dealer

- Lexus technicians are well-trained specialists and are kept up to date with the latest service information. They are well informed about the operations of all systems on your vehicle.

- Keep a copy of the repair order. It proves that the maintenance that has been performed is under warranty coverage. If any problem should arise while your vehicle is under warranty, your Lexus dealer will promptly take care of it.

**CAUTION**

Warning in handling of battery, oils, fuels, and fluids

- 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. Work in a well ventilated area.

- 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. Avoid exposure and wash any affected area immediately.

- Battery posts, terminals and related accessories contain lead and lead compounds which are known to cause brain damage. Wash your hands after handling. (→P. 288)

- Used engine oil contains chemicals that have been shown to cause cancer in laboratory animals. Avoid prolonged and repeated contact. Always protect your skin by washing thoroughly with soap and water.
### General maintenance

Listed below are the general maintenance items that should be performed at the intervals specified in the “Warranty and Services Guide/Owner’s Manual Supplement”. It is recommended that any problem you notice should be brought to the attention of your Lexus dealer or qualified service shop for advice.

#### Engine compartment

<table>
<thead>
<tr>
<th>Items</th>
<th>Check points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery</td>
<td>• Maintenance-free (→ P. 288)</td>
</tr>
<tr>
<td>Brake fluid</td>
<td>• At the correct level? (→ P. 284)</td>
</tr>
<tr>
<td>Engine coolant</td>
<td>• At the correct level? (→ P. 282)</td>
</tr>
<tr>
<td>Engine oil</td>
<td>• At the correct level? (→ P. 277)</td>
</tr>
<tr>
<td>Exhaust system</td>
<td>• No fumes or strange sounds?</td>
</tr>
<tr>
<td>Power steering fluid</td>
<td>• At the correct level? (→ P. 286)</td>
</tr>
<tr>
<td>Radiator/condenser/hoses</td>
<td>• Not blocked with foreign matter? (→ P. 283)</td>
</tr>
<tr>
<td>Suspension fluid</td>
<td>• At the correct level? (→ P. 287)</td>
</tr>
<tr>
<td>Washer fluid</td>
<td>• At the correct level? (→ P. 291)</td>
</tr>
</tbody>
</table>
### Vehicle interior

<table>
<thead>
<tr>
<th>Items</th>
<th>Check points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accelerator pedal</td>
<td>• Moves smoothly (without uneven pedal effort or catching)?</td>
</tr>
<tr>
<td>Automatic transmission “Park” mechanism</td>
<td>• Can the vehicle be held securely on an incline with the shift lever in “P”?</td>
</tr>
<tr>
<td>Brake pedal</td>
<td>• Moves smoothly?</td>
</tr>
<tr>
<td></td>
<td>• Does it have appropriate clearance and correct amount of free play?</td>
</tr>
<tr>
<td>Brakes</td>
<td>• Pulls to one side when applied?</td>
</tr>
<tr>
<td></td>
<td>• Loss of brake effectiveness?</td>
</tr>
<tr>
<td></td>
<td>• Spongy feeling brake pedal?</td>
</tr>
<tr>
<td></td>
<td>• Pedal almost touches floor?</td>
</tr>
<tr>
<td>Head restraints</td>
<td>• Move smoothly and lock securely?</td>
</tr>
<tr>
<td>Indicators/buzzers</td>
<td>• Function properly?</td>
</tr>
<tr>
<td>Lights</td>
<td>• Do all the lights come on?</td>
</tr>
<tr>
<td></td>
<td>• Headlights aimed correctly?</td>
</tr>
<tr>
<td>Parking brake</td>
<td>• Moves smoothly?</td>
</tr>
<tr>
<td></td>
<td>• Can hold the vehicle securely on an incline?</td>
</tr>
<tr>
<td>Seat belts</td>
<td>• Does the seat belt system operate smoothly?</td>
</tr>
<tr>
<td></td>
<td>• Are the belts undamaged?</td>
</tr>
<tr>
<td>Seats</td>
<td>• Do the seat controls operate properly?</td>
</tr>
</tbody>
</table>
## 4.2 Maintenance

### Vehicle exterior

<table>
<thead>
<tr>
<th>Items</th>
<th>Check points</th>
</tr>
</thead>
</table>
| Steering wheel | • Moves smoothly?  
              | • Has correct free play?  
              | • No strange noises?     |
| Doors       | • Operate smoothly?                               |
| Engine hood | • The lock system works properly?                 |
| Fluid leaks | • Is there any leakage after parking?             |
| Tire        | • Inflation pressure is correct?                  |
|             | • Tire surfaces not worn or damaged?              |
|             | • Tires rotated according to the maintenance schedule? |
|             | • Wheel nuts are not loose?                       |

**CAUTION**

- If the engine is running
  
  Turn off the engine and ensure that there is adequate ventilation before performing maintenance checks.
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.

- **If the malfunction indicator lamp comes on**
  The OBD system determines that a problem exists somewhere in the emission control system. Your vehicle may not pass the I/M test and may need to be repaired. Contact your Lexus dealer to service the vehicle.

- **Your vehicle may not pass the I/M test:**
  - When the battery is disconnected or discharged
    Readiness codes that are set during ordinary driving are erased. Also, depending on your driving habits, the readiness codes may not be completely set.
  - When the fuel tank cap is loose
    The malfunction indicator lamp comes on as a temporary malfunction and your vehicle may not pass the I/M test.

- **When the malfunction indicator lamp goes off after several driving trips**
  The error code in the OBD system will not be cleared unless the vehicle is driven 40 or more times.

- **If your vehicle does not pass the I/M test**
  Contact your Lexus dealer to prepare the vehicle for re-testing.
If you perform maintenance yourself, be sure to follow the correct procedure given in these sections.

<table>
<thead>
<tr>
<th>Items</th>
<th>Parts and tools</th>
</tr>
</thead>
</table>
| Battery condition      | • Warm water  
                         • Baking soda  
                         • Grease  
                         • Conventional wrench  
                         (for terminal clamp bolts) |
| Blade type fuses       | • Fuse with same amperage rating as original                  |
| Brake fluid level      | • FMVSS No.116 DOT 3 or SAE J1703 brake fluid  
                         • Rag or paper towel  
                         • Funnel (used only for adding brake fluid) |
| Cartridge type fuses   | • Genuine Lexus fuse or equivalent  
                         with same amperage rating as original |
### 4-3. Do-it-yourself maintenance

<table>
<thead>
<tr>
<th>Items</th>
<th>Parts and tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine coolant level (→P. 282)</td>
<td>• “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.  For the U.S.A.:  “Toyota Super Long Life Coolant” is pre-mixed with 50% coolant and 50% deionized water.  For Canada:  “Toyota Super Long Life Coolant” is pre-mixed with 55% coolant and 45% deionized water.  • Funnel (used only for adding coolant)</td>
</tr>
<tr>
<td>Engine oil level (→P. 277)</td>
<td>• “Toyota Genuine Motor Oil” or equivalent  • Rag or paper towel  • Funnel (used only for adding engine oil)</td>
</tr>
<tr>
<td>Power steering fluid (→P. 286)</td>
<td>• Automatic transmission fluid DEXRON®II or III  • Rag or paper towel  • Funnel (used only for adding power steering fluid)</td>
</tr>
<tr>
<td>Radiator and condenser (→P. 283)</td>
<td>—</td>
</tr>
</tbody>
</table>
## 4-3. Do-it-yourself maintenance

### Items and Parts and tools

<table>
<thead>
<tr>
<th>Items</th>
<th>Parts and tools</th>
</tr>
</thead>
</table>
| Suspension fluid (→P. 287)   | • Suspension fluid AHC  
• Rag or paper towel  
• Funnel (used only for adding suspension fluid AHC) |
| Tire inflation pressure (→P. 302) | • Tire pressure gauge  
• Compressed air source |
| Washer fluid (→P. 291)       | • Water  
• Washer fluid containing antifreeze (for winter use)  
• Funnel (used only for adding washer fluid) |
## 4-3. Do-it-yourself maintenance

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The engine compartment contains many mechanisms and fluids that may move suddenly, become hot, or become electrically energized. To avoid death or serious injury.</td>
</tr>
<tr>
<td><strong>When working on the engine compartment</strong></td>
</tr>
<tr>
<td>- Keep hands, clothing, and tools away from the moving fan and engine drive belt.</td>
</tr>
<tr>
<td>- Be careful not to touch the engine, inverter, radiator, exhaust manifold, etc. right after driving as they may be hot. Oil and other fluids may also be hot.</td>
</tr>
<tr>
<td>- Do not leave anything that may burn easily, such as paper or rags, in the engine compartment.</td>
</tr>
<tr>
<td>- Do not smoke, cause sparks or expose an open flame to fuel or the battery. Fuel and battery fumes are flammable.</td>
</tr>
<tr>
<td>- Be extremely cautious when working on the battery. It contains poisonous and corrosive sulfuric acid.</td>
</tr>
<tr>
<td><strong>When working near the electric cooling fan or radiator grille</strong></td>
</tr>
<tr>
<td>Be sure the ignition is off. With the ignition in on, the electric cooling fan may automatically start to run if the air conditioning is on and/or if the coolant temperature is high. (→P. 283)</td>
</tr>
<tr>
<td><strong>When working on or under the vehicle</strong></td>
</tr>
<tr>
<td>- Do not get under the vehicle with just the jack supporting it. Always use automotive jack stands or other solid supports.</td>
</tr>
<tr>
<td>- Use eye protection to prevent flying or falling material, fluid spray, etc. from getting in your eyes.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NOTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>If you remove the air cleaner filter</strong></td>
</tr>
<tr>
<td>Driving with the air cleaner filter removed may cause excessive engine wear due to dirt in the air. Also a backfire could cause a fire in the engine compartment.</td>
</tr>
</tbody>
</table>
4-3. Do-it-yourself maintenance
Hood

Release the lock from the inside of the vehicle to open the hood.

Pull the hood release lever. The hood will pop up slightly.

Lift the hood catch and lift the hood.

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
</table>
**Pre-driving check**
Check that the hood is fully closed and locked. If the hood is not locked properly it may open while the vehicle is in motion and cause an accident, which may result in death or serious injury.
4-3. Do-it-yourself maintenance

Engine compartment

1. Engine oil filler cap (→P. 278)
2. Engine oil level dipstick (→P. 277)
3. Brake fluid reservoir (→P. 284)
4. Fuse box (→P. 311)
5. Battery (→P. 288)
6. Washer fluid tank (→P. 291)
7. Condenser (→P. 283)
8. Radiator (→P. 283)
9. Engine coolant reservoir (→P. 282)
10. Power steering fluid reservoir (→P. 286)
11. Suspension fluid reservoir (→P. 287)
Engine oil

With the engine at operating temperature and turned off, check the oil level on the dipstick.

- **Checking the engine oil**
  - **STEP 1** Park the vehicle on level ground. After turning off the engine, wait a few minutes for the oil to drain back into the bottom of the engine.
  - **STEP 2** Hold a rag under the end and pull the dipstick out.
  - **STEP 3** Wipe the dipstick clean.
  - **STEP 4** Reinsert the dipstick fully.
  - **STEP 5** Holding a rag under the end, pull the dipstick out and check the oil level.
  - **STEP 6** Wipe the dipstick and reinsert it fully.
Adding engine oil

If the oil level is below or near the low level mark, add engine oil of the same type as already in the engine.

Make sure to check the oil type and prepare the items needed before adding oil.

<table>
<thead>
<tr>
<th>Oil grade</th>
<th>ILSAC multigrade engine oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil quantity</td>
<td>1.6 qt. (1.5 L, 1.3 Imp. qt.)</td>
</tr>
<tr>
<td>Items</td>
<td>Clean funnel</td>
</tr>
</tbody>
</table>

**STEP 1** Remove the oil filler cap.
**STEP 2** Add engine oil slowly, checking the dipstick.
**STEP 3** Install the filler cap, turning it clockwise until you hear a click.
**Recommended viscosity**

SAE 5W-30 is the best choice for good fuel economy and good starting in cold weather.

*: If SAE 5W-30 is not available, SAE 10W-30 may be used. However, it should be replaced with SAE 5W-30 at the next oil change.

**How to read oil container labels**

Some oil containers are labeled with ILSAC certification marks that help you to select the proper oil.
Engine oil consumption

- The amount of engine oil consumed depends on the oil viscosity, the quality of the oil and the way the vehicle is driven.
- More oil is consumed under driving conditions such as high speeds and frequent acceleration and deceleration.
- A new engine consumes more oil.
- 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.
- Oil consumption: Max. 1.1 qt./600 miles, 0.9 Imp qt./600 miles (1.0 L per 1000 km). If the vehicle consumes more than this amount, contact your Lexus dealer.

Resetting the engine oil maintenance data (U.S.A. only)

Perform the following steps:

**STEP 1**  Turn the ignition key to the “LOCK” position with the odometer reading shown.

**STEP 2**  Turn the ignition key to the “ON” position with the “ODO/TRIP” knob held down.

**STEP 3**  Keep pressing the knob for longer than 7 seconds after the ignition key is in “ON” position.

After the above operation, the engine oil replacement reminder light goes off.

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

**Used engine oil**
- 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. To remove used engine oil from your skin, wash thoroughly with soap and water.
- Dispose of used oil and filters only in a safe and acceptable manner. Do not dispose of used oil and filters in household trash, in sewers or onto the ground. Call your Lexus dealer, service station or auto parts store for information concerning recycling or disposal.
- Do not leave used engine oil within the reach of children.

**NOTICE**

**To prevent serious engine damage**
Check the oil level on regular basis.

**When replacing the engine oil**
- Be careful not to spill engine oil on the vehicle components.
- Avoid overfilling, or the engine could be damaged.
- Check the oil level on the dipstick every time you refill the vehicle.
- Be sure the engine oil filler cap is properly retightened.
Engine coolant

The coolant level is satisfactory if it is between the “FULL” and “LOW” lines on the reservoir when the engine is cold.

If the coolant level drops within a short time after replenishing
Visually check the radiator, hoses, reservoir cap, radiator cap, drain cock and water pump.
If you cannot find a leak, have your Lexus dealer pressure test the cap and check for leaks in the cooling system.

Coolant selection

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.

U.S.A.: “Toyota Super Long Life Coolant” is a mixture of 50% coolant and 50% deionized water. (Enabled: -31°F [-35°C])
Canada: “Toyota Super Long Life Coolant” is a mixture of 55% coolant and 45% deionized water. (Enabled: -44°F [-42°C])

For more details about engine coolant, contact your Lexus dealer.
## CAUTION

- When the engine is hot
  - Do not remove the radiator cap.
  - The cooling system may be under pressure and may spray hot coolant if the cap is removed, causing burns or other injuries.

## NOTICE

- When adding the engine coolant
  - Coolant is neither plain water nor straight antifreeze. The correct mixture of water and antifreeze must be used to provide proper lubrication, corrosion protection, and cooling. Be sure to read the antifreeze or coolant label.
  - If you spill coolant
  - Be sure to wash it off with water to prevent it damage to parts or paint.

## Radiator and condenser

Check the radiator and condenser and clear any foreign objects. If either of the above parts are extremely dirty or you are not sure of their condition, have your vehicle checked by your Lexus dealer.

## CAUTION

- The radiator and condenser may be hot after driving
  - To prevent burns, do not touch the radiator or condenser after driving.
4-3. Do-it-yourself maintenance

**Brake fluid**

- **Checking fluid level**
  The brake fluid level should be between the “MAX” and “MIN” lines on the tank.

Make sure to check the fluid type and prepare the necessary items.

- **Adding fluid**
  
<table>
<thead>
<tr>
<th>Fluid type</th>
<th>FMVSS No.116 DOT 3 or SAE J1703 brake fluid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items</td>
<td>Clean funnel</td>
</tr>
</tbody>
</table>

- **Brake fluid can absorb moisture from the air**
  Excess moisture in the fluid can cause a dangerous loss of braking efficiency. Use only newly opened brake fluid.

**CAUTION**

- **When filling the reservoir**
  Take care because brake fluid can harm your hands or eyes and damage painted surfaces.
  If fluid gets in your eyes, flush your eyes with clean water immediately.
  If you still experience discomfort, see a doctor.
4-3. Do-it-yourself maintenance

<table>
<thead>
<tr>
<th>NOTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>• If the fluid level is low or high</td>
</tr>
<tr>
<td>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.</td>
</tr>
<tr>
<td>If the reservoir needs frequent refilling, it may indicate a serious problem.</td>
</tr>
</tbody>
</table>
Power steering fluid

Fluid level

The fluid level should be within the appropriate range.

