SECTION 3 – 1

STARTING AND DRIVING

Starting and driving

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THREE–WAY CATALYTIC CONVERTER

Three–way catalytic converters are emission control devices installed in the exhaust system.

It looks somewhat like a muffler, but its purpose is to reduce pollutants in the exhaust gas.

⚠ CAUTION

- **Keep people and combustible materials away from the exhaust pipe while the engine is running. The exhaust gas is very hot.**
- **Do not drive, idle or park your vehicle over anything that might burn easily such as grass, leaves, paper or rags.**

NOTICE

A large amount of unburned gases flowing into the three–way catalytic converter may cause it to overheat and create a fire hazard. To prevent this and other damage, observe the following precautions:

- ***Use only unleaded gasoline.***
- ***Do not drive with an extremely low fuel level; running out of fuel could cause the engine to misfire, creating an excessive load on the three–way catalytic converter.***
- ***Do not allow the engine to run at idle speed for more than 20 minutes.***
- ***Avoid racing the engine.***
- ***Do not push–start or pull–start your vehicle.***
- ***Do not turn off the ignition while the vehicle is moving.***
- ***Keep your engine in good running order. Malfunctions in the engine electrical system, electronic ignition system or fuel system could cause an extremely high three–way catalytic converter temperature.***
- ***If the engine becomes difficult to start or stalls frequently, take your vehicle in for a check–up as soon as possible. Remember, your Lexus dealer knows your vehicle and its three–way catalytic converter system best.***

- *To ensure that the three–way catalytic converter and the entire emission control system operate properly, your vehicle must receive the periodic inspections required by the Lexus Maintenance Schedule. For scheduled maintenance information, refer to the "Owner's Manual Supplement/Scheduled Maintenance".*

ENGINE EXHAUST CAUTION

CAUTION

- **Avoid inhaling the engine exhaust. It contains carbon monoxide, which is a colorless and odorless gas. It can cause unconsciousness or even death.**
- **Make sure the exhaust system has no holes or loose connections. The system should be checked from time to time. If you hit something, or notice a change in the sound of the exhaust, have the system checked immediately.**
- **Do not run the engine in a garage or enclosed area except for the time needed to drive the vehicle in or out. The exhaust gases cannot escape, making this a particularly dangerous situation.**
- **Do not remain for a long time in a parked vehicle with the engine running. If it is unavoidable, however, do so only in an unconfined area and adjust the heating or cooling system to force outside air into the vehicle.**
- **Keep the trunk lid closed while driving. An open or unsealed trunk lid may cause exhaust gases to be drawn into the vehicle.**

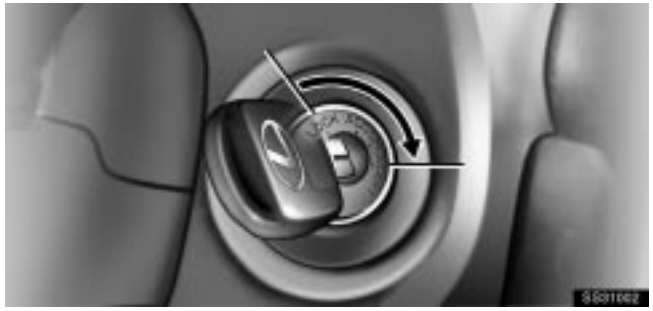
- **To allow proper operation of your vehicle's ventilation system, keep the inlet grilles in front of the windshield clear of snow, leaves, or other obstructions.**
- **If you smell exhaust fumes in the vehicle, drive with the windows open and the trunk lid closed. Have the cause immediately located and corrected.**

BEFORE STARTING THE ENGINE

1. Check the area around the vehicle before entering it.
2. Adjust seat position, seatback angle, head restraint height and steering wheel angle.
3. Adjust the inside and outside rear view mirrors.
4. Lock all doors.
5. Fasten seat belts.

Remember to check that the service reminder indicators function when turning the key to "ON", and check the fuel gauge to see that you have sufficient fuel.

IGNITION SWITCH WITH STEERING LOCK



”START” – Starter motor on. The key will return to the ”ON” position when released.

For starting tips, see page 168.

”ON” – Engine on and all accessories on.

This is the normal driving position.

NOTICE

Do not leave the key in the ”ON” position if the engine is not running. The battery will discharge and the electronic ignition system could be damaged.

”ACC” – Accessories such as the radio operate, but the engine is off.

If you leave the key in the ”ACC” or ”LOCK” position and open the driver’s door, a buzzer will remind you to remove the key.*

*NOTE: *The volume or interval of beep sound can be changed. Ask your Lexus dealer for details.*

”LOCK” – Engine is off and the steering wheel is locked. The ignition key can be removed only at this position.

