

Owner's Manual

NX350

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For your information

Information contained in this 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 illustrations may differ from your vehicle in terms of color and equipment.

Reading this manual

This section explains symbols used in this manual.

Meanings of symbols in the text

The names and meanings of symbols are as follows:

-  WARNING

  Explains something that, if not obeyed, could cause death or serious injury to people.

-  NOTICE

  Explains something that, if not obeyed, could cause damage to or a malfunction in the vehicle or its equipment.

- 1 2 3... Step number

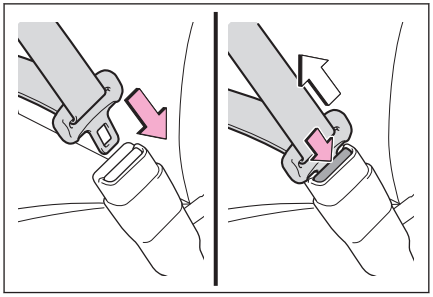
  Indicates operating or working procedures. Follow the steps in numerical order.

-  Info

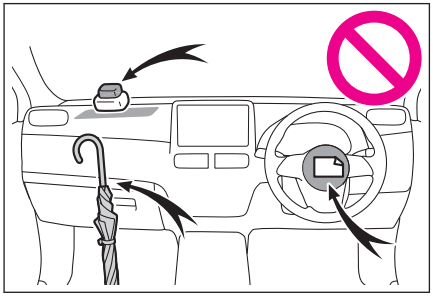
  Explains important points other than functions and operating methods.

Meanings of symbols in illustrations

The names and meanings of symbols are as follows:



-  Indicates the action (pushing, turning, etc.) used to operate switches and other devices.
-  Indicates the outcome of an operation (e.g. a lid opens).



-  Indicates the component or position being explained.
-  Means Do not, Do not do this, or Do not let this happen.

Precautions for safe driving

⚠ WARNING

- 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

⚠ WARNING

certain drugs delay reaction time, impair judgment and reduce coordination, which could lead to an accident that could result in death or serious injury.

- 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.
- Always observe the legal speed limit when driving on public roads.
- Defensive driving: Always drive defensively. Anticipate mistakes that other drivers or pedestrians might make and be ready to avoid accidents.
- When driving over long distances, take regular breaks before you start to feel tired. Also, if you feel tired or sleepy while driving, do not force yourself to continue driving and take a break immediately.

General precaution regarding children's safety

⚠ WARNING

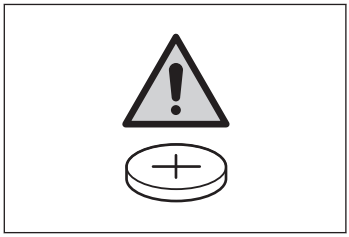
Never leave children unattended in the vehicle, and never allow children to have or use the key.

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 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.

General precaution regarding a coin battery and button battery

⚠ WARNING



This product contains a coin battery or button battery.

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

- Keep away new and removed batteries from children.

⚠ WARNING

- Do not swallow the battery. Doing so may cause chemical burns.
- If a battery is swallowed, it may cause severe chemical burns in as little as 2 hours and may result in death or serious injury.
- If you accidentally swallow a battery or put a battery into a part of your body, get emergency medical attention immediately.

Usage of data collected through Lexus Connected Services

If your Lexus has Lexus Connected Services and if you have subscribed to those services, please refer to the Lexus Connected Services usage contract for information on data collected and its usage.

For more information, please visit https://www.lexus.com.au/privacy

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Exterior

INFORMATION

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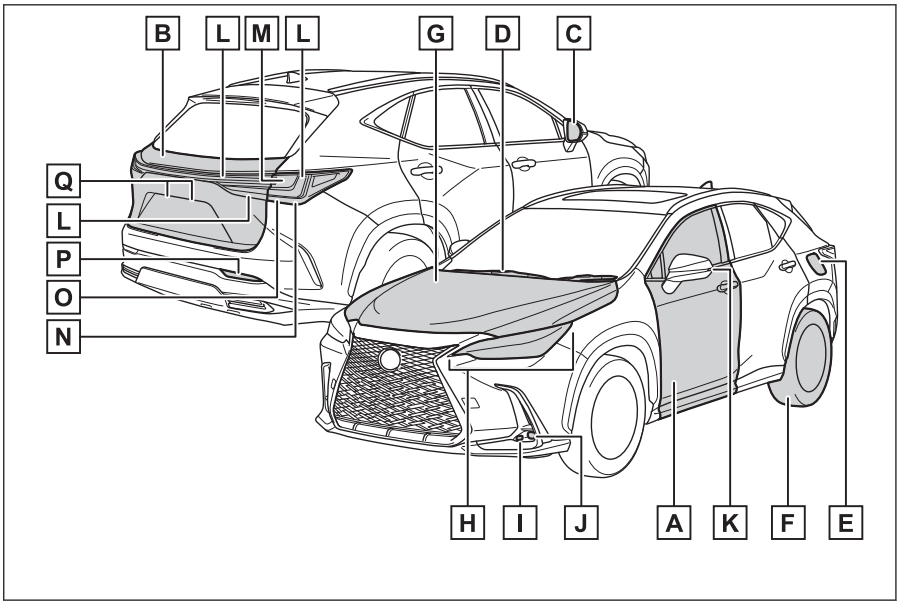

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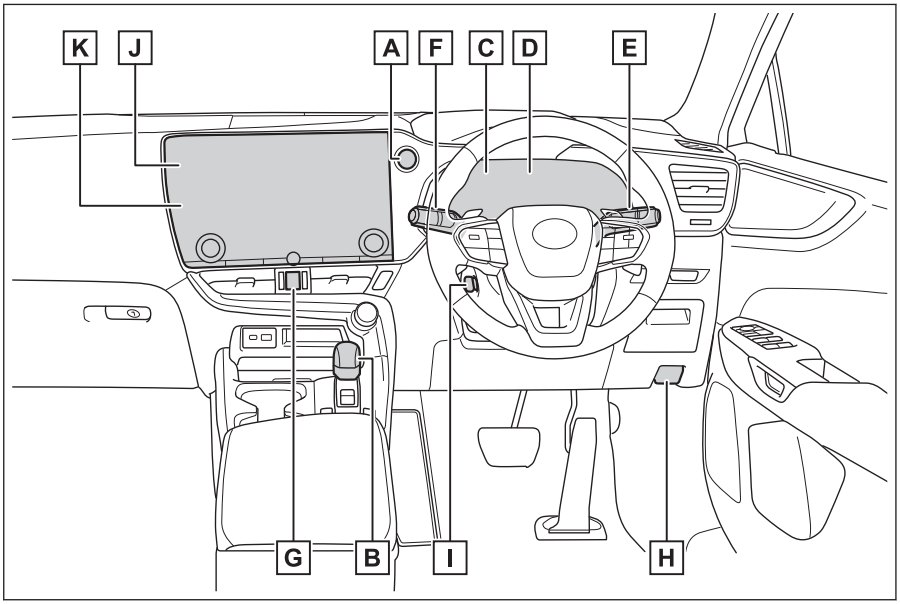

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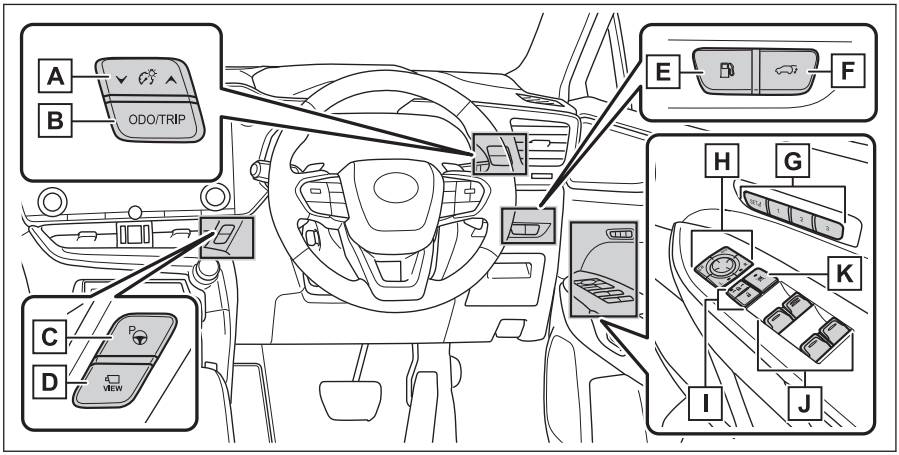
*1: Refer to "Multimedia Owner's Manual".

Switches



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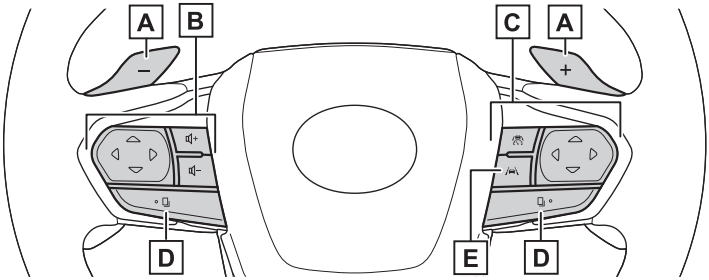
*: If equipped

*1: Refer to "Multimedia Owner's Manual".



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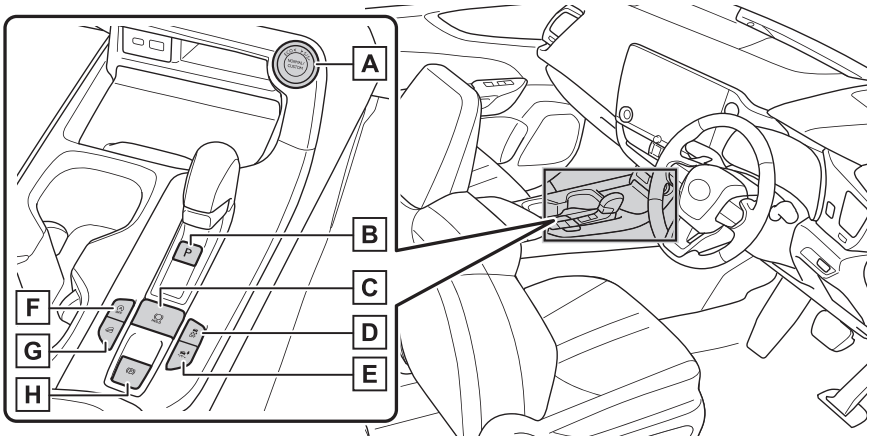

*1: Refer to "Multimedia Owner's Manual".

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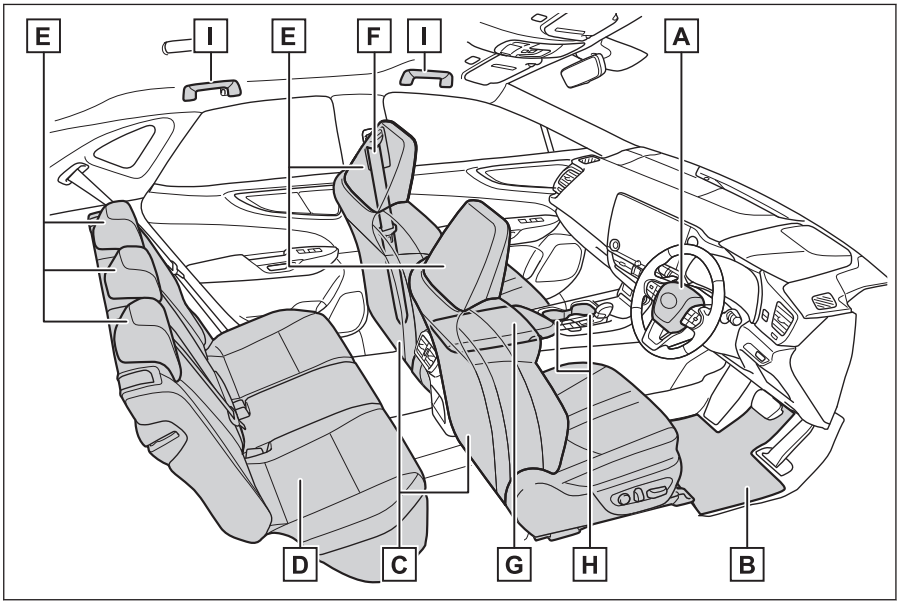

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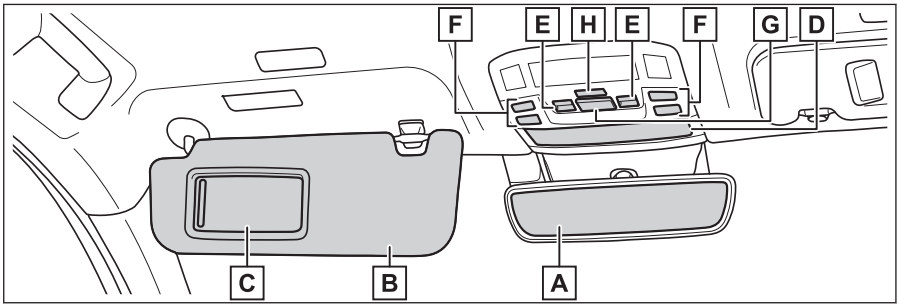

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*1: NEVER use a rearward facing child restraint on a seat protected by an ACTIVE AIRBAG in front of it, DEATH or SERIOUS INJURY to the CHILD can occur.



*: If equipped

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Using the dedicated floor mats correctly

Use only floor mats designed specifically for vehicles of the same model and model year as your vehicle. Fix them securely in place onto the carpet.

⚠ WARNING

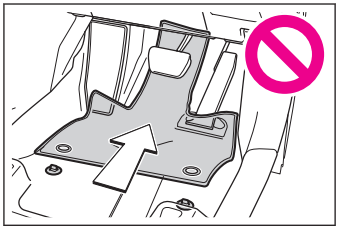
- When installing a driver's side floor mat, do not use floor mats designed for other models or different model year vehicles, even if they are Lexus Genuine floor mats.
- Only use floor mats designed for the driver's seat.
- Do not use two or more floor mats on top of each other.
- Do not place the floor mat bottomside up or upside-down.

Securing the floor mats

⚠ WARNING

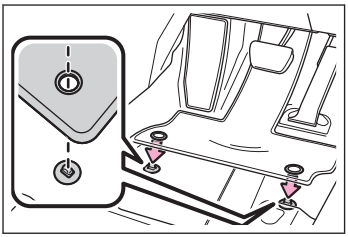
Check the following before driving.

- Check that the floor mat is securely fixed in the correct place with all the provided retaining hooks (clips). Be especially careful to perform this check after cleaning the floor.



- With the engine stopped and the shift position in P, fully depress each pedal to the floor to make sure it does not interfere with the floor mat.

1 **Insert the retaining hooks (clips) into the floor mat eyelets.**



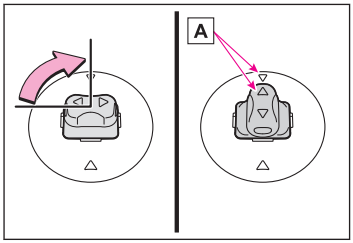
⚠ WARNING

Always install the floor mat securely using the retaining hooks (clips) provided.

2 **Turn the upper knob of each retaining hook (clip) to secure the floor mats in place.**

Always align the △ marks A.

The shape of the retaining hooks (clips) may differ from that shown in the illustration.



Riding with children

If a child which is not large enough to correctly wear a seat belt intended for adults is to ride in the vehicle, use a child restraint system. Child restraint systems are designed to keep children safe.

To ensure safety, observe the following when children are in the vehicle.

- Make sure that children always wear a seat belt.

  If a child is not wearing a seat belt, in a collision, they may collide with a window, other passenger, or the interior of the vehicle. Also, if a child is riding on the lap of another passenger, in a collision, they may collide with a window, other passenger, or the interior of the vehicle.

- Seat children in the rear seats.

  It is recommended that children sit in the rear seats to avoid accidental contact with the driver's controls.

- Do not allow children to operate equipment such as the doors, windows, etc.

  Do not let children operate equipment such as the doors, power windows, seats, etc. as a part of their body may become pinched.

  To prevent children from opening and closing the doors and power windows, use the child-protector locks and window lock switch.

- Extreme Hazard! Do not use a rearward facing child restraint on a seat protected by an airbag in front of it! This is because the force of the rapid inflation of the front passenger airbag can cause death or serious injury to the child.

  There is a label(s) on the passenger side sun visor, indicating it is forbidden to attach a rear-facing child restraint system to the front passenger seat.



⚠ WARNING

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

⚠ WARNING

Children may be able to start the vehicle or shift the vehicle into neutral.

- Do not leave children unattended in the vehicle.

  Children may accidentally cause the vehicle to move, leading to an accident, or start a fire.

- Do not leave people or animals in the vehicle.

  The temperature inside the vehicle can become extremely high during the daytime, possibly leading to heat stroke or death.

- Do not allow children to ride on the lap of a passenger.

  If a child is riding on the lap of another passenger, in a collision, they may collide with a window, another passenger, or the interior of the vehicle. Make sure that children wear a seat belt or use a child restraint system.

- Use a child restraint system for small children.

  If a child which is not large enough to correctly wear a seat belt is to ride in the vehicle, use a child restraint system.

- Use child restraint systems correctly.

  Child restraint systems are designed to protect children in a collision or sudden stop. Make sure to securely install child restraint systems and use them correctly.

- Replace child restraint systems which have been involved in a collision.

  If the vehicle has been involved in a collision, it is possible that an installed child restraint system has been damaged and will not be able to deliver the same level of impact absorption performance, even if the outside of it looks normal.

- When a child restraint system is not in use, secure it so that it does not interfere with driving.

  When removing a child restraint system, store it outside of the vehicle or securely in the luggage compartment.

Seating positions for children

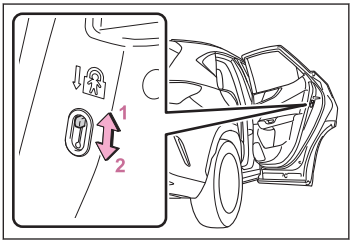
It is recommended that children sit in the rear seats to avoid accidental contact with the driver's controls. In the event of an accident, the force of deployment of the SRS front passenger airbag can cause death or serious injury to a child seated on the front passenger's seat. Do not allow a child to ride on the front passenger's seat unless it is unavoidable.

⚠ WARNING

- When installing a child restraint system to the front passenger's seat is unavoidable, move the seat as far back as possible, and install the child restraint system so that it faces forward. If the child restraint system is not installed correctly, in the event of an accident, the force of deployment of the SRS front passenger airbag can cause death or serious injury.
- Do not allow children to lean against the doors, roof side rails, or pillars. In the event of an accident, the force of deployment of an SRS airbag can cause death or serious injury to a child.
- When adjusting the driver's seat, if it contacts a child or child restraint system, install the child restraint system to the rear seat behind the front passenger's seat.
- Adjust the front passenger seat so that it does not interfere with the child or child restraint system.
- If a child which is over 100 cm (3.3 ft.) tall is to ride in the vehicle, use a junior seat (booster seat). When using a junior seat (booster seat), make sure that the seat belt is worn correctly.

Preventing the rear doors from being opened from the inside of the vehicle (child-protector lock)

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



1 Unlock
2 Lock

These locks can be set to prevent children from opening the rear doors. Push down on each rear door switch to lock both rear doors.

INFORMATION

Door opening method when using a child-protector lock

Unlock the door and pull the exterior door handle to open the door. If it is necessary to open the door from inside the vehicle, open the rear door window and pull the exterior door handle.

Selecting an appropriate child restraint system

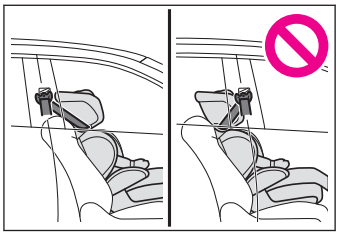
Precautions for selecting a child restraint system

To ensure safety, observe the following when using a child restraint system.

- Make sure to observe the precautions regarding child restraint systems.
- Choose a child restraint system appropriate to the age and size of the child.
- Check the compatibility of the child restraint system with each seating position. Depending on the child restraint system, it may not be able to be installed.
- For details about use of a child restraint system, check the user's manual of the child restraint system.

⚠ WARNING

- Check that the seat belt for the seat next to a child restraint system can be worn properly. Depending on the type of child restraint system, the seat belt may not be able to be worn properly. In this case, use another seat.
- When adjusting the driver's seat, if it contacts a child or child restraint system, install the child restraint system to the rear seat behind the front passenger's seat.
- Adjust the front passenger seat so that it does not interfere with the child or child restraint system.
- When installing a child restraint system with support base, if the child restraint system contacts a seatback when installing it to the support base, adjust the seatback rearward until they do not contact.
- If the seat belt shoulder anchor is in front of the seat belt guide of a child restraint system, move the seat forward.



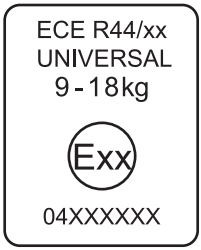
- When installing a junior seat, if the child in your child restraint system is in a very upright position, adjust the seatback angle to the most comfortable position.

Selecting a child restraint system

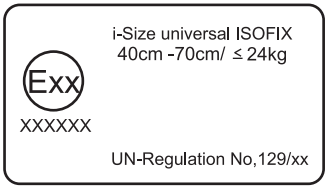
Use a child restraint system that conforms to UN (ECE) R44 or UN (ECE) R129. UN (ECE) R44 and UN (ECE) R129 are U.N. regulations for child restraint systems.

Example

"UN（ECE） R44"



"UN（ECE） R129"



NOTICE

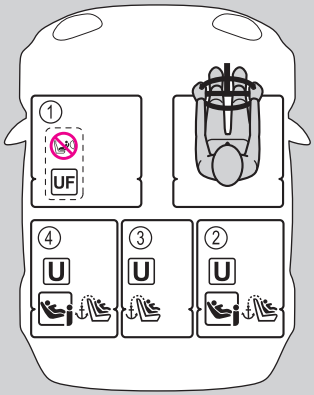
- The displayed mark may differ depending on the product.
- If the category of a child restraint system is unclear, refer to the user's manual of the child restraint system or check with the manufacturer.

INFORMATION

Lexus recommends the use of a Lexus genuine child restraint system, as they meet strict quality standards.

Lexus genuine child restraint systems are made specifically for Lexus vehicles. For details, refer to the Lexus web site or contact your Lexus dealer.

Child restraint system compatibility with each seating position

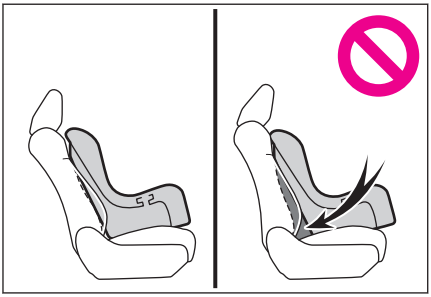


Seating position				
Seat position number	1 (1)(2)(3)	2 (2)(3)	3 (2)(3)	4 (2)(3)
Seating position suitable for universal belted (Yes/No)(4)	Yes Forward-facing only	Yes	Yes	Yes
i-Size seating position (Yes/No)	No	Yes	No	Yes
Seating position suitable for lateral fixture (L1/L2/No)	No	No	No	No
Suitable rearward facing fixture (R1/R2X/R2/R3/No)	No	R1, R2X, R2, R3	No	R1, R2X, R2, R3

Suitable forward facing fixture (F2X/F2/F3/No)	No	F2X, F2, F3	No	F2X, F2, F3
Suitable junior seat fixture (B2/B3/No)	No	B2, B3	No	B2, B3

(1) Move the front seat fully rearward. If the passenger seat height can be adjusted, move it to the upper most position.

(2) Raise the seatback to be as upright as possible and reduce the gap between the child restraint system and seatback.



(3) If the head restraint interferes with your child restraint system, and the head restraint can be removed, remove the head restraint. Otherwise, put the head restraint in the upper most position.

(4) All universal categories (group 0, 0+, I, II and III).

● Lexus suggests the users to use ② and ④ seating positions.

	Activation of front passenger airbag. Never use a rear-facing child restraint system on the front passenger seat when the airbag manual on-off switch is on.
	Suitable for "universal" category child restraint system fixed with the seat belt.
	Suitable for forward-facing "universal" category child restraints system fixed with the seat belt.
	Suitable for i-Size and ISOFIX child restraint system.

	Includes a top tether anchorage point.

In the following situations, refer to the "vehicle compatibility list" from the manufacturer of the child restraint system, or contact your Lexus dealer or the retailer of the child restraint system.

- When the child restraint system is not a "universal" category child restraint system
- When it is unknown if the child restraint system is a "universal" category child restraint system or not

Installation fixture list

ISOFIX child restraint systems are divided into different "fixture" types. Select a fixture type according to the position where the child restraint system is to be installed. Refer to the following table for the "fixture" types.

- To check the "fixture" type of a child restraint system, check the user's manual included with it.
- If the child restraint system has no "fixture" type (or if the information is not in the table), refer to the "vehicle compatibility list" from the manufacturer of the child restraint system or contact the retailer of the child restraint system.

Mass group	Child weight	Size class	Fixture	Description
0	Up to 10 kg (22 lb.)	E	R1	Rearward-facing infant seat
		F	L1	Left lateral-facing infant seat (Carry-cot)
		G	L2	Right lateral-facing infant seat (Carry-cot)
0 +	Up to 13 kg (28 lb.)	C	R3	Full-size, rearward-facing child restraint systems
		D	R2	Reduced-size, rearward-facing child restraint systems

Mass group	Child weight	Size class	Fixture	Description
0 +	Up to 13 kg (28 lb.)	–	R2X	Reduced-size, rearward-facing child restraint systems
		E	R1	Rearward-facing infant seat
I	9 to 18 kg (20 to 39 lb.)	A	F3	Full-height, forward-facing child restraint systems
		B	F2	Reduced-height forward-facing child restraint systems
		B1	F2X	Reduced-height forward-facing child restraint systems
		C	R3	Full-size, rearward-facing child restraint systems
		D	R2	Reduced-size, rearward-facing child restraint systems
II	15 to 25 kg (34 to 55 lb.)	–	B2, B3	Junior seat
III	22 to 36 kg (48 to 79 lb.)			

Installing a child restraint system

Lexus recommends that child restraint systems be installed to a rear seat. For safety, when using a child restraint system, make sure to install it to a rear seat.

If installing the child restraint system to the front passenger seat is unavoidable, refer to Installing a child restraint system to the front passenger's seat(→P.40).

Use a child restraint system appropriate for the size of the child. Never use an incorrectly sized child restraint system.

⚠ NOTICE

Before installing a child restraint system, make sure to read the user's manual included with it.

Installing an ISOFIX/i-Size compatible child restraint system

This vehicle is equipped with ISOFIX rigid anchors. Therefore, ISOFIX compatible child restraint systems can quickly and easily be installed.

⚠ WARNING

■ Using child restraint anchorages

WARNING: child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seatbelts, harnesses, or for attaching other items or equipment to the vehicle.

Installation using ISOFIX rigid anchors

Install the child restraint system according to the user's manual included with it.