- Full (when hot)
- Add fluid (when hot)
- Full (when cold)
- Add fluid (when cold)

Hot: Vehicle has been driven around 50 mph (80 km/h) for 20 minutes, or slightly longer in frigid temperatures. (Fluid temperature, 140°F - 175°F [60°C - 80°C]).

Cold: Engine has not been run for about five hours. (Room temperature, 50°F - 85°F [10°C - 30°C]).

Checking the fluid level

Make sure to check the fluid type and prepare the necessary items.

<table>
<thead>
<tr>
<th>Fluid type</th>
<th>Automatic transmission fluid DEXRON® II or III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items</td>
<td>Rag or paper, Clean funnel (only for adding fluid)</td>
</tr>
</tbody>
</table>

STEP 1: Clean all dirt off the reservoir.
STEP 2: Remove the cap by turning it counterclockwise.
STEP 3: Wipe the dipstick clean.
STEP 4: Reinstall and remove the reservoir cap again.
STEP 5: Check the fluid level.
4-3. Do-it-yourself maintenance

**Suspension fluid AHC**

- **Fluid level**
  The fluid level should be within the appropriate range.

  ![Fluid level indicator](image)

  - Full
  - Add fluid

---

**CAUTION**

- When checking the reservoir
  Take care, as the reservoir may be hot.

**NOTICE**

- When adding fluid
  Avoid overfilling, or the power steering may be damaged.
- After replacing the reservoir cap
  Check the steering box case, vane pump and hose connections for leaks or damage.
4-3. Do-it-yourself maintenance

■ Checking the fluid level
Check the fluid level under the unloaded condition.

STEP 1 Start the engine and put the vehicle height in the “LO” (Low) mode and then “N” (Normal) mode.

STEP 2 Turn off the ignition switch about 30 seconds after the “N” (Normal) mode indicator light comes on.

STEP 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.

■ Battery

■ Exterior
Make sure that the battery terminals are not corroded and that there are no loose connections, cracks, or loose clamps.
4-3. Do-it-yourself maintenance

■ Checking battery condition
Check the battery condition using the indicator color.

1 Blue: Good condition
2 White: Charging is necessary. Have the vehicle inspected by your Lexus dealer.
3 Red: Not working properly, have the battery checked by your Lexus dealer.

■ Before recharging
When recharging, the battery produces hydrogen gas which is flammable and explosive. Therefore, before recharging:

● If recharging with the battery installed on the vehicle, be sure to disconnect the ground cable.
● Make sure the power switch on the charger is off when connecting and disconnecting the charger cables to the battery.
# 4-3. Do-it-yourself maintenance

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
</table>
| **Chemicals in the battery**  
A battery contains poisonous and corrosive sulfuric acid and may produce hydrogen gas which is flammable and explosive. To reduce the risk of death or serious injury, take the following precautions while working on or near battery: |
| ● Do not cause sparks by touching the battery terminals with tools.  
● Do not smoke or light a match near the battery.  
● Avoid contact with eyes, skin and clothes.  
● Never inhale or swallow electrolyte.  
● Wear protective safety glasses when working near the battery.  
● Keep children away from the battery. |
| **Where to safety charge the battery**  
Always charge the battery in an open area. Do not charge the battery in a garage or closed room where there is not sufficient ventilation. |
| **How to recharge the battery**  
Only perform a slow charge (5A or less). The battery may explode if charged at a quicker rate. |
| **Emergency measures regarding electrolyte**  
| ● 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 nearest medical facility.  
● If electrolyte gets on your skin  
Wash the affected area thoroughly. If you feel pain or a burning sensation, seek medical attention immediately.  
● If electrolyte gets on your clothes  
It can soak through clothing on to your skin. Immediately take off the clothing and follow the procedure above if necessary.  
● If you accidentally swallow electrolyte  
Drink a large quantity of water or milk. Follow with milk of magnesia, beaten raw egg or vegetable oil. Get emergency medical attention immediately. |
NOTICE

■ When recharging the battery
Never recharge the battery while the engine is running. Also, be sure all accessories are turned off.

Washer fluid

If any washer does not work or the low washer fluid warning light come on the washer tank may be empty. Add washer fluid.

NOTICE

■ Do not use any fluid other than washer fluid
Do not use soapy water or engine antifreeze instead of washer fluid. Doing so may cause streaking on the vehicle’s painted surfaces.

■ Diluting washer fluid
Dilute washer fluid with water as necessary. Refer to the freezing temperatures listed on the washer fluid tank.
Replace or rotate tires in accordance with maintenance schedules and tread wear.

- **Checking tires**
  
  1. New tread
  2. Tread wear indicator
  3. Worn tread

  The location of tread wear indicators is shown by the “TWI” or “Δ” marks, etc., molded on the sidewall of each tire.

  Check spare tire condition and inflation pressure if not rotated.

- **Tire rotation**

  Rotate the tires in the order shown.

  Lexus recommends tire rotation in accordance with the maintenance schedule to equalize tire wear and extend tire life.

  Do not fail to initialize the tire pressure warning system after tire rotation.

- **The tire pressure warning system**

  Your Lexus is equipped with a tire pressure warning system that uses tire pressure warning valves and transmitters to detect low tire inflation pressure before serious problems arise. (→P.340)
Installing tire pressure warning valves and transmitters

When replacing tires or wheels, tire pressure warning valves and transmitters must also be installed. Tire pressure warning valves and transmitters can be installed in any of the following three ways:

- Tire pressure warning valves and transmitters can be removed from the old wheels and installed on the new wheels.
- When replacing only the tire, the tire pressure warning valve and transmitter already installed on the wheel does not need to be replaced.
- Replacing both a wheel and its tire pressure warning valve and transmitter.

When new tire pressure warning valves and transmitters are installed, new tire pressure warning valve and transmitter ID codes must be registered in the tire pressure warning ECU and tire pressure warning system must be initialized. (→P. 294, 295)
4-3. Do-it-yourself maintenance

Initializing the tire pressure warning system

The tire pressure warning system must be initialized in the following circumstances:

- When rotating the tires on vehicles differing with front and rear tire inflation pressures.
- When changing the tire inflation pressure by changing traveling speed or load weight, etc.
- When changing the tire size.

When the tire pressure warning system is initialized, the current tire inflation pressure is set as the pressure benchmark.

How to initialize the tire pressure warning system

STEP 1 Park the vehicle in safe place and turn the ignition key to the "LOCK" position.
While the vehicle is moving, initialization is not performed.

STEP 2 Adjust the tire inflation pressure to the specified cold tire inflation pressure level. (→P. 376)
Make sure to adjust the tire pressure to the specified cold tire inflation pressure level. The tire pressure warning system will operate based on this pressure level.

STEP 3 Turn the ignition key to the "ON" position.

STEP 4 Push and hold the tire pressure warning reset switch until the tire pressure warning light blinks slowly three times.

STEP 5 Wait for a few minutes with the "ON" position, and then turn the ignition key to the "LOCK" position.
Registering and selecting ID codes

Registering ID codes

2 sets of tire pressure warning valve and transmitter ID codes can be registered. Once a second set of tires (winter tires etc.) is registered at “2nd”, you can switch between tire set settings simply by pressing the tire pressure warning select switch.

There are 2 settings:

“MAIN” position: The ID code of the tire pressure warning valve and transmitter on the tires originally installed on the vehicle is registered.

“2nd” position: The code is not registered. When you replace a new set of tires, purchase tire pressure warning valves and transmitters from your Lexus dealer and have the new ID code registered by your Lexus dealer.
4-3. Do-it-yourself maintenance

■ Selecting ID codes
When replacing tires, make sure to select the ID code set that matches the new tire set. If the incorrect ID code is selected, the tire pressure warning system will not operate properly.

1 “MAIN”
2 “2nd”

■ When to replace your vehicle’s tires
Tires should be replaced if:
- You have tire damage such as cuts, splits, cracks deep enough to expose the fabric or bulges indicating internal damage
- A tire goes flat repeatedly or cannot be properly repaired due to the size or location of a cut or other damage
If you are not sure, consult with your Lexus dealer.

■ Replacing tires and wheels
If the ID code is not registered, the system will not work properly. After about 1 hour, the tire pressure warning light blinks to indicate a system malfunction.

■ Tire life
Any tire over 6 years old must be checked by a qualified technician even if they have seldom or never been used or damage is not obvious.

■ If the tread wears down below 0.16 in. (4 mm) on snow tires
The effectiveness of snow tires is lost.
Maximum load of tire

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 is 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. (→P. 302, 381).

Tire types

1. Summer tires

Summer tires are high-speed performance 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 roads or icy roads, the use of snow tires is recommended. When 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 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.

3. Snow tires

For driving on snow-covered roads or icy roads, we recommend using snow tires. If you need snow tires, select tires of the same size, construction and load capacity as the originally installed tires. 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 restriction. Snow tires should be installed on all wheels. (→P. 156)

Initializing the tire pressure warning system

Initialize the tires with the tire inflation pressure adjusted to the specified level.
4-3. Do-it-yourself maintenance

■ If you push the tire pressure reset switch accidentally
  If initialization is performed, adjust the tire inflation pressure to the specified level and initialize the system again.

■ When the initialization of the tire pressure warning system has failed
  Initialization can be completed in a few minutes. However, in the following cases, the settings have not been recorded and the system will not operate properly. If repeated attempts to record tire inflation pressure settings are unsuccessful, have the vehicle inspected by your Lexus dealer.
  ● When operating the tire pressure warning reset switch, the warning light does not flash.
  ● After driving for a certain period of time since the initialization has been completed, the warning light flashes.

■ Routine tire inflation pressure checks
  The tire pressure warning system does not replace routine tire inflation pressure checks. Make sure to check tire inflation pressure as part of your routine of daily vehicle checks.
Tire pressure warning system certification

▶ For vehicles sold in the U.S.A.

NOTE:
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.
● 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

NOTE:
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.
CAUTION

When inspecting or replacing tires

Observe the following precautions to prevent accidents. Failure to do so may cause damage to parts of the drive train, as well as dangerous handling characteristics, which may lead to fatal or injury accidents.

- Do not mix tires of different makes, models, tread patterns or tread wear.
- Do not use tire sizes other than those recommended by Lexus.
- Do not mix radial, bias-belted, or bias-ply tires.
- Do not mix summer, all season and winter tires.

When initializing the tire pressure warning system

Do not push the reset switch without first adjusting the tire inflation pressure to the specified level. Otherwise, the tire pressure warning light may not come on even if the tire inflation pressure is low, or it may come on when the tire inflation pressure is actually normal.

NOTICE

Repairing or replacing tires, wheels and tire pressure warning valves and transmitters

- When removing or fitting the wheels, tires or the tire pressure warning valve and transmitter, contact your Lexus dealer as the tire pressure warning valve and transmitter may be damaged if not handled correctly.
- When replacing tires, make sure also to replace the tire pressure warning valve and transmitter grommets.

Do not use puncture sealant sprays to repair flats

Puncture sealant sprays may damage tire pressure warning valves and transmitters.
NOTICE

- **Driving on rough roads**
  Take particular care when driving on roads with loose surfaces or potholes. These conditions may cause losses in tire inflation pressure, reducing the cushioning ability of the tires. In addition, driving on rough roads may cause damage to the tires themselves, as well as the vehicle's wheels and body.

- **If tire inflation pressures become low while driving**
  Do not continue driving, or your tires and/or wheels may be ruined.
4-3. Do-it-yourself maintenance
Tire inflation pressure

Tire inflation pressure
The recommended cold tire inflation pressure and tire size is displayed on the tire and loading information label. (→P. 376)
4-3. Do-it-yourself maintenance

**Inspection and adjustment procedure**

1. **Tire valve**
2. **Tire pressure gauge**

**STEP 1** Remove the tire valve cap.
**STEP 2** Press the tip of the tire pressure gauge onto the tire valve.
**STEP 3** Read the pressure using the graduations of the gauge.
**STEP 4** If the tire inflation pressure is not within the recommended levels, adjust tire pressure. If you add too much air, press the center of the valve to lower.
**STEP 5** After completing the tire inflation pressure measurement and adjustment, apply soapy water to the valve and check for leakage.
**STEP 6** Reinstall the tire valve cap.

**Tire inflation pressure check interval**

You should check tire inflation pressure every two weeks, or at least once a month. Do not forget to check the spare.
Effects of incorrect tire inflation pressure
Driving with incorrect tire inflation pressure may result in the following:
- Reduced fuel efficiency
- Reduced driving comfort and tire life
- Reduced safety
- Damage to the drive train

If a tire needs frequent refilling, have it checked by your Lexus dealer.

Instructions for checking tire inflation pressure
When checking tire inflation pressure, observe the following:
- Check 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 mile or 1.5 km, you will get an accurate cold tire inflation pressure reading.
- Always use a tire pressure gauge.
  The appearance of the tire can be misleading. In addition, 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.
  Passengers and luggage weight should be placed so that the vehicle is balanced.
4.3 Do-it-yourself maintenance

CAUTION

Proper inflation is critical to save tire performance
Keep your tires properly inflated. Otherwise, the following conditions may occur and result in an accident causing death or serious injury.

- Excessive wear
- Uneven wear
- Poor handling
- Possibility of blowouts resulting from overheated tires
- Poor sealing of the tire bead
- Wheel deformation and/or tire separation
- A greater possibility of tire damage from road hazards

NOTICE

When inspecting and adjusting tire inflation pressure
Be sure to reinstall the tire valve caps. Without the valve caps, dirt or moisture could get into the valve and cause air leakage, which could result in an accident. If the caps have been lost, replace them as soon as possible.
If a wheel is bent, cracked or heavily corroded, it should be replaced. Otherwise, the tire may separate from the wheel or cause loss of handling control.

**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. Replacement wheels are available at your Lexus dealer.

Lexus does not recommend using:
- Wheels of different sizes or types
- Used wheels
- Bent wheels that have been straightened

**Aluminum wheel precautions**

- Use only Lexus wheel nuts and wrenches designed for use with your aluminum wheels.
- When rotating, repairing or changing your tires, check that the wheel nuts are still tight after driving 1000 miles (1600 km).
- Be careful not to damage the aluminum wheels when using tire chains.
- Use only Lexus genuine balance weights or equivalent and a plastic or rubber hammer when balancing your wheels.

**When replacing wheels**

The wheels of your Lexus are equipped with tire pressure warning valves and transmitters that allow the tire pressure warning system to provide advanced warning in the event of a loss in tire inflation pressure. Whenever wheels are replaced, the tire pressure warning valves and transmitters must be switched over from the old wheels. (→ P. 293)
**CAUTION**

- **When replacing wheels**
  - Do not use wheels that are a different size from those recommended in the Owner’s Manual, as this may result in loss of handling control.
  - Never use an inner tube in a leaking wheel which is designed for a tubeless tire. Doing so may result in an accident, causing death or serious injury.

**NOTICE**

- **Replacing tire pressure warning valves and transmitters**
  - Because tire repair or replacement may affect the tire pressure warning valves and transmitters, make sure to have tires serviced by your Lexus dealer or other qualified service shop. In addition, make sure to purchase your tire pressure warning valves and transmitters at your Lexus dealer.
  - Ensure that only genuine Lexus wheels are used on your vehicle. Tire pressure warning valves and transmitters may not work properly with non-genuine wheels.
4-3. Do-it-yourself maintenance
Air conditioning filter

The air conditioning filter must be changed regularly to maintain air conditioning efficiency.

■ Information label

Contact your Lexus dealer for further information when replacing air conditioning filter.

■ Changing interval

Inspect and replace the air conditioning filter according to the maintenance schedule. In dusty areas or areas with heavy traffic flow, early replacement may be required. (For scheduled maintenance information, refer to the "Warranty and Services Guide/Owner’s Manual Supplement/Scheduled Maintenance").

■ If air flow from the vents decreases dramatically

The filter may be clogged. Check the filter and replace if necessary.

⚠️ NOTICE

■ When using the air conditioning system

Make sure that a filter is always installed. Using the air conditioning system without a filter may cause damage to the system.
Replace the battery with a new one if it is discharged.