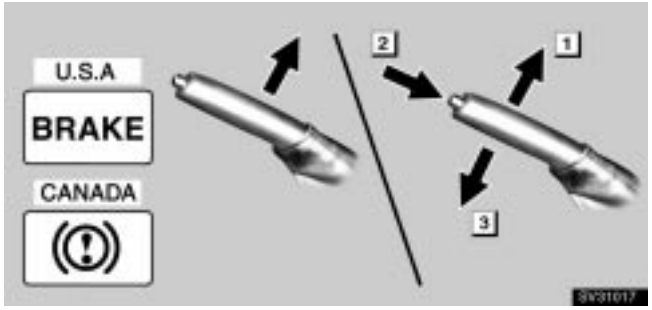
To turn the key from ”ACC” to the ”LOCK” position you must put the transmission selector lever in the ”P” position and you must push in the key.

Once you remove the key, the engine immobiliser system is automatically set. See ”Engine immobiliser system” on page 10.

When starting the engine, the key may seem stuck at the ”LOCK” position. To free it, first be sure the key is pushed all the way in, and then rock the steering wheel slightly while turning the key gently.

If, in an emergency, you must turn the engine off while the vehicle is moving, turn the key only to ”ACC”.

PARKING BRAKE



To set: Pull up the lever. For better holding power, first depress the brake pedal and hold it while setting the parking brake.

To release: Pull up the lever slightly (1) , press the lock release button (2), and lower (3).

To remind you that the parking brake is set, the parking brake reminder light in the instrument panel remains on until you release the parking brake.

⚠ CAUTION

Before driving, make sure the parking brake is fully released and that the parking brake reminder light is off.

HOW TO START THE ENGINE

Before cranking

1. Apply the parking brake firmly.
2. Turn off unnecessary lights and accessories.
3. Put the selector lever in ”P”. If you need to restart the engine while the vehicle is moving, put the selector lever in ”N”. A starter safety device will prevent the starter from operating if the selector lever is in any drive position.
4. Depress the brake pedal and hold it to the floor until driving off.

Starting the engine

Before starting the engine, be sure to follow the instructions in ”Before cranking”.

Normal starting procedure

The multiport fuel injection system/sequential multiport fuel injection system in your engine automatically controls the proper air–fuel mixture for starting. You can start a cold or hot engine as follows:

1. With your foot off the accelerator pedal, crank the engine by turning the key to ”START”. Release it when the engine starts.
2. After the engine runs for about 10 seconds, you are ready to drive.

If the weather is below freezing, let the engine warm up for a few minutes before driving. Do not leave the vehicle while the engine is warming up.

If the engine stalls ...

Simply restart it , using the correct procedure given in normal starting.

If the engine will not start

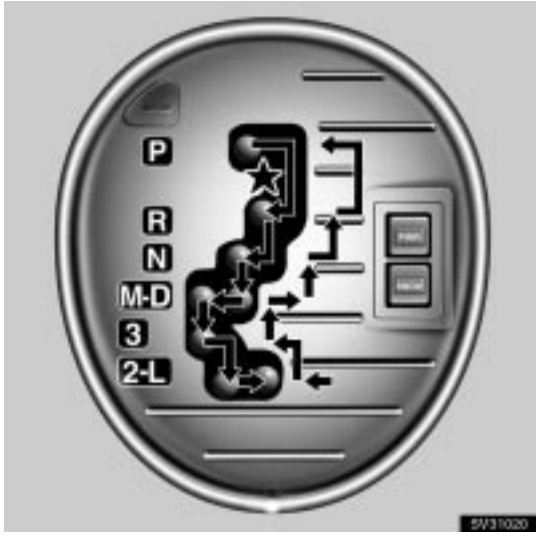
See ”If your vehicle will not start” on page 200.

NOTICE

- ***Do not crank for more than 30 seconds at a time. This may overheat the starter and wiring systems.***
- ***Do not race a cold engine.***
- ***If the engine becomes difficult to start or stalls frequently, have the engine checked immediately.***

AUTOMATIC TRANSMISSION

Your automatic transmission has a shift lock system to minimize the possibility of incorrect operation. This means you can only shift out of ”P” position when the brake pedal is depressed with the ignition switch in ”ON” position. (★)



▶ ***The shift position is displayed on the instrument cluster.***

P: Parking, engine starting and key removal position

R: Reverse position

N: Neutral position

D: Normal driving position (Shifting into overdrive possible)

M: Position for manual shifting up or downshifting

When the cruise control is being used, even if you downshift from ”D” to ”M”, engine braking will not be enabled because the cruise control is not cancelled. For the operation to decrease the vehicle speed, see page 182.