In the following situations, refer to the "vehicle compatibility list" from the manufacturer of the child restraint system, or contact your Lexus dealer or the retailer of the child restraint system.

- When the child restraint system is not a "universal" category child restraint system
- When it is unknown if the child restraint system is a "universal" category child restraint system or not

⚠ WARNING

Observe the following when installing a child restraint system.

- After installing a child restraint system, do not adjust the seat.

⚠ WARNING

- When using the rigid anchors, make sure that the area around the anchors is free of objects and that the seat belt will not be caught behind the child restraint system.
- Securely install the child restraint system according to the user's manual of the child restraint system.

If a head restraint interferes with a child restraint system

When installing a child restraint system, if a head restraint interferes with the child restraint system, remove the head restraint or adjust its position.

- **Remove the head restraint.**

  If a head restraint cannot be removed, move it to the uppermost position.

Installing a child restraint system with ISOFIX rigid anchors

Engage the connectors of an ISOFIX compatible child restraint system to the ISOFIX rigid anchors of the vehicle.

Install the child restraint system according to the user's manual included with it.



1. **Check the positions of the rigid anchors.**
2. **Install the child restraint system to the seat.**
3. **Engage the connectors of the child restraint system to the rigid anchors.**
4. **Install the child restraint system according to the user's manual included with it.**
5. **Shake the installed child restraint system in all directions.**

   Make sure that the child restraint system is securely installed.

Using an anchor fitting

⚠ WARNING

Observe the following when installing a child restraint system.

- Make sure that the upper anchorage strap is not twisted.

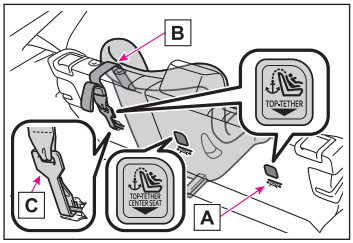
⚠ WARNING

- Make sure that the top strap is engaged to the anchor fittings.
- Make sure that the upper anchorage is securely attached.
- After installing a child restraint system, do not adjust the seat.
- After installing a child restraint system, do not adjust the head restraint.
- Securely install the child restraint system according to the user's manual of the child restraint system.

Attach the top strap of the child restraint system to the anchor fitting of the vehicle.

Install the child restraint system according to the user's manual included with it.

A Anchor fittings
B Upper anchorage strap
C Attaching clip



1 **Remove the head restraint.**

If the head restraint cannot be removed, move it to the uppermost position.

Route the upper anchorage strap under the head restraint.

2 **Engage the attaching clip to the anchor fitting.**

3 **Tighten the upper anchorage strap to secure the attaching clip.**

Make sure that the upper anchorage strap is tight and the attaching clip is securely engaged.

Installing a child restraint system with a seat belt

Install the child restraint system according to the user's manual included with it.

In the following situations, refer to the "vehicle compatibility list" from the manufacturer of the child restraint system, or contact your Lexus dealer or the retailer of the child restraint system.

- When the child restraint system is not a "universal" category child restraint system
- When it is unknown if the child restraint system is a "universal" category child restraint system or not

⚠ WARNING

Observe the following when installing a child restraint system.

- After installing a child restraint system, do not adjust the seat.
- Securely install the child restraint system according to the user's manual of the child restraint system.

If a head restraint interferes with a child restraint system

When installing a child restraint system, if a head restraint interferes with the child restraint system, remove the head restraint or adjust its position.

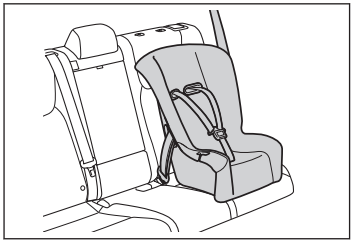
- **Remove the head restraint.**

  If a head restraint cannot be removed, move it to the uppermost position.

Installing a child restraint system with a seat belt

When installing a child restraint system which is not ISOFIX/i-Size compatible, use a seat belt to install it.

Install the child restraint system according to the user's manual included with it.



⚠ WARNING

Observe the following when installing a child restraint system with a seat belt.

- Do not allow children to play with the seat belt. If the seat belt becomes twisted around a child's neck, it may lead to choking or other serious injuries that could result in death. If this occurs and the buckle cannot be unfastened, scissors should be used to cut the belt.
- When using a junior seat (booster seat), make sure that the shoulder belt is securely positioned over the child's shoulder.
- After installing a child restraint system, do not adjust the seat.
- Make sure that the seat belt plate and buckle are securely fastened.
- Make sure that the seat belt is not twisted.
- Securely install the child restraint system according to the procedure in the user's manual of the child restraint system.
- Shake the child restraint system left and right, and forward and backward to ensure that it has been securely installed.

1 **Pass the seat belt through the child restraint system.**

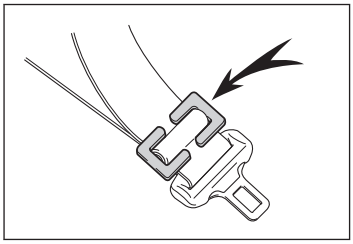
Install the child restraint system according to the user's manual included with it.

2 **Insert the plate into buckle until a sound is heard.**

Make sure that the belt is not twisted.

3 **Check that the seat belt is secure.**

You may need a locking clip to install the child restraint system. Follow the instructions provided by the manufacturer of the system. If your child restraint system does not provide a locking clip, you can purchase the following item from your Lexus dealer: Locking clip for child restraint system (Part No. 73119-22010)



4 **After installing the child restraint system, rock it back and forth to ensure that it is installed securely.**

Make sure that the child restraint system is securely installed.

Removing a child restraint system that is installed with a seat belt

If a child restraint system is installed with a seat belt, release the seat belt to remove it.

1 **Press the buckle release button.**

When the buckle is released, the child restraint system may spring up. Make sure to hold down the child restraint system when releasing the buckle.

2 **Remove the seat belt from the child restraint system.**

The seat belt will be retracted automatically.

Installing a child restraint system to the front passenger's seat

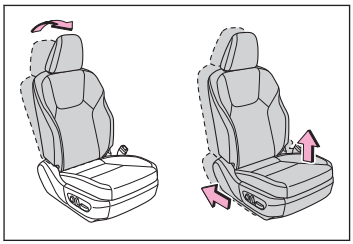
Do not install a child restraint system to the front passenger's seat unless it is unavoidable. In the event of an accident, the force of deployment of an SRS airbag can cause death or serious injury to a child.

If installation of a child restraint system to the front passenger's seat is unavoidable, adjust the front passenger's seat as follows:

- Move the seat to the rearmost position
- Move the seat to the uppermost position
- Adjust the seatback angle to the most upright position.

  Adjust the seatback angle of the front passenger's seat until good contact is achieved.
- Remove the head restraint

  If the head restraint cannot be removed, move it to the uppermost position.



⚠ WARNING

- Extreme Hazard! Do not use a rearward facing child restraint on a seat protected by an airbag in front of it! This is because the force of the rapid inflation of the front passenger airbag can cause death or serious injury to the child.

  There is a label(s) on the passenger side sun visor, indicating it is forbidden to attach a rear-facing child restraint system to the front passenger seat.



- When installing a child restraint system to the front passenger's seat, move the seat as far back as possible. In the event of an accident, the force of deployment of an SRS airbag can cause death or serious injury to a child.

⚠ WARNING

- Make sure that the child's body will not contact the doors, roof side rails, or pillars. In the event of an accident, the force of deployment of an SRS airbag can cause death or serious injury to a child.
- When using a junior seat (booster seat), make sure that the seat belt is worn correctly.
- Choose a child restraint system appropriate to the age and size of the child.

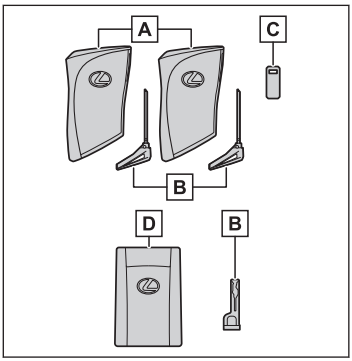
Installing a child restraint system to the front passenger's seat

● **Make sure to appropriately adjust the front passenger's seat before installing the child restraint system.**

Install the child restraint system according to the user's manual included with it.

Key types

The following keys are provided with the vehicle.



A Electronic keys
- Operating the smart entry & start system
- Operating the wireless remote control function

B Mechanical keys

C Key number plate

D Card key (electronic key)*

Operating the smart entry & start system

⚠ NOTICE

■ To prevent key damage

Observe the following precautions

- Do not drop the keys, subject them to strong shocks or bend them.
- Do not expose the keys to high temperatures for long periods of time.
- Do not get the keys wet or wash them in an ultrasonic washer, etc.
- Do not attach metallic or magnetic materials to the keys or place the keys close to such materials.
- Do not disassemble the keys.
- Do not attach a sticker or anything else to the surface of the electronic key.
- Do not place the keys near objects that produce magnetic fields, such as TVs, audio systems and induction cookers.
- Do not place the keys near medical electrical equipment such as low-frequency therapy equipment or microwave therapy equipment, and do not receive medical attention with the keys on your person.

■ Carrying the electronic key on your person

Carry the electronic key 10 cm (3.9 in.) or more away from electric appliances that are turned on. Radio waves emitted from electric appliances within 10 cm (3.9 in.) of the electronic key may interfere with the key, causing the key to not function properly.

■ Handling the card key*

- If the battery or card key terminals get wet, the battery may corrode and the card key may stop working.If the key is dropped into water, or if drinking water, etc., is spilled on

*: If equipped

NOTICE

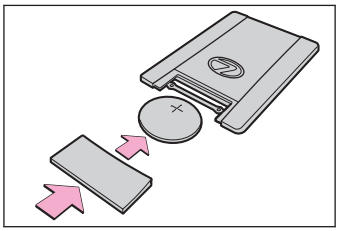
the key, immediately remove the battery cover and wipe the battery and terminals. (To remove the battery cover, lightly grasp and pull it.) If the battery is corroded, have your Lexus dealer replace the battery.

- Do not crush the battery cover or use a screwdriver to remove the battery cover. Forcibly removing the battery cover may bend or damage the key.
- If the battery cover is frequently removed, the battery cover may become loose.
- When installing the battery, make sure to check the direction of the battery.Installing the battery in the wrong direction may cause the battery to deplete rapidly.
- The surface of the card key may be damaged, or its coating may peel off in the following situations:
  - The card key is carried together with hard objects, such as coins and keys.
  - The card key is scraped with a sharp object, such as the tip of a mechanical pencil.
  - The surface of the card key is wiped with thinner or benzene.

INFORMATION

Handling the card key*

- The mechanical key that is stored inside the card key should be used only if a problem arises, such as when the card key does not operate properly.
- If the battery cover is not installed and the battery falls out or if the battery was removed because the key got wet, reinstall the battery with the positive terminal facing the Lexus emblem.



- The card key is not waterproof.

When riding in an aircraft

When bringing an electronic key onto an aircraft, make sure you do not press any buttons on the electronic key while inside the aircraft cabin. If you are carrying an electronic key in your bag, etc., ensure that the buttons are not likely to be pressed accidentally. Pressing a button may cause the electronic key to emit radio waves that could interfere with the operation of the aircraft.

*: If equipped

Electronic key battery depletion

- The standard battery life is 1 to 2 years (The card key battery life is about 1 year.).
- If the battery becomes low, an alarm will sound in the cabin when the engine stops.
- As the electronic key always receives radio waves, the battery will become depleted even if the electronic key is not used. The following symptoms indicate that the electronic key battery may be depleted. Replace the battery when necessary.
  - The smart entry & start system or the wireless remote control does not operate.
  - The detection area becomes smaller.
  - The LED indicator on the key surface does not turn on.
- You can replace the battery by yourself. However, as there is a danger that the electronic key may be damaged, it is recommended that replacement is carried out by your Lexus dealer.
- To avoid serious deterioration, do not leave the electronic key within 1 m (3 ft.) of the following electrical appliances that produce a magnetic field:
  - TVs
  - Personal computers
  - Cellular phones, cordless phones and battery chargers
  - Table lamps
  - Induction cookers

Battery-saving function

The battery-saving function will be activated in order to prevent the electronic key battery and the vehicle battery from being discharged while the vehicle is not operated for a long time.

- In the following situations, the smart entry & start system may take some time to unlock the doors. Also the illuminated entry system may not operate properly.
  - The electronic key has been left near the vehicle for a certain amount of time.
  - The smart entry & start system has not been used for 5 days or longer.
- If the smart entry & start system has not been used for 14 days or longer, the doors cannot be unlocked at any doors except the driver's door. In this case, take hold of the driver's door handle, or use the wireless remote control or the mechanical key, to unlock the doors.

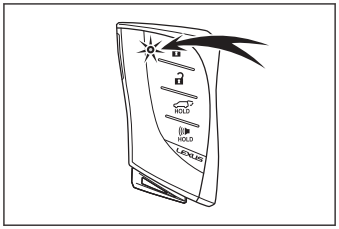
Electronic key battery-saving mode

- When battery-saving mode is set, battery depletion is minimized by stopping the electronic key from receiving radio waves.

While pressing and holding on the electronic key, press twice. The indicator on the electronic key will flash 4 times and battery-saving mode will be entered.

The smart entry & start system cannot be used while the electronic key is in battery-saving mode. Battery saving mode can be cancelled by pressing any switch on the electronic key.

Electronic keys that will not be used for long periods of time can be set to the battery- saving mode in advance.



Confirmation of the registered key number

The number of keys already registered to the vehicle can be confirmed. Ask your Lexus dealer for details.

When required to leave the vehicle's key with a parking attendant

Lock the glove box as circumstances demand. Remove the mechanical key for your own use and provide the attendant with the electronic key only.

Smart entry & start system

⚠ WARNING

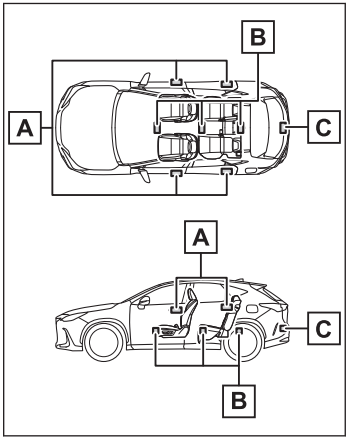
■ Affects influenced by the radio wave (Affect from the Smart entry & start system antennas)

- People with implantable cardiac pacemakers, cardiac resynchronization therapy-pacemakers or implantable cardioverter defibrillators should maintain a reasonable distance between themselves and the smart entry & start system antennas. The radio waves may affect the operation of such devices. If necessary, the entry function can be disabled. Ask your Lexus dealer for details, such as the frequency of radio waves and timing of the emitted radio waves. Then, consult your doctor to see if you should disable the entry function.
- Users of any electrical medical device other than implantable cardiac pacemakers, cardiac resynchronization therapy-pacemakers or implantable cardioverter defibrillators should consult the manufacturer of the device for information about its operation under the influence of radio waves. Radio waves could have unexpected effects on the operation of such medical devices.

Ask your Lexus dealer for details on disabling the entry function.

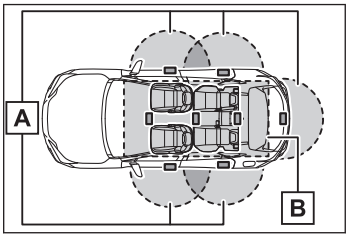
INFORMATION

■ Antenna location



A Antennas outside the cabin
B Antennas inside the cabin
C Antenna outside the luggage compartment

Effective range (areas within which the electronic key is detected)



A When locking or unlocking the doors

The system can be operated when the electronic key is within about 0.7 m (2.3 ft.) of an outside door handle. (Only the doors detecting the key can be operated.)

B When starting the engine or changing engine switch modes

The system can be operated when the electronic key is inside the vehicle.

If an alarm sounds or a warning message is displayed

A combination of exterior and interior alarms as well as warning messages shown on the multi-information display are used to prevent theft of the vehicle and accidents resulting from erroneous operation. Take appropriate measures in response to any warning message on the multi-information display.

The following table describes situations and correction procedures when only an alarm sounds.

- When an exterior alarm sounds once for 5 seconds

  Situation: An attempt was made to lock the vehicle while a door was open.

  Correction procedure: Close all of the doors and lock the doors again.

- When an interior alarm pings repeatedly

  Situation: The engine switch was turned to ACC while the driver's door was open (The driver's door was opened when the engine switch was in ACC).

  Correction procedure: Turn the engine switch off and close the driver's door.

Conditions affecting operation

The smart entry & start system, wireless remote control and immobilizer system use weak radio waves. In the following situations, the communication between the electronic key and the vehicle may be affected, preventing the smart entry & start system, wireless remote control and immobilizer system from operating properly.

- When the electronic key battery is depleted
- Near a TV tower, electric power plant, gas station, radio station, large display, airport or other facility that generates strong radio waves or electrical noise
- When the electronic key is in contact with, or is covered by the following metallic objects
  - Cards to which aluminum foil is attached
  - Cigarette boxes that have aluminum foil inside

- Metallic wallets or bags
- Coins
- Hand warmers made of metal
- Media such as CDs and DVDs

● When other wireless keys (that emit radio waves) are being used nearby

● When carrying the electronic key together with the following devices that emit radio waves

- Portable radio, cellular phone, cordless phone or other wireless communication devices
- Another vehicle's electronic key or a wireless key that emits radio waves
- Personal computers or personal digital assistants (PDAs)
- Digital audio players
- Portable game systems

● If window tint with a metallic content or metallic objects are attached to the rear window

● When the electronic key is placed near a battery charger or electronic devices

● When the vehicle is parked in a pay parking spot where radio waves are emitted

If the doors cannot be locked/unlocked using the smart entry & start system, lock/unlock the doors by performing any of the following:

● Bring the electronic key close to either front door handle and operate the entry function.

● Operate the wireless remote control. If the doors cannot be locked/unlocked using the above methods, use the mechanical key.

■ Note for the entry function

● Even when the electronic key is within the effective range (detection areas), the system may not operate properly in the following cases:

- The electronic key is too close to the window or outside door handle, near the ground, or in a high place when the doors are locked or unlocked.
- The electronic key is on the instrument panel, luggage cover or floor, or in the door pockets or glove box when the engine is started or engine switch modes are changed.
- The electronic key is obstructed by a person's body between it and the vehicle when the doors are unlocked.

● Do not leave the electronic key on top of the instrument panel or near the door pockets when exiting the vehicle. Depending on the radio wave reception conditions,

it may be detected by the antenna outside the cabin and the door will become lockable from the outside, possibly trapping the electronic key inside the vehicle.

- As long as the electronic key is within the effective range, the doors may be locked or unlocked by anyone.
- Even if the electronic key is not inside the vehicle, it may be possible to start the engine if the electronic key is near the window.
- The doors may unlock if a large amount of water splashes on the door handle, such as in the rain or in a car wash when the electronic key is within the effective range. (The door will automatically be locked after approximately 30 seconds if the doors are not opened and closed.)
- If the wireless remote control is used to lock the doors when the electronic key is near the vehicle, there is a possibility that the door may not be unlocked by the entry function. (Use the wireless remote control to unlock the doors.)
- Touching the door lock sensor while wearing gloves may delay or prevent lock operation. Remove the gloves and touch the lock sensor again.
- When the lock operation is performed using the lock sensor, recognition signals will be shown up to two consecutive times. After this, no recognition signals will be given.
- If the door handle becomes wet while the electronic key is within the effective range, the door may lock and unlock repeatedly. In that case, follow the following correction procedures to wash the vehicle:
  - Place the electronic key in a location 2 m (6 ft.) or more away from the vehicle. (Take care to ensure that the key is not stolen.)
  - Set the electronic key to battery-saving mode to disable the smart entry & start system.
- If the electronic key is inside the vehicle and a door handle becomes wet during a car wash, a message may be shown on the multi-information display and a buzzer will sound outside the vehicle. To turn off the alarm, lock all the doors.
- The lock sensor may not work properly if it comes into contact with ice, snow, mud. Clean the lock sensor and attempt to operate it again.
- A sudden approach to the effective range or door handle may prevent the doors from being unlocked. In this case, return the door handle to the original position and check that the doors unlock before pulling the door handle again.
- If there is another electronic key in the detection area, it may take slightly longer to unlock the doors after the door handle is gripped.

When the vehicle is not driven for extended periods

- To prevent theft of the vehicle, do not leave the electronic key within 2 m (6 ft.) of the vehicle.

- The smart entry & start system can be deactivated in advance.
- Setting the electronic key to battery-saving mode helps to reduce key battery depletion.

To operate the system properly

Make sure to carry the electronic key when operating the system. Do not get the electronic key too close to the vehicle when operating the system from the outside of the vehicle.

Depending on the position and holding condition of the electronic key, the key may not be detected correctly and the system may not operate properly. (The alarm may go off accidentally, or the door lock prevention may not operate.)

Related Links

Smart entry & start system and wireless remote control (P. 650)

Opening/closing the doors

⚠ WARNING

■ Precautions for when driving

Observe the following precautions while driving.

- Make sure that all of the doors are closed and locked.
- Do not press an inside door opener switch while driving.

  Be especially careful with the driver's door, as it can be opened even when the doors are locked.
- When a child is riding in a rear seat, set the child protector locks to prevent the rear doors from being opened from inside the vehicle.

■ Precautions for when opening or closing a door

When closing a door, swing it closed with slight force applied to it. If you press on the door by hand to close it, it may not be closed completely.

When opening or closing a door, check the surrounding area and hold the door handle tightly.

- When on a slope
- When the space between a door and a wall, etc. is small
- When in an area with strong winds

INFORMATION

■ Door lock buzzer

If an attempt to lock the doors is made when a door is not fully closed, a buzzer sounds continuously for 5 seconds. Fully close the door to stop the buzzer, and lock the vehicle once more.

■ Open door warning buzzer

If the vehicle speed reaches 5 km/h (3 mph), the master warning light flashes and a buzzer sounds to indicate that door(s) or the hood in not fully closed.The open door(s) or hood is displayed on the multi-information display.

■ Rear seat reminder function

As the first rear seat reminder so as not to forget luggage, etc. in the rear seat, when the engine switch is turned off after any of the following conditions are met, a buzzer will sound and a message will be displayed on the multi-information display for approximately 6 seconds.

Also, as the second rear seat reminder, when the doors are locked, a buzzer will sound and the emergency flashers will flash for a few seconds, and a message will be displayed on the multi-information display.

The second rear seat reminder will not be activated if a rear door was opened before the doors are locked.

- The engine is started within 10 minutes after opening and closing a rear door.
- A rear door has been opened and closed after the engine was started.

  However, if a rear door is opened and then closed within approximately 2 seconds, the rear seat reminder function may not operate.

  The rear seat reminder function determines that luggage, etc. has been placed in a rear seat based on opening and closing of a rear door. Therefore, depending on the situation, the rear seat reminder function may not operate and you may still forget luggage, etc. in the rear seat, or it may operate unnecessarily.
- The rear seat reminder function can be enabled/disabled.

Related Links

Key types(P. 42)

Locking/unlocking the doors(P. 54)

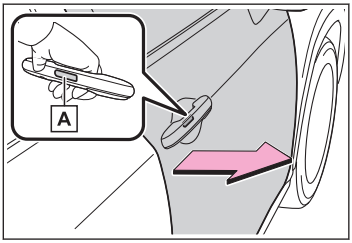
Using the mechanical key(P. 596)

If a door cannot be opened using the door opener switch(P. 599)

Door lock(P. 648)

Opening the doors

▶ Outside the vehicle



When the doors are locked:

While carrying an electronic key, press the door opener switch A of the door handle and open the door.

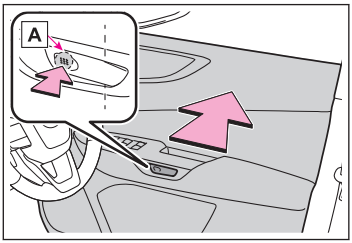
Make sure to securely press the door opener switch A on the inner side of the door handle with the electronic key within the detection area.

When the doors are unlocked:

Press the door opener switch A of the door handle to open the door.

Make sure to securely press the door opener switch A on the inner side of the door handle.

▶ Inside the vehicle



Driver's door:

Even if the door is locked, pressing the front side of the door opener switch A will open the door.

The door will unlock and the door lock indicator will turn off.

Passenger doors:

Press the door lock switch to unlock the door, and then pressing the front side of the door opener switch A to open the door.

The door will unlock and the door lock indicator will turn off.

INFORMATION

■ Inside door opener switch operating conditions

When any of the following conditions are met:

- The vehicle speed is less than 4 km/h (2 mph) and the parking brake is engaged
- The vehicle speed is less than 4 km/h (2 mph) and the brake pedal is depressed
- The shift position is in P

■ When opening a door from inside the vehicle

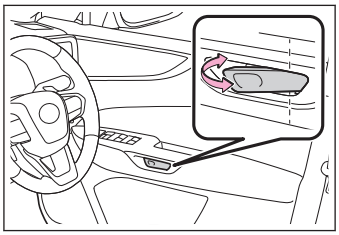
Open the door pressing the door opener switch.

If the door is not fully unlatched, press the door opener switch twice to open the door.

■ Manual release handles inside the vehicle

The door opener switches inside the vehicle can also be used to manually open the doors.

A door can be opened through electronic operation by pressing a the door opener switch, or it can be opened using the door opener switch as a manual release handle and pulling it twice.



Locking/unlocking the doors

INFORMATION

Impact detection door lock release system

If the vehicle is involved in a severe frontal or rear collision, manual release handle operation will be enabled for all of the doors.

Depending on the force of the impact or the type of accident, however, the system may not operate.

Operation signals

Unlocking is indicated by a buzzer sounding and the emergency flashers flashing. (twice)

Locking is indicated by a buzzer sounding and the emergency flashers flashing. (Once)

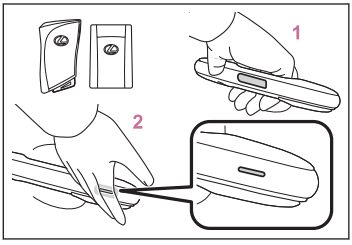
Security feature

If a door is not opened within approximately 30 seconds after the vehicle is unlocked, the security feature automatically locks the vehicle again.

Using the smart entry & start system

Locking/unlocking the doors using smart entry & start system

The driver should always carry an electronic key (or the card key) on their person, for example in their pocket.



1 Grip the door handle to unlock the doors.*1

Make sure to touch the sensor on the back of the handle.

The doors cannot be unlocked for 3 seconds after the doors are locked.

2 Touch the lock sensor (the indentation on the surface of the door handle) to lock the doors.

Check that the door is securely locked.

Locking the doors will set the alarm system.

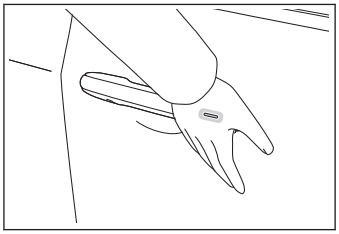
*1: The door unlock settings can be changed.

INFORMATION

When the door cannot be locked even though the lock sensor has been touched with a finger

Touch the lock sensor with the palm of your hand.

When gloves are being worn, remove the gloves.