■ You will need the following items:
  ● Small Phillips-head screwdriver
  ● Lithium battery (CR2016)

■ Replacing the battery

**STEP 1**
Remove the screw and cover.
Push the cover in the arrow direction.

**STEP 2**
Remove the module.

**STEP 3**
Open the case cover and remove the depleted battery.
Insert a new battery with the “+” terminal facing up.
If the wireless remote control battery is discharged

The following symptoms may occur.

- The wireless remote control will not function properly.
- The operational range is reduced.
- The indicator light on the wireless remote control is dimmed or does not come on.

Use a CR2016 lithium battery

- Batteries can be purchased at your Lexus dealer, jewelers or camera stores.
- Replace only with the same or equivalent type recommended by a Lexus dealer.
- Dispose of used batteries according to the local laws.

---

**CAUTION**

- **Removed battery and other parts**
  
  Keep away from children.
  
  These parts are small and if swallowed by a child they can cause choking.

---

**NOTICE**

- **For normal operation after replacing the battery**
  
  Observe the following precautions to prevent accidents.
  
  - Always work with dry hands. Moisture may cause the battery to rust.
  
  - Do not touch or move any other components inside the electronic key.
  
  - Do not bend the battery terminals.
  
  - Take care not to lose the screws.
If any of the electrical components do not operate, a fuse may have blown. If this happens, check and replace the fuses as necessary.

**STEP 1** Turn the ignition key to the “LOCK” position.

**STEP 2** Open the fuse box cover.

- **Engine compartment**
  - Push the tab in and lift the lid off.
  - Push the tab in and lift the lid off.
4-3. Do-it-yourself maintenance

**STEP 4** After a system failure, see “Fuse layout and amperage ratings” (→ P. 314) for details about which fuse to check.

**STEP 5** Remove the fuse with the pull-out tool.
4.3 Do-it-yourself maintenance

Check if the fuse has blown.

**Type A (blade type fuse)**

1. Normal fuse
2. Blown fuse

Replace it with one of an appropriate amperage rating. The amperage rating can be found on the fuse box lid.

**Type B (cartridge type fuse)**

1. Normal fuse
2. Blown fuse

Replace it with one of an appropriate amperage rating. The amperage rating can be found on the fuse box lid.
### Fuse layout and amperage ratings

#### Engine compartment

<table>
<thead>
<tr>
<th>Fuse</th>
<th>Ampere</th>
<th>Circuit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ABS NO.2</td>
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<tr>
<td>2</td>
<td>ABS NO.1</td>
<td>50</td>
</tr>
<tr>
<td>3</td>
<td>AHC</td>
<td>50</td>
</tr>
<tr>
<td>4</td>
<td>WIP-S</td>
<td>7.5</td>
</tr>
<tr>
<td>5</td>
<td>TOWING</td>
<td>30</td>
</tr>
<tr>
<td>6</td>
<td>MIR HTR</td>
<td>15</td>
</tr>
<tr>
<td>7</td>
<td>RR HTR</td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td>HAZ-TRN</td>
<td>15</td>
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### Do-it-yourself maintenance

#### Fuse Table

<table>
<thead>
<tr>
<th>Fuse</th>
<th>Ampere</th>
<th>Circuit</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>ALT-S</td>
<td>7.5 Charging system</td>
</tr>
<tr>
<td>10</td>
<td>NV-IR</td>
<td>20 Lexus night view system</td>
</tr>
<tr>
<td>11</td>
<td>FR FOG</td>
<td>15 Fog lights</td>
</tr>
<tr>
<td>12</td>
<td>TOWING BRK</td>
<td>30 Trailer lights</td>
</tr>
<tr>
<td>13</td>
<td>HEAD CLNER</td>
<td>20 Headlight cleaner</td>
</tr>
<tr>
<td>14</td>
<td>FR-IG</td>
<td>10 Charging system</td>
</tr>
<tr>
<td>15</td>
<td>PANEL</td>
<td>7.5 Instrument panel light</td>
</tr>
<tr>
<td>16</td>
<td>TOWING TAIL</td>
<td>30 Trailer lights</td>
</tr>
<tr>
<td>17</td>
<td>TAIL</td>
<td>15 Parking lights, Tail lights</td>
</tr>
<tr>
<td>18</td>
<td>BAT</td>
<td>30 All components in “ECU-B2”</td>
</tr>
<tr>
<td>19</td>
<td>TEL</td>
<td>7.5 Lexus Link System</td>
</tr>
<tr>
<td>20</td>
<td>AMP</td>
<td>30 Audio system</td>
</tr>
<tr>
<td>21</td>
<td>EFI or ECD No.1</td>
<td>25 Multiport fuel injection system/Sequential multiport fuel injection system</td>
</tr>
<tr>
<td>22</td>
<td>AM2</td>
<td>15 All components in &quot;IGN&quot;</td>
</tr>
<tr>
<td>23</td>
<td>ETCS</td>
<td>10 Multiport fuel injection system/Sequential multiport fuel injection system</td>
</tr>
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<td>24</td>
<td>HORN</td>
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<tr>
<td>25</td>
<td>HEAD (RH-LWR)</td>
<td>10 Right-hand headlight (low beam)</td>
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<td>26</td>
<td>HEAD (LH-LWR)</td>
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<td>HEAD (LH-UPR)</td>
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### Driver’s side instrument panel

<table>
<thead>
<tr>
<th>Fuse</th>
<th>Ampere</th>
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</tr>
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<tbody>
<tr>
<td>29</td>
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<tr>
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<td>Power outlets</td>
</tr>
<tr>
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<td>15</td>
<td>Cigarette lighter</td>
</tr>
<tr>
<td>3</td>
<td>7.5</td>
<td>Instrument panel light</td>
</tr>
<tr>
<td>4</td>
<td>7.5</td>
<td>Multiport fuel injection system/Sequential multiport fuel injection system</td>
</tr>
<tr>
<td>5</td>
<td>20</td>
<td>Rear window defogger</td>
</tr>
<tr>
<td>6</td>
<td>15</td>
<td>Active height control suspension (AHC)</td>
</tr>
<tr>
<td>7</td>
<td>20</td>
<td>Fuel heater</td>
</tr>
<tr>
<td>8</td>
<td>7.5</td>
<td>Power heater</td>
</tr>
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### 4-3. Do-it-yourself maintenance

<table>
<thead>
<tr>
<th>Fuse</th>
<th>Ampere</th>
<th>Circuit</th>
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</thead>
<tbody>
<tr>
<td>9</td>
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<td>20 Active height control suspension (AHC)</td>
</tr>
<tr>
<td>10</td>
<td>EFI or ECD No.2</td>
<td>10 Emission control system</td>
</tr>
<tr>
<td>11</td>
<td>GAUGE 1</td>
<td>10 Gauges and meters</td>
</tr>
<tr>
<td>12</td>
<td>ECU-IG 1</td>
<td>10 Multiport fuel injection system/Sequential multiport fuel injection system</td>
</tr>
<tr>
<td>13</td>
<td>ECU-B1</td>
<td>10 Navigation system</td>
</tr>
<tr>
<td>14</td>
<td>DBL LOCK</td>
<td>15 Double lock system</td>
</tr>
<tr>
<td>15</td>
<td>A/C</td>
<td>15 Air conditioning system</td>
</tr>
<tr>
<td>16</td>
<td>STOP</td>
<td>15 Stop lights</td>
</tr>
<tr>
<td>17</td>
<td>OBD-2</td>
<td>7.5 On-board diagnosis system</td>
</tr>
<tr>
<td>18</td>
<td>IDLE UP</td>
<td>7.5 Idle-up system</td>
</tr>
<tr>
<td>19</td>
<td>LH SEAT</td>
<td>30 Power seat system</td>
</tr>
<tr>
<td>20</td>
<td>DOOR</td>
<td>25 Power door lock system, Power windows</td>
</tr>
<tr>
<td>21</td>
<td>SUN ROOF</td>
<td>25 Electronic moon roof</td>
</tr>
<tr>
<td>22</td>
<td>RR WIPER</td>
<td>15 Rear wiper system</td>
</tr>
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</table>
4-3. Do-it-yourself maintenance

Passenger’s side instrument panel

<table>
<thead>
<tr>
<th>Fuse</th>
<th>Ampere</th>
<th>Circuit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECU-B2</td>
<td>10</td>
<td>Power door lock system, Power window</td>
</tr>
<tr>
<td>DIFF</td>
<td>20</td>
<td>Four-wheel drive system</td>
</tr>
<tr>
<td>WASHER</td>
<td>15</td>
<td>Windshield washer</td>
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<tr>
<td>RADIO</td>
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<td>Audio system</td>
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<td>10</td>
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<tr>
<td>VGRS</td>
<td>40</td>
<td>Variable gear ratio steering system</td>
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<tr>
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</tr>
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<td>P/W (RL)</td>
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<tr>
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<td>25</td>
<td>Windshield wiper</td>
</tr>
<tr>
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<td>10</td>
<td>Rear air conditioning system</td>
</tr>
<tr>
<td>SEAT HTR</td>
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<td>Seat heater</td>
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<tr>
<td>GAUGE 2</td>
<td>10</td>
<td>Back-up lights</td>
</tr>
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<td>Gauges and meters</td>
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<td>7.5</td>
<td>Multiport fuel injection system/Sequential multiport fuel injection system</td>
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<tr>
<td>SECURITY</td>
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<td>Theft deterrent system</td>
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### 4-3. Do-it-yourself maintenance

<table>
<thead>
<tr>
<th>Fuse</th>
<th>Ampere</th>
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<tbody>
<tr>
<td>16 P/W (RR)</td>
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</tr>
<tr>
<td>18 BATT CHARGE</td>
<td>30</td>
<td>Trailer charging system</td>
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<tr>
<td>19 TIL &amp; TEL</td>
<td>20</td>
<td>Tilt and telescopic steering</td>
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<tr>
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<td>30</td>
<td>Rear air conditioning system</td>
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<tr>
<td>21 RH SEAT</td>
<td>30</td>
<td>Power seat system</td>
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</table>

#### CAUTION

- To prevent system breakdowns and vehicle fire
  - Observe the following precautions.
  - Failing to do so may cause damage, and possibly a fire or injury.
  - Never use a fuse of a higher amperage rating than indicated, or use any other object in place of a fuse.
  - Always use a genuine Lexus fuse or equivalent.
  - Never replace a fuse with a wire, even as a temporary fix. This can cause extensive damage or even fire.
  - Do not modify fuses or the fuse box.

#### NOTICE

- Before replacing fuses
  - Have the cause of electrical overload determined and repaired by your Lexus dealer.
You may replace the following bulbs yourself. For more information about replacing other light bulbs, contact your Lexus dealer.

■ Prepare a replacement light bulb.
  Check the wattage of the light bulb being replaced. (→P. 377)

■ Front bulb locations

■ Rear bulb locations
Replacing light bulbs

- Headlight high beam

**STEP 1**
Turn the bulb base counterclockwise.

**STEP 2**
Unplug the connector while depressing the lock release.

4-3. Do-it-yourself maintenance

4 Maintenance and care

321
Headlight low beam

STEP 1
Turn the cover counterclockwise.

STEP 2
Unplug the connector.

STEP 3
Release the wire clip and remove the light bulb.
License plate light

Open the back door and remove the license plate light unit.

Turn the bulb base counterclockwise.

Remove the light bulb.

Bulbs other than the above

If any of the bulbs listed below has burnt out, have your Lexus dealer replace it.

- Fog lights
- Front turn signal lights
- Front side marker lights
4-3. Do-it-yourself maintenance

- Stop/tail lights
- Tail lights
- High mounted stoplight
- Rear turn signal light
- Back-up lights

**Condensation build-up on the inside of the lens**

Contact your Lexus dealer for more information in the following situations. Temporary condensation build-up on the inside of the headlight lens does not indicate a malfunction.

- Large drops of water are built up on the inside of the lens.
- Water has built up inside the headlight.

**LED light bulbs**

The tail, tail/stop and high mounted stoplights consist of a number of LEDs. If any LEDs burn out, take your vehicle to your Lexus dealer to have the light replaced.

If two or more LEDs in a stoplight burn out, your vehicle may not conform to local laws (SAE).
## 4-3. Do-it-yourself maintenance

### CAUTION

<table>
<thead>
<tr>
<th>Replacing light bulbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turn off the headlights. Do not attempt to replace the bulb immediately after turning off the headlights. The bulbs become very hot and may cause burns.</td>
</tr>
<tr>
<td>Do not touch the glass portion of the light bulb with bare hands. Hold the bulb by the plastic or metal portion. If the bulb is scratched or dropped it may blow out or crack.</td>
</tr>
<tr>
<td>Fully install light bulbs and any parts used to secure them. Failing to do so may result in heat damage, fire, or water entering the headlight unit. This may damage the headlights or cause condensation to build up on the lens.</td>
</tr>
<tr>
<td>Do not attempt to repair or disassemble light bulbs, connectors, electric circuits or component parts. Doing so may result in death or serious injury due to electric shock.</td>
</tr>
</tbody>
</table>

### To prevent damage or fire

Make sure bulbs are fully seated and locked.
4.3. Do-it-yourself maintenance
When trouble arises

5

5-1. Essential information............ 328
   If your vehicle needs to be
towed ........................................... 328
   If you think something is
wrong ............................................. 333
   Fuel pump shut off system .... 334
   Event data recorder ............... 335

5-2. Steps to take in an
   emergency ............................. 337
   If a warning light turns on or a
   warning buzzer sounds .............. 337
   If you have a flat tire ............... 346
   If the engine will not start ....... 357
   If the shift lever cannot be
   shifted from P ............................. 358
   If you lose your keys ............... 359
   If the battery is discharged ....... 360
   If your vehicle overheats ......... 363
   If the vehicle becomes
   stuck ........................................... 366
If your vehicle needs to be towed

If towing is necessary, we recommend having your vehicle towed by your Lexus dealer or a commercial towing service, using a lift-type truck or a flat bed truck.
Use a safety chain system for all towing, and abide by all state/provincial and local laws.
Use a towing dolly or flat bed truck.

Before towing

The following may indicate a problem with your transmission. Contact your Lexus dealer before towing.

- The engine is running, but the vehicle will not move.
- The vehicle makes an abnormal sound.

Emergency towing

If a tow truck is not available, in an emergency your vehicle may be temporarily towed using a cable or chain secured to the emergency towing hook. This should only attempted on hard, surfaced roads for short distances at low speeds.
A driver must be in the vehicle to steer and operate the brakes. The vehicle’s wheels, drive train, axles, steering and brakes must be in good condition.

Towing hook
Emergency towing procedure

**STEP 1** The ignition key must be in the “ACC” or the “ON” (engine running) position.

**STEP 2** Put the four-wheel drive control lever in “H”. (The center differential is unlocked.)

**STEP 3** Put the vehicle height in the “N” mode and push the height control switch to turn off the AHC.

**STEP 4** Put the shift lever in “N”.

**STEP 5** Release the parking brake.

---

**CAUTION**

**While towing**

- Use extreme caution when towing the vehicle. Avoid sudden starts or erratic driving maneuvers which place excessive stress on the emergency towing hook and the cable or chain.
- If the engine is not running, the power assist for the brakes and steering will not function, making steering and braking more difficult.

---

**NOTICE**

**To prevent causing serious damage to the transmission**

Never tow this vehicle wheels on the ground.
Towing with a sling-type truck

⚠️ NOTICE

- To prevent body damage
  Do not tow with a sling type truck, either from the front or rear.
When trouble arises

Towing with a wheel lift-type truck

► From front

Use a towing dolly under the rear wheels.

► From rear

**NOTICE**

- To prevent causing serious damage to the transmission
  Never tow this vehicle wheels on the ground.
Using a flat bed truck

If your Lexus is transported by a flat bed truck, it should be tied down at the locations shown in the illustration.

If you use chains or cables to tie down your vehicle, the angles shaded in black must be 45°.
Do not overly tighten the tie downs or the vehicle may be damaged.

⚠️ NOTICE

To avoid serious damage to your vehicle

Do not use the rear emergency towing hook
If you notice any of the following symptoms, your vehicle probably needs adjustment or repair. Contact your Lexus dealer as soon as possible.