3, 2: Position for more powerful engine braking

L: Position for maximum engine braking

Correct use of the automatic transmission is explained in the following parts.

(a) Normal driving

(b) Driving in M mode

(c) Using engine braking

(d) Using the ”3”, ”2” and ”L” positions

(e) Backing up

(f) Parking

(g) Good driving practice

(h) Rocking your vehicle if stuck

(i) If you cannot shift the selector lever

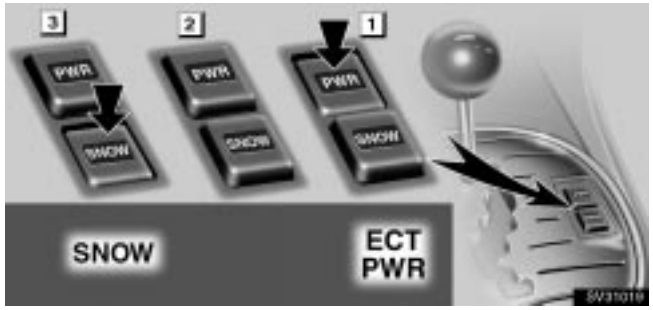
(j) If the ”ECT PWR” indicator light flashes

(a) Normal driving

▶ 1 *"P" (Park) position* 2 *"N" (Neutral) position*

1. Start the engine as instructed in "How to start the engine" on page 168.

The transmission must be in "P" or "N". The engine will not start in any drive position even if the ignition key is turned to "START".



▶ 1 *Power position* 2 *Normal position*
3 *Snow position*

2. Set the driving pattern selector switch to the "Normal" position.

Your transmission has a driving pattern selector switch which allows you to select "Power", "Normal" or "Snow" mode to suit your driving condition. For ordinary driving, Lexus recommends that you use the "Normal" position to improve fuel economy.

3. For more powerful acceleration and sporty driving, use the "Power" position.

In the "Power" position, the "ECT PWR" light in the instrument cluster is on and the transmission is shifted up at higher vehicle speeds and shifted down more responsively than in the "Normal" position.

For "Snow" mode, see "Electronic Throttle Control System" on page 179.

▶ 1 *Brake pedal* 2 *"D" (Drive) position*

4. With your foot holding down the brake pedal, shift the selector lever to "D".

Always use the "D" position to improve fuel economy and quiet driving. Only in this position, shifting into the overdrive gear is possible. However, while the engine coolant temperature is low, the transmission will not shift into the overdrive gear even in the "D" position. (See "(c) Using engine braking" and "(g) Good driving practice" for exceptions.)

⚠ CAUTION

Never put your foot on the accelerator pedal while shifting.

5. Release the parking brake and brake pedal. Depress the accelerator pedal slowly for smooth starting.

In normal cruising, the vehicle will start in the first gear and automatically shift up to the most suitable gear. On inclines, declines or winding roads, etc., the vehicle shifts up and down automatically according to the running conditions to obtain the suitable driving power and engine braking.

When the lever is in "3" position, the automatic transmission system will select the most suitable gear for the running conditions such as hill climbing, hard towing, etc.

If you need to accelerate rapidly while driving, depress the accelerator pedal to the full throttle position. This provides more acceleration by automatically downshifting the transmission to the next lower gear or beyond, depending on the vehicle speed.

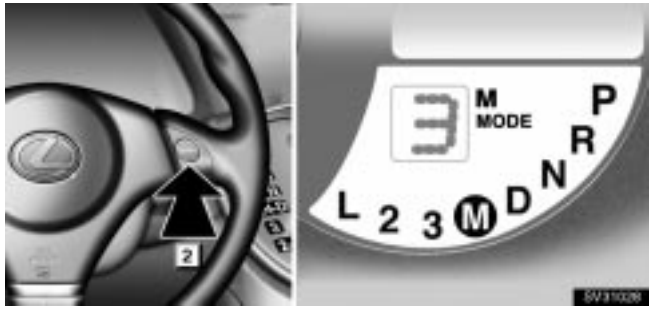
If engine braking is needed, such as in descending a long hill, see "(b) Using engine braking".

(b) Driving in M mode

If the change lever is shifted to M position, the shift range position can be switched over between D and 2 using the shift switch on the steering wheel instead of operating the change lever. The first shift range position is on D when the change lever is shifted to M position.

▶ 1 *"M" position*

When the selector lever is put in the "M" position, the M MODE indicator is shown on the instrument cluster.



▶ 2 *Downshifting on the front, Upshifting on the rear*

5: Fifth range
The most suitable gear is selected automatically between first and fifth gears according to the vehicle speed or the running condition.

4: Forth range
The most suitable gear is selected automatically between first and fourth gears according to the vehicle speed or the running condition.