Switching the door unlock function

It is possible to set which doors the entry function unlocks using the wireless remote control.

1 Turn the engine switch off.

2 Cancel the intrusion sensor and tilt sensor of the alarm system to prevent unintended triggering of the alarm while changing the settings.

3 When the indicator light on the key surface is not on, press and hold , or for approximately 5 seconds while pressing and holding .

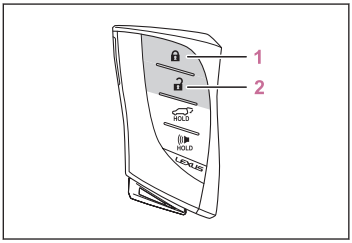
The setting changes each time an operation is performed, as shown below. (When changing the setting continuously, release the buttons, wait for at least 5 seconds, and repeat step 3.)

Multi-information display/Beep	Unlocking function
 Exterior: Beeps 3 times Interior: Pings once	Holding the driver's door handle unlocks only the driver's door.
	Holding any of the passenger door handles unlocks all the doors.
 Exterior: Beeps twice Interior: Pings once	Holding a door handle unlocks all the doors.

To prevent unintended triggering of the alarm, unlock the doors using the wireless remote control and open and close a door once after the settings have been changed. (If a door is not opened within 30 seconds after is pressed, the doors will be locked again and the alarm will automatically be set.)In a case that the alarm is triggered, immediately stop the alarm.

Operations using the wireless remote control

Lock/unlock the doors using wireless remote control



1 Locks all the doors

Check that the door is securely locked.

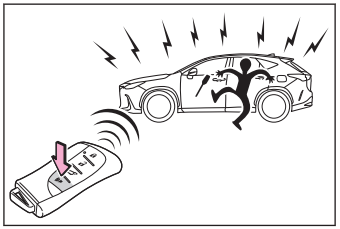
2 Unlocks all the doors

INFORMATION

Theft deterrent panic mode

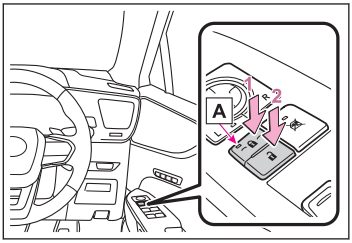
When is pressed for longer than about 1 second, an alarm will sound intermittently and the vehicle lights will flash to deter any person from trying to break into or damage your vehicle.

To stop the alarm, press any button on the electronic key.



Using the door lock switches

Locking/unlocking the doors with the door lock switches



1 Press the switch.

All of the doors will lock.

The indicator A comes on.

2 Press the switch.

All of the doors will unlock.

The indicator A turns off.

Close & lock (walk away) function*

When the power back door has closed after you walked away from it, all of the doors will lock.

INFORMATION

■ Close & lock (walk away) function operating conditions

This function can be operated when all of the following conditions are met:

- An electronic key is not detected within the vehicle.
- All of the doors other than the power back door are closed.
- The brake pedal is not depressed.
- The engine switch is off.

■ Hands free close & lock (walk away) function* operating conditions

This function can be operated when all of the following conditions are met:

- The hands free close & lock function setting is on.
- The Hands Free Power Back Door operating conditions are met.
- An electronic key is not detected within the vehicle.
- All of the doors other than the power back door are closed.
- The brake pedal is not depressed.
- The engine switch is off.

■ Situations in which the close & lock (walk away) function may not operate properly

In the following situations, the close & lock function may not operate properly:

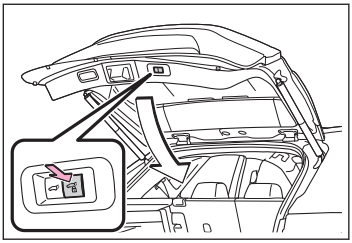
- If the switch on the lower part of the power back door is pressed by a hand which is holding an electronic key
- If the switch on the lower part of the power back door is pressed when the electronic key is in a bag, etc. that is placed on the ground
- If the switch on the lower part of the power back door is pressed with the electronic key not near the vehicle

Closing the back door and lock all of the doors

1 **Perform the following procedure with no electronic keys for this vehicle inside the vehicle. When the power back door is closed, all of the doors will lock.**

Using the switch:

*: If equipped



2 **While carrying an electronic key, press the switch on the lower part of the power back door.**

When you move away from the power back door, it will automatically fully close.

If the power back door is approached while carrying an electronic key, the closing operation will stop.

A different buzzer than normal will sound. When the power back door is closed, door lock operation signals will indicate that all of the doors have been locked.

Vehicles with Hands Free Power Back Door:*1

3 **If the power back door is closed using a hands free power back door close operation while carrying an electronic key, all of the doors will be locked at the same time.**

When you move away from the power back door, it will automatically fully close.

If the power back door is approached while carrying an electronic key, the closing operation will stop.

A different buzzer than normal will sound. When the power back door is closed, door lock operation signals will indicate that all of the doors have been locked.

⚠ WARNING

When closing the power back door using the close & lock function, a different buzzer than the normal one will sound before the operation begins.

To check that the operation has started correctly, check that a different buzzer than the normal one has sounded.

Additionally, when the power back door is fully closed and locked, operation signals will indicate that all of the doors have been locked.

Before leaving the vehicle, make sure that the operational signals have operated and that all of the doors are locked.

Close & lock function* *1

When the power back door is open, all of the doors will be locked when the power back door is closed.

*1: This setting can be customized by your Lexus dealer.

*: If equipped

INFORMATION

Close & lock function operating conditions

This function can be operated when all of the following conditions are met:

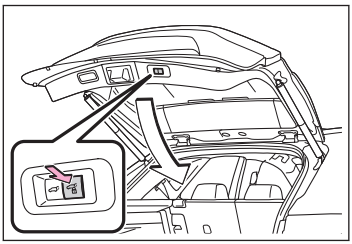
- An electronic key is not detected within the vehicle.
- All of the doors other than the power back door are closed.
- The engine switch is off.

Situations in which the close & lock function may not operate properly

In the following situations, the close & lock function may not operate properly:

- If the switch on the lower part of the power back door is pressed by a hand which is holding an electronic key.
- If the switch on the lower part of the power back door is pressed when the electronic key is in a bag, etc. that is placed on the ground.
- If the switch on the lower part of the power back door is pressed with the electronic key not near the vehicle.

Closing the back door and lock all of the doors



- **Press the switch.**

The power back door will close and all of the doors will be locked at the same time.

A different buzzer than the normal one will sound and the power back door will begin closing automatically. When the power back door is closed, all of the doors will lock simultaneously and operation signals will indicate that all of the doors have been locked.

If the switch is pressed while the power back door is closing, the operation will stop.

Pressing the switch again will open the power back door automatically. The double locking system will not operate at this time.

Theft deterrent system

This vehicle is equipped with an engine immobilizer system and alarm system to help prevent vehicle theft. The engine immobilizer is a system which helps prevent intrusion into the vehicle and starting of the engine using keys other than a key registered to this vehicle. Through a transponder chip built into the keys, registered keys can be recognized over unauthorized copies. The alarm uses light and sound to give an alert when an intruder is detected.

INFORMATION

Note for the entry function

The engine immobilizer system is designed to help prevent vehicle theft but does not guarantee absolute security against all vehicle thefts.

System maintenance

The engine immobilizer system and alarm system are maintenance-free.

Triggering of the alarm

The alarm may be triggered in the following situations:

- The doors are unlocked using the mechanical key.
- A person inside the vehicle opens a door, the back door or hood, or unlocks the vehicle.
- The battery is recharged or replaced when the vehicle is locked.
- A locked door or back door is unlocked or opened in any way other than using the entry function, wireless remote control or mechanical key. (The doors will lock again automatically.)
- The hood is opened from outside of the vehicle.
- The intrusion sensor detects something moving inside the vehicle. (Example: an intruder breaks a window and gets into the vehicle.)
- The tilt sensor detects a change of vehicle inclination.

Alarm-operated door lock function operating conditions

In the following cases, depending on the situation, the door may automatically lock to prevent improper entry into the vehicle:

- When a person remaining in the vehicle unlocks the door and the alarm is activated.
- While the alarm is activated, a person remaining in the vehicle unlocks the door.
- When recharging or replacing the battery.

Enable the engine immobilizer system

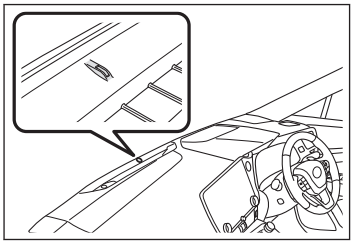
⚠ NOTICE

Do not modify or remove the system. If modified or removed, the proper operation of the system cannot be guaranteed.

Turn the engine switch off.

When the engine immobilizer system is enabled, the security indicator flashes to indicate that the system is operating.

Never leave the keys inside the vehicle when you leave the vehicle.



INFORMATION

■ Cancel the engine immobilizer system

While carrying a key registered to the vehicle, change the engine switch to ACC or ON. The engine immobilizer system will be cancelled and the security indicator will turn off.

Setting the alarm system

Make sure of the following before setting the alarm:

- 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.

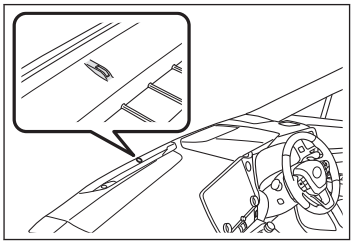
⚠ NOTICE

Do not modify or remove the system. If modified or removed, the proper operation of the system cannot be guaranteed.

Close the doors, back door and hood, and lock all the doors. The system will be set automatically after 30 seconds.

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

If all doors are closed with hood open, alarm system can be set.



Canceling/stopping the alarm system

Do one of the following to deactivate or stop the alarms:

- **Unlock the doors.**
- **Turn the engine switch to ACC or ON, or start the engine.**

The alarm will be deactivated or stopped after a few seconds.

Pre-alarm

If a door is unlocked with the mechanical key while the alarm is being set, the pre-alarm will sound for 10 seconds.

If either the door is locked again or the pre-alarm is stopped within those 10 seconds, an alarm will sound.

Do any of the following in order to deactivate or stop the pre-alarm:

- Close the doors, and lock all doors by smart access system or wireless remote control.
- Turn the engine switch to ACC or ON, or start the engine. (The alarm will be deactivated or stopped after a few seconds.)

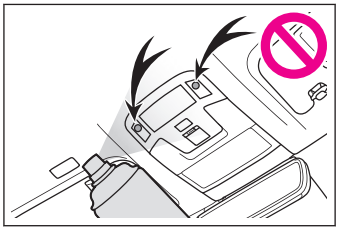
Intrusion sensor and tilt sensor

The intrusion sensor detects intruders or movement in the vehicle.The tilt sensor detects changes in vehicle inclination, such as when the vehicle is towed away.This system is designed to deter and prevent vehicle theft but does not guarantee absolute security against all intrusions.

⚠ NOTICE

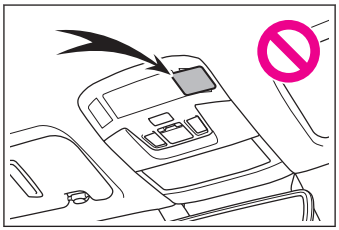
To ensure correct operation of the intrusion sensor, observe the following.

- Do not spray air fresheners or other products directly into the sensor holes.



NOTICE

- Do not touch or cover the sensors.



- Do not install accessories other than genuine Lexus parts or leaving objects between the driver's seat and front passenger's seat. Otherwise, the detection performance may reduce.
- The intrusion sensor may be canceled when the electronic key is near the vehicle.

INFORMATION

Intrusion sensor detection considerations

The sensor may trigger the alarm in the following situations:

- People or pets are in the vehicle.
- The window and moon roof* or panoramic moon roof* is open. In this case, the sensor may detect the following:
  - Wind or the movement of objects such as leaves and insects inside the vehicle
  - Ultrasonic waves emitted from devices such as the intrusion sensors of other vehicles
  - The movement of people outside the vehicle
- Small insects such as moths or flies are in the vehicle.
- Unstable items, such as dangling accessories or clothes hanging on the coat hooks, are in the vehicle.
- The vehicle is parked in a place where extreme vibrations or noises occur, such as in a parking garage.
- Ice or snow is removed from the vehicle, causing the vehicle to receive repeated impacts or vibrations.
- The vehicle is inside an automatic or high-pressure car wash.
- The vehicle experiences impacts, such as hail, lightning strikes, and other kinds of repeated impacts or vibrations.

*: If equipped

■ **Tilt sensor detection considerations**

The sensor may trigger the alarm in the following situations:

- The vehicle is transported by a ferry, trailer, train, etc.
- The vehicle is parked in a parking garage.
- The vehicle is inside a car wash that moves the vehicle.
- Any of the tires loses air pressure.
- The vehicle is jacked up.
- An earthquake occurs or the road caves in.
- Cargo is loaded onto or unloaded from the roof luggage carrier.

Related Links

Security(P. 652)

Set the intrusion sensor and tilt sensor

The intrusion sensor and tilt sensor will be set automatically when the alarm is set.

Cancel the intrusion sensor and tilt sensor

If you are leaving pets or other moving things inside the vehicle, make sure to disable the intrusion sensor and tilt sensor before setting the alarm, as they will respond to movement inside the vehicle.

The alarm will still be set even when the intrusion sensor and tilt sensor are canceled.

1 Touch the shortcut screen switch on the center display.

2 Touch the [Security sensor].

Operation of the intrusion sensor and tilt sensor will be canceled, and a symbol turns into white on the center display.

Touch the switch again to set the intrusion/tilt sensor again.

Turn OFF/ON the intrusion/tilt sensor, the symbol changes to center display.

INFORMATION

■ **Automatic re-enabling of the intrusion sensor and tilt sensor**

- After the intrusion sensor and tilt sensor are canceled, pressing the engine switch or unlocking the doors using the entry function or wireless remote control will re-enable the intrusion sensor and tilt sensor.

- The intrusion sensor and tilt sensor will automatically be re-enabled when the alarm system is reactivated.

Opening and closing the windows

⚠ WARNING

Observe the following precautions. The driver is responsible for all power window operations, including the operation for the passengers.

- Do not let a child operate the power windows. Operation by a child may cause a child or other passengers to have a body part caught in a power window. Also, when riding with a child, it is recommended to turn the window lock switch on.
- 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.
- When exiting the vehicle, turn the engine switch off, carry the key and exit the vehicle along with the child. There may be accidental operation, due to mischief, etc., that may possibly lead to an accident.

INFORMATION

■ Operating conditions of the power windows

The engine switch is in ON.

■ Operating the power windows after turning the engine off

The power windows can be operated for approximately 45 seconds after the engine switch is turned to ACC or OFF.

They cannot, however, be operated once either front door is opened.

■ Using the voice control system*

The following operations can be performed using the voice control system:

- Opening/closing of all of the windows simultaneously
- Opening/closing of each window individually

(Operation is possible only when the window lock switch is off.)

For details, refer to the "Multimedia Owner's Manual".

Functions which aid in safe opening and closing of the windows

The following functions aid in safe opening and closing of the windows.

- Jam protection function

  If an object becomes jammed between the window and the window frame while the window is closing, window movement is stopped and the window is opened slightly.

*: If equipped

● Catch protection function

If an object becomes caught between the door and window while the window is opening, window movement is stopped.

● Power windows open warning buzzer

A buzzer sounds and a message is shown on the multi-information display in the instrument cluster when the engine switch is turned off and the driver's door is opened with the power windows open.

⚠ WARNING

■ Jam protection function

- Never use any part of your body to intentionally activate the jam protection function.
- The jam protection function may not work if something gets jammed just before the window is fully closed.

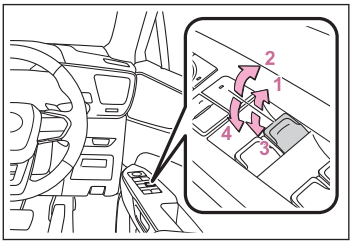
  Be careful not to get any part of your body jammed in the window.

■ Catch protection function

- Never use any part of your body or clothing to intentionally activate the catch protection function.
- Be careful not to get any part of your body or clothing caught in the window. The catch protection function may not work if something gets caught just before the window is fully opened.

Operations using the power window switches

Opening/closing the windows using the power window switch



1 Lift the power window switch partway.

The window will close while the switch is lifted.

2 Fully lift the power window switch.

The window will fully close automatically.

To stop the window partway, operate the switch in the opposite direction.

3 Push the power window switch partway.

The window will open while the switch is pushed.

4 Fully push the power window switch.

The window will fully open automatically.

To stop the window partway, operate the switch in the opposite direction.

Operations using the wireless remote control

The power windows can be opened and closed using the wireless remote control.*1

⚠ WARNING

When using the wireless remote control or to operate the power windows, operate the power windows after making sure that there is no possibility of any passenger having any of their body parts caught in a power window. Also do not let a child operate the windows using the wireless remote control. Children and other passengers may get caught in the power window.

Related Links

Power windows and moon roof or panoramic moon roof (P. 653)

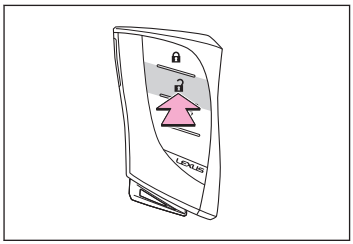
Open the windows using the wireless remote control

Using the wireless remote control, the doors can be unlocked and all of the windows opened at the same time.*2

- **Push and hold the unlock switch on the wireless remote control.**

  The doors will unlock and the windows and moon roof* or panoramic moon roof* will open.

  A buzzer sounds to indicate that all of the windows and the moon roof* or panoramic moon roof* are opening.



Close the windows using the wireless remote control

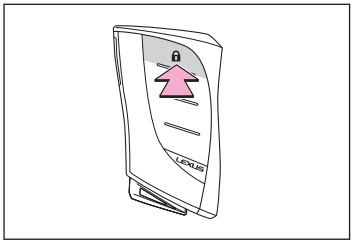
Using the wireless remote control, the doors can be locked and all of the windows closed at the same time.*2

*1: These settings must be customized at your Lexus dealer.

*2: This setting must be customized at your Lexus dealer.

*: If equipped

● **Press and hold the lock switch on the wireless remote control.**



All of the doors will lock and the windows and moon roof* or panoramic moon roof* will close.

A buzzer sounds to indicate that all of the windows and the moon roof * or panoramic moon roof* are opening/closing.

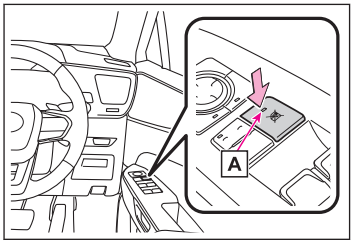
Check that the doors are securely locked and the windows are fully closed.

Prevent accidental operation of the windows

The window lock switch is designed to prevent children from accidentally opening or closing a window.

Press the window lock switch.

The indicator A will come on and the passenger windows will be locked.



*: If equipped

Precautions for loading luggage into the luggage compartment

⚠ WARNING

■ Storage precautions

Observe the following precautions.

Failure to do so may prevent the pedals from being depressed properly, may block the driver's vision, or may result in items hitting the driver or passengers, possibly causing an accident.

- The following things may cause a fire if loaded in the luggage compartment:
  - Receptacles containing gasoline
  - Aerosol cans
- Stow cargo and luggage in the luggage compartment whenever possible.
- Do not stack cargo and luggage in the luggage compartment higher than the seat-backs.
- When you fold down the rear seats, long items should not be placed directly behind the front seats.
- 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.
- Do not place cargo or luggage in or on the following locations.
  - At the feet of the driver
  - On the front passenger or rear seats (when stacking items)
  - Luggage cover
  - On the instrument panel
  - On the dashboard
- Secure all items in the occupant compartment.

■ Precautions for luggage weight and distribution

- Do not overload your vehicle.
- Load the vehicle as evenly as possible.

  If the vehicle is loaded unevenly, the load on each tire will differ. This will lead to a decrease in handling ability and brake performance, possibly leading to an accident.

■ When using a roof luggage carrier (vehicles with roof rails)

Observe the following precautions:

⚠ WARNING

- 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.
- 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 gravity of the vehicle higher.

  Avoid high speeds, sudden starts, sharp turns, sudden braking, or abrupt maneuvers. The vehicle may not be able to be controlled correctly and may rollover.
- 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 80 kg (176.3 lb.) cargo weight on the roof luggage carrier.

⚠ NOTICE

Do not set luggage on the moon roof and panoramic roof. Failure to observe so may lead to cause damage.

Back door functions and operation

The back door can be locked/unlocked and opened/closed by the following procedures.

⚠ WARNING

■ Before driving the vehicle

Observe the following precautions.

Before driving the vehicle, make sure that the back door is fully closed. If the back door is not fully closed, it may open unexpectedly while driving, causing an accident.

■ Caution while driving

- Keep the back door closed while driving.

  If the back door is left open, it may hit nearby objects while driving or luggage may be unexpectedly thrown out, causing an accident.

  In addition, exhaust gases may enter the vehicle, causing death or a serious health hazard. Make sure to close the back door before driving.

- Never let anyone sit in the luggage compartment.

  In the event of sudden braking, sudden swerving or a collision, they are susceptible to death or serious injury.

■ When children are in the vehicle

Observe the following precautions.

- Do not allow children to play in the luggage compartment.

  If a child is accidentally locked in the luggage compartment, they could have heat exhaustion or other injuries.

- Do not allow a child to open or close the back door.

  Doing so may cause the back door to move unexpectedly, or cause the child's hands, arms, head, or neck to be caught by the closing back door.

■ Operating the back door

Observe the following precautions.

- Remove any heavy loads, such as snow and ice, from the back door before opening it. Failure to do so may cause the back door to suddenly shut again after it is opened.
- When opening or closing the back door, thoroughly check to make sure the surrounding area is safe.
- If anyone is in the vicinity, make sure they are safe and let them know that the back door is about to open or close.

⚠ WARNING

- Use caution when opening or closing the back door in windy weather as it may move abruptly in strong wind.
- Vehicles without power back door: The back door may suddenly shut if it is not opened fully. It is more difficult to open or close the back door on an incline than on a level surface, so beware of the back door unexpectedly opening or closing by itself. Make sure that the back door is fully open and secure before using the luggage compartment.
- Vehicles with power back door: The back door may suddenly shut if it is not opened fully. It is more difficult to open or close the back door on an incline than on a level surface, so beware of the back door unexpectedly opening or closing by itself. Make sure that the back door is fully open and secure before using the luggage compartment.
- When closing the back door, take extra care to prevent your fingers, etc., from being caught.
- When closing the back door, make sure to press it lightly on its outer surface. If the back door handle is used to fully close the back door, it may result in hands or arms being caught.
- Do not pull on the back door damper stay (vehicles without power back door) or back door spindle (vehicles with power back door) to close the back door, and do not hang on the back door damper stay (vehicles without power back door) or back door spindle (vehicles with power back door). Doing so may cause hands to be caught or the back door damper stay (vehicles without power back door) or back door spindle (vehicles with power back door) to break, causing an accident.
- If a bicycle carrier or similar heavy object is attached to the back door, it may suddenly shut again after being opened, causing someone's hands, arms, head or neck to be caught and injured. When installing an accessory part to the back door, using a genuine Lexus part is recommended.

■ Back door closer (vehicles with power back door)

- In the event that the power back door is left slightly open, the back door closer will automatically close it to the fully closed position. It takes several seconds before the back door closer begins to operate. Be careful not to get fingers caught or anything else in the power back door, as this may cause bone fractures or other serious injuries.
- Be careful not to catch fingers or anything else when using the back door closer as it still operates when the power back door system is canceled.

■ Power back door *

Observe the following precautions.

*: If equipped

⚠ WARNING

- Check the safety of the surrounding area to make sure there are no obstacles or anything that could cause any of your belongings to get caught.
- If anyone is in the vicinity, make sure they are safe and let them know that the power back door is about to open or close.
- If the power back door system is disabled while the power back door is operating, the power back door will stop operating. The power back door must then be operated manually. Take extra care in this situation, as the power back door may open or close suddenly.
- If the operating conditions of the power back door are no longer met, a buzzer may sound and the power back door may stop opening or closing. The power back door must then be operated manually. Take extra care on an incline in this situation, as the power back door may move suddenly.
- On an incline, the power back door may suddenly shut after it opens. Make sure the power back door is fully open and secure.
- In the following situations, the power back door may detect an abnormality and automatic operation may be stopped. In this case, the power back door must then be operated manually. Take extra care in this situation, as the stopped power back door may suddenly open or close, causing an accident.
  - When the power back door contacts an obstacle
  - When the battery voltage suddenly drops, such as when the engine switch is turned to ON or the engine is started during automatic operation
- If a bicycle carrier or similar heavy object is attached to the power back door, the power back door may not operate, causing a malfunction, or the power back door may suddenly shut again after being opened, causing someone's hands, arms, head or neck to be caught and injured. When installing an accessory part to the power back door, using a genuine Lexus part is recommended.

■ Jam protection function (vehicles with power back door)

Observe the following precautions.

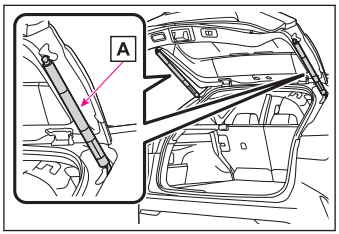
- Never use any part of your body to intentionally activate the jam protection function.
- The jam protection function may not work if something gets caught just before the power back door fully closes. Be careful not to get fingers caught or anything else.
- The jam protection function may not work depending on the shape of the object that is caught. Be careful not to catch fingers or anything else.

⚠ NOTICE

Precautions for the back door spindles (vehicles with the power back door)

The back door is equipped with spindles A that hold the back door in place.

Observe the following precautions. Failure to do so may cause damage to the back door spindle A, resulting in malfunction.

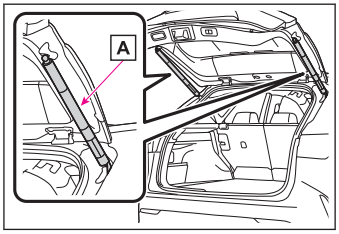


- Do not attach any foreign objects, such as stickers, plastic sheets, or adhesives to the spindle rod.
- Do not touch the spindle rod with gloves or other fabric items.
- Do not attach heavy accessories to the back door.

  When attaching, ask your Lexus dealer for details.
- Do not place your hand on the spindle or apply lateral forces to it.

Precautions for the back door damper stays (vehicles without the power back door)

The back door is equipped with damper stays A that hold the back door in place. Observe the following precautions. Failure to do so may cause damage to the back door damper stay A resulting in malfunction.



- Do not attach any foreign objects, such as stickers, plastic sheets, or adhesives to the damper stay rod.
- Do not touch the damper stay rod with gloves or other fabric items.
- Do not attach any accessories other than genuine Lexus parts to the back door.
- Do not place your hand on the damper stay or apply lateral forces to it.

To prevent malfunction of the power back door and back door closer (vehicles with the power back door)

Observe the following precautions. Failure to do so may lead to malfunction of the power back door or back door closer.

- Do not apply excessive force to the back door while the back door closer is operating.
- Make sure that there is no ice between the back door and frame that would prevent movement of the back door.