■ Visible symptoms
  ● Fluid leaks under the vehicle
    (Water dripping from the air conditioning after use is normal.)
  ● Flat-looking tires or uneven tire wear
  ● Engine coolant temperature gauge needle continually points higher than normal
  ● Engine oil pressure gauge continually points lower than normal
  ● Voltmeter continually points higher or lower than normal

■ Audible symptoms
  ● Changes in exhaust sound
  ● Excessive tire squeal when cornering
  ● Strange noises related to the suspension system
  ● Pinging or other noises related to the engine

■ Operational symptoms
  ● Engine missing, stumbling or running rough
  ● Appreciable loss of power
  ● Vehicle pulls heavily to one side when braking
  ● Vehicle pulls heavily to one side when driving on a level road
  ● Loss of brake effectiveness, spongy feeling, pedal almost touches the floor
5-1. Essential information
Fuel pump shut off system

To minimize the risk of fuel leakage when the engine stalls or an airbag inflates upon collision, the fuel pump shut off system stops supplying fuel to the engine.

Follow the procedure below to restart the engine after the system is activated.

**STEP 1** Turn the ignition key to the “ACC” to “LOCK” position.
**STEP 2** Restart the engine.

⚠️ NOTICE

**Before starting the engine**
- Inspect the ground under the vehicle.
- If you find that fuel has leaked on to the ground, the fuel system has been damaged and it is in need of repair. Do not restart the engine.
5-1. Essential information

Event data recorder

Your vehicle has computers that monitor and control certain aspects of your vehicle. These computers assist in driving and maintaining optimal vehicle performance.

Besides storing data useful for troubleshooting, there is a system to record data in a crash or a near car crash event. This is called an Event Data Recorder (EDR).

### In a crash or a near car crash event

The EDR may record some or all of the following information.

- Engine speed
- Whether the brake pedal was applied or not
- Vehicle speed
- To what extent the accelerator pedal was depressed
- Position of the transmission shift lever
- Whether the driver and front passenger wore seat belts or not
- Driver’s seat position
- Front passenger’s occupant classification
- SRS airbag deployment data
- SRS airbag system diagnostic data

Your Lexus’ Electronic Control Unit (ECU) may contain another EDR. There are a variety of driving situations which include activating the vehicle stability control (VSC) under which the VSC EDR will record certain information. The VSC EDR may record some or all of the following information:

- Behavior of the vehicle
- Steering wheel angle
5.1 Essential information

- Vehicle speed
- To what extent the accelerator pedal was depressed
- To what extent the brake pedal was applied
- To what extent the ECU controlled the condition of the 4 wheels
- Vehicle stability control system diagnostic data

The information above is intended to be used for the purpose of improving vehicle safety performance. Unlike general data recorders, the EDR does not record sound data such as conversation between passengers.

Disclosure of the data

Lexus will not disclose the data recorded in an EDR to a third party except when:

- An agreement from the vehicle’s owner (or the leasing company for a leased vehicle) is obtained
- Officially requested by the police or other authorities
- Used as a defense for Lexus in a law suit
- Ordered by a court

However, if necessary Lexus will:

- Use the data for research on Lexus vehicle safety performance
- Disclose the data to a third party for research purposes without disclosing details of the vehicle owner, and only when it is deemed necessary
- Disclose summarized data cleared of vehicle identification information to a non-Lexus organization for research purposes
5-2. Steps to take in an emergency

If a warning light turns on or a warning buzzer sounds...

Calmly perform the following actions if any of the warning lights turn on or flash. If a light turns on or flashes, but then turns off, this does not necessarily indicate a malfunction in the system.

Stop the vehicle immediately. Continuing to drive the vehicle may be dangerous.

The following warning indicates a possible problem in the brake system. Immediately stop the vehicle in a safe place and contact your Lexus dealer.

<table>
<thead>
<tr>
<th>Warning light</th>
<th>Warning light/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="U.S.A." alt="Brake" /></td>
<td>Brake system warning light (warning buzzer) *</td>
</tr>
<tr>
<td><img src="Canada" alt="Parking" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Low brake fluid</td>
</tr>
<tr>
<td></td>
<td>- Malfunction in the brake system</td>
</tr>
<tr>
<td></td>
<td>This light also comes on when the parking brake is not released. If the light turns off after the parking brake is fully released, the system is operating normally.</td>
</tr>
</tbody>
</table>

*: Parking brake engaged warning buzzer:

A buzzer will sound if the vehicle is driven at a speed of approximately 3 mph (5 km/h) or more.
5-2. Steps to take in an emergency

Stop the vehicle immediately.

The following warning indicates the possibility of damage to the vehicle that may lead to an accident. Immediately stop the vehicle in a safe place and contact your Lexus dealer.

<table>
<thead>
<tr>
<th>Warning light</th>
<th>Warning light/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Charging system warning light</td>
</tr>
<tr>
<td></td>
<td>Malfunction in the vehicle's charging system.</td>
</tr>
</tbody>
</table>

Have the vehicle inspected by your Lexus dealer immediately.

Failing to investigate the cause of the following warnings may lead to the system operating abnormally and possibly cause an accident. Have the vehicle inspected by your Lexus dealer immediately.

<table>
<thead>
<tr>
<th>Warning light</th>
<th>Warning light/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>(U.S.A.)</td>
<td>Malfunction indicator lamp</td>
</tr>
<tr>
<td>(Canada)</td>
<td>Malfunction in:</td>
</tr>
<tr>
<td></td>
<td>• The emission control system;</td>
</tr>
<tr>
<td></td>
<td>• The electronic engine control system;</td>
</tr>
<tr>
<td></td>
<td>• The electronic throttle control system; or</td>
</tr>
<tr>
<td></td>
<td>• The electronic automatic transmission control system.</td>
</tr>
<tr>
<td></td>
<td>SRS warning light</td>
</tr>
<tr>
<td></td>
<td>Malfunction in:</td>
</tr>
<tr>
<td></td>
<td>• The SRS airbag system; or</td>
</tr>
<tr>
<td></td>
<td>• The front passenger occupant classification system; or</td>
</tr>
<tr>
<td></td>
<td>• The seat belt pretensioner system.</td>
</tr>
</tbody>
</table>
When trouble arises

5-2. Steps to take in an emergency

<table>
<thead>
<tr>
<th>Warning light</th>
<th>Warning light/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ABS</strong> (U.S.A.)</td>
<td><strong>ABS warning light</strong></td>
</tr>
<tr>
<td>(Canada)</td>
<td>Malfunction in:</td>
</tr>
<tr>
<td></td>
<td>• The ABS; or</td>
</tr>
<tr>
<td></td>
<td>• The brake assist system.</td>
</tr>
<tr>
<td><strong>VSC TRAC</strong></td>
<td><strong>Vehicle stability control system and active traction control system warning light</strong></td>
</tr>
<tr>
<td><strong>VSC OFF</strong></td>
<td>Malfunction in:</td>
</tr>
<tr>
<td></td>
<td>• The VSC system; or</td>
</tr>
<tr>
<td></td>
<td>• The active traction control system.</td>
</tr>
<tr>
<td><strong>VGRS</strong></td>
<td><strong>Variable gear ratio steering system warning light</strong></td>
</tr>
<tr>
<td></td>
<td>Malfunction in the variable gear ratio steering system.</td>
</tr>
<tr>
<td><strong>NIGHT VIEW</strong></td>
<td><strong>Lexus night view system warning light</strong></td>
</tr>
<tr>
<td></td>
<td>The bulb for the near-infrared floodlight is burned out.</td>
</tr>
<tr>
<td><strong>AT OIL TEMP</strong></td>
<td><strong>Automatic transmission fluid temperature warning light</strong></td>
</tr>
<tr>
<td></td>
<td>The automatic transmission fluid temperature is too high.</td>
</tr>
</tbody>
</table>

**Have the malfunction repaired immediately.**

After taking the specified steps to correct the suspected problem, check that the warning light turns off.

<table>
<thead>
<tr>
<th>Warning light</th>
<th>Warning light/Details</th>
<th>Correction procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Open door</strong></td>
<td><strong>Open door warning light</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A door is not fully closed.</td>
<td>Check that all doors are closed.</td>
</tr>
</tbody>
</table>
### 5-2. Steps to take in an emergency

<table>
<thead>
<tr>
<th>Warning light</th>
<th>Warning light/Details</th>
<th>Correction procedure</th>
</tr>
</thead>
</table>
|               | **Driver’s seat belt reminder light (warning buzzer)***  
|               | Warns the driver to fasten his/her seat belt. | Fasten the seat belt. |
|               | **Front passenger’s seat belt reminder light**  
|               | Warns the front passenger to fasten his/her seat belt. | Fasten the seat belt. |
|               | **Tire pressure warning light** | Adjust the tire inflation pressure. |
|               | When the light comes on:  
|               | Low tire inflation pressure. | Have the system checked by your Lexus dealer. |
|               | When the light blinks:  
|               | Malfunction in the tire pressure warning system. | |
|               | **Unengaged “Park” warning light**  
|               | The transmission “Park” mechanism is not engaged. | Shift four-wheel drive control out of “N”. |
|               | **Low fuel level warning light**  
|               | Low level of fuel. | Refuel the vehicle |
|               | **Low washer fluid warning light**  
|               | Low level of washer fluid. | Fill the tank. |
When trouble arises

- **Step 1:** Driver’s seat belt reminder buzzer:

  The driver’s seat belt reminder sounds to alert the driver that his or her seat belt is not fastened. The buzzer sounds for about 4 to 8 seconds, unless the driver fastens the belt.

- **Step 2:** Engine oil replacement reminder light

  - **Illuminates for about 3 seconds and then flashes for about 12 seconds:** Indicates that the engine oil is scheduled to be changed.

  - **Comes on and remains on:** Indicates that the engine oil should be changed.

Check and the engine oil, and change if necessary.

Check and change the engine oil.
5-2. Steps to take in an emergency

■ Key reminder buzzer
The buzzer indicates that the key has not been removed (with the ignition key in the ACC or LOCK position and the driver’s door opened).

■ If the malfunction indicator lamp comes on while driving
First check the following:
● Is your vehicle low on gas?
  If it is, refuel the vehicle immediately.
● Is the fuel tank cap loose?
  If it is, tighten it securely.

The light will go off after taking several driving trips. If the light does not go off even after several trips, contact your Lexus dealer as soon as possible.

■ Front passenger detection sensor and passenger seat belt reminder
● If luggage is placed on the front passenger seat, the front passenger detection sensor may cause the warning light to flash, even if a passenger is not sitting in the seat.
● If a cushion is placed on the seat, the sensor may not detect a passenger, and the warning light may not operate properly.

■ SRS warning light
This warning light system monitors the following:
● The airbag sensor assembly
● Front airbag sensors
● The curtain shield airbag sensors
● The side and curtain shield airbag sensors
● The seat belt buckle switches
● The driver’s seat position sensor
● The inflators
● The interconnecting wiring and power sources
● The front passenger occupant classification system and indicator light
● The seatbelt pretensioners
● The roll sensing of curtain shield airbags off indicator light.
5-2. Steps to take in an emergency

■ When the tire pressure warning light comes on
  Check the tire inflation pressure and adjust to the appropriate level. Pushing the tire pressure warning reset switch does not turn off the tire pressure warning light.

■ The tire pressure warning light may come on due to natural causes
  The tire pressure warning light may come on due to natural causes such as natural air leaks or tire inflation pressure changes caused by temperature. In this case, adjusting the tire inflation pressure will turn off the warning light.

■ If the tire pressure warning system is inoperative
  The tire pressure warning system may become inoperative in the following conditions:
  (When the condition becomes normal, the system will work properly.)
  ● If tires not equipped with tire pressure warning valves and transmitters are used.
  ● If the ID code on the tire pressure warning valves and transmitters is not registered.
  ● If electronic devices or facilities using similar radio wave frequencies are nearby.
  ● If a radio set at similar frequencies is in use in the vehicle.
  ● If a window tint that affects the radio wave signals is installed.
  ● If the tire pressure warning select switch is set to a different tire setting.
  ● If there is a lot of snow or ice on the vehicle, in particular around the wheels or wheel housings.
  ● If non-genuine Lexus wheels are used.
  ● If tire chains are used.
  ● If the spare tire is in a location subject to poor radio wave signal reception.
  ● If the tire inflation pressure is 73 psi (500 kPa, 5.1 kgf/cm² or bar) or higher.

■ If the tire pressure warning light blinks
  If the tire pressure warning light blinks when the ignition key is turned to the “ON” position, have it checked by your Lexus dealer.

■ Changing the engine oil (U.S.A. only)
  Make sure to reset oil change system
5-2. Steps to take in an emergency

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>If the tire pressure warning light comes on</strong></td>
</tr>
</tbody>
</table>
Be sure to observe the following precautions. Failure to do so could cause loss of vehicle control and result in death or serious injury.

- Stop your vehicle in a safe place as soon as possible. Adjust the tire inflation pressure immediately.
- If the tire pressure warning light comes on even after tire inflation pressure adjustment, it is probable that you have a flat tire. Check the tires. If the tire is flat, change to the spare tire and have the flat tire repaired by the nearest Lexus dealer.
- Avoid abrupt maneuvering and braking. If the vehicle tires deteriorate, you could lose control of the steering wheel or the brakes.

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>If a blowout or sudden air leakage should occur</strong></td>
</tr>
</tbody>
</table>
The tire pressure warning system may not activate immediately.

<table>
<thead>
<tr>
<th>Maintenance of the tires</th>
</tr>
</thead>
</table>
Each tire, including the spare (if provided), should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tire inflation pressure label (tire and load information label). (If your vehicle has tires of a different size than the size indicated on the vehicle placard or tire inflation pressure label [tire and load information label], you should determine the proper tire inflation pressure for those tires.)

As an added safety feature, your vehicle has been equipped with a tire pressure monitoring system (TPMS-tire pressure warning system) that illuminates a low tire pressure telltale (tire pressure warning light) when one or more of your tires is significantly under-inflated. Accordingly, when the low tire pressure telltale (tire pressure warning light) illuminates, you should stop and check your tires as soon as possible, and inflate them to the proper pressure. Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces fuel efficiency and tire tread life, and may affect the vehicle’s handling and stopping ability.

Please note that the TPMS (tire pressure warning system) is not a substitute for proper tire maintenance, and it is the driver’s responsibility to maintain correct tire pressure, even if under-inflation has not reached the level to trigger illumination of the TPMS low tire pressure telltale (tire pressure warning light).
5-2. Steps to take in an emergency

<table>
<thead>
<tr>
<th>NOTICE</th>
</tr>
</thead>
</table>
| ■ Precaution when installing a different tire  
  When a tire of a different specification or maker is installed, the tire pressure warning system may not operate properly. |
If you have a flat tire

Remove the flat tire and replace it with the spare provided.

- **Before jacking up the vehicle**
  - Stop the vehicle on a hard, flat surface.
  - Set the parking brake.
  - Shift the shift lever to “P”.
  - Turn off the active height control suspension. (→P. 130.)
  - Stop the engine.
  - Turn on the emergency flashers.

- **Location of the spare tire, jack and tools**

![Tool bag](image1)
![Jack](image2)
![Spare tire](image3)
Taking out the jack and tools

▶ Tool bag

Remove the lid and take out the tool bag.

▶ Jack

1. Loosen
2. Tighten
Loosen and remove the jack.

▶ Jack handle (in the tool bag)

Assemble the jack handle extension as shown. Be sure to tighten each bolt securely.
Taking out the spare tire

**STEP 1**
Remove the spare tire carrier lid using a flathead screwdriver.

**STEP 2**
Insert the jack handle extension into the lowering screw.
Place a rag under the jack handle extension to protect the bumper.

**STEP 3**

1. Lower
2. Raise

Lower the spare tire completely to the ground.
5-2. Steps to take in an emergency

Replacing a flat tire

**STEP 1**

Chock the tires.

<table>
<thead>
<tr>
<th>Flat tire</th>
<th>Wheel chock position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Left-hand side</td>
<td>Behind the rear right-hand side tire</td>
</tr>
<tr>
<td>Front Right-hand side</td>
<td>Behind the rear left-hand side tire</td>
</tr>
<tr>
<td>Rear Left-hand side</td>
<td>In front of the front right-hand side tire</td>
</tr>
<tr>
<td>Rear Right-hand side</td>
<td>In front of the front left-hand side tire</td>
</tr>
</tbody>
</table>

**STEP 2**

Remove the wheel ornament using the wheel nut wrench as shown.
5-2. Steps to take in an emergency

Slightly loosen the wheel nuts (one turn).

Position the jack at the jack points as shown.