3: Third range
The most suitable gear is selected automatically between first and third gears according to the vehicle speed or the running condition.
Slight engine braking will be obtained on a downhill road.
Smooth running with less shifting will be obtained on an uphill.

2: Second range
First or second gear will be selected automatically according to the vehicle speed or the running condition. This range is used in the case that the engine braking is necessary.

The gear position being used is shown on the instrument cluster.

Each time you push the switch located on the front of the steering wheel, the transmission downshifts (from ”5”) to ”4”, ”3” and then ”2”.

When you push the switch located on the back of the steering wheel, the transmission upshifts to ”3”, ”4” and then ”5”.

For the precautions on each position, see the description on the next page.

Warning tone sounds twice in any of the following cases:

- You attempt to downshift the transmission when it is not possible to downshift due to the high vehicle speed.
- You attempt to downshift from ”2” position.
- You attempt to upshift from ”5” position.

If the ”M” indicator flashes, there is a problem somewhere in the system. In this case, it should be noted that you cannot downshift or upshift the transmission using the switches on the steering wheel. Consult with your Lexus dealer as soon as possible. The transmission works exactly in the same way as when you put the selector lever in the ”D” position.

⚠ CAUTION

Be careful when downshifting on a slippery surface. The abrupt change in engine speed could cause the vehicle to spin or skid.

(c) Using engine braking

To use the braking power of the engine, downshift the transmission in the way described below:

1 Shift into the ”M” position, and you push the transmission down shift switch. The transmission will downshift to fourth gear and engine braking will be obtained. This is effective only when you are driving in the ”D” position or in fifth gear (”M” position).

When the cruise control is being used, even if you downshift from ”D” to ”M”, engine braking will not be enabled because the cruise control is not cancelled. If you need to decrease the vehicle speed, see page 182.

2 Shift into the ”3” position. The transmission will downshift to third gear when the vehicle speed is or becomes lower than the speed listed below and stronger engine braking will be obtained.

3 Shift into the ”2” position. The transmission will downshift to second gear when the vehicle speed is or becomes lower than the speed listed below and stronger engine braking than that of ”3” position will be obtained.

4 Shift into the ”L” position. The transmission will downshift to first gear when the vehicle speed is or becomes lower than the speed listed below and maximum engine braking will be enabled.

”4”	168 km/h	(104 mph)
”3”	122 km/h	(76 mph)
”2”	82 km/h	(51 mph)
”L”	17 km/h	(11 mph)

⚠ CAUTION

Be careful when downshifting on a slippery surface. The abrupt change in engine speed could cause the vehicle to spin or skid.

(d) Using the ”3”, ”2” and ”L” positions

The ”3”, ”2” and ”L” positions are used for strong engine braking as described previously.

With the selector lever in ”3”, ”2” or ”L”, you can start the vehicle in motion as with the lever in ”D”.

With the selector lever in ”3” or ”2”, the vehicle will start in first gear and automatically shift to the third or second gear.

With the selector lever in ”L”, the transmission is engaged in the first gear.

NOTICE

- ***Be careful not to over–rev the engine. Watch the tachometer to keep engine rpm from going into the red zone. The approximate maximum allowable speed for each position is given below for your reference:***

  ”3” . . . . . 124 km/h (78 mph)
  ”2” . . . . . 81 km/h (51 mph)
  ”L” . . . . . 52 km/h (33 mph)

- ***Do not continue hill climbing or hard towing for a long time in the ”3”, ”2” or ”L” position. This may cause severe automatic transmission damage from overheating. To prevent such damage, ”4” position should be used in hill climbing or hard towing.***

(e) Backing up

▶ 1 ***Brake pedal*** 2 ***”R” (Reverse) position***

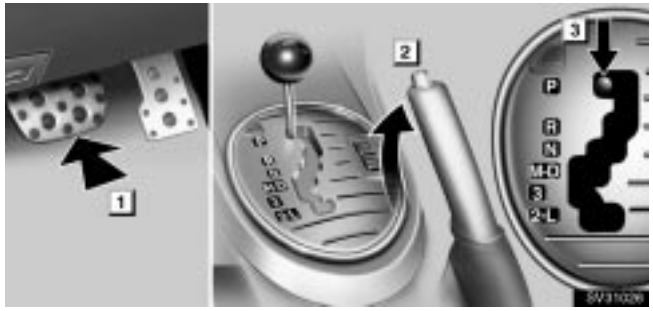
1. Bring the vehicle to a complete stop.

2. With the brake pedal held down with your foot, shift the selector lever to the ”R” position.

NOTICE

Never shift into reverse while the vehicle is moving.