NOTICE

- Take care not to damage the sensors (installed on the right and left edges of the power back door) with a knife or other sharp object.

  If the sensor is disconnected, the power back door will not close automatically.

INFORMATION

Luggage compartment light

- The luggage compartment light turns on when the back door is opened.
- If the luggage compartment light is left on when the engine switch is turned off, the light will go off automatically after 20 minutes.

Power back door* operating conditions

With the power back door operations set to ON, it can automatically open and close for the following conditions:

- When the back door is unlocked.

  However, if the back door is locked, the power back door can be operated in the following situations:

  - When the electronic key is being carried and the power back door switch is pushed
  - When set up by customizable functions to be able to operate, even when locked, when using the wireless remote control

- When the engine switch is in ON, the back door will operate if any of the following conditions are met, in addition to the above conditions:

  - Parking brake is engaged
  - The brake pedal is depressed
  - The shift position is in P

Back door closer (vehicles with the power back door)

In the event that the back door is left slightly open, the back door closer will automatically close it to the fully closed position.

Whatever the state of the engine switch, the back door closer operates.

Operation of the power back door (vehicles with the power back door)

- A buzzer sounds and the emergency flashers flash twice to indicate that the back door is opening/closing.
- When the power back door operations are OFF, the power back door does not operate but it can be opened and closed by hand.

*: If equipped

- When the power back door automatically opens, if an abnormality due to people or objects is detected, operation will stop.

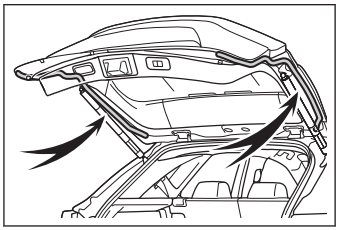
When reconnecting the battery (vehicles with the power back door)

To operate the power back door properly, close the back door completely by hand then operate for unlocking.

Jam protection function (vehicles with the power back door)

Sensors are installed in the right and left sides of the power back door.

When the door is automatically closing and the sensors are pushed due to an object being clamped, the jam protection function operates. When the function operates, the door will automatically move slightly in the opposite direction then stop.



Related Links

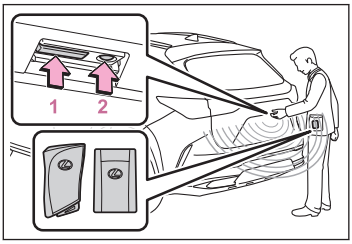
Power back door(P. 649)

Operating the back door using the smart entry & start system

The back door can be locked/unlocked while carrying an electronic key or the card key.The driver should always carry the electronic key or the card key.

Locking/unlocking the back door using smart entry & start system

Perform the following while carrying an electronic key.



1 Press 1.

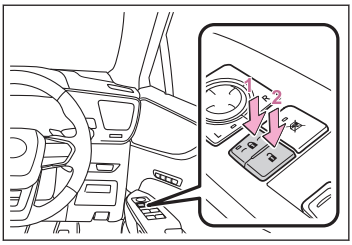
All of the doors will unlock. However, the doors cannot be unlocked within 3 seconds after they were locked.

2 Press 2.

All of the doors will lock. Make sure that the doors are securely locked.

Locking/unlocking the back door using the door lock switches

Locking/unlocking the back door using the door lock switches



1 Press the switch.

All of the doors, including the back door, will lock.

2 Press the switch.

All of the doors, including the back door, will unlock.

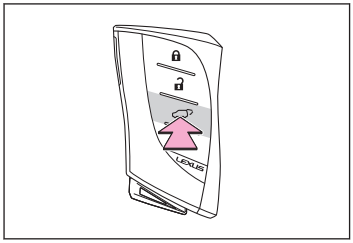
Back door operations using the wireless remote control

Opening/closing the back door using the wireless remote control(vehicles with the power back door)

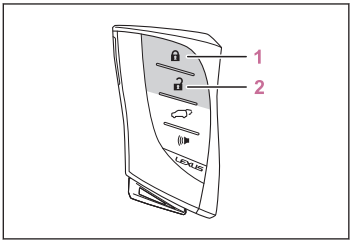
● Press for 1 second.

The power back door can be operated when it is unlocked*1.

The back door will open.



Lock/unlock the back door using wireless remote control



1 Press .

All of the doors, including the back door, will lock.

Make sure that the doors are securely locked.

2 Press .

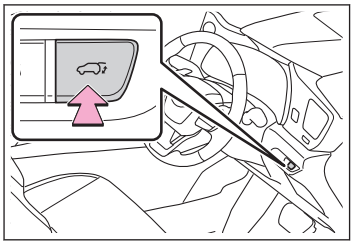
Pressing the button unlocks the driver's door. Pressing the button again within 3 seconds unlocks all of the other doors, including the back door.

All of the doors, including the back door, will unlock.

*1: Through a customization setting, the back door can also be operated when it is locked

Back door operations using the back door operation switch inside the vehicle*

Opening/closing the back door from the inside



Press the for 1 second.

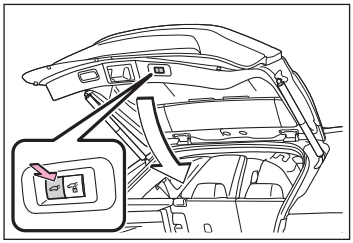
A buzzer sounds and the back door automatically opens and closes.

Pressing the while the back door is opening/closing stops the operation.

When the is pressed again during the halted operation, the back door will perform the reverse operation.

Back door operations using the back door switch*

Opening/closing the back door using the back door switch



Press the .

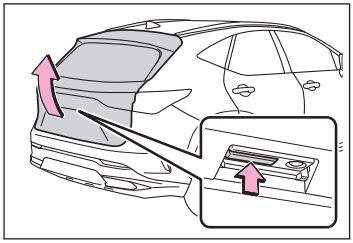
A buzzer sounds and the back door automatically closes.

Pressing the while the back door is closing stops the operation.

Pressing the again will reverse the operation.

Back door operations using the back door opener switch

Open the back door automatically using the back door opener switch(vehicles with power back door)



Press the back door opener switch with the back door unlocked.

A buzzer sounds and the back door automatically opens.

Pressing the switch while the back door is opening stops the operation.

*: If equipped

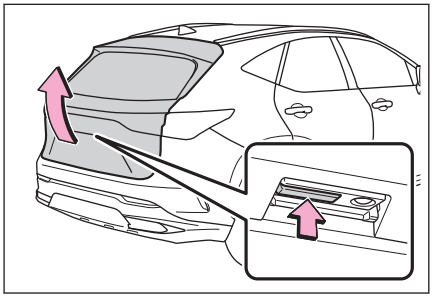
INFORMATION

■ Open the back door with the back door opener switch when the back door is locked

While carrying the electronic key on your person, press the back door opener switch.

A buzzer sounds and the back door automatically opens.

Open the back door manually using the back door opener switch (vehicles without power back door)



Lift the back door while pressing the back door opener switch.

Back door operations using the back door handle

Closing the back door automatically using the back door handle (vehicles with power back door)

⚠ WARNING

Observe the following when closing the back door.

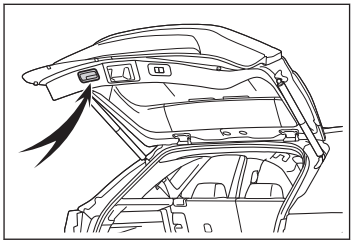
- When closing the back door, take extra care to prevent your fingers, etc., from being caught.
- When closing the back door, make sure to press it lightly on its outer surface.

  If the back door handle is used to fully close the back door, it may result in hands or arms being caught.
- Do not pull on the back door spindle to close the back door, and do not hang on the back door spindle.

  Doing so may cause hands to be caught or the back door spindle to break, causing an accident.

Pull the back door downward using the back door handle.

A buzzer sounds and the back door automatically closes.



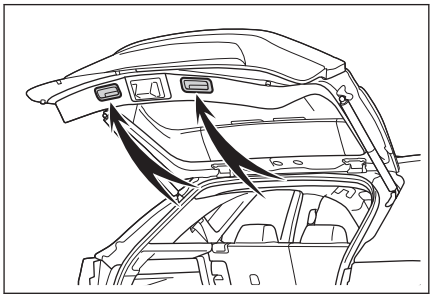
Close the back door manually using the back door handle (vehicles without power back door)

⚠ WARNING

Observe the following when closing the back door.

- When closing the back door, take extra care to prevent your fingers, etc., from being caught.
- If the back door handle is used to fully close the back door, it may result in hands or arms being caught.
- Do not pull on the back door damper stay to close the back door, and do not hang on the back door damper stay.

  Doing so may cause hands to be caught or the back door damper stay to break, causing an accident.



Lower the back door using the back door handle, and make sure to push the back door down from the outside to close it.

Back door operations using the kick sensor (vehicles with Hands Free Power Back Door)

⚠ NOTICE

The kick sensor is located behind lower center part of the rear bumper.

Observe the following to ensure that the power back door operates properly:

- Keep the lower center part of the rear bumper clean at all times.

  If the lower center part of the rear bumper is dirty or covered with snow, the kick sensor may not operate.

  In this situation, clean off the dirt or snow, move the vehicle from the current position and then check if the kick sensor operates.

  If it does not operate, have the vehicle inspected by your Lexus dealer.
- Do not apply coatings that have a rain clearing (hydrophilic) effect, or other coatings, to the lower center part of the rear bumper.
- Do not park the vehicle near objects that may move and contact the lower center part of the rear bumper, such as grass or trees.

  If the vehicle has been parked for a while near objects that may move and contact the lower center part of the rear bumper, such as grass or trees, the kick sensor may not operate.

  In this situation, move the vehicle from the current position and then check if the kick sensor operates.

  If it does not operate, have the vehicle inspected by your Lexus dealer.
- Do not subject the kick sensor or its surrounding area to a strong impact.

  If the kick sensor or its surrounding area has been subjected to a strong impact, the kick sensor may not operate properly.

  If the kick sensor does not operate in the following situations, have the vehicle inspected by your Lexus dealer.

  - The kick sensor or its surrounding area has been subjected to a strong impact.
  - The lower center part of the rear bumper is scratched or damaged.
- Do not disassemble the rear bumper.
- Do not attach stickers to the rear bumper.
- Do not paint the rear bumper.
- If a bicycle carrier or similar heavy object is attached to the power back door, disable the kick sensor.

INFORMATION

Kick sensor operating conditions

- When the kick sensor operation setting is turned on
- The electronic key is within the operational range

Situations in which the kick sensor does not operate properly

In the following situations, the kick sensor may not operate properly:

- When a foot remains under the rear bumper
- If the rear bumper is strongly hit with a foot or is touched for a while

  If the rear bumper has been touched for a while, wait for a short time before attempting to operate the back door again.
- When operated while a person is too close to the rear bumper
- When an external radio wave source interferes with the communication between the vehicle and electronic key
- When the vehicle is parked near an electrical noise source which affects the sensitivity of the kick sensor, such as a pay parking spot, gas station, electrically heated road, or fluorescent light
- When the vehicle is near a TV tower, electric power plant, radio station, large display, airport or other facility that generates strong radio waves or electrical noise
- When a large amount of water is applied to the rear bumper, such as when the vehicle is being washed or in heavy rain
- When mud, snow or ice is attached to the rear bumper
- When the vehicle has been parked for a while near objects that may move and contact the rear bumper, such as plants
- When an accessory is installed to the rear bumper

  If an accessory has been installed, turn the kick sensor operation setting off.

Situations in which the kick sensor may operate unintentionally

When an electronic key is in the operation range, the kick sensor may operate unintentionally, so be careful in the following situations.

- When a large amount of water is applied to the rear bumper, such as when the vehicle is being washed or in heavy rain
- When dirt is wiped off the rear bumper
- When a small animal or small object, such as a ball, moves under the rear bumper
- When an object is moved from under the rear bumper
- If someone is swinging their legs while sitting on the rear bumper

- If the legs or another part of someone's body contacts the rear bumper while passing by the vehicle
- When the vehicle is parked near an electrical noise source which affects the sensitivity of the kick sensor, such as a pay parking spot, gas station, electrically heated road, or fluorescent light
- When the vehicle is near a TV tower, electric power plant, radio station, large display, airport or other facility that generates strong radio waves or electrical noise
- When the vehicle is parked in a place where objects such as plants are near the rear bumper
- If luggage is set near the rear bumper
- If accessories or a vehicle cover is installed/removed near the rear bumper
- When the vehicle is being towed

To prevent unintentional operation, turn the kick sensor operation setting off.

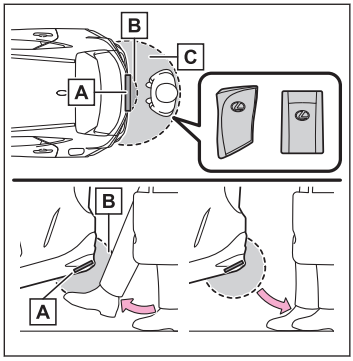
Open/close the back door using the kick sensor (vehicles with Hands Free Power Back Door)

⚠ WARNING

Observe the following precautions when operating the power back door.

- Check the safety of the surrounding area to make sure there are no obstacles or anything that could cause any of your belongings to get caught.
- When putting your foot near the lower center part of the rear bumper and moving it from the rear bumper, be careful not to touch the exhaust pipes until they have cooled down sufficiently.

  If the exhaust pipes are hot, they can cause burns.
- Do not operate the Hands Free Power Back Door if there is little space under the rear bumper.



A Kick sensor
B Kick sensor detection area
C Smart entry & start system operation detection area

1 **While carrying an electronic key, stand within the smart entry & start system operation range, approximately 50 to 70 cm (19.7 to 27.6 in.) from the rear bumper.**

2 **Move your foot to approximately 10 cm (3.9 in.) from the rear bumper.**

Operate the back door without contacting the rear bumper with your foot.

3 **When a buzzer sounds, move your foot back. A buzzer will sound and the back door will automatically fully open or close.**

- Perform the entire kick operation within 1 second.
- The back door will not start operating while a foot is detected under the rear bumper.
- If another electronic key is in the cabin or luggage compartment, it may take slightly longer than normal for the operation to occur.
- If the buzzer sounds twice, perform a kick operation again.

If a kick operation is performed while the power back door is operating, the power back door will stop.

INFORMATION

When all of the doors are locked, if a kick operation is detected by the kick sensor, all of the doors will unlock.

Back door reserve lock function (vehicles with power back door)

This function reserves the locking of the power back door when the power back door is open.

Reserves the locking of the all the doors

If the following operations are performed, all of the doors except the power back door will lock and then the power back door will lock when it is completely closed.

Close all of the doors, except the power back door.

1 **Close all of the doors, except the power back door.**

2 **Perform an automatic closing operation of the power back door and lock the doors using the wireless remote control or smart entry & start system while the power back door is closing.**

Operation signals will indicate that all the doors have been closed and locked.

- If the electronic key is placed inside the vehicle after starting a close operation via the door reserve lock function, the electronic key may become locked inside the vehicle.
- If the back door does not fully close due to the operation of the jam protection function, etc., while the back door is automatically closing after a reserve lock operation is performed, the reserve lock function is canceled and all the doors will unlock.
- Before leaving the vehicle, make sure that all the doors are closed and locked.

Adjusting the open position of the back door(vehicles with the power back door)

The open position of the power back door can be adjusted.

1 **Stop the back door in the desirable position.**

2 **Press and hold the switch on the lower part of the back door for approximately 2 seconds.**

When the settings are completed, the buzzer sounds 4 times.

When opening the back door the next time, the back door will stop at that position.

Canceling the adjusted open position of the back door

- **Press and hold the switch on the lower part of the back door for approximately 7 seconds.**

After the buzzer sounds 4 times, it sounds twice more.

When the power back door does the opening operation the next time, the door will open to the initial settings position.

Folding down the rear seat seatbacks

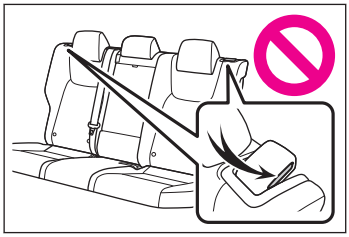
Folding the seat backs can be done with either lever or switch operations.

⚠ WARNING

■ When operating the rear seatback

Observe the following precautions.

- Do not operate the rear seat if it is occupied.
- After adjusting the seat, make sure that the seat is locked in position. If the seatback is not securely locked, the red marking will be visible. Make sure that the red marking is not visible.



■ When a rear seatback is folded

Observe the following precautions.

- Do not fold down the rear seatbacks while driving.
- Stop the vehicle on level ground, apply the parking brake and change the shift position to P.
- Do not allow anyone to sit on a folded rear seatback or in the luggage compartment while driving.
- Do not allow children to enter the luggage compartment.

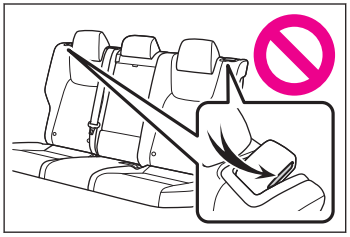
■ After adjusting the rear seats

Observe the following precautions.

- Make sure that the rear seatback is securely locked in position by lightly pushing it back and forth.

  If the seatback is not securely locked, the red marking will be visible. Make sure that the red marking is not visible.

⚠ WARNING



- Check that the seat belts are not twisted or caught between or behind in the rear seatback.

⚠ NOTICE

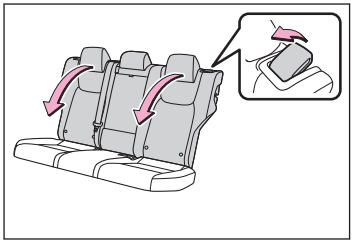
The seat belt for the rear center seat, seat belt buckles and armrest must be stowed before you fold down the rear seatbacks.

Fold the rear seatbacks

1 Stow the rear center seat belt, seat belt buckles and armrest.

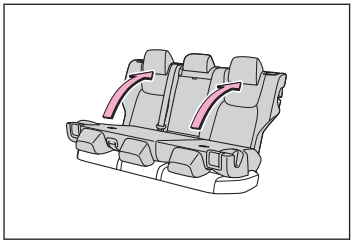
2 Lower the head restraint of the rear seat.

3 Pull the seatback angle adjustment lever and fold down the seatback.

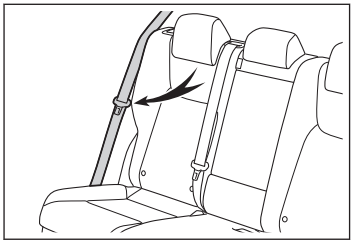


Return the rear seatbacks

1 Raise the rear seatback until it locks.



2 Check that the plate for each seat belt is on the front side of the seat.



Trailer towing (vehicles with towing package)

Trailer towing

Your vehicle is designed primarily as a passenger 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.

INFORMATION

Before towing

Check that the following conditions are met:

- The vehicle's tires are properly inflated.
- 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 trailer is level when it is hitched.

  Do not drive if the trailer is not level, and check for improper tongue weight, 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 800 km (500 miles) of driving.

Maintenance

- If you tow a trailer, your vehicle will require more frequent maintenance due to the additional load. (See "Warranty and Service Booklet".)
- Retighten the fixing bolts of the towing ball and bracket after approximately 1000 km (600 miles) of trailer towing.

⚠ WARNING

■ To avoid accident or injury

- The total trailer weight (trailer weight plus the weight of cargo) must not exceed 1000 kg (2205 lb.)
- The gross combined weight (sum of your vehicle weight plus its load and the total trailer weight) must not exceed the following:

  3370 kg (7430 lb.)
- 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.
- Do not use the following systems when trailer towing.
  - LTA (Lane Tracing Assist)
  - LDA (Lane Departure Alert)
  - Dynamic radar cruise control
  - Cruise control
  - PKSB (Parking Support Brake)*
  - BSM (Blind Spot Monitor)*
  - Lexus parking assist-sensor*
  - RCTA (Rear Cross Traffic Alert) function*
  - RCD (Rear Camera Detecrtion) fucntion*

■ When towing a trailer

- If the total trailer weight exceeds 500 kg (1102 lb.), 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 a risk of the trailer wandering into another lane.

■ When the maximum permissible axle capacity is exceeded

Failing to observe this precaution may lead to an accident causing death or serious injury.

- Add an additional 20.0 kPa (0.2 kgf/cm^2 or bar, 3 psi) to the recommended tire inflation pressure value.

*: If equipped

⚠ WARNING

- Do not exceed the established speed limit for towing a trailer in built-up areas or 100 km/h (62 mph), whichever is lower.

⚠ NOTICE

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

Weight

For towing purposes, Lexus recommends using a sway control device when the total trailer weight is greater than the vehicle weight.

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 following:

2370 kg (5225 lb.)

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 1270 kg (2800 lb.).

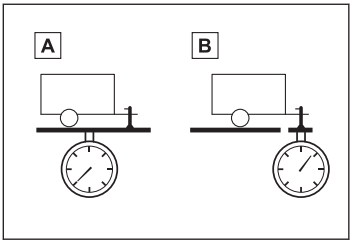
Trailer tongue load

The trailer cargo load should be distributed so that the tongue load is 9 to 11% of the total trailer weight, not exceed the following:

100 kg (220.5 lb.)

(Tongue load/Total trailer weight × 100 = 9 to 11%)

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.



A Total trailer weight
B Tongue load

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.

For vehicles where the towing device blocks any of the lights or license plate, the following shall be observed:

- Do not use towing devices that cannot be easily removed or repositioned.
- Towing devices must be removed or repositioned when not in use.

⚠ WARNING

Observe the following precautions.

- Use only a hitch that conforms to the total trailer weight requirement.
- Follow the directions supplied by the hitch manufacturer.
- Depending on the type of trailer coupler you use, the trailer ball may need to be coated with grease. If so, apply grease to the trailer ball in accordance with the instructions of the manufacturer of the trailer coupler.
- Remove the trailer ball whenever you are not towing a trailer. Remove the trailer hitch if you do not need it. After removing the hitch, seal any mounting holes in the vehicle body to prevent entry of any substances into the vehicle.

⚠ NOTICE

Observe the following precautions.

- Use only the position recommended by your Lexus dealer. Do not install the trailer hitch on the bumper; this may cause body damage.

⚠ NOTICE

- Do not use axle-mounted hitches, as they can cause damage to the axle housing, wheel bearings, wheels or tires.

Connecting trailer lights

Please consult your Lexus dealer when installing trailer lights, as incorrect installation may cause damage to the vehicle's lights. Please take care to comply with your state's laws when installing trailer lights.

⚠ NOTICE

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. In order to avoid accident, death or serious injury, 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 km/h (6 mph) 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.
- To maintain engine braking efficiency and charging system performance, when using engine braking, do not use the transmission in D. If in the M mode, the transmission shift range position must be in 6 or lower.
- Due to the added load of the trailer, your vehicle's engine may overheat on hot days (at temperatures over 30°C [85°F]) 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.

⚠ WARNING

Observe the following precautions.

- Observe the legal maximum speeds for trailer towing.
- Slow down and downshift before descending steep or long downhill grades. Do not make sudden downshifts while descending steep or long downhill grades.
- 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.

Parking on a slope when towing a trailer

Always place wheel blocks under both the vehicle and the trailer wheels when parking. Apply the parking brake 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.

5 Shift into P and turn off the engine.

Starting off on a slope when towing a trailer

1 With the transmission in the P, start the engine.

2 Be sure to keep the brake pedal depressed.

3 Shift into a forward gear.

If reversing, shift into R.

4 If the parking brake is in manual mode, release the parking brake.

5 Release the brake pedal, and slowly pull or back away from the wheel blocks. Stop and apply the brakes.

6 Have someone retrieve the blocks.

Trailer towing (vehicles without towing package)

Lexus does not recommend towing a trailer with your vehicle. Lexus also does not recommend the installation of a tow hitch or the use of a tow hitch carrier for a wheelchair, scooter, bicycle, etc. Your vehicle is not designed for trailer towing or for the use of tow hitch mounted carriers.

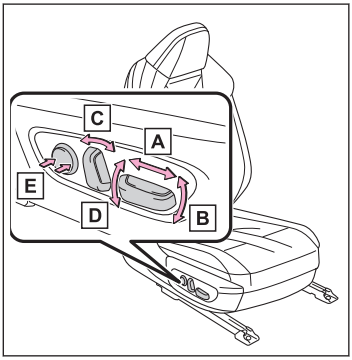


Adjusting the seats

Adjusting the front seats

Adjust the seat forward/backward and up/down as necessary to obtain a correct posture.

- Adjust the angle of the seatback so that you are sitting straight up and so that you do not have to lean forward to steer.
- Adjust the seat so that you can depress the pedals fully and so that your arms bend slightly at the elbow when gripping the steering wheel.



A Seat position adjustment switch
B Seat cushion (front) angle adjustment switch
C Vertical height adjustment switch
D Seatback angle adjustment switch
E Lumbar support firmness adjustment switch (for driver's side)

INFORMATION

When adjusting the seats

Take care so that a head restraint does not contact the ceiling or a sun visor.

⚠ WARNING

Observe the following when adjusting the seats.

- Do not adjust the position of the driver's seat while driving.

  Doing so could cause the driver to lose control of the vehicle.
- Be careful so that the seat does not contact and injure a 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 and the adjustment mechanism may also be damaged.
- 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.

⚠ WARNING

- To reduce the risk of sliding under the lap belt during a collision, do not recline the seat more than necessary.

  If the seat is reclined excessively, in a collision, one may slide under the lap belt and it may apply restraint forces directly to the abdomen, etc., or their neck may contact the shoulder belt.
- 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.

Adjusting the head restraints

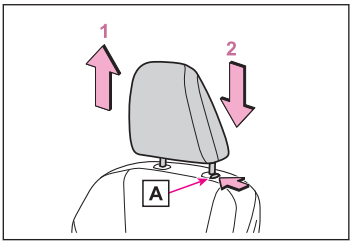
Head restraints are provided for all seats.

⚠ WARNING

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

- Use the head restraints designed for each respective seat.
- Adjust the head restraints to the correct position at all times.
- After adjusting the head restraints, push down on them and make sure they are locked in position.
- Do not drive with the head restraints removed.

Adjusting the front seat head restraints vertically



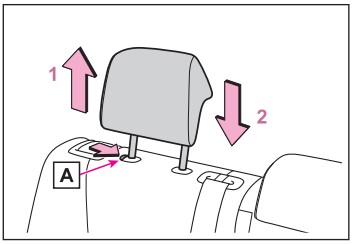
1 Up

Pull the head restraints up.

2 Down

Push the head restraint down while pressing the lock release button A.

Adjusting the rear seat head restraints vertically



1 Up

Pull the head restraints up.

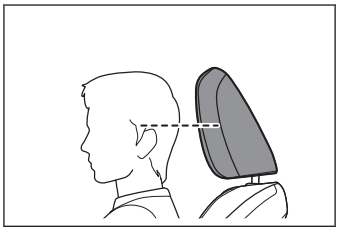
2 Down

Push the head restraint down while pressing the lock release button A.