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

Assemble the jack handle extension as shown. Be sure to tighten each bolt securely.
5-2. Steps to take in an emergency

Raise the vehicle until the tire is slightly raised off the ground.

Remove all the wheel nuts and the tire.

When resting the tire on the ground, place the tire so that the wheel design faces up to avoid scratching the wheel surface.
Installing the spare tire

**STEP 1**
Remove any dirt or foreign matter from the wheel contact surface.
If foreign matter is on the wheel contact surface, the wheel nuts may loosen while the vehicle is in motion, and the tire may come off the vehicle.

**STEP 2**
Install the spare tire and loosely tighten each nut by hand to approximately the same amount.

**STEP 3**
Lower the vehicle.
5-2. Steps to take in an emergency

Firmly tighten each nut two or three times in the order shown in the illustration.

**Tightening torque:**
97 ft•lbf (131 N•m, 13.4 kgf•m)

Reinstall the wheel ornament.

---

**Stowing the flat/spare tire, jack and tools**

**STEP 1** Lay down the tire with the outer side facing up, and install the holding bracket.

**STEP 2** Raise the tire.

**STEP 3** Stow the tools and jack securely.
5-2. Steps to take in an emergency

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Using the tire jack</td>
</tr>
<tr>
<td>Improper use of the tire jack may lead to death or injuries due to the vehicle suddenly falling off the jack.</td>
</tr>
<tr>
<td>● Do not use the tire jack for any purpose other than replacing tires or installing and removing tire chains.</td>
</tr>
<tr>
<td>● Only use the tire jack that comes with this vehicle for replacing a flat tire. Do not use it on other vehicles, and do not use other tire jacks for replacing tires on this vehicle.</td>
</tr>
<tr>
<td>● Always check that the tire jack is securely set to the jack point.</td>
</tr>
<tr>
<td>● Be sure to turn off the active height control suspension and stop the engine.</td>
</tr>
<tr>
<td>● Do not raise the vehicle while someone is in it.</td>
</tr>
<tr>
<td>● When raising the vehicle, do not put an object on or under the jack.</td>
</tr>
<tr>
<td>● Do not raise the vehicle to a height greater than that required to replace the tire.</td>
</tr>
<tr>
<td>● Use a jack stand if it is necessary to get under the vehicle.</td>
</tr>
<tr>
<td>● Do not put any part of your body under the vehicle supported by a jack.</td>
</tr>
<tr>
<td>● Do not start or run the engine while your vehicle is supported by the jack.</td>
</tr>
<tr>
<td>Take particular care when lowering the vehicle to ensure that no one working on or near the vehicle may be injured.</td>
</tr>
<tr>
<td>■ Using the jack handle</td>
</tr>
<tr>
<td>Tighten all the jack handle bolts securely using a Phillips-head screwdriver, to prevent the extension parts from coming apart unexpectedly.</td>
</tr>
</tbody>
</table>
CAUTION

- **Replacing a flat tire**
  
  Observe the following precautions to reduce the risk of injury.

  - Lower the spare tire completely to the ground before removing it from under the vehicle.
  - Do not try to remove the wheel ornament by hand. Take due care in handling the ornament to avoid unexpected personal injury.
  - Never use oil or grease on the wheel bolts or wheel nuts. The oil or grease can cause the wheel nuts to loosen, causing a serious accident. Remove any oil or grease on the wheel bolts or wheel nuts.
  - Have the wheel nuts tightened with a torque wrench to 97 ft•lbf (131 N•m, 13.4 kgf•m) as soon as possible after changing wheels. Failure to follow these precautions could cause the nuts to loosen and the wheels may fall off, which could lead to an accident causing death or serious injury.
  - Do not attach a heavily damaged wheel ornament, as it may fly off the wheel while the vehicle is moving.
### 5-2. Steps to take in an emergency

<table>
<thead>
<tr>
<th><strong>NOTICE</strong></th>
</tr>
</thead>
</table>
| ■ Do not drive the vehicle with a flat tire  
  Do not continue driving with a flat tire.  
  Driving even a short distance with a flat tire can damage the tire and the wheel beyond repair.  
| ■ When stowing the flat tire  
  Ensure that there is no object caught between the tire and the vehicle underbody.  
| ■ When replacing the tires  
  ● When removing or fitting the wheels, tires or the tire pressure warning valve and transmitter, contact your Lexus dealer as the tire pressure warning valve and transmitter may be damaged if not handled correctly.  
  ● Replace the grommets for the tire pressure warning valves and transmitters as well.  
| ■ To avoid damaging the tire pressure warning valves and transmitters  
  Do not use liquid sealants on flat tires.  |
If the engine will not start even though correct starting procedures are being followed (→P. 95), consider each of the following points.

■ The engine will not start when the starter motor operates normally.
One of the following may be the cause of the problem.

● There may not be sufficient fuel in the vehicle’s tank.
  Add fuel to the vehicle.

● The engine may be flooded.
  Try to restart the engine once more following correct starting procedures. (→P. 95)

● There may be a malfunction in the engine immobilizer system.
  (→P. 47)

■ The starter motor turn over slowly, the interior lights and headlights are dim, or the horn does not sound or sounds at a low volume.
One of the following may be the cause of the problem.

● The battery may be discharged. (→P. 360)

● The battery terminal connections may be loose or corroded.

■ The starter motor does not turn over, the interior lights and headlights do not turn on, or the horn does not sound.
One of the following may be the cause of the problem.

● One or both of the battery terminals may be disconnected.

● The battery may be discharged. (→P. 360)
  Contact your Lexus dealer if the problem cannot be repaired, or if repair procedures are unknown.
5-2. Steps to take in an emergency
If the shift lever cannot be shifted from P

If the shift lever cannot be shifted with your foot on the brake, there may be a problem with the shift lock system (a system to prevent accidental operation of the shift lever). Have the vehicle inspected by your Lexus dealer immediately.

The following steps may be used as an emergency measure to ensure that the shift lever can be shifted.

**STEP 1** Set the parking brake.
**STEP 2** Turn the ignition key to the “ACC” position.
**STEP 3** Depress the brake pedal.
**STEP 4** Pry the cover up with a flathead screwdriver or equivalent.

**STEP 5** Press the shift lock override button.
The shift lever can be shifted while the button is pressed.
5-2. Steps to take in an emergency

If you lose your keys

New genuine Lexus keys can be made by your Lexus dealer using one of the other keys or the key number stamped on your key number plate.
5-2. Steps to take in an emergency
If the battery is discharged

The following procedures may be used to start the engine if the battery is discharged.
You can call your Lexus dealer, Roadside Assistance or Lexus Customer Service.

If you have a set of jumper (or booster) cables and a second vehicle with a 12 volt battery, you can jump start your Lexus following the steps below.

Connecting the jumper cables.

1. If required, remove all 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.)
2. Positive (+) battery terminal on your vehicle.
3. Positive (+) battery terminal on the second vehicle.
4. Negative (-) battery terminal on the second vehicle.
5. Connect the jumper cable to ground on your vehicles as shown in the illustration.

**STEP 2** Start the engine of the second vehicle. Increase the engine speed slightly and maintain at that level for approximately 5 minutes to recharge the battery of your vehicle.
5-2. Steps to take in an emergency

Avoiding a discharged battery
- Turn off the headlights and the audio system while the engine is turned off.
- Turn off any unnecessary electrical components when the vehicle is running at a low speed for an extended period, such as in heavy traffic, etc.

When the battery is removed or discharged
The following systems must be initialized.
- Moon roof (→ P. 42)
- Variable gear ratio steering (→ P. 144)

CAUTION

Avoiding battery fires or explosions
Observe the following precautions to prevent accidentally igniting the flammable gas that may be emitted from the battery.
- Make sure the jumper cable is connected to the correct terminal and that it is not unintentionally in contact with any part other than the intended terminal.
- Do not allow the jumper cables to come into contact with the “+” and “-” terminals.
- Do not allow open flame or use matches, cigarette lighters or smoke near the battery.
5-2. Steps to take in an emergency

<table>
<thead>
<tr>
<th>CAUTION</th>
</tr>
</thead>
</table>
| **Battery precautions**  
The battery contains poisonous and corrosive acidic electrolyte, while related parts contain lead and lead compounds. Observe the following precautions when handling the battery:  
  ● When working with the battery, always wear safety glasses and take care not to allow any battery fluids (acid) to come into contact with skin, clothing or the vehicle body.  
  ● Do not lean over the battery.  
  ● If the battery fluid comes into contact with the skin or eyes, immediately wash the affected area with water and seek medical attention. Place a wet sponge or cloth over the affected area until medical attention can be received.  
  ● Always wash your hands after handling the battery support, terminals, and other battery-related parts.  
  ● Do not allow children near the battery. |

<table>
<thead>
<tr>
<th>NOTICE</th>
</tr>
</thead>
</table>
| **To prevent damaging the vehicle**  
Do not pull- or push-start the vehicle, because the three-way catalytic converter may overheat and become a fire hazard.  
**When handling jumper cables**  
Be careful that the jumper cables do not become tangled in the cooling fan or any of the belts when connecting or disconnecting them. |
If your engine overheats

**STEP 1** Stop the vehicle in a safe place and turn off the automatic air conditioning system.

**STEP 2** Check to see if steam is coming out from under the hood.
- If you see steam:
  - Stop the engine.
- If you do not see steam:
  - Leave the engine running and carefully lift the hood.

**STEP 3** Check to see if the cooling fan is operating.
- If the fan is operating:
  - Wait until the engine coolant temperature gauge begins to fall and then stop the engine.
- If the fan is not operating:
  - Stop the engine immediately and call your local Lexus dealer.

**STEP 4** After the engine has cooled down sufficiently, check the coolant level and inspect the radiator core (radiator) for any leaks.
364

5-2. Steps to take in an emergency

- **Overheating**
  In the following situations, your vehicle may be overheating.
  - The engine coolant temperature gauge enters the red zone or a loss of power is experienced.
  - Steam is coming from under the hood.

**CAUTION**

- To prevent an accident or injury when inspecting under the hood of your vehicle
  - Keep hands and clothing away from the fan and engine drive belt while the engine is running.
  - Do not loosen the radiator cap while the engine and radiator are hot. Serious injury, such as burns, may result from hot coolant and steam released under pressure.

Add coolant if required.

Water can be used in an emergency measure if coolant is unavailable. (→P. 372)

Have the vehicle checked at your nearest Lexus dealer as soon as possible.
5-2. Steps to take in an emergency

<table>
<thead>
<tr>
<th>NOTICE</th>
</tr>
</thead>
</table>
| ■ **When adding engine coolant**  
  Wait until the engine has cooled down before adding engine coolant.  
  When adding coolant, do so slowly. Adding cool coolant to a hot engine too quickly can cause damage to the engine. |
## 5-2. Steps to take in an emergency
### If the vehicle becomes stuck

Carry out the following procedures if the tires spin or the vehicle becomes stuck in mud, dirt, or snow.

<table>
<thead>
<tr>
<th>STEP</th>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Stop the engine. Set the parking brake and shift the shift lever in “P”.</td>
</tr>
<tr>
<td>2</td>
<td>Remove the mud, snow or sand from around the stuck tire.</td>
</tr>
<tr>
<td>3</td>
<td>Place wood, stones or some other material to help provide traction under the tires.</td>
</tr>
<tr>
<td>4</td>
<td>Restart the engine.</td>
</tr>
<tr>
<td>5</td>
<td>Turn off VSC. (→ P.143)</td>
</tr>
<tr>
<td>6</td>
<td>Carefully apply the accelerator to free the vehicle.</td>
</tr>
</tbody>
</table>

### CAUTION
- **When attempting to free a stuck vehicle**
  
  If you choose to rock the vehicle back and forth to free it, make sure the surrounding area is clear, to avoid striking other vehicles, objects or persons. The vehicle may also lunge forward or lunge back suddenly as it becomes free. Use extreme caution.

- **When shifting the shift lever**
  
  Be careful not to shift the shift lever with the accelerator pedal depressed. This may lead to unexpected rapid acceleration of the vehicle that may cause an accident and result in death or serious injury.

### NOTICE
- **To avoid damaging the transmission and other components**
  
  - Avoid spinning the wheels and do not rev the engine.
  - If the vehicle remains stuck after trying these procedures, the vehicle may require towing to be freed.
Vehicle specification

6

6-1. Specifications ......................... 368
    Maintenance data .................... 368
    Fuel information ................... 378
    Tire information .................... 381

6-2. Customization ....................... 389
    Customizable features ............ 389

6-3. Initialization ....................... 393
    Items to initialize ................ 393
### Dimensions and weight

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value / Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall length</td>
<td>192.5 in. (4890 mm)</td>
</tr>
<tr>
<td>Overall width</td>
<td>76.4 in. (1940 mm)</td>
</tr>
<tr>
<td>Overall height *</td>
<td>72.8 in. (1850 mm)</td>
</tr>
<tr>
<td>Wheelbase</td>
<td>112.2 in. (2850 mm)</td>
</tr>
<tr>
<td>Tread</td>
<td></td>
</tr>
<tr>
<td>Front</td>
<td>63.8 in. (1620 mm)</td>
</tr>
<tr>
<td>Rear</td>
<td>63.6 in. (1615 mm)</td>
</tr>
<tr>
<td>Vehicle capacity weight (Occupants + luggage)</td>
<td>1200 lb. (545 kg)</td>
</tr>
<tr>
<td>Towing capacity (trailer weight + cargo weight)</td>
<td>6500 lb. (2948 kg)</td>
</tr>
</tbody>
</table>

*: Unladen vehicle
**Vehicle identification**

- **Vehicle identification number**
  The vehicle identification number (VIN) is the legal identifier for your vehicle. This is the primary identification number for your Lexus. It is used in registering the ownership of your vehicle.
  
  This number is stamped on the top left of the instrument panel.

  ![Vehicle identification number](image1.png)

  This number is also on the Certification Label.

- **Engine number**
  The engine number is stamped on the engine block as shown.

  ![Engine number](image2.png)
### Engine

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>2UZ-FE</td>
</tr>
<tr>
<td>Type</td>
<td>8-cylinder V type, 4-cycle, gasoline</td>
</tr>
<tr>
<td>Bore and stroke</td>
<td>3.70 × 3.30 in. (94.0 × 84.0 mm)</td>
</tr>
<tr>
<td>Displacement</td>
<td>284.6 cu.in. (4664 cm³)</td>
</tr>
<tr>
<td>Drive belt tension</td>
<td>Automatic adjustment</td>
</tr>
</tbody>
</table>

### Fuel

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel type</td>
<td>Unleaded gasoline only</td>
</tr>
<tr>
<td>Octane rating</td>
<td>91 (Research octane number 96) or higher</td>
</tr>
<tr>
<td>Fuel tank capacity</td>
<td>25.4 gal. (96 L, 21.1 Imp.gal)</td>
</tr>
</tbody>
</table>
## Lubrication system

### Specifications

#### Oil capacity

<table>
<thead>
<tr>
<th></th>
<th>With filter</th>
<th>Without filter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drain and refill</td>
<td>7.2 qt. (6.8 L, 6.0 lmp.qt.)</td>
<td>6.8 qt. (6.4 L, 5.6 lmp.qt.)</td>
</tr>
</tbody>
</table>

#### Oil grade

- ILSAC multigrade engine oil

#### Recommended oil viscosity

Use Lexus approved “Toyota Genuine Motor Oil” or equivalent to satisfy the above grade and viscosity.

*5W-30 is an oil that provides optimal levels of fuel efficiency.