(f) Parking



▶ 1 *Brake pedal* 2 *Parking brake lever*
3 *"P" (Park) position*

1. Bring the vehicle to a complete stop.

2. Pull the parking brake lever up fully to securely apply the parking brake.

3. With the brake pedal held down with your foot, shift the selector lever to the "P" position.

⚠ CAUTION

Never attempt to move the selector lever into "P" under any circumstances while the vehicle is moving. Serious mechanical damage and loss of vehicle control may result.

(g) Good driving practice

If the transmission repeatedly shifts up and down between the fourth and overdrive gears when climbing a gentle slope, shift the selector lever to the "M" position and select the forth gear by pushing the transmission switch. Be sure to shift the selector lever to the "D" position after climbing the slope.

⚠ CAUTION

Always keep your foot on the brake pedal while stopped with the engine running. This prevents the vehicle from creeping.

NOTICE

Do not hold the vehicle on an upgrade with the accelerator pedal. This can cause the transmission to overheat. Always use the brake pedal or parking brake.

(h) Rocking your vehicle if stuck

CAUTION

If your vehicle becomes stuck in snow, mud, sand, etc., then you may attempt to rock the vehicle free by moving it forward and backward. Do not attempt this procedure if people or objects are anywhere near the vehicle. During the rocking operation the vehicle may suddenly move forward or backward as it becomes un–stuck, causing injury or damage to nearby people or objects.

NOTICE

If you rock your vehicle, observe the following precautions to prevent damage to the transmission and other parts.

- ***Do not depress the accelerator pedal while shifting the selector lever or before the transmission is completely shifted to forward or reverse gear.***
- ***Do not race the engine and avoid spinning the wheels.***
- ***If your vehicle remains stuck after rocking the vehicle several times, consider other ways such as towing.***

(i) If you cannot shift the selector

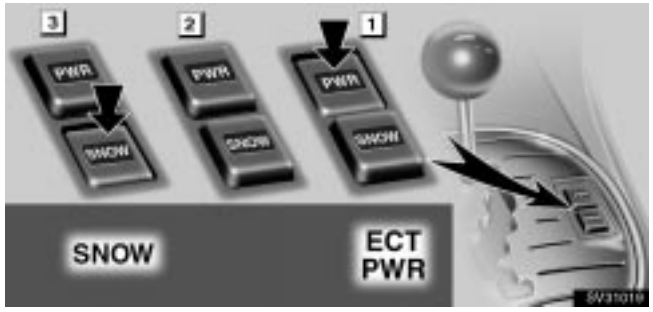
If you cannot shift the selector lever even though the brake pedal is depressed, use the shift lock override button. For instructions, see ”If you cannot shift automatic transmission selector lever” on page 218.

(j) If the ”ECT PWR” indicator light flashes

If the ”ECT PWR” indicator light flashes, contact your Lexus dealer as soon as possible. There may be trouble in the transmission system.

ELECTRONIC THROTTLE CONTROL SYSTEM

The electronic throttle control system always maintains appropriate engine output in relation to the accelerator opening in all driving conditions.



▶ 1 *Power position* 2 *Normal position*
3 *Snow position*

The electronic throttle control system has 3 modes: Normal, Power and Snow modes.

Normal mode: For ordinary driving, Lexus recommends that you use the normal mode to improve fuel economy.

Power mode: For more powerful acceleration and sporty driving.

In the power mode, the ”ECT PWR” light in the instrument cluster is on and the transmission is shifted up at higher vehicle speeds and shifted down more responsively than in the normal mode.

To return to the normal mode, push the ”PWR” switch again.

Snow mode: Decreases the engine output to minimize rear wheel spinning on snowcovered or slippery roads.

When you push ”SNOW” switch, the snow mode is turned on and the ”SNOW” light in the instrument cluster comes on.

To return to the normal mode, push the ”SNOW” switch again. The ”SNOW” indicator light will go off.

When you turn the ignition switch off in the snow mode, the mode automatically changes to the normal mode.

CRUISE CONTROL

The cruise control allows you to cruise the vehicle at a desired speed over 40 km/h (25 mph) with your foot off the accelerator pedal.

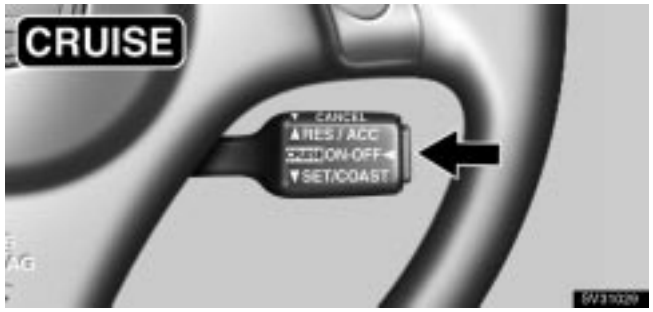
Your cruising speed can be maintained although a slight speed change may occur when driving up or down a gradient, within the limits of engine performance. On steeper hills, a great speed change will occur so it is better to drive without the cruise control.