INFORMATION

Adjusting the height of the head restraints (front seats)

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



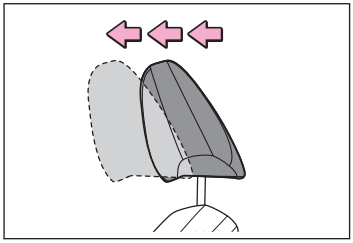
Adjusting the height of the head restraints

When the rear seat is to be used, make sure the head restraint is at least one step above the storage position.

Adjusting the front seat head restraints horizontally

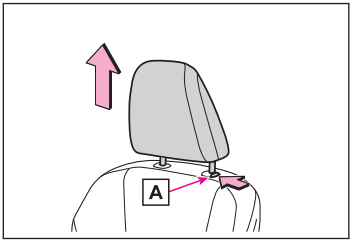
Adjustment can be performed in 4 steps.

If the head restraint is pulled forward from the foremost position, it will return to the rearmost position.



Removing the head restraints

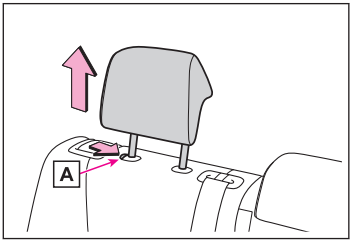
▶ Front seats



Pull the head restraint up while pressing the lock release button A.

If the head restraint touches the ceiling, making the removal difficult, change the seat height or angle.

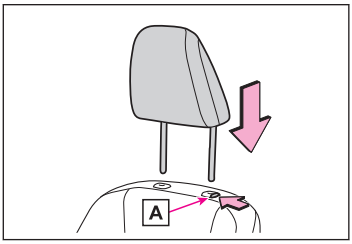
▶ Rear seats



Pull the head restraint up while pressing the lock release button A.

Installing the head restraints

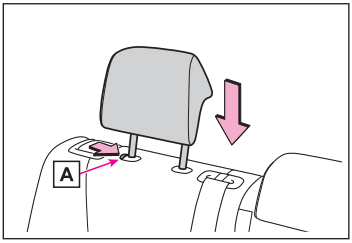
▶ Front seats



Align the head restraint with the installation holes and push it down to the lock position.

Press and hold the lock release button A when lowering the head restraint.

▶ Rear seats

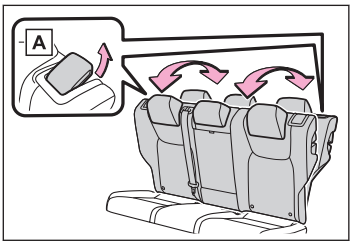


Align the head restraint with the installation holes and push it down to the lock position.

Press and hold the lock release button A when lowering the head restraint.

Adjusting the rear seats

Reclining adjustments and folding the seat backs can be done with the levers.



A Reclining adjustment

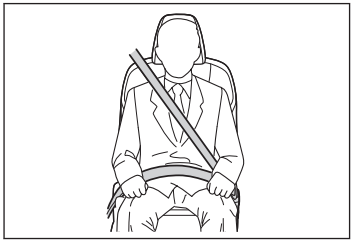
⚠ WARNING

Observe the following when adjusting the seatbacks.

- Keep other passengers from being hit with the seatback.
- Do not bring your hands close to the moving parts or between the seats, as well as do not let any part of your body get caught.
- To reduce the risk of sliding under the lap belt during a collision, do not recline the seat more than necessary.

  If the seat is reclined excessively, in a collision, one may slide under the lap belt and it may apply restraint forces directly to the abdomen, etc., or their neck may contact the shoulder belt.

Using the seat belts



- 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.
- Position the lap belt as low as possible over the hips.
- Adjust the position of the seatback. Sit up straight and well back in the seat.
- Do not twist the seat belt.

⚠ WARNING

Observe the following precautions to reduce the risk of injury in the event of sudden braking, sudden swerving 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.

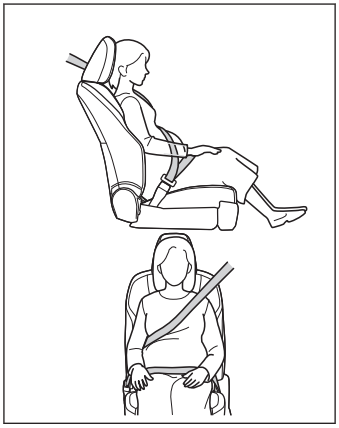
  Do not use a seat belt for more than one person at once, including children.
- Lexus recommends that children be seated in the rear seat and always use a seat belt and/or an appropriate child restraint system.
- To achieve a proper seating position, do not recline the seat more than necessary. The seat 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.

⚠ WARNING

- Women who are pregnant should consult their doctor for any precautions for wearing the seat belt correctly.

  Position the lap belt as low as possible over the hips in the same manner as other occupants, extending the shoulder belt completely over the shoulder and avoiding belt contact with the rounding of the abdominal area.

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



- Persons with a medical condition should consult their doctor for any precautions for wearing the seat belt correctly.
- 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.
- Replace the seat assembly, including the belts, if your vehicle has been involved in a serious accident, even if there's no obvious damage.
- Do not attempt to install, remove, modify, disassemble or dispose of the seat belts. Have any necessary repairs carried out by your Lexus dealer. Inappropriate handling may lead to incorrect operation.
- Do not allow children to play with the seat belt.

  If the seat belt becomes twisted around a child's neck, it may lead to choking or other serious injuries that could result in death.

  If this occurs and the buckle cannot be unfastened, scissors should be used to cut the belt.

INFORMATION

Child seat belt usage

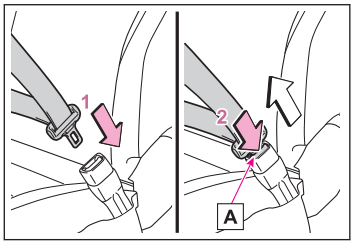
The seat belts of your vehicle were principally designed for persons of adult size.

- Use a child restraint system appropriate for the child, until the child becomes large enough to properly wear the vehicle's seat belt.
- When the child becomes large enough to properly wear the vehicle's seat belt, follow the instructions regarding seat belt usage.

Seat belt regulations

If seat belt regulations exist in the country where you reside, please contact your Lexus dealer for seat belt replacement or installation.

Fastening and releasing the seat belts



1 To fasten the seat belt, push the plate into the buckle until a click sound is heard.
2 To release the seat belt, press the release button A.

INFORMATION

Emergency locking retractor (ELR)

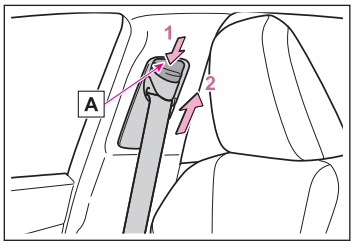
The retractor will lock the belt during a sudden stop or on impact. It may also lock if you lean forward too quickly. When the seat belt locks, pull the belt strongly and then release the belt, then a slow and easy pulling will allow the belt to extend.

⚠ WARNING

- Do not damage the seat belts by allowing the belt, plate, or buckle to be jammed in the door.
- Ensure that the belt and plate are locked and the belt is not twisted.

  If the seat belt does not function correctly, immediately contact your Lexus dealer.

Adjusting the height of the front seat belts



1 Push the seat belt shoulder anchor down while pressing the release button A.
2 Push the seat belt shoulder anchor up while pressing the release button A.

Move the height adjuster up and down as needed until you hear a click.

⚠ WARNING

■ Adjustable shoulder anchor

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

Adjusting the steering wheel position

Adjusting the position of the steering wheel horizontally/vertically

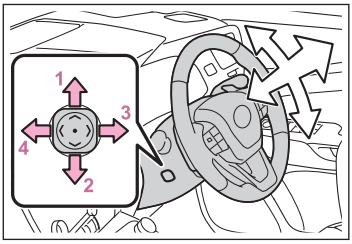
INFORMATION

The steering wheel can be adjusted when

The engine switch is in ACC or ON.*1

WARNING

Do not adjust the steering wheel while driving.



Operating the switch moves the steering wheel in the following directions:

1 Up
2 Down
3 Toward the driver
4 Away from the driver

INFORMATION

Automatic adjustment of the steering position

A desired steering position can be entered to memory and recalled automatically by the driving position memory system.

Power easy access system

The steering wheel and driver's seat move in accordance with engine switch mode and the driver's seat belt condition.

Auto tilt away

→P.214

INFORMATION

The steering wheel can be adjusted when

The engine switch is in ACC or ON mode.*1

*1: If the driver's seat belt is fastened, the steering wheel can be adjusted regardless of engine switch mode.

Power easy access system

The steering wheel and driver's seat move in accordance with engine switch mode and the driver's seat belt condition. (→P.214)

Adjusting the mirror positions

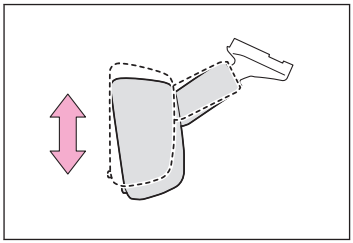
Adjusting the position of the inside rear view mirror

⚠ WARNING

Do not adjust the position of the mirror while driving.

Adjust the position of the inside rear view mirror so that the correct driving posture can be achieved.

Adjust the inside rear view mirror vertically by grasping and moving it.



Digital Rear-view mirror effort and caution*

The Digital Rear-view Mirror is a system that uses the camera on the rear of the vehicle and displays its image on the display of the Digital Rear-view Mirror.

The Digital Rear-view Mirror can be changed between optical mirror mode and digital mirror mode by operating the lever.

The Digital Rear-view Mirror allows the driver to see the rear view despite obstructions, such as the head restraints or luggage, ensuring rear visibility. Also, the rear seats are not displayed and privacy of the passengers is enhanced.

⚠ WARNING

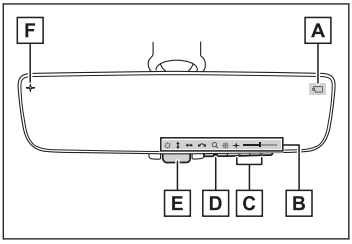
Observe the following precautions. Failure to do so may result in death or serious injury.

■ Before using the Digital Rear-view Mirror

- Make sure to adjust the mirror before driving.
  - Change to optical mirror mode and adjust the position of the Digital Rear-view Mirror so that the area behind your vehicle can be viewed properly.
  - Change to digital mirror mode and adjust the display settings.
- As the range of the image displayed by the Digital Rear-view Mirror is different from that of the optical mirror, make sure to check this difference before driving.

*: If equipped

System components of the Digital Rear-view Mirror



A Camera indicator

Indicates that the camera is operating normally.

B Icon display area

Displays icons, adjusting gauge, etc.

C Select/adjust button

Press to change the setting of the item you want to adjust.

D Menu button

Press to display the icon display area and select the item you want to adjust.

E Lever

Operate to change between digital mirror mode and optical mirror mode.

F Digital mirror anti-glare function indicator

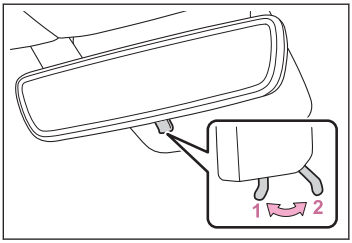
Displayed in digital mirror mode when the anti-glare function of the digital mirror is enabled.

Related Links

Adjusting the Digital Rear-view Mirror(P. 112)

Changing modes of the Digital Rear-view Mirror

Operate the lever to change between digital mirror mode and optical mirror mode.



1 Digital mirror mode

Displays an image of the area behind the vehicle.

[] will illuminate in this mode.

2 Optical mirror mode

Turns off the display of the Digital Rearview Mirror allows it to be used as an optical mirror.

Digital mirror mode operating condition

The engine switch is turned to ON.

When the engine switch is changed from ON to OFF or ACC, the image will disappear after several seconds.

Precautions about digital mirror mode

If it is difficult to see the displayed image due to light reflected off the Digital Rear-view Mirror, the camera being dirty or covered with water droplets, dust, etc., or if lights of a vehicle behind your vehicle or the displayed image are bothering you, change to optical mirror mode.

When it is raining, if the image is unclear due to water on the rear window, operate the rear wiper.

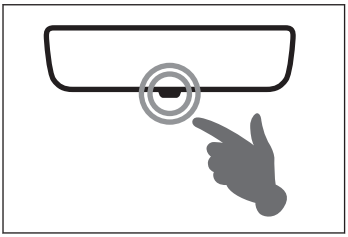
- When the back door is open, the Digital Rear-view Mirror image may not display properly. Before driving, make sure the back door is closed.
- If the display is difficult to see due to reflected light, close the sunshade.
- Any of the following conditions may occur when driving in the dark, such as at night. None of them indicates that a malfunction has occurred.
  - Colors of objects in the displayed image may differ from their actual color.
  - Depending on the height of the lights of the vehicle behind, the area around the vehicle may appear white and blurry.
  - Automatic image adjustment for brighter surrounding image may cause flickering.

    If it is difficult to see the displayed image or flickering bothers you, change to optical mirror mode.
- The Digital Rear-view Mirror may become hot while it is in digital mirror mode. This is not a malfunction.
- Depending on your physical condition or age, it may take longer than usual to focus on the displayed image. In this case, change to optical mirror mode.
- Do not let passengers stare at the displayed image when the vehicle is being driven, as doing so may cause motion sickness.

When the system malfunctions

If the symbol shown in the illustration is displayed when using the Digital Rear-view Mirror in digital mirror mode, the system may be malfunctioning. The symbol will disappear in a few seconds.

Operate the lever, change to optical mirror mode and have the vehicle inspected by your Lexus dealer.

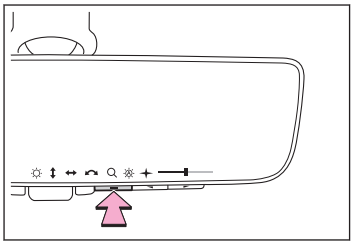


Adjusting the Digital Rear-view Mirror

Settings of the display in the digital mirror mode, on/off operation of the automatic anti-glare function, etc. can be changed.

1 **Press the menu button.**

The icons will be displayed.



2 **Press the menu button repeatedly and select the item you want to adjust.**

3 **Press [ ] or [ ]to change the setting.**

The icons will disappear if a button is not operated for approximately 5 seconds or more.

Icons	Settings
	Select to adjust the brightness of the display.
	Select to adjust the area displayed up/down.
	Select to adjust the area displayed to the left/right.
	Select to adjust the angle of the displayed image.
	Select to zoom in/out the displayed image.

Icons	Settings
	Select to enable/disable the automatic anti-glare function.*1 Responding to the brightness of the headlights of vehicles behind, the reflected light is automatically adjusted. The automatic anti-glare function is enabled each time the engine switch is changed to ON.
	The anti-glare function of the digital mirror can be enabled/disabled. When enabled, image on the digital mirror at nighttime will be displayed at a reduced brightness level, reducing the headlight glare of the following vehicle.

Precautions when adjusting the Digital Rear-view Mirror

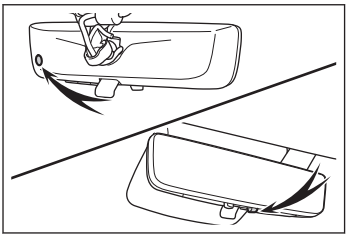
Adjusting the display (digital mirror mode)

- The icons will disappear if a button is not operated for approximately 5 seconds or more.
- If the displayed image is adjusted, it may appear distorted. This is not a malfunction.
- If the brightness of the Digital Rear-view Mirror is set too high, it may cause eye strain. Adjust the Digital Rear-view Mirror to an appropriate brightness. If your eyes become tired, change to optical mirror mode.
- The brightness of the Digital Rear-view Mirror will change automatically according to the brightness of the area in front of your vehicle.
- The digital anti-glare mode operates only in locations where the surroundings are dark. Depending on the surrounding illumination environment, the image may not darken and it may not be possible to reduce headlight glare from vehicles to the rear.

*1: This is a function for the optical mirror mode, however, the setting can also be changed while using the digital mirror mode.

To prevent the light sensors from malfunctioning

To prevent the light sensors from malfunctioning, do not touch or cover them.



⚠ WARNING

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

While driving

- Do not adjust the position of the Digital Rear-view Mirror or adjust the display settings while driving.

  Stop the vehicle and operate the Digital Rear-view Mirror control switches. Failure to do so may cause a steering wheel operation error, resulting in an unexpected accident.

- Always pay attention to the vehicle's surroundings.

  The size of the vehicles and other objects may look different when in digital mirror mode and optical mirror mode. When backing up, make sure to directly check the safety of the area around your vehicle, especially behind the vehicle. Additionally, if a vehicle approaches from the rear in the dark, such as at night, the surrounding area may appear dim.

Cleaning the Digital Rear-view Mirror

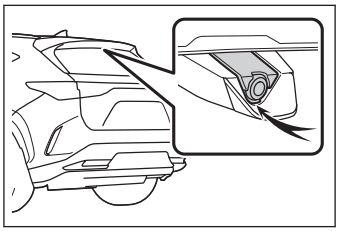
Cleaning the mirror surface

If the mirror surface is dirty, the image on the display may be difficult to see. Clean the mirror surface gently using a soft dry cloth.

INFORMATION

The camera

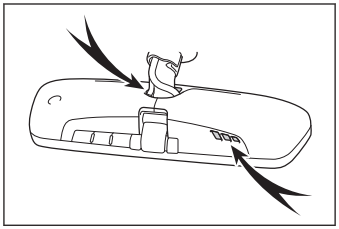
The camera for the Digital Rear-view Mirror is located as shown.



NOTICE

To prevent the camera from malfunctioning

- Observe the following precautions, otherwise the Digital Rear-view Mirror may not operate properly.
  - Do not strike or hit the camera or subject it to a strong impact, as the camera installation position and angle may be changed.
  - Do not remove, disassemble or modify the camera.
  - Do not allow an organic solvent, car wax, window cleaner or glass coating to adhere to the camera. If this happens, wipe it off as soon as possible.
  - When applying colored film (including transparent film) to the rear window glass, do not apply it to the area in front of the camera. If film is applied to the area in front of the camera, the image from the camera may not display properly.
- Do not subject the camera to a strong impact as this could cause a malfunction. If this happens, have the vehicle inspected by your Lexus dealer as soon as possible.
- Do not block the vent holes of the mirror. Otherwise, the mirror may be hot, leading to a malfunction or a fire.



If you notice any symptoms about the Digital Rear-view Mirror

If you notice any of the following symptoms, refer to the following table for the likely cause and the solution.

If the symptom is not resolved by the solution, have the vehicle inspected by your Lexus dealer.

Symptom	Likely cause	Solution
The image is difficult to see.	The mirror surface is dirty.	Clean the mirror surface gently, using a soft dry cloth.
	Sunlight or headlights are shining directly into the Digital Rear-view Mirror.	Change to optical mirror mode. (If the light is coming through the moon roof* or panoramic moon roof*, close the sunshade or electronic sunshade.)
	● The vehicle is in a dark area. ● The vehicle is near a TV tower, broadcasting station, electric power plant, or other location where strong radio waves or electrical noise may be present. ● The temperature around the camera is extremely high/low. ● The ambient temperature is extremely low. ● It is raining or humid. ● Sunlight or headlights are shining directly into the camera lens. ● The vehicle is under fluorescent lights, sodium lights, mercury lights, etc. ● Exhaust gas is obstructing the camera.	Change to optical mirror mode. (Change back to digital mirror mode when the conditions have improved.)
	Foreign matters such as water droplets or dust is on the camera lens.	Have the vehicle inspected by your Lexus dealer.

*: If equipped

Symptom	Likely cause	Solution
The image is difficult to see.	The luggage in the luggage compartment is reflected off the rear window glass and obstructing the camera.	● Change to optical mirror mode. ● Move the luggage to a position where it does not obstruct the camera or cover it with a black cloth to reduce the amount it is reflected off the rear window glass.
	The rear window glass is fogged up.	Change to optical mirror mode. After defogging the rear window using the rear window defogger, use the digital mirror mode again.
	The outside of the rear window glass is dirty.	Use the rear window wiper to remove dirt.
	The inside of the rear window glass is dirty.	Have the vehicle inspected by your Lexus dealer.
The image is out of alignment.	The back door is not fully closed.	Fully close the back door.
	The camera or its surrounding area has received a strong impact.	Change to optical mirror mode and have the vehicle inspected by your Lexus dealer.
The display is dim and [ ] is displayed.	The system may be malfunctioning.	Change to optical mirror mode and have the vehicle inspected by your Lexus dealer.
[ ] goes off.		
[ ] is displayed.	The Digital Rear-view Mirror is extremely hot. (The display will gradually become more dim. If the temperature continues to increase, the Digital Rear-view Mirror will turn off.)	Reducing the cabin temperature is recommended to reduce the temperature of the mirror. ([ ] will disappear when the mirror becomes cool.) If [ ] does not disappear even though the mirror is cool, have the vehicle inspected by your Lexus dealer.

Symptom	Likely cause	Solution
The lever cannot be operated properly.	The lever may be malfunctioning.	Change to optical mirror mode and have the vehicle inspected by your Lexus dealer. To change to optical mirror mode, press and hold the menu button for approximately 10 seconds.

Adjusting the angle of the outside rear view mirrors

INFORMATION

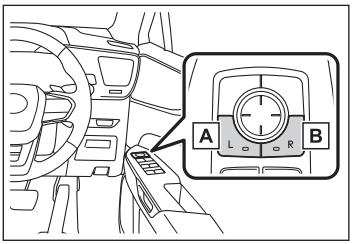
When using the outside rear view mirrors in a cold weather

When it is cold and the outside rear view mirrors are frozen, it may not be possible to fold/extend them or adjust the mirror surface. Remove the ice, snow, etc. covering the outside rear view mirrors.

WARNING

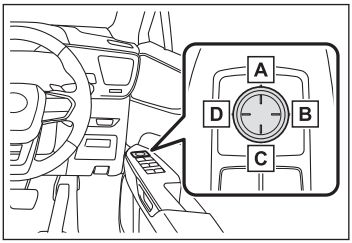
Do not adjust the position of the mirror while driving.

1 To select a mirror to adjust, press the switch.



A Select the left mirror
B Select the right mirror

2 To adjust the mirror, press the switch.



A Adjust the mirror surface up
B Adjust the mirror surface right
C Adjust the mirror surface down
D Adjust the mirror surface left

INFORMATION

Mirror angle can be adjusted when

The engine switch is in ACC or ON.

Automatic adjustment of the mirror angle

A desired mirror face angle can be entered to memory and recalled automatically by the driving position memory.

Linked mirror function when reversing (vehicles with driving position memory)

When the mirror select switch is in the "L" or "R" position, the outside rear view mirrors will automatically angle downwards when the vehicle is reversing in order to give a better view of the ground.

To disable this function, move the mirror select switch to the neutral position (between "L" and "R")

With the shift position in R, adjust the mirror angle at a desired position to set the mirror angle used when the vehicle is reversing.

The adjusted angle will be memorized and the mirror will automatically tilt to the memorized angle whenever the shift position is shifted to R from next time.

The memorized downward tilt position of the mirror is linked to the normal position (angle adjusted with the shift position in other than R). Therefore, if the normal position is changed after adjustment, the tilt position will also change.

When the normal position is changed, readjust the angle in reversing.

Using the reverse-linked function when it is cold

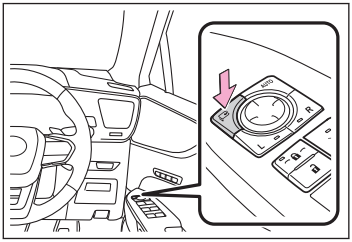
When reverse-linked function used in cold weather, the door mirror could be frozen and may not automatically point the mirror surface downward. In this event, remove any ice and snow from the mirror surface.

Related Links

Outside rear view mirrors (P. 653)

Folding/extending the outside rear view mirrors

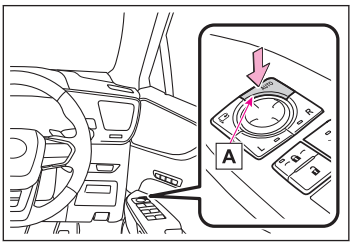
▶ Using the switch



Press the switch to fold the mirrors.

Press it again to extend them to the original position.

▶ Setting automatic mode



Automatic mode allows the folding or extending of the mirrors to be linked to locking/unlocking of the doors.

Press the switch to set automatic mode.

The indicator A will come on.

Pressing the switch once more will return to manual mode.

⚠ WARNING

Observe the following precautions.

- Do not drive with the mirrors folded.
- Do not touch an outside rear view mirror when it is moving. Failure to do so may lead to your finger being pinched or the mirror being damaged.
- As the mirror surface will be hot, do not touch an outside rear view mirror when the mirror heater is operating.
- Both the driver and passenger side mirrors must be extended and properly adjusted before driving.

2 Driving the vehicle

2-1. Starting and stopping the engine

Starting the engine 122
Stopping the engine 126
Stop & Start system 128

2-2. Driving procedures

Driving procedure 136
Breaking in your new Lexus 139
Intended use of each shift position 140
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Starting off 148
Operations when turning left or right or changing lanes 149
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2-3. Parking the vehicle

When parking the vehicle 154
Stopping 156
Parking the vehicle 158

2-4. Refueling

Refueling 163

Starting the engine

Starting the engine

⚠ WARNING

Always start the engine while sitting in the driver's seat. Do not depress the accelerator pedal while starting the engine under any circumstances.

⚠ NOTICE

■ When starting the engine

- Do not race a cold engine.
- If the engine becomes difficult to start or stalls frequently, have your vehicle checked by your Lexus dealer immediately.

■ Operation of the engine switch

If the engine switch seems to be operating somewhat differently than usual, such as the switch sticking slightly, there may be a malfunction. Contact your Lexus dealer immediately.

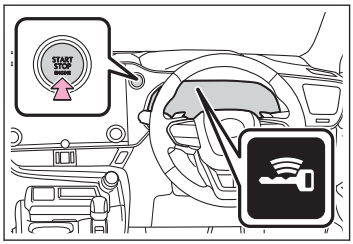
1 **Press the parking brake switch to check that the parking brake is set.**

The parking brake indicator will come on.

2 **Firmly depress the brake pedal.**

 and a message will be displayed on the multi-information display. If it is not displayed, the engine cannot be started.

3 **Press the engine switch shortly and firmly.**



When operating the engine switch, one short, firm press is enough. It is not necessary to press and hold the switch.

The engine will crank until it starts or for up to 30 seconds, whichever is less.

Continue depressing the brake pedal until the engine is completely started.

The engine can be started from any engine switch mode.

INFORMATION

■ Engine switch illumination

According to the situation, the engine switch illumination operates as follows.

- If a door is open or the engine switch is turned from ACC or ON to OFF, the engine switch light will illuminate dimly.
- If the brake pedal is depressed while carrying an electronic key, the engine switch light will illuminate brightly.
- When the engine switch is in ACC or ON, the engine switch illumination illuminates.

■ If the engine does not start

- The engine immobilizer system may not have been deactivated. Contact your Lexus dealer.
- If a message related to start-up is shown on the multi-information display, read the message and follow the instructions.

■ Operation of the engine switch

- If the switch is not pressed shortly and firmly, the engine switch mode may not change or the engine may not start.
- If attempting to restart the engine immediately after turning the engine switch off, the engine may not start in some cases. After turning the engine switch off, please wait a few seconds before restarting the engine.