**Oil viscosity:**

- The 5W portion of the oil viscosity rating indicates the characteristic of the oil which allows cold startability. Oils with a lower value before the W allow for easier starting of the engine in cold weather.
- The 30 in 5W-30 indicates the oil viscosity when the oil is as its operating temperature. An oil with a higher viscosity may be better suited if the vehicle is operated at high speeds, or under extreme load condition.
### 6-1. Specifications

#### Cooling system

<table>
<thead>
<tr>
<th>Capacity</th>
<th>16.3 qt. (15.4 L, 13.6 lmp.qt.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coolant type</td>
<td>Use either of the following:</td>
</tr>
<tr>
<td></td>
<td>• “Toyota Super Long Life Coolant”</td>
</tr>
<tr>
<td></td>
<td>• Similar high-quality ethylene glycol-based non-silicate, non-amine, non-nitrite, and non-borate coolant with long-life hybrid organic acid technology</td>
</tr>
<tr>
<td></td>
<td>Do not use plain water alone.</td>
</tr>
</tbody>
</table>

#### Ignition system

| Spark plug | DENSO SK20R11 |
| Make       | NGK IFR6A11   |
| Gap        | 0.043 in. (1.1 mm) |

**NOTICE**

- **Iridium-tipped spark plugs**

  Use only iridium-tipped spark plugs. Do not adjust gap when tuning engine.
### Electrical system

<table>
<thead>
<tr>
<th>Battery</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Open voltage at 68°F (20°C):</td>
<td></td>
</tr>
<tr>
<td>12.6 — 12.8V Fully charged</td>
<td></td>
</tr>
<tr>
<td>12.2 — 12.4V Half charged</td>
<td></td>
</tr>
<tr>
<td>11.8 — 12.0V Discharged</td>
<td></td>
</tr>
<tr>
<td>(Voltage is checked 20 minutes after the key is removed with all lights turned off.)</td>
<td></td>
</tr>
<tr>
<td>Charging rates</td>
<td>5A max.</td>
</tr>
</tbody>
</table>

### Differential

<table>
<thead>
<tr>
<th>Oil capacity</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Front</td>
<td>1.7 qt. (1.6 L, 1.4 lmp.qt.)</td>
</tr>
<tr>
<td>Rear</td>
<td>3.5 qt. (3.3 L, 2.9 lmp.qt.)</td>
</tr>
<tr>
<td>Oil type and viscosity</td>
<td>Hypoid gear oil API GL-5</td>
</tr>
<tr>
<td></td>
<td>Above 0°F (-18°C): SAE90</td>
</tr>
<tr>
<td></td>
<td>Below 0°F (-18°C): SAE80W or SAE80W-90</td>
</tr>
</tbody>
</table>
6-1. Specifications

**Automatic transmission**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid capacity</td>
<td>3.2 qt. (3.0 L, 2.6 Imp.qt.)</td>
</tr>
<tr>
<td>Drain and refill</td>
<td></td>
</tr>
<tr>
<td>Fluid type</td>
<td>Toyota Genuine ATF WS</td>
</tr>
</tbody>
</table>

**NOTICE**

Using 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 transmission of your vehicle.

**Transfer**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil capacity</td>
<td>1.4 qt. (1.3 L, 1.1 Imp.qt.)</td>
</tr>
<tr>
<td>Oil type</td>
<td>Hypoid gear oil API GL-4 or GL-5</td>
</tr>
<tr>
<td>Recommended oil viscosity</td>
<td>SAE75W-90</td>
</tr>
</tbody>
</table>

**Brakes**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedal clearance *1</td>
<td>4.57 in. (116 mm) Min.</td>
</tr>
<tr>
<td>Pedal free play</td>
<td>0.04 — 0.24 in. (1.0 — 6.0 mm)</td>
</tr>
<tr>
<td>Brake pad wear limit</td>
<td>0.04 in. (1.0 mm)</td>
</tr>
<tr>
<td>Parking brake lining wear limit</td>
<td>0.04 in. (1.0 mm)</td>
</tr>
<tr>
<td>Parking brake adjustment *2</td>
<td>4 — 6 clicks</td>
</tr>
<tr>
<td>Fluid type</td>
<td>SAE J1703 or FMVSS No. 116 DOT 3</td>
</tr>
</tbody>
</table>

*1: Minimum pedal clearance when depressed with a force of 110 lbf (490 N, 50 kgf) while the engine is running.

*2: Parking brake pedal travel when pulled with a force of 44 lbf (196 N, 20 kgf).
### Chassis lubrication

<table>
<thead>
<tr>
<th>Component</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheel bearings</td>
<td>Lithium base wheel bearing grease, NLGI No.2</td>
</tr>
<tr>
<td>Steering knuckles</td>
<td>Molybdenum-disulfide lithium base chassis grease, NLGI No.2</td>
</tr>
<tr>
<td>Propeller shafts</td>
<td>Lithium base chassis grease, NLGI No.2</td>
</tr>
<tr>
<td>Spider Slide yoke</td>
<td>Molybdenum-disulfide lithium base chassis grease, NLGI No.2 or lithium base chassis grease, NLGI No.2</td>
</tr>
</tbody>
</table>

### Steering

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free play</td>
<td>Less than 1.6 in. (40 mm)</td>
</tr>
<tr>
<td>Power steering fluid type</td>
<td>Automatic transmission fluid DEXRON® II or III</td>
</tr>
</tbody>
</table>

### Suspension

<table>
<thead>
<tr>
<th>Component</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid type</td>
<td>Suspension fluid AHC</td>
</tr>
</tbody>
</table>
### Tires and wheels

<table>
<thead>
<tr>
<th>Specifications</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tire size</strong></td>
<td>P275/60R18 111H</td>
</tr>
<tr>
<td><strong>Tire inflation pressure</strong></td>
<td></td>
</tr>
<tr>
<td>(Recommended cold tire inflation pressure)</td>
<td></td>
</tr>
<tr>
<td>Normal driving</td>
<td></td>
</tr>
<tr>
<td>Front tires:</td>
<td>29 psi (200 kPa, 2.0 kgf/cm² or bar)</td>
</tr>
<tr>
<td>Rear tires:</td>
<td>32 psi (220 kPa, 2.2 kgf/cm² or bar)</td>
</tr>
<tr>
<td>Spare tire:</td>
<td>32 psi (220 kPa, 2.2 kgf/cm² or bar)</td>
</tr>
<tr>
<td>Trailer towing</td>
<td></td>
</tr>
<tr>
<td>Front tires:</td>
<td>32 psi (220 kPa, 2.2 kgf/cm² or bar)</td>
</tr>
<tr>
<td>Rear tires:</td>
<td>35 psi (240 kPa, 2.4 kgf/cm² or bar)</td>
</tr>
<tr>
<td>Spare tire:</td>
<td>35 psi (240 kPa, 2.4 kgf/cm² or bar)</td>
</tr>
<tr>
<td><strong>Wheel size</strong></td>
<td>18 × 8 J</td>
</tr>
<tr>
<td><strong>Wheel nut torque</strong></td>
<td>97 ft•lb (131 N•m, 13.4 kgf•m)</td>
</tr>
</tbody>
</table>
### 6-1. Specifications

#### Light bulbs

<table>
<thead>
<tr>
<th>Light Bulbs</th>
<th>Bulb No.</th>
<th>W</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exterior</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headlights (low beam)</td>
<td>9006</td>
<td>55</td>
<td>A</td>
</tr>
<tr>
<td>Headlights (high beam)</td>
<td>9005</td>
<td>60</td>
<td>B</td>
</tr>
<tr>
<td>Front turn signal lights</td>
<td>—</td>
<td>21</td>
<td>C</td>
</tr>
<tr>
<td>Parking and front side market lights</td>
<td>—</td>
<td>5</td>
<td>D</td>
</tr>
<tr>
<td>Fog lights</td>
<td>—</td>
<td>55</td>
<td>E</td>
</tr>
<tr>
<td>License plate lights</td>
<td>168</td>
<td>5</td>
<td>D</td>
</tr>
<tr>
<td>Rear turn signal lights</td>
<td>7440</td>
<td>21</td>
<td>D</td>
</tr>
<tr>
<td>Back-up lights</td>
<td>921</td>
<td>18</td>
<td>D</td>
</tr>
<tr>
<td>Interior</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vanity lights</td>
<td>—</td>
<td>3</td>
<td>F</td>
</tr>
<tr>
<td>Front personal light</td>
<td>—</td>
<td>5</td>
<td>C</td>
</tr>
<tr>
<td>Rear personal light</td>
<td>—</td>
<td>8</td>
<td>F</td>
</tr>
<tr>
<td>Interior light (front and rear)</td>
<td>—</td>
<td>8</td>
<td>F</td>
</tr>
<tr>
<td>Door courtesy light</td>
<td>—</td>
<td>3</td>
<td>D</td>
</tr>
<tr>
<td>Glove box light</td>
<td>—</td>
<td>14</td>
<td>D</td>
</tr>
</tbody>
</table>

A: H1 halogen bulbs
B: HB3 halogen bulbs
C: Single and bulbs
D: Wedge base bulbs
E: H3 halogen bulbs
F: Double end bulbs
Your vehicle must use only unleaded gasoline. Premium unleaded gasoline with an Octane Rating of 91 (Research Octane Number 96) or higher required for optimum engine performance. At minimum, the gasoline you use should meet the specifications of ASTM D4814 in the U.S.A. and CGSB3.5-M93 in Canada.

- **Fuel tank opening for unleaded gasoline**
  
  To help prevent incorrect fueling, your Lexus has a fuel tank opening that only accommodates the special nozzle on unleaded fuel pumps.

- **If premium gasoline is not available**
  
  If this premium fuel is not available, you may use unleaded gasoline with an Octane Rating of 87 or so (Research Octane Number 91). The use of such gasoline may cause the engine to knock or drastically reduce output to protect itself while driving with a heavy load. To avoid this, refill the tank with premium unleaded gasoline as soon as possible.

- **If your engine knocks**
  
  - Consult your Lexus dealer.
  
  - You may occasionally notice light knocking for a short time while accelerating or driving uphill. This is normal and there is no need for concern.

- **Gasoline quality**
  
  In very few cases, driveability problems may be caused by the brand of gasoline you are using. If driveability problems persist, try changing the brand of gasoline. If this does not correct the problem, consult your Lexus dealer.
Gasoline quality standards
- Automotive manufacturers in the US, Europe and Japan have developed a specification for fuel quality called World-Wide Fuel Charter (WWFC) that is expected to be applied worldwide.
- The WWFC consists of four categories that are based on required emission levels. In the US, category 4 has been adopted.
- The WWFC improves air quality by lowering emissions in vehicle fleets, and customer satisfaction through better performance.

Lexus recommends the use of gasoline containing detergent additives
- Lexus recommends the use of gasoline that contains detergent additives to avoid build-up of engine deposits.
- All gasoline sold in the US contains detergent additives to clean and/or keep clean intake systems.

Lexus recommends the use of cleaner burning gasoline
Cleaner burning gasoline, including reformulated gasoline that contains oxygenates such as ethanol or MTBE (Methyl Tertiary Butyl Ether) 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.

Lexus does not recommend blended 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.

Lexus does not recommend gasoline containing MMT
Some gasoline contains octane enhancing additive called MMT (Methylclopentadienyl 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.
6-1. Specifications

**NOTICE**

■ **Notice on gasoline quality**
  - Do not use leaded gasoline. Lead gasoline can cause damage to your vehicle’s three-way catalytic converters causing the emission control system to malfunction.
  - Do not use gasohol other than that stated here. Other gasohol may cause fuel system damage or vehicle performance problems.
  - Using unleaded gasoline with an octane number or rating lower than that stated here will cause persistent heavy knocking. At worst, this will lead to engine damage.

■ **Fuel-related poor driveability**
  If after using a different type of fuel, poor driveability is encountered (poor hot starting, vaporization, engine knocking, etc.), discontinue the use of that type of fuel.

■ **When refueling with gasohol**
  Take care not to spill gasohol. It can damage your vehicle’s paint.
6-1. Specifications

Tire information

Typical tire symbols

1. Tire size (→P. 383)
2. DOT and Tire Identification Number (TIN) (→P. 382)
3. Location of tread wear indicators (→P. 384)
4. Tire ply composition and materials
   Plies are layers of rubber-coated parallel cords. Cords are the strands which form the plies in a tire.
5. Summer tire or all season tire (→P. 297)
   An all season tire has "M+S" on the sidewall. A tire not marked "M+S" is a summer tire.
6. Radial tires or bias-ply tires
   A radial tire has RADIAL on the sidewall. A tire not marked RADIAL is a bias-ply tire.
7. TUBELESS or TUBE TYPE
   A tubeless tire does not have a tube 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 (→P. 386)
9. Maximum cold tire inflation pressure (→P. 386)
   This means the pressure to which a tire may be inflated.
6-1. Specifications

### Uniform tire quality grading
For details, see “Uniform tire quality grading” that follows.

### 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 (3 or 4 letters)
6. Manufacturing week
7. Manufacturing year

*: The DOT symbol certifies that the tire conforms to applicable Federal Motor Vehicle Safety Standards.
Tire size

Typical tire size information

The illustration indicates typical tire size.

1. Tire use
   (P = Passenger car,
   T = Temporary use)
2. Section width (millimeters)
3. Aspect ratio
   (tire height to section width)
4. Tire construction code
   (R = Radial, D = Diagonal)
5. Wheel diameter (inches)
6. Load index (2 or 3 digits)
7. Speed symbol
   (alphabet with one letter)

Tire dimensions

1. Section width
2. Tire height
3. Wheel diameter
6-1. Specifications

**Tire section names**

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.A. 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.

## Glossary of tire terminology

<table>
<thead>
<tr>
<th>Tire related term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessory weight</td>
<td>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)</td>
</tr>
<tr>
<td>Cold tire inflation pressure</td>
<td>Tire inflation pressure when the vehicle has been parked for three hours or more, or has not been driven more than 1 mile or 1.5 km under that condition</td>
</tr>
<tr>
<td>Curb weight</td>
<td>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</td>
</tr>
<tr>
<td>Maximum inflation pressure</td>
<td>The maximum cold inflation pressure to which a tire may be inflated, shown on the sidewall of the tire</td>
</tr>
<tr>
<td>Maximum loaded vehicle weight</td>
<td>The sum of: (a) Curb weight (b) Accessory weight (c) Vehicle capacity weight (d) Production options weight</td>
</tr>
<tr>
<td>Normal occupant weight</td>
<td>150 lb. (68 kg) times the number of occupants specified in the second column of Table 1* that follows</td>
</tr>
<tr>
<td>Tire related term</td>
<td>Meaning</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Production options weight</td>
<td>The combined weight of installed regular production options weighing over 5 lb. (2.3 kg) in excess of the 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</td>
</tr>
<tr>
<td>Vehicle capacity weight</td>
<td>The rated cargo and luggage load plus 150 lb. (68 kg) times the vehicle’s designated seating capacity</td>
</tr>
</tbody>
</table>
| 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 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* below                                               |
| Recommended inflation pressure        | Cold tire inflation pressure recommended by a manufacturer.                                                                              |
| 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                                                                                                                   |
| Rim type designation                  | The industry manufacturer’s designation for a rim by style or code                                                                        |
| Rim width                             | Nominal distance between rim flanges                                                                                                       |
### 6-1 Specifications

<table>
<thead>
<tr>
<th>Tire related term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle maximum load on the tire</td>
<td>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</td>
</tr>
<tr>
<td>Vehicle normal load on the tire</td>
<td>The load on an individual tire that is determined by distributing to each axle its share of curb weight, accessory weight, and normal occupant weight (distributed in accordance with Table 1* below), and dividing it by two</td>
</tr>
<tr>
<td>Weather side</td>
<td>The surface area of the rim not covered by the inflated tire</td>
</tr>
</tbody>
</table>

*: Table 1 — Occupant loading and distribution for vehicle normal load for various designated seating capacities

<table>
<thead>
<tr>
<th>Designated seating capacity, Number of occupants</th>
<th>Vehicle normal load, Number of occupants</th>
<th>Occupant distribution in a normally loaded vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 through 4</td>
<td>2</td>
<td>2 in front</td>
</tr>
<tr>
<td>5 through 10</td>
<td>3</td>
<td>2 in front, 1 in second seat</td>
</tr>
</tbody>
</table>
### 6-2. Customization

**Customizable features**

Your vehicle includes a variety of electronic features that can be personalized to your preferences. Programming these preferences requires specialized equipment and may be performed by an authorized Lexus dealership.

Some function settings are changed simultaneously with other functions being customized. Contact your Lexus dealer for further details.