When the cruise control is on, the driving pattern of the automatic transmission is fixed in the normal position, regardless of the position of the selector switch.

⚠ CAUTION

- **To help maintain maximum control of your vehicle, do not use the cruise control when driving in heavy or varying traffic, or on slippery (rainy, icy or snow–covered) or winding roads.**
- **Avoid vehicle speed increases when driving downhill. If the vehicle speed is too fast in relation to the cruise control set speed, cancel the cruise control then downshift the transmission to use engine braking to slow down.**

Turning on the system



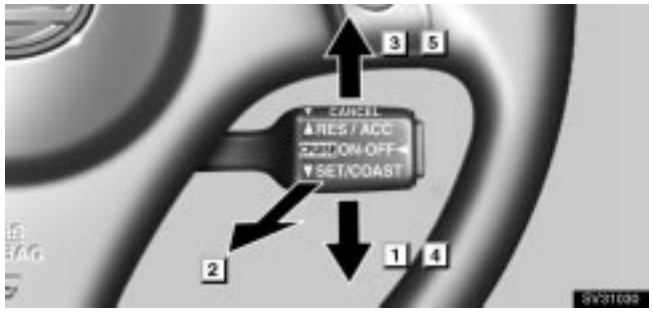
To operate the cruise control, push the main switch. This turns the system on. The indicator light in the instrument cluster shows that you can now set your desired cruising speed. Another push on the switch will turn the system completely off.

When the ignition key is turned off, the main switch is also automatically turned off. To use the cruise control again, push the main switch again to turn it on.

⚠ CAUTION

To avoid accidental cruise control engagement, keep the main switch off when not using the cruise control.

Setting operation



▶*Each function is described below.*

1 Setting at a desired speed.

The transmission must be in the ”D” position or the gear position must be ”4” or ”5” in M mode before you set the cruise control speed.

Bring the vehicle to the desired speed, press the control lever downward in the ”SET/COAST” direction and release it. This sets the vehicle at that speed. Now you may take your foot off the accelerator pedal. If you need acceleration – for example, when passing – depress the accelerator pedal enough for the vehicle to exceed the set speed. When you release the accelerator pedal, the vehicle will return to the speed set prior to the acceleration.

2 Cancelling the preset speed

You can cancel the preset speed by either of the following:

a. Pulling the control lever in the ”CANCEL” direction.

b. Depressing the brake pedal.

If the vehicle speed falls below about 40 km/h (25 mph), the preset speed will be automatically cancelled.

If the vehicle speed drops 16 km/h (10 mph) below the preset speed, the preset speed will also automatically be cancelled.

If the preset speed automatically cancels out for other than these reasons, have your vehicle checked by your Lexus dealer at the earliest opportunity.

3 Resetting to a faster speed

Press the control lever upward in the ”RES/ACC” direction and hold it. Release the lever when the desired speed is attained. While the lever is held upward, the vehicle will gradually gain speed.

When the difference between the actual vehicle speed and the set speed is less than 5 km/h (3 mph), the set speed can be increased 1.6 km/h (1 mph) each time by pressing the control lever upward in the ”RES/ACC” direction quickly within 0.6 seconds.

However, a quicker way to reset is to accelerate the vehicle and then press the control lever downward in the ”SET/COAST” direction.

4 Resetting to a slower speed

Press the control lever downward in the ”SET/COAST” direction and hold it. Release the lever when the desired speed is attained. While the lever is held downward, the vehicle speed will gradually decrease.

When the difference between the actual vehicle speed and the set speed is less than 5 km/h (3 mph), the set speed can be lowered 1.6 km/h (1 mph) each time by pressing the control lever downward in the ”SET/COAST” direction quickly within 0.6 seconds.

However, a quicker way to reset is to depress the brake pedal and then press the control lever downward in the ”SET/COAST” direction.

Even if you downshift the transmission from the ”D” position to ”M” with the cruise control on, engine braking will not be applied because the cruise control is not cancelled. To decrease the vehicle speed, reset to a slower speed with the cruise control lever or depress the brake pedal. If you use the brake pedal, cruise control is cancelled.