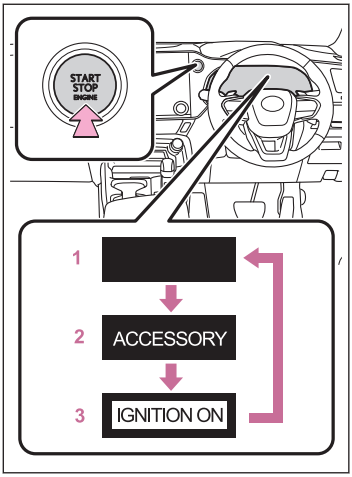
Related Links

Manual applying/releasing of the parking brake (manual mode)(P. 161)

Shift position display and how to change the shift position(P. 143)

Changing the engine switch mode

Modes can be changed by pressing the engine switch with brake pedal released. (The mode changes each time the switch is pressed.)



1 OFF*1

The emergency flashers can be used.

2 ACC*2

Some electrical components such as the audio system can be used. "ACCESSORY" will be displayed on the multi-information display.

3 ON

All electrical components can be used.

"IGNITION ON" will be displayed on the multi-information display.

INFORMATION

When ACC customization is in off

- With the engine switch is turned off, the center display can still be used for a certain time until the battery saving function starts operating.
- When the safe exit assist is operating, a buzzer will sound and a voice guidance will be given. (vehicles with safe exit assist)

Auto power off function

- If the vehicle is left in ACC or ON (the engine is not operating) for more than 20 minutes with the shift position in P, the engine switch will automatically turn to OFF.
- If the battery is low with the shift position is in P and the engine switch is in ACC or ON (the engine is not operating). The engine switch is automatically turn to OFF.

However, this function cannot entirely prevent the battery discharge. Do not leave the vehicle with the engine switch in ACC or ON for long periods of time when the engine is not operating.

When the shift control system malfunctions

When attempting to turn the engine switch off while there is a malfunction in the shift control system, the engine switch mode may change to ACC. In this case, ACC may be turned off by applying the parking brake and pressing the engine switch again.

If there is a malfunction in the system, have the vehicle inspected by your Lexus dealer immediately.

*1: The engine switch will remain ON when a shift position other than P is selected.

*2: ACC mode can be enabled/disabled through a customize setting.

⚠ NOTICE

Do not leave the vehicle with the engine switch in ACC or ON for long periods of time when the engine is not operating.

If **"ACCESSORY"** or **"IGNITION ON"** is displayed on the meters while the engine is not running, the engine switch is not off. Exit the vehicle after turning the engine switch off.

Related Links

Engine switch(P. 666)

Stopping the engine

Stopping the engine

⚠ WARNING

If you want to stop the engine in an emergency while driving the vehicle, press and hold the engine switch for more than 2 seconds, or press it briefly 3 times or more in succession.

However, do not touch the engine switch while driving, except in an emergency. Turning the engine off while driving will not cause loss of steering or braking control, however the power assist to these systems will be lost. This will make it more difficult to steer and brake. Pull over and stop the vehicle as soon as it is safe to do so.

1 **Stop the vehicle completely.**

2 **Set the parking brake.**

3 **Press the P position switch.**

Check that the shift position indicator shows P and the parking brake indicator is illuminated.

4 **Press the engine switch.**

The engine will stop, and the meter display will be extinguished (the shift position indicator will be extinguished a few seconds after the meter display).

5 **Release the brake pedal and check that "ACCESSORY" or "IGNITION ON" is not shown on the meter.**

INFORMATION

■ When the engine is stopped

Even if the engine switch is turned off, the cooling fan may continue to operate for a short time.

Related Links

Manual applying/releasing of the parking brake (manual mode)(P. 161)

Shift position display and how to change the shift position(P. 143)

Situations where idling is necessary before stopping the engine

To prevent damage to the turbocharger, immediately after high-load driving, such as continuous driving up steep mountain roads, driving on a race track, or when

towing a trailer or another vehicle (vehicles with a towing package), allow the engine to idle for approximately 1 minute before stopping the engine.

Idling is not necessary after normal city driving or high-speed driving (at the legal or recommended highway speed limit).

Stop & Start system

Stop & Start system effort and caution

The Stop & Start system stops and starts the engine according to brake pedal or shift lever operation when the vehicle is stopped, such as at a stoplight, intersection, etc., in order to improve fuel economy and reduce noise pollution caused by the engine idling.

Points for use

- If the engine switch is pressed when the engine is stopped by the Stop & Start system, the engine will not be able to be restarted by the automatic engine start function. In this case, restart the engine using the normal engine starting procedure.
- When the engine is being restarted by the Stop & Start system, the power outlets may be temporarily unusable, but this does not indicate a malfunction.
- Installation and removal of electrical components and wireless devices may affect the Stop & Start system.

  Contact your Lexus dealer.
- When stopping the vehicle for a longer period of time, turn the engine switch off to stop the engine completely.
- When the engine is restarted by the Stop & Start system, the steering wheel may temporarily feel heavy.

Hill-start assist control

When the engine is stopped by the Stop & Start system when the vehicle is on an incline, when the brake pedal is released, brake force is temporarily maintained to prevent the vehicle from rolling backwards before the engine is restarted and drive force is generated. When drive force is generated, the maintained brake force is automatically canceled.

- This function operates on flat surfaces as well as steep inclines.
- Sound may be generated from the brake system, but this does not indicate a malfunction.
- Brake pedal response may change and vibration may occur, but this does not indicate a malfunction.

⚠ WARNING

When the Stop & Start system is operating

- Make sure to disable the Stop & Start system while the vehicle is in a poorly ventilated area. If not disabled, the engine may be automatically restarted unexpectedly, causing exhaust gases to collect and enter the vehicle, possibly resulting in death or a serious health hazard.
- Do not leave the vehicle while the engine is stopped by the Stop & Start system (while the Stop & Start indicator is on). An accident may occur due to the automatic engine start function.
- Depress the brake pedal and apply the parking brake when necessary while the engine is stopped by the Stop & Start system (while the Stop & Start indicator is on).

⚠ NOTICE

To ensure the system operates correctly

If any of the following situations occur, the Stop & Start system may not operate correctly

Have the vehicle checked by your Lexus dealer.

- While the driver's seat belt is fastened, the driver's and front passenger's seat belt reminder light flashes.
- Even though the driver's seat belt is not fastened, the driver's and front passenger's seat belt reminder light does not illuminate.
- Even though the driver's door is closed, the open door warning light is illuminated or the interior light is illuminated when the interior light switch is in the door position.
- Even though the driver's door is open, the open door warning light does not illuminate or the interior light does not illuminate when the interior light switch is in the door position.

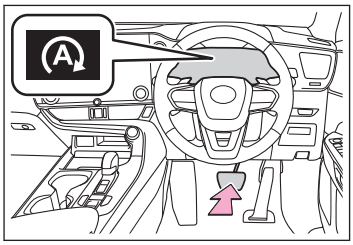
Related Links

Starting the engine(P. 122)

Stop & Start system operation

Stopping the engine

While driving with the D shift position selected, depress the brake pedal and stop the vehicle. The engine will stop automatically. When the engine stops, the Stop & Start indicator will illuminate.



Restarting the engine

Release the brake pedal. The engine will start automatically. When the engine starts, the Stop & Start indicator will turn off.

When the brake hold system is operating

- When the engine is stopped by the Stop & Start system, if the brake pedal is released the engine will remain stopped.
- If the accelerator pedal is depressed while the engine is stopped by the Stop & Start system, the engine will restart.
- While the engine is stopped by the Stop & Start system, if the engine is restarted, the brake hold system will continue to apply the brakes, unless the operation conditions of the brake hold system are no longer met.

When the dynamic radar cruise control is operating

- When the vehicle is stopped by the dynamic radar cruise control, the engine will stop automatically even though the brake pedal is not depressed.
- When the preceding vehicle starts off, the engine will restart automatically.
- If the engine is restarted automatically by the Stop & Start system during a controlled stop by the dynamic radar cruise control, the controlled stop will continue.

INFORMATION

Operating conditions

- The Stop & Start system is operational when all of the following conditions are met:
  - The vehicle has been driven a certain amount of time.
  - The brake pedal is being depressed firmly. (Except when the vehicle is stopped by the dynamic radar cruise control when in vehicle-to-vehicle distance control mode)

- The D shift position is selected.
- The driver's seat belt is fastened.
- The driver's door is closed.
- The windshield defogger is off.
- The accelerator pedal is not being depressed.
- The engine is adequately warmed up.
- The outside temperature is -5°C (23°F) or higher.
- The hood is closed.

● In the following situations the engine may not be stopped by the Stop & Start system. This is not a malfunction of the Stop & Start system.

- When the air conditioning system is being used.
- When the battery is undergoing a periodic recharge.
- When the battery is not sufficiently charged, such as if the vehicle has been parked for a long time and the battery charge has decreased, the electric load is large, the battery fluid temperature is excessively low or the battery has deteriorated.
- When the brake booster vacuum is low.
- When the elapsed time since the engine was restarted is short.
- When the vehicle is stopped frequently, such as when in a traffic jam.
- When the engine coolant temperature or transmission fluid temperature is extremely low or high.
- When the vehicle is stopped on a steep incline.
- When the steering wheel is being operated.
- When the vehicle is being driven in a high altitude area.
- When the battery fluid temperature is extremely low or high.
- For a while after the battery terminals have been disconnected and reconnected.

● When the engine is stopped by the Stop & Start system, the engine will be restarted automatically if any of the following conditions are met: (To enable the engine to be stopped by the Stop & Start system again, drive the vehicle.)

- The air conditioning system is turned on.
- The windshield defogger is turned on.
- The shift lever is shifted from D or P.
- The shift lever is shifted from P. (When the engine is stopped by the Stop & Start system when the shift lever is in P.)

- The driver's seat belt is unfastened.
- The driver's door is opened.
- The Stop & Start cancel switch is pressed.
- The Intelligent Parking Assist (IPA) is operated.
- The steering wheel is operated.
- The accelerator pedal is depressed.
- The vehicle starts to roll on an incline.

● When the engine is stopped by the Stop & Start system, the engine may restart automatically in the following situations: (To enable the engine to be stopped by the Stop & Start system again, drive the vehicle.)

- When the brake pedal is pumped or strongly depressed.
- When the air conditioning system is being used.
- When a switch of the air conditioning system is operated (windshield defogger switch, etc.).
- If the battery charge becomes low.

■ **When the hood is opened**

● If the hood is opened while the engine is stopped by the Stop & Start system, the engine will stall and will not be able to be restarted by the automatic engine start function. In this case, restart the engine using the normal engine starting procedure.

● If the hood is closed after the engine is started with the hood open, the Stop & Start system will not operate. Close the hood, turn the engine switch off, wait 30 seconds or more, and then start the engine.

Related Links

Brake hold system(P. 208)
Opening the hood(P. 487)
Starting the engine(P. 122)
Defog the windshield(P. 186)
Stop & Start system(P. 662)

Disabling the Stop & Start system

When the air conditioning is in automatic mode and the engine is stopped by the Stop & Start system, the fan may operate at a low speed in order to prevent the temperature in the cabin from increasing or decreasing or may be stopped.

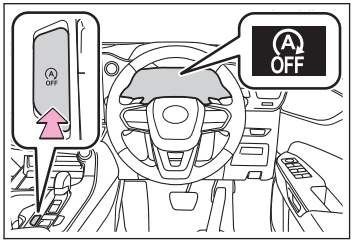
In the following situations, disable the Stop & Start system.

- When you want to prioritize air conditioning system performance
- If the windshield is fogged up
- If an odor is emitted from the air conditioning system

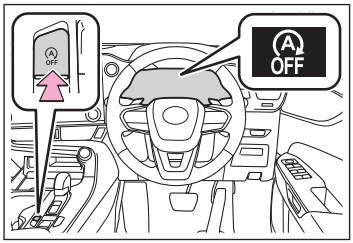
Press the Stop & Start cancel switch to disable the Stop & Start system.

The Stop & Start cancel indicator will illuminate. Pressing the switch again will enable the Stop & Start system and the Stop & Start cancel indicator will turn off.

▶ **Vehicles without downhill assist control system**



▶ **Vehicles with downhill assist control system**



INFORMATION

■ Automatic enabling of the Stop & Start system

If the Stop & Start system is disabled using the Stop & Start cancel switch, it will be automatically re-enabled once the engine switch is turned off and then the engine is started.

Multi-information display messages

If the following situations, and a message may be displayed on the multi-information display.

▶ When the engine cannot be stopped by the Stop & Start system

Message	Details/Actions
"Stop & Start System Malfunction Visit Your Dealer"	The Stop & Start system may be malfunctioning. **Have the vehicle checked by your Lexus dealer.**
"Press Brake More to Activate"	The brake pedal is not sufficiently depressed. If the brake pedal is depressed further, the system will operate.
"Non-Dedicated Battery "	A battery not designed for use with a Stop & Start system may have been installed. The Stop & Start system does not operate. Have the vehicle checked by your Lexus dealer.
"Battery Charging"	● The battery charge may be low. Stopping of the engine is temporarily prohibited to prioritize charging of the battery. After the engine runs for a certain amount of time, the system will be enabled. ● A refresh charge may be occurring After a refresh charge for up to an hour completes, the system can be operated. ● If displayed continuously for a long time (more than an hour) The battery may be deteriorated. Contact your Lexus dealer for details.
"Stop & Start system unavailable"	● The Stop & Start system is temporarily disabled. Allow the engine to run for some time. ● The engine may have been started with the hood open. Close the hood, turn the engine switch off, wait for 30 seconds or more, and then start the engine.
"In Preparation"	● The vehicle is being driven in a high altitude area. ● The brake booster vacuum is low. When the brake booster vacuum reaches a predetermined level, the system will be enabled.

Message	Details/Actions
"For Climate Control"	● The air conditioning system is being used when the ambient temperature is high or low. If the difference between the set temperature and cabin temperature becomes small, the system will be enabled. ● The windshield defogger is on.

▶ When the engine automatically restarts while stopped by the Stop & Start system

Message	Details/Actions
"In Preparation"	The brake pedal has been depressed further or pumped. The system will be enabled after the engine runs and the brake booster vacuum reaches a predetermined level.
"For Climate Control"	● The air conditioning system has been turned on or is being used. ● The windshield defogger has been turned on.
"Battery Charging"	The battery charge may be low. The system will be enabled after the engine runs to sufficiently charge the battery.

The audio system is suddenly cut off

When the volume of the audio system is excessively high, sound output from the audio system may suddenly be cut off in order to reduce battery consumption.

To re-enable the audio system, turn the engine switch off, wait for 3 seconds or more and then turn it to ACC or ON.

The audio system may not be activated if the battery terminals are disconnected and then reconnected.

Turn the engine switch off and then repeat the following operation twice to activate the audio system normally.

● Turn the engine switch to ON and then to OFF.

Driving procedure

⚠ WARNING

■ When driving the vehicle

- When backing up, you may twist your body around, leading to difficulty in operating the pedals.

  Make sure to operate the pedals properly.
- Make sure to keep a correct driving posture even when moving the vehicle only slightly. This allows you to depress the brake and accelerator pedals properly.
- Depress the brake pedal using your right foot.

  Depressing the brake pedal using your left foot may delay response in an emergency, resulting in an accident.
- Do not drive the vehicle over or stop the vehicle near flammable materials. The exhaust system and exhaust gases can be extremely hot. These hot parts may cause a fire if there is any flammable material nearby.
- Never turn the engine switch off during normal driving. If the engine is stopped while driving, steering and brake operations will still be possible, however, power assist will no longer be provided and the steering wheel and brakes will become difficult to operate. After checking the safety of the area around your vehicle, stop the vehicle on the side of the road. In an emergency, if the vehicle cannot be stopped normally, perform an emergency stop.
- 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.
- Do not adjust the positions 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.
- Always check that all passengers' arms, heads or other parts of their body are not outside the vehicle.
- This vehicle is not designed for extreme off-roading.
  - When driving in sand or mud is unavoidable, drive carefully and avoid continuous driving on sand or mud.
  - Do not drive on extremely rocky roads or extremely uneven roads.
- Do not drive across a river or through other bodies of water. This may cause electric/electronic components to short circuit, damage the engine or cause other serious damage to the vehicle.

⚠ WARNING

- Avoid sudden braking, acceleration, and steering inputs when driving on slick road surfaces. Doing so may cause the tires to lose traction, leading to loss of control of the vehicle.
- Avoid sudden accelerator pedal operations and shift operations when driving on slick road surfaces. Doing so may cause engine braking or changes in engine speed may cause the vehicle to slide sideways.
- After driving through a puddle, lightly depress the brake pedal to make sure that the brakes are functioning properly. Wet brake pads may prevent the brakes from functioning properly. If the brakes on only one side are wet and not functioning properly, steering control may be affected.
- Avoid spinning the wheels and depressing the accelerator pedal more than necessary.

  Doing so may damage the transmission and other components.

■ If you hear a squealing or scraping noise (brake pad wear limit indicators)

Have the brake pads checked and replaced by your Lexus dealer as soon as possible.

Rotor damage may 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 those of the brake discs are exceeded.

⚠ NOTICE

■ Avoiding damage to vehicle parts

- Do not turn and hold the steering wheel at either fully turned position for an extended period of time. Doing so may damage the power steering.
- When driving over bumps or areas where the road height changes, drive as slowly as possible. Otherwise the wheels, etc. may be damaged.

■ If you get a flat tire while driving

In the following situations, firmly hold the steering wheel and gradually apply the brakes to decrease the vehicle's speed, as a tire may be flat or damaged:

- When the steering wheel pulls either direction
- When there are abnormal sounds or vibrations
- When the vehicle leans abnormally

■ When encountering flooded roads

Do not drive on roads which have become flooded due to heavy rain, etc. Doing so may cause serious damage to the vehicle, such as the following:

- Engine stalling

⚠ NOTICE

- Shorts in electrical components
- Engine damage caused by water immersion

In the event that you drive on a flooded road and the vehicle is flooded, be sure to have your Lexus dealer check the following:

- Brake function
- Changes in quantity and quality of oil and fluid used for the engine, transmission, transfer, rear differential, etc.
- Lubricant condition for the propeller shaft, bearings and suspension joints (where possible), and the function of all joints, bearings, etc.

If the shift control system is damaged by flooding, it may not be possible to change the shift position to P, or from P to other positions.

In this case, contact your Lexus dealer.

■ Avoiding damage to the turbocharger

Make sure to idle the engine immediately after high-load driving. Stop the engine only after the turbocharger has cooled down. Failure to do so may cause damage to the turbocharger.

■ Operating your vehicle in a foreign country

Comply with the relevant vehicle registration laws and confirm the availability of the correct fuel.

Related Links

Stopping the vehicle in an emergency(P. 535)

Breaking in your new Lexus

To extend the life of the vehicle, observing the following precautions is recommended:

- For the first 300 km (200 miles):

  Avoid sudden stops.

- For the first 2000 km (1200 miles):
  - Do not drive at extremely high speeds.
  - Avoid sudden acceleration.
  - Do not drive continuously in low gears.
  - Do not drive at a constant speed for extended periods.

- For the first 800 km (500 miles):

  Do not tow a trailer. (vehicles with towing package)

Intended use of each shift position

Select the shift position depending on your purpose and situation.

Shift position	Objective or function
P	Parking the vehicle/starting the engine
R	Reversing
N	Neutral (Condition in which the power is not transmitted)
D	Normal driving(1)
M	M mode driving(2)

(1) To improve fuel efficiency and reduce noise, set the shift position in D for normal driving. You can choose gear range suitable for your driving situation by operating the paddle shift switches.

(2) Any gear range can be fixed when driving in M mode.

INFORMATION

When engine braking is not performed

When the vehicle is being driven with the dynamic radar cruise control operating, engine braking will not be performed even if the following operations are performed.

- While driving in D position, downshifting to 7/6/5 or 4.
- When Sport mode is selected while driving in D position.

If a message about a shift operation is shown

To prevent the shift position from being selected incorrectly or the vehicle from moving unexpectedly, the shift position may be changed automatically or operating the shift lever may be required. In this case, change the shift position following the messages on the multi-information display.

AI-SHIFT

AI-SHIFT automatically selects the suitable gear according to driver's operations and the driving conditions. AI-SHIFT automatically operates when the shift position is in D. (This function will be canceled if the shift position is change to M.)

⚠ WARNING

Avoid sudden accelerator pedal operations and shift operations when driving on slick road surfaces. Engine braking or changes in engine speed may cause the vehicle to slide sideways.

⚠ NOTICE

■ Situations where shift control system malfunctions are possible

If any of the following situations occurs, shift control system malfunctions are possible.

Immediately stop the vehicle in a safe place on level ground, apply the parking brake, and then contact your Lexus dealer.

- When the warning message indicating the shift control system appears on the multi-information display.
- The display indicates that no shift position is selected for more than a few seconds.

Changing the shift position

⚠ WARNING

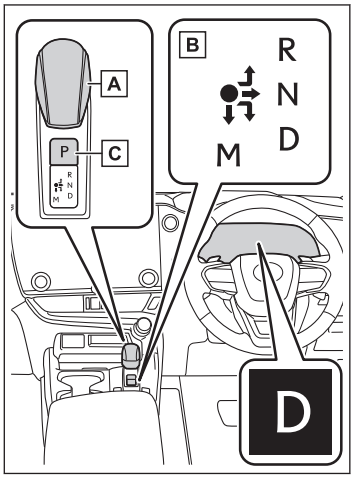
- Do not let the vehicle roll backward while a forward driving position is selected, or roll forward while the shift position is in R.

  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.
- Do not shift the shift position to P while the vehicle is moving. Doing so can damage the transmission and may result in a loss of vehicle control.
- Do not shift the shift position to R while the vehicle is moving forward. Doing so can damage the transmission and may result in a loss of vehicle control.
- Do not shift the shift position to a driving position while the vehicle is moving backward. Doing so can damage the transmission and may result in a loss of vehicle control.
- Changing the shift position to N while the vehicle is moving will disengage the engine from the transmission. Engine braking is not available when N is selected.
- Be careful not to change the shift position with the accelerator pedal depressed. Changing the shift position to any positions other than P or N may lead to unexpected rapid acceleration of the vehicle that may cause an accident and result in death or serious injury. After changing the shift position, make sure to confirm the current shift position displayed on the shift position indicator inside the meter.

Related Links

If a warning message is displayed(P. 550)

Shift position display and how to change the shift position



A Shift lever

Operate the shift lever gently and securely in the direction of the arrow on the shift position indicator.

To shift to N , slide the shift lever in the direction of the arrow and hold it.

Release the shift lever after each shifting operation to allow it to return to its regular position (●).

Shifting to M is only possible when the shift position is in D.

When shifting from P to N, D or R, from N, D, M or R to P, from D or M to R, or from R to D, ensure that the brake pedal is being depressed and the vehicle is stationary.

B Shift position indicator

Meter display:

The current shift position is illuminated.

Shift lever display:

The current shift position is illuminated.

When selecting the shift position, make sure that the shift position has been changed to the desired position by checking the shift position indicator provided on the instrument cluster.

C P position switch

Fully stop the vehicle and set the parking brake, and then press the P position switch.

When the shift position is changed to P, the switch illuminates.

Check that the shift position indicator shows P.

INFORMATION

Changing the shift position in each engine switch mode

- The shift position cannot be changed when the engine switch is in ACC or off.

- When the engine switch is in ON, the shift position can only be changed to N.
- When the engine is running, the shift position can be changed from P to D, N, or R.

Shifting the shift position from P to other positions

- While depressing the brake pedal firmly, operate the shift lever. If the shift lever is operated without depressing the brake pedal, the buzzer will sound and the shifting operation will be disabled.
- When selecting the shift position, make sure that the shift position has been changed to the desired position by checking the shift position indicator provided on the instrument cluster.
- The shift position cannot be changed from P to M directly.

The shift position cannot be changed when

In the following situations, a buzzer will sound to inform you that the shift position cannot be changed. Use the appropriate operation to attempt to change the shift position again.

- When attempting to change the shift position from P with the brake pedal not depressed
- When attempting to change the shift position from P with the accelerator pedal depressed
- When attempting to change the shift position from N while stopped or driving at an extremely low speed with the brake pedal not depressed
- When attempting to change the shift position from N while stopped or driving at an extremely low speed with the accelerator pedal depressed
- When attempting to change the shift position from P or N to M
- When the P position switch is pressed while driving

  When driving at an extremely low speed, the shift position may change to P.

The shift position automatically changes to N when

In the following situations, a buzzer will sound to inform you that the shift position has been changed to N. Use the appropriate operation to attempt to change the shift position again.

- When attempting to change the shift position to R while the vehicle is moving forward

  When driving at a low speed, the shift position may change to R.
- When attempting to change the shift position to D while the vehicle is moving backward

  When driving at a low speed, the shift position may change to D.
- When attempting to change the shift position from R to M

If the N shift position is selected while driving

If the shift lever is moved to N while driving above a certain speed, the shift position will change to N without holding the shift lever in the N position. In this situation, a buzzer will sound and a message will be displayed on the multi-information display to inform you that the shift position has been changed to N.

Automatic P position selection function

In the following situations, the shift position is automatically changed to P.

- When pressing the engine switch with the vehicle stopped while the engine switch is in ON and the shift position is in a position other than P (after the shift position has changed to P, the engine switch will turn off) *1
- If the driver's door is opened and all of the following conditions are met, while the shift position is in a position other than P
  - The engine switch is in ON.
  - The driver is not wearing the seat belt.
  - The brake pedal is not depressed.

  To start off the vehicle after the shift position is changed to P, operate the shift lever again.
- When the vehicle is stopped after the engine has been stopped in an emergency while driving.
- When voltage of the battery drops while the shift position is in a position other than P.

If the shift position cannot be shifted from P

There is a possibility that the battery is discharged. Check the battery in this situation.(→P.567)

⚠ WARNING

For the shift lever

- Do not remove the shift lever knob or use anything but a genuine Lexus shift lever knob. Also, do not hang anything on the shift lever. Doing so could prevent the shift lever from returning to position, causing unexpected accidents to occur when the vehicle is in motion.
- In order to prevent the shift position from accidentally being changed, do not touch the shift lever when not using them.

*1: When the engine switch is pressed while driving at extremely slow speeds, such as immediately before stopping the vehicle, the shift position may automatically change to P. Make sure that the vehicle is completely stopped before pressing the engine switch.

⚠ WARNING

■ P position switch

- Do not press the P position switch while the vehicle is moving.

  If the P position switch is pressed when driving at very low speeds (for example, directly before stopping the vehicle), the vehicle may stop suddenly when the shift position switches to P, which could lead to an accident.

- In order to prevent the shift position from accidentally being changed, do not touch the P position switch when not using them.

⚠ NOTICE

■ When exiting the vehicle(driver's seat only)

Check that the shift position indicator shows P and that the parking brake indicator is illuminated before opening the door and exiting the vehicle.

Keeping the shift position in N without activating the automatic P position selection function

By performing the following operation, the shift position can be held in N until the shift position switches to P without activating the automatic P position selection function.