<table>
<thead>
<tr>
<th>Item</th>
<th>Function</th>
<th>Default setting</th>
<th>Customized setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wireless remote control (→P.3)</td>
<td>Wireless remote control</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>Unlocking operation</td>
<td>Driver’s door unlocked in one step, all doors unlocked in 2-steps</td>
<td>All doors unlocked in 1-step</td>
</tr>
<tr>
<td></td>
<td>Time elapsed before automatic door lock function is activated if door is not opened after being unlocked</td>
<td>30 seconds</td>
<td>60 seconds</td>
</tr>
<tr>
<td></td>
<td>Operation indicator (Emergency flashers)</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>Operation indicator (Buzzer)</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>Panic function</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>Buzzer sounds when pushing LOCK with any door not closed.</td>
<td>ON</td>
<td>OFF</td>
</tr>
</tbody>
</table>
### 6-2. Customization

<table>
<thead>
<tr>
<th>Item</th>
<th>Function</th>
<th>Default setting</th>
<th>Customized setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Door lock (→P. 5)</td>
<td>Unlocking using a key</td>
<td>Driver’s door unlocked in one step, all doors unlocked in 2-steps</td>
<td>All doors unlocked in 1-step</td>
</tr>
<tr>
<td></td>
<td>Speed-detecting automatic door lock function</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>Opening driver’s door unlocks all doors</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>Shift the shift lever to “P” unlocks all doors</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>Shift the shift lever to position other than “P” locks all doors</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>Power windows (→P. 37)</td>
<td>Linked door lock operation</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>Linked door key operation</td>
<td>Open and close</td>
<td>Open only</td>
</tr>
<tr>
<td></td>
<td>Wireless remote control linked operation</td>
<td>ON (open only)</td>
<td>Close only</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OFF</td>
</tr>
</tbody>
</table>
### 6-2. Customization

<table>
<thead>
<tr>
<th>Item</th>
<th>Function</th>
<th>Default setting</th>
<th>Customized setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moon roof (→P. 41)</td>
<td>Linked door lock operation</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>Linked door key operation</td>
<td>Open and close</td>
<td>Open only</td>
</tr>
<tr>
<td></td>
<td>Linked operation of components when door key is used</td>
<td>Slide only</td>
<td>Tilt only</td>
</tr>
<tr>
<td></td>
<td>Wireless remote control linked operation</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>Linked operation of components when wireless remote control used</td>
<td>Slide only</td>
<td>Tilt only</td>
</tr>
<tr>
<td>Automatic light control system (→P. 112)</td>
<td>Light sensor sensitivity</td>
<td>Level 3</td>
<td>Levels 1 to 5</td>
</tr>
<tr>
<td></td>
<td>Time elapsed before headlights automatically turn off after doors are closed</td>
<td>30 seconds</td>
<td>0 seconds 60 seconds 90 seconds</td>
</tr>
<tr>
<td></td>
<td>Daytime running light</td>
<td>ON</td>
<td>OFF*</td>
</tr>
</tbody>
</table>

*: Vehicles sold outside Canada
## 6-2. Customization

<table>
<thead>
<tr>
<th>Item</th>
<th>Function</th>
<th>Default setting</th>
<th>Customized setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windshield wipers and washer (→P.115)</td>
<td>Switching operation when the vehicle is stationary</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>Drip prevention function</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>Illumination (→P.212)</td>
<td>Time elapsed before lights turn off</td>
<td>15 seconds</td>
<td>7.5 seconds</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>30 seconds</td>
</tr>
<tr>
<td></td>
<td>Operation when the doors are unlocked</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>Operation when the doors are opened</td>
<td>ON</td>
<td>OFF</td>
</tr>
</tbody>
</table>
The following items must be initialized for normal system operation in cases such as after the battery is reconnected, or maintenance is performed on the vehicle.

<table>
<thead>
<tr>
<th>Item</th>
<th>When to initialize</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moon roof</td>
<td>• After reconnecting or changing the battery</td>
<td>P. 42</td>
</tr>
<tr>
<td></td>
<td>• After changing a fuse</td>
<td></td>
</tr>
<tr>
<td>Variable gear ratio steering</td>
<td></td>
<td>P. 144</td>
</tr>
<tr>
<td>Engine oil maintenance data</td>
<td>• After changing engine oil</td>
<td>P. 280</td>
</tr>
<tr>
<td>Tire pressure warning system</td>
<td>• When rotating the tires on vehicles differing with front and rear tire inflation pressures.</td>
<td>P. 294</td>
</tr>
<tr>
<td></td>
<td>• When changing the tire inflation pressure by changing traveling speed or load weight, etc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• When changing the tire size.</td>
<td></td>
</tr>
</tbody>
</table>
6-3. Initialization
For US owners

Reporting safety defects for U.S.A. owners 396
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 the Lexus Division of 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 the Lexus Division of 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, DC area) or write to: NHTSA, U.S. Department of Transportation, Washington, DC 20590. You can also obtain other information about motor vehicle safety from the Hotline.
Index

Alphabetical index ........................................ 398

What to do if... ........................................ 406
# Alphabetical index

**Audio system**
- Antenna ........................................ 193
- Cassette player ................................ 194
- CD player/changer .............................. 197
- Optimal use .................................... 204
- Radio ............................................. 185
- Rear seat audio system .......................... 209
- Steering switches .............................. 206

**Automatic air conditioning system** ........................................... 172

**Automatic light control system** ........................................... 112

**Automatic transmission**
- Automatic transmission ......................... 98
- If the shift lever cannot be shifted from P ................................ 358

**AVS (Adaptive Variable Suspension)** .................................... 138

**BA (Brake assist)** ......................................................... 142

**Back door**
- Back door ........................................ 9
- Wireless remote control ......................... 3

**Back-up lights**
- Wattage .......................................... 377

**Battery**
- Checking ......................................... 288
- If the battery is discharged ...................... 360
- Preparing and checking before winter .......... 156

**Brake**
- Fluid ............................................. 284
- Parking brake .................................... 103

**Break-in tips** ......................................................... 89

**Brightness control**
- Instrument light control ....................... 105

---

### Alphabetical index

**A/C (Air conditioning system)** ........ 172

**ABS (Anti-lock brake system)** .......... 142

**Active traction control (TRAC)** ........ 142

**AHC (Active Height Control Suspension)** ........................................ 130

**Air conditioning filter** .................... 308

**Air conditioning system (A/C)**
- Air conditioning filter ...................... 308
- Automatic air conditioning system .......... 172
- Rear air conditioning controls .............. 180

**Airbags**
- Airbag operating conditions ............... 56
- Airbag precautions for your child .......... 61
- Airbag warning light ......................... 338
- Curtain shield airbag precautions .......... 61
- Front passenger occupant classification system .................. 67
- General airbag precautions ................. 61
- Locations of airbags ......................... 54
- Modification and disposal of airbags .......... 64
- Proper driving posture ....................... 52, 61
- Roll sensing of curtain shield airbags off switch ........ 65
- Side airbag precautions ..................... 61
- Side and curtain shield airbag operating conditions ........ 57
- SRS airbags ..................................... 54

**Alarm** ......................................................... 49

**Antenna** ................................................. 193

**Anti-lock brake system (ABS)** ........ 142

**Armrest** .............................................. 233

**Ashtrays** ............................................. 225

---

398
### Care
- Exterior ................................................... 260
- Interior ..................................................... 262
- Seat belts ............................................... 263
- Card holder .............................................. 215
- Cargo capacity ........................................ 151
- Cargo net hooks .................................. 235
- CD player/changer .............................. 197
- Chains......................................................... 158
- Child-protectors .................................. 6, 10
- Child restraint system (CRS)
  - Definition.................................................... 72
  - Installation.................................................. 75
  - Front passenger occupant classification system ............ 67
  - Installing CRS with lower anchorages ......................... 80
  - Installing CRS with seatbelts ............................. 76
  - Installing CRS with top straps ............................ 82
- Child safety
  - Airbag precautions ................................... 61
  - Battery precautions ................................. 276, 362
  - Child-protectors ....................................... 6, 10
  - Child restraint system ................................ 72
  - How your child should wear the seatbelt ................. 27
  - Installing child restraints ............................ 75
  - Moon roof precautions .............................. 43
  - Power window lock switch ......................... 38
  - Power window precautions ........................ 39
  - Removed wireless remote control battery precautions ... 310
  - Seat belt extender precautions ...................... 29
  - Seat belt precautions .............................. 28
  - Seat heater precautions ............................ 230
  - Cigarette lighter .................................... 227

### Cleaning
- Exterior ................................................... 260
- Interior ..................................................... 262
- Seat belts ............................................... 263
- Clock ......................................................... 223
- Coat hooks .............................................. 232
- Compass .................................................. 242
- Condenser .............................................. 283
- Console box ............................................ 216
- Cooling system
  - Engine overheating ................................ 363
- Cruise control ........................................ 120
- Cup holder .............................................. 218
- Curtain shield airbags ............................ 54
- Customizable features ............................ 389
- Daytime running light system ............... 113
- Defogger
  - Rear window ......................................... 182
  - Side mirror ............................................ 182
- Dimension ................................................ 368
- Dinghy towing ....................................... 169
- Display
  - Trip information ..................................... 110
- Do-it-yourself maintenance .................... 271
- Door courtesy lights
  - Door courtesy lights ................................ 212
  - Wattage .................................................. 377
- Door lock
  - Back door ................................................. 9
  - Side door ............................................... 5
  - Wireless remote control .......................... 3
- Doors
  - Back door ................................................. 9
  - Side door ............................................... 5
  - Side mirrors .......................................... 32
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driver's seat belt reminder light</td>
<td>340</td>
</tr>
<tr>
<td>Driving</td>
<td></td>
</tr>
<tr>
<td>Break-in tips</td>
<td>89</td>
</tr>
<tr>
<td>Correct posture</td>
<td>52</td>
</tr>
<tr>
<td>Off-road precautions</td>
<td>146</td>
</tr>
<tr>
<td>Procedures</td>
<td>88</td>
</tr>
<tr>
<td>Winter driving tips</td>
<td>156</td>
</tr>
<tr>
<td>Driving position memory</td>
<td>21</td>
</tr>
<tr>
<td>Emergency, in case of</td>
<td></td>
</tr>
<tr>
<td>If the engine will not start</td>
<td>357</td>
</tr>
<tr>
<td>If the shift lever cannot be shifted from P</td>
<td>358</td>
</tr>
<tr>
<td>If the battery is discharged</td>
<td>360</td>
</tr>
<tr>
<td>If the warning buzzer sounds</td>
<td>337</td>
</tr>
<tr>
<td>If the warning light turns on</td>
<td>337</td>
</tr>
<tr>
<td>If you have a flat tire</td>
<td>346</td>
</tr>
<tr>
<td>If you lose your keys</td>
<td>359</td>
</tr>
<tr>
<td>If you think something is wrong</td>
<td>333</td>
</tr>
<tr>
<td>If your vehicle becomes stuck</td>
<td>366</td>
</tr>
<tr>
<td>If your vehicle needs to be towed</td>
<td>328</td>
</tr>
<tr>
<td>If your vehicle overheats</td>
<td>363</td>
</tr>
<tr>
<td>Engine</td>
<td></td>
</tr>
<tr>
<td>Compartment</td>
<td>276</td>
</tr>
<tr>
<td>Hood</td>
<td>275</td>
</tr>
<tr>
<td>How to start the engine</td>
<td>95</td>
</tr>
<tr>
<td>Identification number</td>
<td>369</td>
</tr>
<tr>
<td>If the engine will not start</td>
<td>357</td>
</tr>
<tr>
<td>Ignition switch</td>
<td>95</td>
</tr>
<tr>
<td>Overheating</td>
<td>363</td>
</tr>
<tr>
<td>Engine coolant</td>
<td></td>
</tr>
<tr>
<td>Capacity</td>
<td>372</td>
</tr>
<tr>
<td>Checking</td>
<td>282</td>
</tr>
<tr>
<td>Preparing and checking before winter</td>
<td>156</td>
</tr>
<tr>
<td>Engine coolant temperature gauge</td>
<td>104</td>
</tr>
<tr>
<td>Engine immobilizer system</td>
<td>47</td>
</tr>
<tr>
<td>Engine oil</td>
<td></td>
</tr>
<tr>
<td>Capacity</td>
<td>371</td>
</tr>
<tr>
<td>Checking</td>
<td>277</td>
</tr>
<tr>
<td>Preparing and checking before winter</td>
<td>156</td>
</tr>
<tr>
<td>Engine oil maintenance data</td>
<td>280</td>
</tr>
<tr>
<td>Event data recorder</td>
<td>335</td>
</tr>
<tr>
<td>First-aid kit holder</td>
<td>236</td>
</tr>
<tr>
<td>Floor mat</td>
<td>234</td>
</tr>
<tr>
<td>Fluid</td>
<td></td>
</tr>
<tr>
<td>Brake</td>
<td>284</td>
</tr>
<tr>
<td>Power steering</td>
<td>286</td>
</tr>
<tr>
<td>Suspension</td>
<td>287</td>
</tr>
<tr>
<td>Washer</td>
<td>291</td>
</tr>
<tr>
<td>Fog lights</td>
<td></td>
</tr>
<tr>
<td>Switch</td>
<td>114</td>
</tr>
<tr>
<td>Wattage</td>
<td>377</td>
</tr>
<tr>
<td>For-wheel drive system</td>
<td>139</td>
</tr>
<tr>
<td>Front fog lights</td>
<td></td>
</tr>
<tr>
<td>Switch</td>
<td>114</td>
</tr>
<tr>
<td>Wattage</td>
<td>377</td>
</tr>
<tr>
<td>Front passenger's seat belt reminder light</td>
<td>340</td>
</tr>
<tr>
<td>Front seats</td>
<td></td>
</tr>
<tr>
<td>Adjustment</td>
<td>12</td>
</tr>
<tr>
<td>Driving position memory</td>
<td>21</td>
</tr>
<tr>
<td>Front side marker light</td>
<td></td>
</tr>
<tr>
<td>Wattage</td>
<td>377</td>
</tr>
<tr>
<td>Front turn signal lights</td>
<td></td>
</tr>
<tr>
<td>Wattage</td>
<td>377</td>
</tr>
<tr>
<td>Fuel</td>
<td>Identification</td>
</tr>
<tr>
<td>---------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Capacity ..................</td>
<td>Engine ...............</td>
</tr>
<tr>
<td>Fuel gauge ...............</td>
<td>370</td>
</tr>
<tr>
<td>Fuel pump shut off system</td>
<td></td>
</tr>
<tr>
<td>Gas station information</td>
<td></td>
</tr>
<tr>
<td>Information ................</td>
<td></td>
</tr>
<tr>
<td>Refueling ................</td>
<td></td>
</tr>
<tr>
<td>Type ......................</td>
<td></td>
</tr>
<tr>
<td>Fuel filler door ..........</td>
<td></td>
</tr>
<tr>
<td>Fuel pump shut off system</td>
<td></td>
</tr>
<tr>
<td>Fuses .....................</td>
<td></td>
</tr>
<tr>
<td>Garage door opener .......</td>
<td></td>
</tr>
<tr>
<td>Gas station information</td>
<td></td>
</tr>
<tr>
<td>Gauges ...................</td>
<td></td>
</tr>
<tr>
<td>Glove box ................</td>
<td></td>
</tr>
<tr>
<td>Glove box light ..........</td>
<td></td>
</tr>
<tr>
<td>Head restraints ..........</td>
<td></td>
</tr>
<tr>
<td>Headlight cleaner .......</td>
<td></td>
</tr>
<tr>
<td>Headlights ...............</td>
<td></td>
</tr>
<tr>
<td>Replacing light bulbs ...</td>
<td></td>
</tr>
<tr>
<td>Switch ...................</td>
<td></td>
</tr>
<tr>
<td>Wattage ..................</td>
<td></td>
</tr>
<tr>
<td>Heaters ..................</td>
<td></td>
</tr>
<tr>
<td>Seat heaters ..............</td>
<td></td>
</tr>
<tr>
<td>Side mirror ..............</td>
<td></td>
</tr>
<tr>
<td>Height control ..........</td>
<td></td>
</tr>
<tr>
<td>Active height control ...</td>
<td></td>
</tr>
<tr>
<td>suspension ..............</td>
<td></td>
</tr>
<tr>
<td>Hood .....................</td>
<td></td>
</tr>
<tr>
<td>Hooks ....................</td>
<td></td>
</tr>
<tr>
<td>Cargo hook ...............</td>
<td></td>
</tr>
<tr>
<td>Tie-down hooks ..........</td>
<td></td>
</tr>
<tr>
<td>I/M test ................</td>
<td></td>
</tr>
<tr>
<td>Identification ...........</td>
<td></td>
</tr>
<tr>
<td>Engine ...................</td>
<td>369</td>
</tr>
<tr>
<td>Vehicle ...................</td>
<td></td>
</tr>
<tr>
<td>Ignition .................</td>
<td></td>
</tr>
<tr>
<td>Keys .....................</td>
<td>2</td>
</tr>
<tr>
<td>Ignition switch ..........</td>
<td>95</td>
</tr>
<tr>
<td>Indicator lights ..........</td>
<td>107</td>
</tr>
<tr>
<td>Initialization ..........</td>
<td></td>
</tr>
<tr>
<td>Items to initialize ......</td>
<td></td>
</tr>
<tr>
<td>Inside rear view mirror</td>
<td>31</td>
</tr>
<tr>
<td>Instrument panel light control</td>
<td>105</td>
</tr>
<tr>
<td>Interior lights ..........</td>
<td></td>
</tr>
<tr>
<td>Interior lights ..........</td>
<td>212</td>
</tr>
<tr>
<td>Switch ...................</td>
<td>213</td>
</tr>
<tr>
<td>Wattage ..................</td>
<td>377</td>
</tr>
<tr>
<td>Keys .....................</td>
<td></td>
</tr>
<tr>
<td>Flat key ................</td>
<td>2, 96</td>
</tr>
<tr>
<td>If you lose your keys ...</td>
<td>359</td>
</tr>
<tr>
<td>Ignition switch ..........</td>
<td>95</td>
</tr>
<tr>
<td>Key number ..............</td>
<td>2</td>
</tr>
<tr>
<td>Keys .....................</td>
<td>2</td>
</tr>
<tr>
<td>Wireless remote control</td>
<td>3</td>
</tr>
<tr>
<td>Lexus link system .......</td>
<td>246</td>
</tr>
<tr>
<td>Lexus night view system</td>
<td>126</td>
</tr>
<tr>
<td>Licence plate lights .....</td>
<td></td>
</tr>
<tr>
<td>Replacing light bulbs ...</td>
<td>320</td>
</tr>
<tr>
<td>Wattage ..................</td>
<td>377</td>
</tr>
<tr>
<td>Light bulbs ..............</td>
<td></td>
</tr>
<tr>
<td>Replacing ................</td>
<td>320</td>
</tr>
<tr>
<td>Wattage ..................</td>
<td>377</td>
</tr>
<tr>
<td><strong>Alphabetical index</strong></td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Lights</strong></td>
<td></td>
</tr>
<tr>
<td>Door courtesy lights</td>
<td>212</td>
</tr>
<tr>
<td>Fog light switch</td>
<td>114</td>
</tr>
<tr>
<td>Headlights switch</td>
<td>112</td>
</tr>
<tr>
<td>Interior light switch</td>
<td>213</td>
</tr>
<tr>
<td>Personal light switch</td>
<td>213</td>
</tr>
<tr>
<td>Replacing light bulbs</td>
<td>320</td>
</tr>
<tr>
<td>Turn signal lever</td>
<td>102</td>
</tr>
<tr>
<td>Vanity lights</td>
<td>222</td>
</tr>
<tr>
<td>Wattage</td>
<td>377</td>
</tr>
<tr>
<td><strong>Load capacity</strong></td>
<td>155</td>
</tr>
<tr>
<td><strong>Maintenance</strong></td>
<td></td>
</tr>
<tr>
<td>Do-it-yourself mainte</td>
<td>271</td>
</tr>
<tr>
<td>General maintenance</td>
<td>267</td>
</tr>
<tr>
<td>Maintenance data</td>
<td>368</td>
</tr>
<tr>
<td>Maintenance requirem</td>
<td>265</td>
</tr>
<tr>
<td><strong>Meter</strong></td>
<td></td>
</tr>
<tr>
<td>Instrument panel light control</td>
<td>105</td>
</tr>
<tr>
<td>Meters</td>
<td>104</td>
</tr>
<tr>
<td><strong>Mirrors</strong></td>
<td></td>
</tr>
<tr>
<td>Inside rear view mirror</td>
<td>31</td>
</tr>
<tr>
<td>Side mirror heater</td>
<td>182</td>
</tr>
<tr>
<td>Side mirrors</td>
<td>32</td>
</tr>
<tr>
<td>Vanity mirrors</td>
<td>222</td>
</tr>
<tr>
<td><strong>Moon roof</strong></td>
<td>41</td>
</tr>
<tr>
<td><strong>Odometer</strong></td>
<td>104</td>
</tr>
<tr>
<td><strong>Off-road precautions</strong></td>
<td>146</td>
</tr>
<tr>
<td><strong>Oil</strong></td>
<td></td>
</tr>
<tr>
<td>Engine oil</td>
<td>277</td>
</tr>
<tr>
<td><strong>Opener</strong></td>
<td></td>
</tr>
<tr>
<td>Fuel filler door</td>
<td>44</td>
</tr>
<tr>
<td>Hood</td>
<td>275</td>
</tr>
<tr>
<td><strong>Outside rear view mirrors</strong></td>
<td></td>
</tr>
<tr>
<td>Adjusting and folding</td>
<td>32</td>
</tr>
<tr>
<td><strong>Driving position memory</strong></td>
<td>21</td>
</tr>
<tr>
<td><strong>Outside temperature display</strong></td>
<td>224</td>
</tr>
<tr>
<td><strong>Overhead console</strong></td>
<td>217</td>
</tr>
<tr>
<td><strong>Overheating, Engine</strong></td>
<td>363</td>
</tr>
<tr>
<td><strong>P</strong></td>
<td></td>
</tr>
<tr>
<td>Parking brake</td>
<td>103</td>
</tr>
<tr>
<td>Parkig lights</td>
<td></td>
</tr>
<tr>
<td>Switch</td>
<td>112</td>
</tr>
<tr>
<td>Wattage</td>
<td>377</td>
</tr>
<tr>
<td>Personal lights</td>
<td></td>
</tr>
<tr>
<td>Personal lights</td>
<td>212</td>
</tr>
<tr>
<td>Switch</td>
<td>213</td>
</tr>
<tr>
<td>Wattage</td>
<td>377</td>
</tr>
<tr>
<td><strong>Power outlet</strong></td>
<td>228</td>
</tr>
<tr>
<td><strong>Power quarter windows</strong></td>
<td>40</td>
</tr>
<tr>
<td><strong>Power steering</strong></td>
<td></td>
</tr>
<tr>
<td>Fluid</td>
<td>286</td>
</tr>
<tr>
<td><strong>Power windows</strong></td>
<td>37</td>
</tr>
<tr>
<td><strong>R</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Radiator</strong></td>
<td>283</td>
</tr>
<tr>
<td><strong>Radio</strong></td>
<td>185</td>
</tr>
<tr>
<td><strong>RDS (Radio date system)</strong></td>
<td>186</td>
</tr>
<tr>
<td><strong>Rear seat audio system</strong></td>
<td>209</td>
</tr>
<tr>
<td><strong>Rear seats</strong></td>
<td></td>
</tr>
<tr>
<td>Adjustment</td>
<td>14</td>
</tr>
<tr>
<td>Removing third seats</td>
<td>19</td>
</tr>
<tr>
<td>Tumbling second seats</td>
<td>15</td>
</tr>
<tr>
<td>Tumbling third seats</td>
<td>17</td>
</tr>
<tr>
<td><strong>Rear side marker lights</strong></td>
<td></td>
</tr>
<tr>
<td>Wattage</td>
<td>377</td>
</tr>
<tr>
<td><strong>Rear turn signal lights</strong></td>
<td></td>
</tr>
<tr>
<td>Wattage</td>
<td>377</td>
</tr>
<tr>
<td><strong>Rear view monitor system</strong></td>
<td>123</td>
</tr>
<tr>
<td><strong>Rear window defogger</strong></td>
<td>182</td>
</tr>
<tr>
<td><strong>Rear window wiper</strong></td>
<td>118</td>
</tr>
</tbody>
</table>
Replacing
Fuses............................................................311
Light bulbs ............................................ 320
Tires.......................................................... 346
Wireless remote control
battery..................................................309