5 Resuming the preset speed

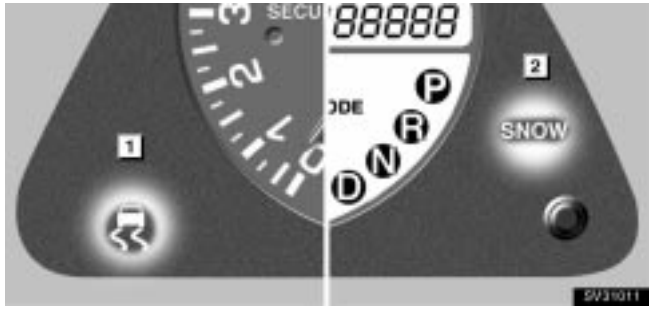
If the preset speed is cancelled by pulling the control lever or by depressing the brake pedal, pushing the lever up in the ”RES/ACC” direction will restore the speed set prior to cancellation. However, once the vehicle speed falls below about 40 km/h (25 mph), the preset speed will not be resumed.

Cruise control failure warning

If the ”CRUISE” indicator light in the instrument cluster flashes five times and then goes out when using the cruise control, it means that there is trouble in the cruise control system. Contact your Lexus dealer.

TRACTION CONTROL SYSTEM

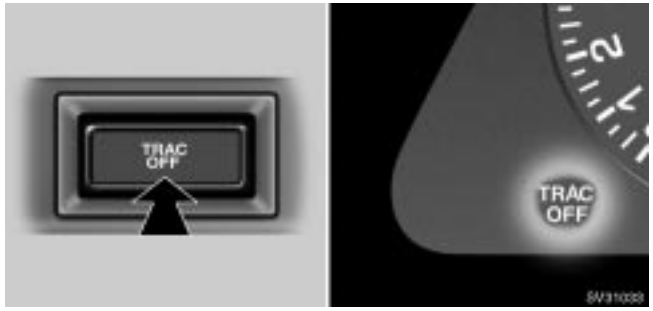
The traction control system automatically help control the spinning of the rear wheels which may occur when accelerating on slippery road surfaces, thus assisting driver control the driving power of the rear wheels. When you turn the ignition switch on, the traction control system always turns on automatically, and the slip indicator light will come on. The indicator lights will go off after a few seconds.



▶ 1 *Slip indicator light*
2 *"SNOW" indicator light*

Leave the system on during ordinary driving so that it can operate when needed. When traction control is applied, the slip indicator light blinks. If your vehicle still skids even though traction control is applied, more powerful traction control is applied and the "SNOW" indicator light comes on.

If the light flashes, this indicates a malfunction in the traction control system. Contact your Lexus dealer as soon as possible to service the vehicle.



You can turn off the traction control system by pushing the "TRAC OFF" switch. The "TRAC OFF" indicator/warning light will then come on. Pushing the "TRAC OFF" switch a second time turns the system back on and extinguishes the "TRAC OFF" indicator/warning light.

You may hear a sound in the engine compartment for a few seconds when the engine is started or just after the vehicle is started. This means that the traction control system is in the self–check mode, and does not indicate malfunction.

When the traction control system is operating, you may feel vibration of your vehicle, caused by operation of the brakes. This indicates the system is functioning properly.

When getting the vehicle out of mud or new snow, etc. the traction control system will help operate to prevent the wheels from spinning.

⚠ CAUTION

Under certain slippery road conditions, full traction of the vehicle and power to the rear wheels cannot be maintained, even though the traction control system is in operation. Do not drive the vehicle under any speed or maneuvering conditions which will cause the vehicle to lose traction. In situations where the road surface is covered with ice or snow, your vehicle should be fitted with snow tires or tire chains. Always drive at an appropriate and cautious pace.

BRAKE SYSTEM

The tandem master cylinder brake system is a hydraulic system with two separate sub–systems. If either sub–system should fail, the other will still work. However, the pedal will be harder to press, and your stopping distance will be longer. Also, the brake system warning light may come on.

⚠ CAUTION

Do not drive your vehicle with only a single brake system. Have your brakes fixed immediately.

Brake booster

The brake booster uses engine vacuum to power–assist the brakes. If the engine should quit while you are driving, you can bring the vehicle to a stop with normal pedal pressure. There is enough reserved vacuum for one or two stops but no more!

⚠ CAUTION

- **Do not pump the brake pedal if the engine stalls. Each push on the pedal uses up your reserved vacuum.**
- **Even if the power assist is completely lost, the brakes will still work. But you will have to push the pedal hard, much harder than normal. And your braking distance will be longer.**

Anti–lock brake system

The anti–lock brake system is designed to automatically help prevent lock–up of the wheels during a sudden braking or braking on slippery road surfaces. This assists in providing directional stability and steering performance of the vehicle under these circumstances.

Effective way to press the ABS brake pedal: When the anti–lock brake system function is in action, you may feel the brake pedal pulsating and hear a noise. In this situation, to let the anti–lock brake system work for you, just hold the brake pedal down more firmly. Do not pump the brake in a panic stop. This will result in reduced braking performance.