1 **Operate the shift lever and change the shift position to N when the engine is running.**

2 **Return the shift lever to its regular position (●).**

3 **Operate the shift lever to N and hold it there until the buzzer sounds.**

4 **Press the engineswitch within 5 seconds after the buzzer sounds.**

The engine stops with the shift position in N[*1]

Make sure to check that the buzzer sounds and **"Holding N Push P Switch When Done"** is displayed on the multi-information display.

- In order to shift to a position other than N, first press the P position switch to change the shift position to P.
- Make sure to operate the shift lever with the engine running. If the engine is not running. it may not be possible to hold the shift position in N.

*1: To keep this state, do not operate the engine switch. If the engine switch is operated repeatedly, the engine switch will turn off after the shift position has automatically changed to P.

⚠ NOTICE

■ Keeping the shift position in N without activating the automatic P position selection function

Make sure that the engine is started. If an operation is performed when the engine is not started, the shift position may change to P.

Starting off

1 With the brake pedal depressed, shift the shift position to D.

Check that the shift position indicator shows D.

⚠ WARNING

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

2 If the parking brake is set, release the parking brake.

If the parking brake is in automatic mode, the parking brake will be released automatically.

3 Gradually release the brake pedal and gently depress the accelerator pedal to accelerate the vehicle.

Related Links

Manual applying/releasing of the parking brake (manual mode)(P. 161)

Starting off on an incline

1 Firmly depress the brake pedal and shift the shift position to D.

The hill-start assist control will be activated.

⚠ WARNING

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

2 Set the parking brake.

3 Release the brake pedal and gently depress the accelerator pedal to accelerate the vehicle.

4 Release the parking brake.

Related Links

Parking brake operation(P. 158)

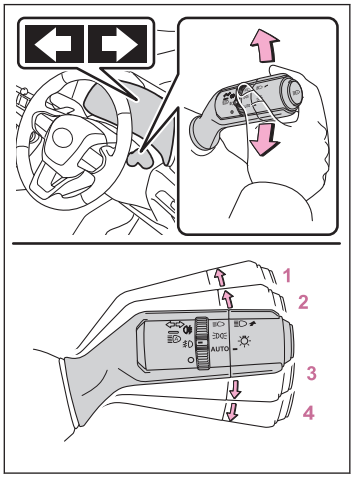
Operations when turning left or right or changing lanes

By operating the turn signal lever, the intent of the driver can be shown as follows.

INFORMATION

- The turn signal lights can be operated when the engine switch is in ON.
- Check that all the turn signal lights are flashing.

  When the indicators flash at an abnormally fast speed even though all the turn signal lights are flashing, have the vehicle inspected by your Lexus dealer.



1 Move the lever to position 1.

The left turn signal lights will blink.

2 Move the lever to position 2 and release it.

The left hand signals will flash 3 times.

3 Move the lever to position 3 and release it.

The right hand signals will flash 3 times.

4 Move the lever to position 4.

The right turn signal lights will blink.

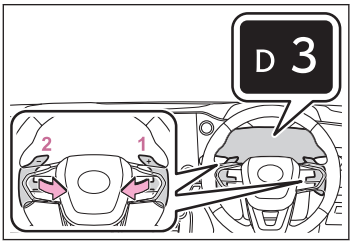
Changing the shift range

The shift range can be changed by operating the paddle shift switches. Changing the shift range allows restriction of the highest gear, preventing unnecessary upshifting and enabling the level of engine braking force to be selected.

Selecting shift ranges in the D position

To drive using temporary shift range selection, operate the [-] paddle shift switch with the shift position in D.

The shift range can then be selected by operating the [-] and [+] paddle shift switches.



1 Upshift
2 Downshift

The selected shift range, from D1 to D8, will be displayed on the multi-information display.

To return to normal D position driving, hold the [+] paddle shift switch for a certain amount of time.

- When D2 - D8 is displayed on the multi-information display, the shift range will automatically be changed within the range of 1 and the selected shift range, according to the vehicle speed and driving conditions.
- When D1 is displayed on the multi-information display, the shift range will be held in 1.

  A lower shift range will provide greater engine braking forces than a higher shift range.

INFORMATION

Automatic deactivation of shift range selection in the D position

Shift range selection in the D position will be deactivated in the following situations:

- When the vehicle comes to a stop
- If the accelerator pedal is depressed for more than a certain period of time
- When the shift position is shifted to a position other than D

Downshifting restriction warning buzzer

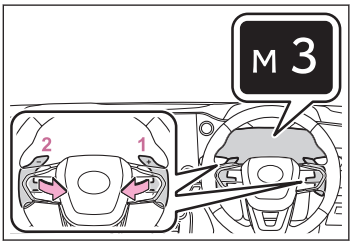
To help ensure safety and driving performance, downshift operations may be restricted. In some circumstances, downshifting may not be possible even when the paddle shift switch is operated. (A buzzer will sound twice.)

Changing the gear step

To enter M mode, shift the shift position to M. A desired gear step can be selected by operating the paddle shift switches.

Changing gear steps in the M position

Gears can be selected by operating the [-] and [+] paddle shift switches.



1 Upshift
2 Downshift

The gear changes once every time a paddle shift switch is operated.

The selected gear, from M1 to M8, will be held and displayed on the multi-information display.

When the shift position is in the M, the gear will not change unless a paddle shift switch is operated.

However, even when in the M position, the gears will be automatically changed in the following situations:

- When the vehicle speed drops (downshift only)
- When the automatic transmission fluid or engine coolant temperature is low.
- When automatic transmission fluid temperature is high (upshift only).
- When the needle of the tachometer approaches the red zone (a range which exceeds the allowable engine speed).

In the following situation, the gear will not shift even if the paddle shift switch is operated.

- The vehicle speed is low (upshift only).

INFORMATION

■ Downshift restriction warning buzzer

To help ensure safety and driving performance, downshift operations may be restricted. In some circumstances, downshifting may not be possible even when the paddle shift switch is operated. (A buzzer will sound twice.)

If the "M" indicator does not come on or the "D" indicator remains displayed after changing the shift position to M

This may indicate a malfunction in the automatic transmission system. Have the vehicle inspected by your Lexus dealer. (In this situation, the transmission will operate in the same manner as when the shift position is in D.)

When parking the vehicle

Precautions for when the vehicle is stopped or parked

⚠ WARNING

■ When the vehicle is parked

- Always apply the parking brake, shift the shift position to P, stop the engine and lock the vehicle. Do not leave the vehicle unattended while the engine is running.

  If the vehicle is parked with the shift position in P but the parking brake is not set, the vehicle may start to move, possibly leading to an accident.
- Never leave a child unattended in the vehicle. A child may accidentally release the parking brake and the vehicle may move, possibly leading to an accident.
- Do not leave glasses, cigarette lighters, spray cans or carbonated drink cans in the vehicle when it is parked in the sun. If left in the vehicle, the following may occur:
  - 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 glasses to deform or crack.
  - Soft drink cans may explode, dirtying the interior and possibly causing a short in electronic components.
- Do not store cigarette lighters in the vehicle storage features or leave them inside the vehicle.

  When luggage is loaded or a seat is adjusted, a lighter may be unintentionally lit, possibly leading to a fire.
- Do not attach suction cups to the glass parts of the vehicle. Also, do not place air fresheners or other clear containers on the instrument panel or dashboard. Suction cups and clear containers may act as a lens, possibly leading to a fire inside the vehicle.
- Do not leave a door or window open if the curved glass is coated with a metallized film such as a silver-colored one.

  Reflected sunlight may cause the glass to act as a lens, causing a fire.
- Do not touch the exhaust pipes while the engine is running or immediately after turning the engine off. Doing so may cause burns.

■ When taking a nap in the vehicle

Always turn the engine off. Otherwise, if you accidentally move the shift lever or depress the accelerator pedal, this could cause an accident or fire due to engine overheating. Additionally, if the vehicle is parked in a poorly ventilated area, exhaust gases may accumulate and enter the vehicle.

Exhaust gas precautions

Harmful substance to the human body is contained in exhaust gases if inhaled.

⚠ WARNING

Exhaust gases contain harmful carbon monoxide (CO), which is colorless and odorless. Observe the following precautions.

Failure to do so may cause exhaust gases to enter the vehicle. This may cause light-headedness, possibly leading to an accident, death or a serious health hazard.

- Keep the back door closed while driving.

  If you smell exhaust gases in the vehicle even when the back door is closed, open the windows and have the vehicle inspected by your Lexus dealer as soon as possible.
- If the vehicle is in a poorly ventilated area or a closed area, such as a garage, stop the engine.
- 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 ensure that exhaust fumes do not enter the vehicle interior.
- Do not leave the engine running in an area with snow build-up, or where it is snowing. If snowbanks build up around the vehicle while the engine is running, exhaust gases may collect and enter the vehicle.
- The exhaust system needs to be checked periodically. Check for the following. If any are found, have the vehicle inspected by your Lexus dealer.
  - Holes or cracks in the exhaust pipes due to corrosion
  - Damage at the joining parts of the exhaust pipes
  - Abnormal noise from the exhaust

Stopping

1 Depress the brake pedal.

⚠ WARNING

- Drive more carefully than normal when the brakes are wet. When the brakes are wet, the braking distance will increase. Also, the brakes will be difficult to apply and, depending on the situation, braking performance may differ between the left and right sides. Additionally, the parking brake may not be able to be securely applied.
- If the brake booster device does not operate, do not follow other vehicles closely and avoid hills or sharp turns that require braking. In this case, braking is still possible, but the brake pedal should be depressed more firmly than usual. Also, the braking distance will increase. Have your brakes fixed immediately.
- Do not pump the brake pedal if the engine stalls. Each push on the brake pedal uses up the reserve for the power-assisted brakes.
- If the brake hydraulic system malfunctions, have it repaired immediately. The brake system consists of 2 independent systems and if a hydraulic system fails, the other system will operate. In this situation, it will be necessary to depress the brake pedal more than normal and braking distance will be increased.

⚠ NOTICE

Do not use the accelerator pedal or depress the accelerator and brake pedals at the same time to hold the vehicle on a hill.

2 If necessary, set the parking brake.

If the vehicle is to be stopped for an extended period of time, shift the shift position to P.

⚠ WARNING

■ 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, causing an accident.
- In order to prevent accidents due to the vehicle rolling away, always keep depressing the brake pedal while the engine is running, and apply the parking brake as necessary.
- If the vehicle is stopped on an incline, in order to prevent accidents caused by the vehicle rolling forward or backward, always depress the brake pedal and securely apply the parking brake as needed.

⚠ WARNING

- Avoid revving or racing the engine. Running the engine at high speed while the vehicle is stopped may cause the exhaust system to overheat, which could result in a fire if combustible material is nearby.

Related Links

Shift position display and how to change the shift position(P. 143)

Parking brake operation(P. 158)

Parking the vehicle

1 Depress the brake pedal to stop the vehicle completely.

2 If the parking brake is released, set the parking brake.

3 Shift the shift position to P.

Check that the shift position indicator shows P and the parking brake indicator is illuminated.

⚠ WARNING

Always set the parking brake, and shift the shift position to P. Failure to do so may cause the vehicle to move or the vehicle may accelerate suddenly if the accelerator pedal is accidentally depressed.

4 Press the engine switch to stop the engine.

5 Slowly release the brake pedal.

6 Lock the door, making sure that you have the electronic key on your person.

If parking on a hill, block the wheels as needed.

⚠ WARNING

■ When the vehicle is parked

- Always apply the parking brake, shift the shift position to P, stop the engine and lock the vehicle. Do not leave the vehicle unattended while the engine is running.

  If the vehicle is parked with the shift position in P but the parking brake is not set, the vehicle may start to move, possibly leading to an accident.

Related Links

Manual applying/releasing of the parking brake (manual mode)(P. 161)

Changing the shift position(P. 142)

Parking brake operation

The parking brake can be set or released automatically (automatic mode) or manually (manual mode). In automatic mode, the parking brake is set or released automatically according to the the shift position operation. Also, even in automatic mode the parking brake can be set or released manually.

⚠ WARNING

When parking the vehicle

Do not leave a child in the vehicle alone. The parking brake may be released unintentionally by a child and there is the danger of the vehicle moving that may lead to an accident resulting in death or serious injury.

Parking brake switch

Do not set any objects near the parking brake switch. Objects may interfere with the switch and may lead the parking brake to unexpectedly operate.

Parking brake automatic lock function

Never use the automatic parking brake engagement function in place of normal parking brake operation.

This function is designed to reduce the risk of a collision due to the driver forgetting to engage the parking brake.

Over-reliance on this function to park the vehicle safely may lead to an accident resulting in death or serious injury.

⚠ NOTICE

When parking the vehicle

Before you leave the vehicle, shift the shift position to P, set the parking brake and make sure that the vehicle does not move.

When the system malfunctions

Stop the vehicle in a safe place and check the warning messages.

When the vehicle battery is discharged

The parking brake system cannot be activated.

When the parking brake cannot be released due to a malfunction

Driving the vehicle with the parking brake set will lead to brake components overheating, which may affect braking performance and increase brake wear. Have the vehicle inspected by your Lexus dealer immediately if this occurs.

INFORMATION

Parking brake automatic release function

When all of the following conditions are met, the parking brake can be released by depressing the accelerator pedal.

- The driver's door is closed

- The driver is wearing the seat belt
- The shift position is in a forward driving position or reverse driving position
- The malfunction indicator lamp or brake system warning light is not illuminated

When depressing the accelerator pedal, depress it slowly. If the parking brake is not released when the accelerator pedal is depressed, release the parking brake manually.

Automatic mode: When the shift position is shifted from P, the parking brake will be released automatically.

Parking brake automatic lock function

The parking brake will be set automatically under the following conditions:

- The brake pedal is not depressed
- The driver's door is open
- The driver's seat belt is not fastened
- The shift position is in a position other than P or N
- The malfunction indicator lamp and brake system warning light are not illuminated

Parking brake operation sound

When the parking brake operates, a motor sound (whirring sound) may be heard. This does not indicate a malfunction.

Parking brake indicator light

- Depending on the engine switch mode, the parking brake indicator light will turn on and stay on as described below:

  ON: Comes on until the parking brake is released.

  Not in ON: Stays on for approximately 15 seconds.
- When the engine switch is turned off with the parking brake set, the parking brake indicator light will stay on for about 15 seconds. This does not indicate a malfunction.

When the parking brake switch malfunctions

Automatic mode (automatic brake setting and releasing) will be turned on automatically.

Parking brake engaged warning buzzer

A buzzer will sound if the vehicle is driven with the parking brake engaged. **"Parking Brake ON"** is displayed on the multi-information display (with the vehicle reaching a speed of 5 km/h [3 mph]).

Related Links

Restarting the engine when the battery is discharged(P. 589)

Automatic applying/releasing of the parking brake (auto mode)

While the vehicle is stopped, pull and hold the parking brake switch until a buzzer sounds and a message is shown on the multi-information display.

When the automatic mode is turned on, the parking brake operates as follows.

- When the shift position is shifted from P, the parking brake will be released, and the parking brake indicator light will turn off.
- When the shift position is shifted to P, the parking brake will be set, and the parking brake indicator light will turn on.

Operate the shift position and P position switch with the vehicle stopped and the brake pedal depressed.

The auto function may not operate if the shift lever is moved extremely quickly or the brake pedal is not firmly depressed. In this situation, apply the parking brake manually.

While the vehicle is stopped and depressing the brake pedal, press and hold the parking brake switch until a buzzer sounds and a message is shown on the multi-information display. Automatic mode will be turned off.

INFORMATION

Parking brake operation

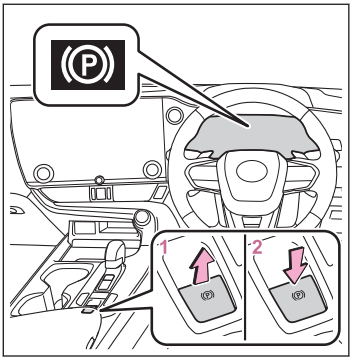
- When the engine switch is not in ON, the parking brake cannot be released using the parking brake switch.
- When the engine switch is not in ON, automatic mode (automatic brake setting and releasing) is not available.

Related Links

Manual applying/releasing of the parking brake (manual mode)(P. 161)

Manual applying/releasing of the parking brake (manual mode)

The parking brake can be set and released manually.



1 Pull the switch to set the parking brake.

The parking brake indicator light will turn on.

Pull and hold the parking brake switch if an emergency occurs and it is necessary to operate the parking brake while driving.

2 Press the switch to release the parking brake.

- Operate the parking brake switch while depressing the brake pedal.
- Using the parking brake automatic release function, the parking brake can be released by depressing the accelerator pedal.

  When using this function, slowly depress the accelerator pedal.

Make sure that the parking brake indicator light turn off.

If the parking brake indicator light flash, operate the switch again.

Related Links

Parking brake indicator(P. 549)

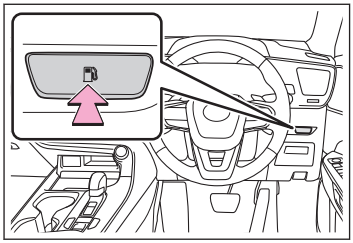
Parking brake operation(P. 158)

Refueling

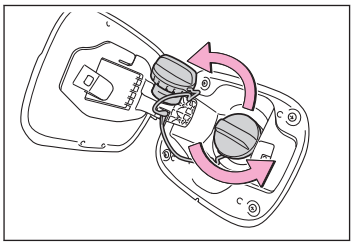
Opening the fuel tank cap

1 **Press the opener to open the fuel filler door.**

The fuel filler door will open.



2 **Turn the fuel tank cap slowly and remove it, then put it into the holder on the fuel filler door.**



⚠ WARNING

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.

Precautions for refueling

Make sure to select a compatible type of fuel and refuel safely.

⚠ WARNING

Observe the following precautions while refueling the vehicle.

- After exiting the vehicle and before opening the fuel door, touch an unpainted metal surface to discharge any static electricity.

  Also, do not allow anyone that has not discharged static electricity from their body to come close to the fuel filler door.

  Sparks resulting from static electricity discharge may cause fuel vapors to ignite while refueling.
- Do not inhale vaporized fuel. Fuel contains substances that are harmful if inhaled.

⚠ WARNING

- 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.
- Securely insert the fuel nozzle into the fuel filler neck.
- Stop filling the tank after the fuel nozzle automatically clicks off.
- Do not top off the fuel tank.

⚠ NOTICE

Do not spill fuel during refueling. Doing so may damage the vehicle, such as causing the emission control system to operate abnormally or damaging fuel system components or the vehicle's painted surface.

INFORMATION

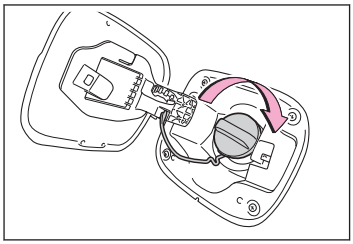
■ Fuel tank opening for unleaded gasoline

To help prevent refueling with the incorrect fuel, your vehicle has a fuel tank opening designed to only accommodate the special nozzle on unleaded fuel pumps.

Close the fuel tank cap

After refueling, turn the fuel tank cap until you hear a click.

Once the cap is released, it will turn slightly in the opposite direction.



⚠ WARNING

If replacing the fuel tank cap, do not use anything but a genuine Lexus fuel tank cap designed for your vehicle. Doing so may cause a fire.

3 Driving according to the conditions

3-1. Driving when the surrounding area is dark

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Automatically changing between the low beam headlights and high beam headlights 169

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Brake hold system 208

Using the headlights

The headlights can be operated manually or automatically.

Related Links

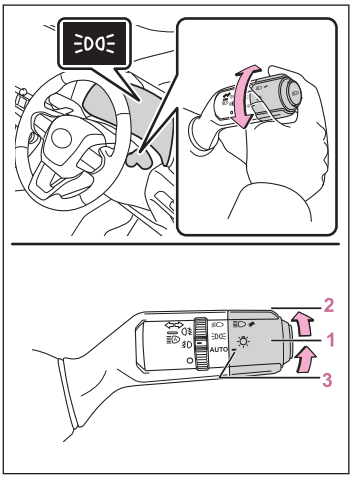
Automatic light control system(P. 654)

Lights(P. 654)

Turning the headlights on/off

Do not leave the lights on longer than necessary with the engine off. Doing so may lead to discharge of the battery.

Operating the switch turns on the lights as follows:



1. The front position, tail, license plate and instrument panel lights turn on.
2. The headlights and all lights listed above turn on.
3. AUTO The headlights, daytime running lights and all the lights listed above turn on and off automatically.

INFORMATION

AUTO mode can be used when

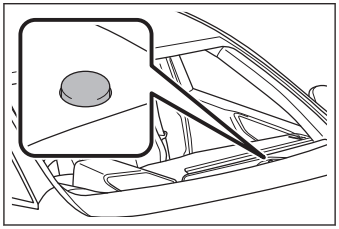
The engine switch is in ON.

Daytime running light system

To make your vehicle more visible to other drivers during daytime driving, the daytime running lights turn on automatically whenever the engine is started and the parking brake is released with the headlight switch in AUTO position. (Illuminate brighter than the front position lights.) 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

- When the headlights come on:

  The lights turn off 30 seconds after a door is opened and closed if the engine switch is turned off. (The lights turn off immediately if on the key is pressed after all the doors are locked.)

- When only the tail lights come on:

  The tail lights turn off automatically if the engine switch is turned off and the driver's door is opened.

To turn the lights on again, turn the engine switch to ON, or turn the light switch off once and then back to or .

Light reminder buzzer

A buzzer sounds when the engine switch is turned off or turned to ACC and the driver's door is opened while the lights are turned on.

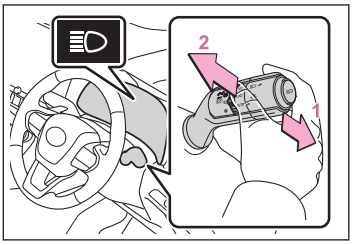
Battery-saving function

In order to prevent the battery of the vehicle from discharging, if the headlights and/or tail lights are on when the engine switch is turned off the battery saving function will operate and automatically turn off all the lights after approximately 20 minutes. When the engine switch is turned to ON, the battery-saving function will be disabled.

When any of the following are performed, the battery-saving function is canceled once and then reactivated. All the lights will turn off automatically 20 minutes after the Battery-saving function has been reactivated:

- When the headlight switch is operated
- When a door or the back door is opened or closed

Turning on the high beam headlights



1 With the headlights on, push the lever forward.

The high beam headlights will turn on.

Pull the lever to its original position to turn the high beam headlights off.

2 Pull the lever rearward and release it.

The high beams will flash once.

The high beam headlights can be illuminated this way even with the headlights off.

Operation of the cornering lights

When any of the following conditions are met, while the headlights (low beam) are on, the cornering lights will turn on and light up the direction of movement of the vehicle. The cornering lights are designed to ensure excellent visibility when turning at intersections or parking at night.

- The steering wheel is being operated
- The turn signal lever is being operated
- The shift position is in R

INFORMATION

Cornering light control

- When vehicle speed is approximately 35 km/h (22 mph) or higher, the cornering lights will not turn on.
- The lights will automatically turn off if they remain illuminated for 30 minutes.

Operation of the automatic headlight leveling system

The level of the headlights is automatically adjusted according to the number of passengers and the loading condition of the vehicle to ensure that the headlights do not interfere with other road users.

Automatically changing between the low beam headlights and high beam headlights

AHS (Adaptive High-beam System)

The Adaptive High-beam System uses a front camera located on the upper portion of the windshield to detect the brightness of the lights of vehicles ahead, streetlights, etc., and automatically controls the light distribution of the headlights.

⚠ WARNING

■ For safe use

Do not overly rely on the Adaptive High-beam System. Always drive safely, taking care to observe your surroundings and turning the high beams on or off manually if necessary.

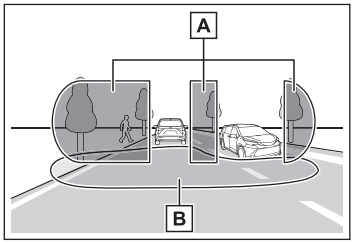
■ To prevent unintentional operation of the Adaptive High-beam System

When it is necessary to disable the system: →P.311

System controls

- According to the vehicle speed, the brightness and illuminated area of the high beams are adjusted.
- When driving around a curve, the system uses the high beams to brightly illuminate the direction of travel of the vehicle.
- The high beams are illuminated so that the area around a vehicle ahead is shaded. (Shaded high beam)

  The shaded high beam helps ensure forward visibility while reducing the dazzling effect on the drivers of vehicles ahead.



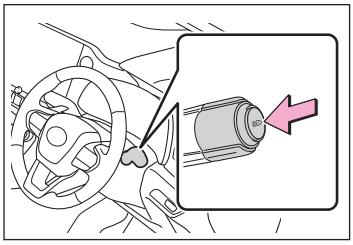
A Area illuminated by the high beams

B Area illuminated by the low beams

- According to the distance to a preceding vehicle, the illuminated area of the low beams is adjusted.

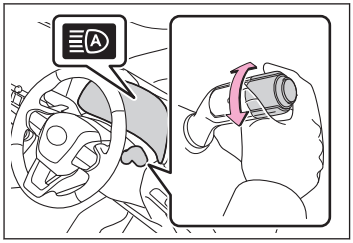
Using the Adaptive High-beam System

1 Press the Adaptive High-beam System switch.



2 Turn the headlight switch to the [AUTO] or [⟸D] position.

When the headlight switch lever is in the low beam position, the AHS system will be enabled and the AHS indicator will illuminate.



INFORMATION

System operating conditions

- When all of the following conditions are met, the high beams will illuminate and the system will operate:
  - The vehicle speed is approximately 15 km/h (9 mph) or more.*1
  - The area ahead of the vehicle is dark.
- When all of the following conditions are met, the headlights will change to the shaded high beams according to the position of vehicles ahead:
  - The vehicle speed is approximately 15 km/h (9 mph) or more.
  - The area ahead of the vehicle is dark.
  - There is a vehicle ahead with lights on.
  - There are few streetlights or other lights on the road ahead.
- If any of the following conditions are met, the system will change to the low beams:
  - The vehicle speed is approximately 12 km/h (7.5 mph) or lower.
  - The area ahead of the vehicle is not dark.
  - There are many vehicles ahead.
  - There are many streetlights or other lights on the road ahead.

*1: When driving around a curve at a vehicle speed of approximately 30 km/h (19 mph) or more, the direction of travel of the vehicle will be brightly illuminated.