Reporting safety defects for
U.S.A. owners .................................... 396

Roll sensing of curtain shield
airbags off switch ..................................65
Roof luggage carrier .........................34
Running board lights...................... 212

Seat belts
Adjusting the seat belt ..........25
Automatic Locking Retractor
(ALR) .......................................................26
Child restraint system
installation.............................................75
Cleaning and maintaining
the seat belts .............................................263
Emergency Locking Retractor
(ELR)..........................................................26
How to wear your seat belt.......................... 24
How your child should wear
the seat belt...........................................27
Pregnant women,
proper seat belt use............................. 27
Reminder light.............................................340
Seat belt extenders............................. 28
Seat belt pretensioners..................... 26
Seat heaters ..........................................230
Seating capacity ......................................155
Seats
Child seats/child restraint
system installation......................75
Cleaning.................................................262
Driving position memory ............. 21
Front seat adjustment..................12
Front seat adjustment
precautions..........................................13
Head restraint........................................23
Properly sitting in the seat ...............52
Rear seat adjustment......................14
Rear seat adjustment
precautions...........................................20
Seat heaters ........................................230
Service reminder indicators ..........107
Shift lever
Automatic transmission.............98
If the shift lever cannot be
shifted from P ....................................358
Side airbags ............................................54
Side marker lights
Switch..................................................112
Wattage.................................................377
Side mirror
Adjusting and folding..................32
Driving position memory............. 21
Spare tire
Inflation pressure..............................302
Spare tire.................................................346
Spark plug..............................................372
Specifications........................................368
Speedometer........................................104
Steering
Column lock release......................96
Fluid..................................................286
Steering wheel
Adjustment..........................30
Audio switches..............................206
Driving position memory...........21
Alphabetical index

Storage feature ......................... 215
Stuck
  If your vehicle becomes stuck ...... 366
Sun visors ................................. 221
Sunshade
  Roof ....................................... 42
Switch
  Driving mode select switch ...... 100
  Fog light switch ....................... 114
  Ignition switch ......................... 95
  Light switches ........................ 112
  Power door lock switch .......... 5
  Power quarter window switch ... 40
  Power window switch ............... 37
  Rear window wiper and washer
    switch ................................... 118
  Window lock switch ................. 38
  Wipers and washer switch ....... 115
Tachometer
  Tachometer ............................ 104
Tail lights
  Switch .................................... 112
  Wattage .................................. 377
Theft deterrent system
  Alarm ...................................... 49
  Engine immobilizer system ....... 47
Theft prevention labels ............. 51
Tire inflation pressure .............. 302
Tie-down hooks ......................... 235
Tire information
  Glossary .................................. 386
  Size ....................................... 383
  Tire identification number ...... 382
  Uniform tire quality grading ..... 384
Tires
  Chains ................................... 156
  Checking .................................. 292
  If you have a flat tire .............. 346
  Inflation pressure ..................... 302
  Information ............................. 381
  Pressure warning system .......... 292
  Replacing ............................... 346
  Rotating tires ......................... 292
  Size ....................................... 376
  Snow tires .............................. 156
  Spare tire ................................ 346
Tools ......................................... 346
Total load capacity .................. 155
Towing
  Dinghy towing .......................... 169
  Emergency towing ..................... 328
  Trailer towing ......................... 160
TRAC (Active traction control) .... 142
Trailer towing .......................... 160
Trip information display .......... 110
Trip meter ............................... 104
Turn signal lights
  Switch .................................... 102
  Wattage .................................. 377
Valet key ................................... 2
Vanity lights
  Vanity lights ............................ 222
  Wattage .................................. 377
Vanity mirrors ......................... 222
Vehicle identification number .... 369
VGRS (Variable gear ratio
  steering) ............................... 142
VSC (Vehicle stability control) .... 142
Warning buzzers
- Brake system ........................................ 337
- Key reminder ......................................... 342
- Open door ........................................... 339
- Seat belt reminder ............................ 340

Warning lights
- Anti-lock brake system (ABS) ............ 339
- Automatic transmission fluid temperature ........................................... 339
- Brake system ........................................ 337
- Charging system ............................... 338
- Engine oil replacement reminder .......... 341
- Lexus night view system .................. 339
- Low fuel level ....................................... 340
- Low washer fluid .................................. 340
- Malfunction indicator lamp ............. 338
- Open door ........................................... 339
- Seat belt reminder ............................ 340
- SRS airbags ....................................... 338
- Tire pressure ........................................ 340
- Unengaged “Park” ............................. 340
- Variable gear ratio steering system ........... 339
- Vehicle stability control system and active traction control system ............. 339

Warning reflector holder .................. 235

Washer
- Checking ................................................. 291
- Preparing and checking before winter ........... 156
- Switch .................................................. 115
- Washing and waxing .......................... 260

Weight
- Cargo capacity ........................................ 151
- Load limits ............................................ 155
- Weight .................................................. 368

Wheels ................................................. 306
Window glasses ...................................... 37
Window lock switch ............................. 38

Windows
- Power quarter windows .................... 40
- Power windows ..................................... 37
- Rear window defogger ....................... 182
- Washer .................................................. 115
- Windshield wipers .............................. 115

Wireless remote control
- Replacing the battery .......................... 309
- Wireless remote control ...................... 3
<table>
<thead>
<tr>
<th>Situation</th>
<th>Page(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A tire punctures</td>
<td>P. 346</td>
<td>If you have a flat tire</td>
</tr>
<tr>
<td>The engine does not start</td>
<td>P. 47</td>
<td>Engine immobilizer system</td>
</tr>
<tr>
<td></td>
<td>P. 357</td>
<td>If the engine will not start</td>
</tr>
<tr>
<td></td>
<td>P. 360</td>
<td>If the battery is discharged</td>
</tr>
<tr>
<td>The shift lever cannot be moved out</td>
<td>P. 358</td>
<td>If the shift lever cannot be shifted from “P”</td>
</tr>
<tr>
<td>The engine coolant temperature gauge enters the red zone</td>
<td>P. 363</td>
<td>If your vehicle overheats</td>
</tr>
<tr>
<td>Steam can be seen coming from under the hood</td>
<td>P. 363</td>
<td>If your vehicle overheats</td>
</tr>
<tr>
<td>The key is lost</td>
<td>P. 359</td>
<td>If you lose your keys</td>
</tr>
<tr>
<td>The battery runs out</td>
<td>P. 360</td>
<td>If the battery is discharged</td>
</tr>
<tr>
<td>The doors cannot be locked</td>
<td>P. 5</td>
<td>Side doors</td>
</tr>
<tr>
<td></td>
<td>P. 9</td>
<td>Back doors</td>
</tr>
<tr>
<td>The horn begins to sound</td>
<td>P. 49</td>
<td>Alarm</td>
</tr>
<tr>
<td>The vehicle is stuck in mud or sand</td>
<td>P. 366</td>
<td>If the vehicle becomes stuck</td>
</tr>
<tr>
<td>The warning light or indicator light comes on</td>
<td>P. 337</td>
<td>If the warning light turns on</td>
</tr>
</tbody>
</table>
Warning lights

- Brake system warning light
  - or
  - ABS warning light
  - or
  - SRS warning light
  - Open door warning light
  - Charging system warning light
  - Unengaged "Park" warning light
  - Automatic transmission fluid temperature warning light
  - Malfunction indicator lamp
  - Driver’s seat belt reminder light
  - Front passenger’s seat belt reminder light
  - Tire pressure warning light
  - Vehicle stability control system and active traction control system warning light
  - Variable gear ratio steering system warning light
  - Lexus night view system warning light
  - Low washer fluid warning light
  - Engine oil replacement light (U.S.A. only)

What to do if...
### GAS STATION INFORMATION

<table>
<thead>
<tr>
<th>Feature</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel tank capacity</td>
<td>25.4 gal. (96 L, 21.1 lmp.gal.)</td>
</tr>
<tr>
<td>Fuel type</td>
<td>Unleaded gasoline only</td>
</tr>
<tr>
<td>Cold tire inflation pressure</td>
<td>P. 376</td>
</tr>
<tr>
<td>Engine oil capacity (Drain and refill)</td>
<td></td>
</tr>
<tr>
<td>With filler</td>
<td>7.2 (6.8, 6.0)</td>
</tr>
<tr>
<td>Without filler</td>
<td>6.8 (6.4, 5.6)</td>
</tr>
<tr>
<td>Engine oil type</td>
<td>&quot;Toyota Genuine Motor Oil&quot; or equivalent</td>
</tr>
<tr>
<td></td>
<td>Oil grade: ILSAC multigrade engine oil</td>
</tr>
<tr>
<td></td>
<td>Recommended oil viscosity: SAE 5W-30</td>
</tr>
</tbody>
</table>

P. 275  Fuel filler door opener  P. 44  Tire inflation pressure  P. 376