The anti–lock brake system becomes operative after the vehicle has accelerated to a speed in excess of approximately 10 km/h (6 mph). It stops operating when the vehicle decelerates to a speed below approximately 5 km/h (3 mph).

Depressing the brake pedal on slippery road surfaces such as on the manhole cover, the steel plate under the construction, joints in the bridge, etc. on a rainy day tends to activate the anti–lock brake system.

You may hear a click or motor sound in the engine compartment for a few seconds when the engine is started or just after the vehicle is started. This means that the anti–lock brake system is in the self–check mode, and does not indicate a malfunction.

When the anti–lock brake system is activated, the following conditions may occur. They do not indicate a malfunction of the system:

- You may hear the anti–lock brake system operating and feel the brake pedal pulsating and the vibrations of the vehicle body and steering wheel. You may also hear the motor sound in the engine compartment even after the vehicle is stopped.
- At the end of the anti–lock brake system activation, the brake pedal may move a little forward.

⚠ CAUTION

Do not overestimate the anti–lock brake system: Although the anti–lock brake system assists in providing vehicle control, it is still important to drive with all due care and maintain a moderate speed and safe distance from the vehicle in front of you, because there are limits to the vehicle stability and effectiveness of steering wheel operation even with the anti–lock brake system on.

If tires grip performance exceeds its capability, or if hydroplaning occurs during high speed driving in the rain, the anti–lock brake system does not provide vehicle control.

Anti–lock brake system is not designed to shorten the stopping distance: Always drive at the moderate speed and maintain a safe distance from the vehicle in front of you. Compared with vehicles without an anti–lock brake system, your vehicle may require a longer stopping distance in the following cases:

- **Driving on rough, gravel or snow–covered roads.**
- **Driving with tire chains installed.**
- **Driving over the steps such as the joints on the road.**
- **Driving on roads where the road surface is pitted or has other differences in surface height.**

Install all 4 tires of specified size at appropriate pressure: The anti–lock brake system detects vehicle speeds using the speed sensors for respective wheels' turning speeds. The use of tires other than specified may fail to detect the accurate turning speed resulting in a longer stopping distance.

"ABS" warning light

▶***U.S.A.***

▶***CANADA***

The light comes on when the ignition key is turned to the "ON" position. If the anti–lock brake system works properly, the light turns off after a few seconds. Thereafter, if the system malfunctions, the light comes on again.

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

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

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

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

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

⚠ CAUTION

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

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

Drum–in–disc type parking brake system

Your vehicle has a drum–in–disc type parking brake system. This type of brake system needs bedding–down of the brake shoes periodically or whenever the parking brake shoes and/or drums are replaced.

Have your Lexus dealer perform the bedding–down.

BRAKE PAD WEAR INDICATORS

The brake pad wear limit indicators on your disc brakes give a warning noise when the brake pads are worn to the extent that replacement is required.

If you hear a squealing or scraping noise while driving, have the brake pads checked and replaced by your nearest Lexus dealer immediately.

Avoid continuous driving with the warning noise.

Continuous driving without replacing the brake pads will cause expensive rotor damage and increasing brake pedal effort to get the same stopping distance.

TYPES OF TIRES

Determine what kind of tires your vehicle is originally equipped with.

1. Summer tires

Summer tires are high–speed capability tires best suited to highway driving under dry conditions.

Since summer tires do not have the same traction performance as snow tires, summer tires are inadequate for driving on snow–covered or icy roads. For driving on snow–covered or icy roads, we recommend using snow tires. If installing snow tires, be sure to replace all four tires.

2. All season tires

All season tires are designed to provide better traction in snow and to be adequate for driving in most winter conditions, as well as for use all year round.

All season tires, however, do not have adequate traction performance compared with snow tires in heavy or loose snow. Also, all season tires fall short in acceleration and handling performance compared with summer tires in highway driving.

CAUTION

- **Do not mix summer and all season tires on your vehicle as this can cause dangerous handling characteristics, resulting in loss of control.**
- **Do not use tires other than the manufacturer's designated tires, and never mix tires or wheels of the sizes different from the originals.**

LIMITED–SLIP DIFFERENTIAL

Some vehicles are equipped with a limited–slip differential. If one rear wheel begins to spin, the limited–slip differential is designed to aid traction by automatically transmitting driving force to the other rear wheel. If you are not sure whether your vehicle is equipped with one, you can ask your Lexus dealer.

CAUTION

Do not start or run the engine while your vehicle is supported by a jack. The vehicle could be driven off the jack and could pose a danger or result in serious injury.

NOTICE

Use only a spare tire of the same size, construction and load capacity as the original tires on your Lexus because damage to the limited–slip differential could possibly occur with another tire type.