Front camera detection

- In the following situations, the high beams may not be automatically changed to the shaded high beams:
  - When a vehicle cuts in front of your vehicle
  - When another vehicle crosses in front of the vehicle
  - When vehicles ahead are repeatedly detected and then hidden due to repeated curves, road dividers or roadside trees
  - When a vehicle ahead approaches from a far lane
  - When a vehicle ahead is far away
  - When a vehicle ahead has no lights
  - When the lights of a vehicle ahead are dim
  - When a vehicle ahead is reflecting strong light, such as the headlights of your vehicle
  - Situations in which the sensors may not operate properly: →P.315
- The high beams may change to the shaded high beams if a vehicle ahead that is using fog lights without its headlights turned on is detected.
- House lights, street lights, traffic signals, and illuminated billboards or signs and other reflective objects may cause the high beams to change to the shaded high beams, cause the high beams not to change to the shaded high beams, or change the area that is not illuminated.
- The following may change the speed at which the shaded areas change or the timing at which the headlights change to the low beams:
  - The brightness of lights of vehicles ahead
  - The movement and direction of vehicles ahead
  - The distance between the vehicle and a vehicle ahead
  - When a vehicle ahead only has lights illuminated on one side
  - When a vehicle ahead is a two-wheeled vehicle
  - The condition of the road (gradient, curve, condition of the road surface, etc.)
  - The number of passengers and amount of luggage
- The light distribution control of the headlights may not match the driver's expectations
- Bicycles and other small vehicles may not be detected.
- In the following situations, the system may not be able to correctly detect the brightness of the surroundings. This may cause the low beams to remain on or the high beams to flash or dazzle pedestrians or vehicles ahead. In such a case, it is necessary to manually change between the high beams and low beams.

- When there are lights similar to headlights or tail lights in the surrounding area
- When headlights or tail lights of vehicles ahead are turned off, dirty, changing color, or not aimed properly
- When the headlights are repeatedly changing between the high beams and low beams.
- When use of the high beams is inappropriate or when the high beams may be flashing or dazzling pedestrians or other drivers.
- When the vehicle is used in an area in which vehicles travel on the opposite side of the road of the country for which the vehicle was designed, for example using a vehicle designed for right-hand traffic in a left-hand traffic area, or vice versa
- When it is necessary to disable the system: →P.311
- Situations in which the sensors may not operate properly: →P.315

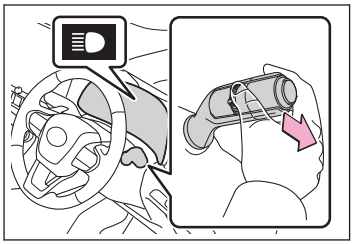
Customization

The settings of some functions can be changed. →P.655

Turning the high beams on/off manually

Changing to the high beams

● **Push the lever forward.**

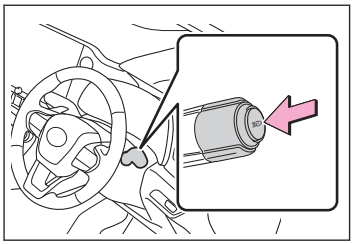


The AHS indicator will turn off and the high beam indicator will turn on.

Pull the lever to its original position to enable the Adaptive High-beam System again.

Changing to the low beams

● **Press the Adaptive High-beam System switch.**



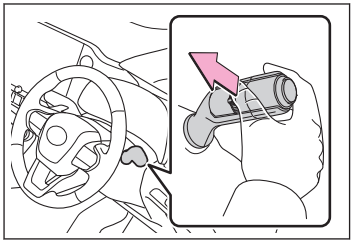
The AHS indicator will turn off.

Press the switch to enable the Adaptive High-beam System again.

Temporarily changing to the low beams

It is recommended to switch to the low beams when use of the high beams is inappropriate or when the high beams may cause problems or distress to other drivers or pedestrians nearby.

● **Pull the lever rearward and then return it to its original position.**



The high beams will illuminate while the lever is pulled, however, after the lever is returned to its original position, the low beams will remain on for a certain amount of time. After this, the Adaptive High-beam System will operate.

AHB (Automatic High Beam)

The Automatic High Beam uses a front camera located on the upper portion of the windshield to detect the brightness of the lights of vehicles ahead, streetlights, etc., and automatically changes the head lights between the high beams and low beams.

⚠ WARNING

■ **For safe use**

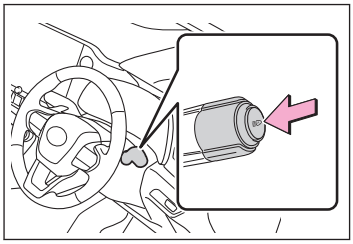
Do not overly rely on the Automatic High Beam. Always drive safely, taking care to observe your surroundings and turning the high beams on or off manually if necessary.

■ **To prevent unintentional operation of the Automatic High Beam**

When it is necessary to disable the system: →P.311

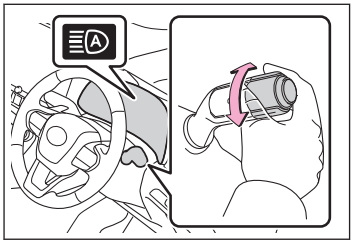
Using the Automatic High Beam system

1 Press the Automatic High Beam switch.



2 **Turn the headlight switch to the [AUTO] or [⇐D] position.**

When the headlight switch lever is in the low beam position, the AHB system will be enabled and the AHB indicator will illuminate.



INFORMATION

Automatic operating conditions of the high beams

- When all of the following conditions are met, the high beams will illuminate automatically:
  - The vehicle speed is approximately 30 km/h (19 mph) or more
  - The area ahead of the vehicle is dark.
  - There are no vehicles ahead with lights on.
  - There are few streetlights or other lights on the road ahead.
- If any of the following conditions are met, the headlights will change to the low beams:
  - Vehicle speed drops below approximately 25 km/h (16 mph).
  - The area ahead of the vehicle is not dark.
  - There is a vehicle ahead with lights on.
  - There are many streetlights or other lights on the road ahead.

Front camera detection

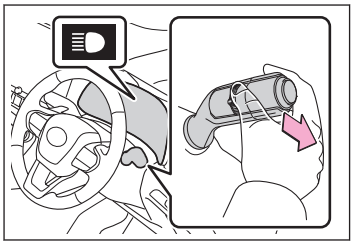
- In the following situations, the high beams may not be automatically changed to the low beams:
  - When a vehicle cuts in front of your vehicle
  - When another vehicle crosses in front of the vehicle
  - When vehicles ahead are repeatedly detected and then hidden due to repeated curves, road dividers or roadside trees
  - When a vehicle ahead approaches from a far lane
  - When a vehicle ahead is far away
  - When a vehicle ahead has no lights
  - When the lights of a vehicle ahead are dim
  - When a vehicle ahead is reflecting strong light, such as own headlights
  - Situations in which the sensors may not operate properly: →P.315

- The headlights may change to the low beams if a vehicle ahead that is using fog lights without its headlights turned on is detected.
- House lights, street lights, traffic signals, and illuminated billboards or signs may cause the high beams to change to the low beams, or the low beams to remain on.
- The following may change the the timing at which the headlights change to the low beams:
  - The brightness of lights of vehicles ahead
  - The movement and direction of vehicles ahead
  - The distance between the vehicle and a vehicle ahead
  - When a vehicle ahead only has lights illuminated on one side
  - When a vehicle ahead is a two-wheeled vehicle
  - The condition of the road (gradient, curve, condition of the road surface, etc.)
  - The number of passengers and amount of luggage
- The headlights may change between the high beams and low beams unexpectedly.
- Bicycles and other small vehicles may not be detected.
- In the following situations, the system may not be able to correctly detect the brightness of the surroundings. This may cause the low beams to remain on or the high beams to flash or dazzle pedestrians or vehicles ahead. In such a case, it is necessary to manually change between the high beams and low beams.
  - When there are lights similar to headlights or tail lights in the surrounding area
  - When headlights or tail lights of vehicles ahead are turned off, dirty, changing color, or not aimed properly
  - When the headlights are repeatedly changing between the high beams and low beams.
  - When use of the high beams is inappropriate or when the high beams may be flashing or dazzling pedestrians or other drivers.
  - When the vehicle is used in an area in which vehicles travel on the opposite side of the road of the country for which the vehicle was designed, for example using a vehicle designed for right-hand traffic in a left-hand traffic area, or vice versa
  - When it is necessary to disable the system: →P.311
  - Situations in which the sensors may not operate properly: →P.315

Turning the high beams on/off manually

Changing to the high beams

● **Push the lever forward.**

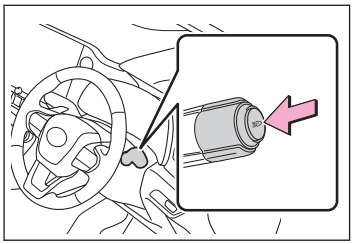


The Automatic High Beam indicator will turn off and the high beam indicator will turn on.

Pull the lever to its original position to enable the Automatic High Beam system again.

Changing to the low beams

● **Press the Automatic High Beam switch.**



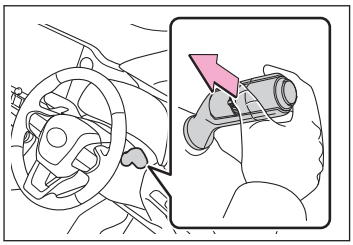
The Automatic High Beam indicator will turn off.

Press the switch to enable the Automatic High Beam system again.

Temporarily changing to the low beams

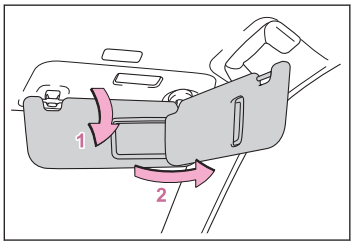
It is recommended to switch to the low beams when use of the high beams is inappropriate or when the high beams may cause problems or distress to other drivers or pedestrians nearby.

● **Pull the lever rearward and then return it to its original position.**



The high beams will illuminate while the lever is pulled, however, after the lever is returned to its original position, the low beams will remain on for a certain amount of time. After this, the Automatic High Beam system will operate.

Using the sun visors



1 To set the visor in the forward position, flip it down.
2 To set the visor in the side position, flip down, unhook, and swing it to the side.

Inside rear view mirror anti-glare function (vehicles with auto anti-glare inside rear view mirror)

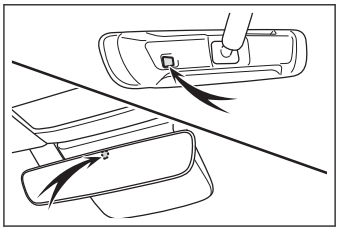
Responding to the level of brightness of the headlights of vehicles behind, the reflected light is automatically reduced.

This function turns on each time the engine switch is turned to ON.

INFORMATION

To prevent sensor malfunction

Do not touch or cover the sensors. Doing so may cause the sensor to malfunction.



Digital Rearview Mirror anti-glare function (optical mirror mode)

The automatic anti-glare function in the optical mirror mode can be enabled/disabled.

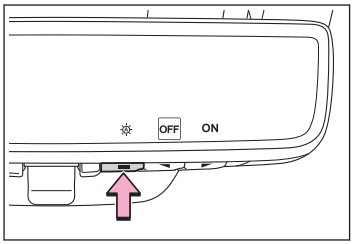
The automatic anti-glare function is enabled each time the engine switch is changed to ON.

1 **Press the menu button.**

The setting display will be displayed.

2 **Press the menu button repeatedly and select** .

The setting display will be displayed.



3 **Press [ ] or [ ] to enable (ON)/disable (OFF) the automatic anti-glare function.**

The icons will disappear if a button is not operated for approximately 5 seconds or more.

Precautions for driving in the rain

Observe the following precautions when driving in the rain.

- Drive carefully when it is raining, because visibility will be reduced, the windows may become fogged-up, and the road will be slippery.
- Drive carefully when it starts to rain, because the road surface will be especially slippery.
- Refrain from high speeds when driving on an expressway in the rain, as there is a risk of a layer of water forming between the tires and the road surface, preventing the steering and brakes from operating properly.

Ensuring visibility in the rain

Operate the wiper lever to change the operation of wipers between manual and automatic operation or to operate the washers.

Using the front wipers

⚠ WARNING

Take care that your fingers, etc. do not become caught in the windshield wipers.

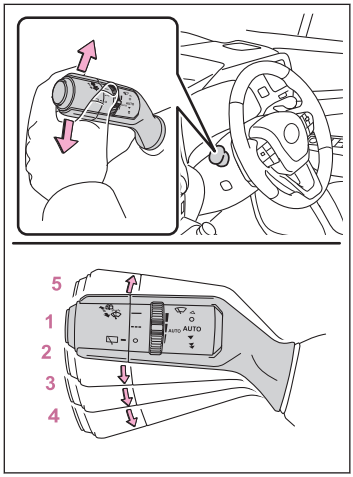
The windshield wipers may operate unexpectedly in AUTO mode if the sensor is touched or the windshield is subject to vibration.

⚠ NOTICE

Observe the following precautions when using the front wipers.

- Do not leave the front wipers on longer than necessary with the engine off. Doing so may lead to discharge of the battery.
- Do not use the front wipers when the windshield is dry, as they may damage the windshield.

Operating the lever operates the wipers or washer as follows.



1 ○ Off

2 AUTO Rain-sensing operation

The wipers operate automatically if the sensor detects rain. The system automatically adjusts the speed of the wipers in accordance with rain volume and vehicle speed.

3 ▼ Low speed operation

4 ▼▼ High speed operation

5 △ Temporary operation

INFORMATION

■ The front window wiper and washer can be operated when

The engine switch is in ON.

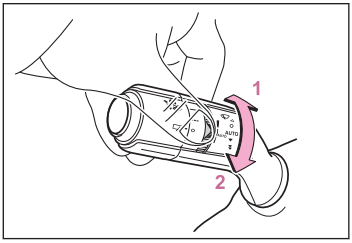
Using the voice control system*

The front wipers can be operated one sweep using the voice control system.

For details, refer to the"Multimedia Owner's Manual".

Changing the speed of the wipers

When AUTO is 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.



1 Increases the sensitivity
2 Decreases the sensitivity

INFORMATION

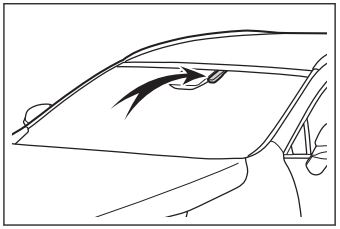
Effects of vehicle speed on wiper operation

Vehicle speed affects the intermittent wiper speed.

Raindrop sensor

- The raindrop sensor determines the amount of raindrops that contact the windshield.

  As an optical sensor is used, it may not operate properly when sunlight from the rising or setting of the sun intermittently strikes the windshield, or if bugs, etc. are present on the windshield.



- If the temperature of the raindrop sensor is 90°C (194°F) or higher, or -15°C (5°F) or lower, automatic operation may not occur.

  In this case, operate the wipers in any mode other than AUTO mode.

*: If equipped

Using the front washers

⚠ WARNING

When it is cold, do not use the washer fluid until the windshield is warm.

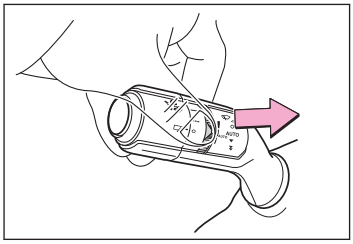
The fluid may freeze on the windshield, decreasing visibility, possibly leading to an accident.

⚠ NOTICE

If a washer nozzle is blocked, contact your Lexus dealer.

Do not try to clear it with a pin or other object. The nozzle will be damaged.

Pull the lever.



The front wipers and washers will operate.

The front wipers will automatically operate a couple of times after the front washers operate.

When the headlights are on and the lever is pulled and held, the headlight cleaners will operate once. After this, the headlight cleaners will operate every 5th time the lever is pulled.

⚠ NOTICE

If washer fluid does not spray, do not operate the switch continuously as doing so may damage the washer fluid pump.

INFORMATION

■ The windshield wipers and washer can be operated when

The engine switch is in ON.

■ Drip prevention wiper sweep

After the washers have operated and the wipers operate several times, they will operate one more time after a short delay to prevent drips.

However, this function will not operate while driving.

■ If no windshield washer fluid sprays

If there is washer fluid in the washer fluid tank, check if the washer nozzles are blocked.

■ Using the voice control system*

The front washer can be operated using the voice control system. (Operation is possible only when the vehicle is stopped.)

For details, refer to the "Multimedia Owner's Manual".

Using the rear wipers

⚠ NOTICE

Observe the following precautions when using the rear wipers.

- Do not leave the rear wiper on longer than necessary with the engine off. Doing so may lead to discharge of the battery.
- When the rear window is dry, do not use the wiper, as it may damage the rear window.

INFORMATION

■ The rear window wiper and washer can be operated when

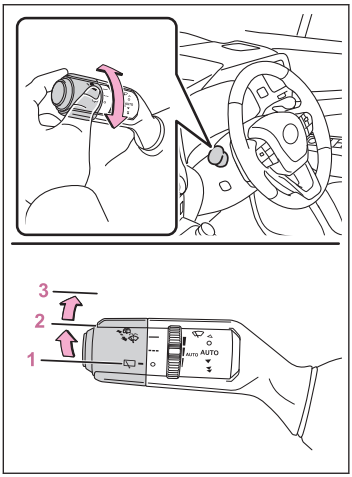
The engine switch is in ON.

■ Using the voice control system*

The rear wiper can be operated one sweep using the voice control system.

For details, refer to the"Multimedia Owner's Manual".

Operating the switch operates the rear wiper as follows:



1 ○ Off
2 --- Intermittent operation
3 — Normal operation

*: If equipped

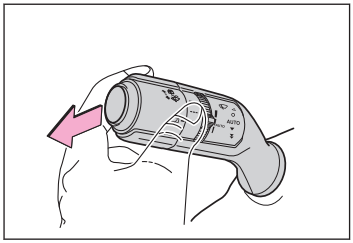
Using the rear washer

NOTICE

If a washer nozzle is blocked, contact your Lexus dealer.

Do not try to clear it with a pin or other object. The nozzle will be damaged.

Push the lever.



The rear wiper and washer will operate.

The washer will automatically operate and clean the camera for Lexus parking assist monitor.

The rear wiper will automatically operate a couple of times after the rear washer operates.

NOTICE

If washer fluid does not spray, do not operate the switch continuously as doing so may damage the rear washer fluid pump.

INFORMATION

■ The rear window wiper and washer can be operated when

The engine switch is in ON.

■ If no windshield washer fluid sprays

If there is washer fluid in the washer fluid tank, check if the washer nozzles are blocked.

■ Using the voice control system*

The rear washer can be operated using the voice control system. (Operation is possible only when the vehicle is stopped.)

For details, refer to the "Multimedia Owner's Manual".

*: If equipped

Defog the windshield

Defoggers are used to defog the windshield and front side windows.

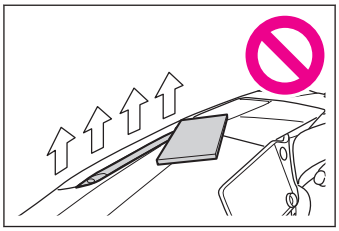
⚠ WARNING

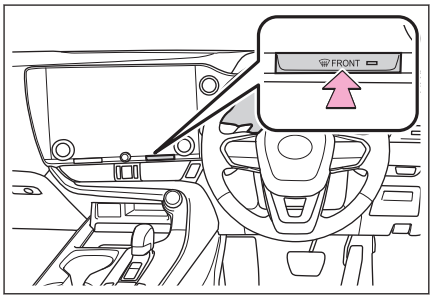
- Do not use the windshield defogger in extremely humid areas when the air conditioning system is set to a low temperature.

  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.

- Do not place anything on the instrument panel which may cover the air outlets.

  Otherwise, air flow may be obstructed, preventing the windshield defoggers from defogging.





Press the windshield defogger switch.

The dehumidification function will operate and the air flow will increase.

Set the outside/recirculated air mode switch to outside air mode if the recirculated air mode is used. (It may switch automatically.)

To defog the windshield and the side windows quickly, turn the air flow and temperature up.

To return to the previous mode, press the windshield defogger switch again when the windshield is defogged.

INFORMATION

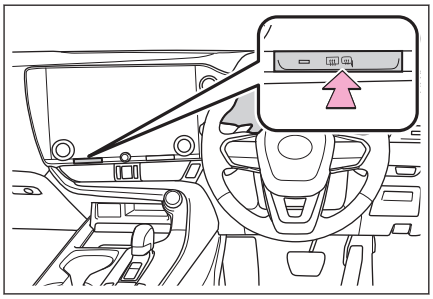
■ Fogging up of the windows

- The windows will easily fog up when the humidity in the vehicle is high.

Pressing "A/C" button or selecting "A/C" will dehumidify the air from the outlets and defog the windshield effectively.

- If you turn "A/C" off, the windows may fog up more easily.
- The windows may fog up if the recirculated air mode is used.

Defog the rear window



Press the rear windshield and outside rear view mirror defogger switch.

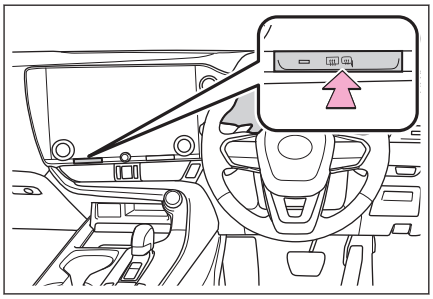
The rear window defogger and outside rear view mirror defoggers will operate and defog the rear window and outside rear view mirrors.

The defoggers will automatically turn off after a period of time.

⚠ WARNING

Do not touch the surface of the outside rear view mirrors when the rear window defogger and outside rear view mirror defoggers are operating, as the surface of the mirrors will become extremely hot and may cause burns.

Defog the outside rear view mirrors



Press the rear windshield and outside rear view mirror defogger switch.

The rear window defogger and outside rear view mirror defoggers will operate and defog the rear window and outside rear view mirrors.

The defoggers will automatically turn off after a period of time.

⚠ WARNING

Do not touch the surface of the outside rear view mirrors when the rear window defogger and outside rear view mirror defoggers are operating, as the surface of the mirrors will become extremely hot and may cause burns.

Preparing for cold weather

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

Necessary inspection items

- Use fluids that are appropriate to the prevailing outside temperatures.
  - Engine oil
  - Engine coolant
  - Washer fluid
- Have a service technician inspect the condition of the battery.

Mounting winter tires

Have the vehicle fitted with four winter tires.

Ensure that all of the tires are the same size and brand.

⚠ WARNING

Observe the following precautions when winter tires are mounted to the vehicle.

Failure to do so may lead to loss of control of the vehicle.

- Use tires of the specified size.
- Maintain the recommended level of air pressure.
- Do not drive at speeds in excess of the speed limit or the speed limit specified for the winter tires mounted.
- When using winter tires, mount them to all four wheels.

⚠ NOTICE

When having winter tires repaired or replaced, contact your Lexus dealer or a legitimate tire retailer.

This is because the removal and mounting of winter tires affects the operation of the tire pressure warning valves and transmitters.

When using tire chains

Install the tire chains to the front two tires.*1

Make sure to use tire chains which match the tire size.

*1: Tire chains cannot be mounted on 235/50R20 tires.

INFORMATION

Observe the following precautions when installing, removing, and handling tire chains:

- Install and remove tire chains in a safe location.
- Install tire chains to the front tires only.

  Do not install tire chains to the rear tires.
- Install tire chains following the instructions provided with the tire chains.
- Install tire chains to the front tires as tightly as possible. Retighten the chains after driving 0.5 - 1.0 km (1/4 - 1/2 mile).

WARNING

Observe the following precautions when tire chains are installed to the vehicle.

Failure to do so may lead to the vehicle not being able to be driven safely.

- Do not drive in excess of the speed limit specified for the tire chains being used, or 50 km/h (30 mph), whichever is lower.
- Avoid driving on bumpy road surfaces or over potholes.
- Avoid sudden acceleration, abrupt steering, sudden braking and shifting operations that cause sudden engine braking.
- Slow down sufficiently before entering a curve to ensure that vehicle control is maintained.
- Do not use LTA (Lane Tracing Assist).
- Do not use LDA (Lane Departure Alert).

NOTICE

Fitting tire chains

The tire pressure warning valves and transmitters may not function correctly when tire chains are fitted.

Selecting tire chains

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

Tire chains cannot be mounted on the 235/50R20 tires.

Snow tires should be used instead.

Regulations on the use of tire chains

Regulations regarding the use of tire chains vary depending on location and type of road. Always check local regulations before installing chains.

Cold weather driving tips

Things to check before driving in cold weather

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.
- Check for and remove any excess ice or snow that may have accumulated on the exterior lights, outside rear view mirrors, windows, vehicle's roof, chassis, around the tires or on the brakes.
- Remove any snow or mud from the bottom of your shoes before getting in the vehicle.
- When the outside door opener switch becomes stiff, it may be difficult to press on it. Open the door while pressing the door opener switch slightly harder.

Precautions for driving in cold weather

Accelerate the vehicle slowly, keep a safe distance between you and the vehicle ahead, and drive at a reduced speed suitable to road conditions.

Precautions for parking in cold weather

- Turn automatic mode of the parking brake off. Otherwise, the parking brake may freeze and not be able to be released automatically.

  Also, avoid using the following as the parking brake may operate automatically, even if automatic mode is off.

  - Brake hold system
- Park the vehicle and shift the shift position to P without setting the parking brake. The parking brake may freeze up, preventing it from being released. If the vehicle is parked without setting the parking brake, make sure to block the wheels.

  Failure to do so may be dangerous because it may cause the vehicle to move unexpectedly, possibly leading to an accident.
- When the parking brake is in automatic mode, release the parking brake after change the shift position to P.

- If the vehicle is parked without setting the parking brake, confirm that the shift position cannot be moved out of P.
- If the vehicle is left parked with the brakes damp in cold temperatures, there is a possibility of the brakes freezing.

INFORMATION

Linked mirror function when reversing

When used in cold weather during reverse driving, the door mirror could be frozen and may not automatically point the mirror surface downward. In this event, remove any ice and snow from the mirror surface.

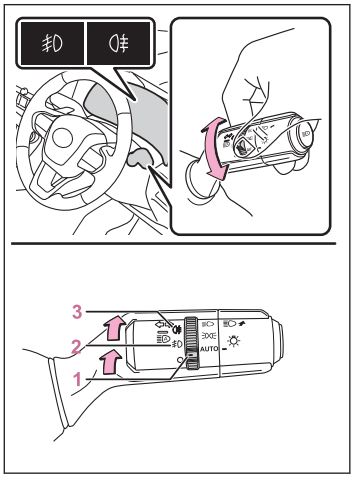
Fog light illumination

When driving in inclement weather, such as in rain and fog, turn on the front fog lights to ensure forward visibility and turn on the rear fog lights to make your vehicle more visible to following vehicles.

Using the fog lights

NOTICE

To prevent battery discharge, do not leave the lights on longer than necessary with the engine stopped.



1. Turns the front and rear fog lights off
2. Turns the front fog lights on
3. Turns both the front fog lights and the rear fog light on

   Releasing the switch ring returns it to .

   Operating the switch ring again turns only the rear fog light off.

INFORMATION

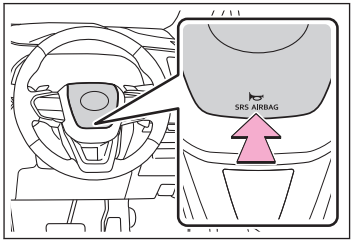
■ Fog lights can be used when

Front fog lights: The front position lights are turned on.

Rear fog light: The front fog lights are turned on.

Sounding the horn

Press on or close to the mark.



Utility vehicle precautions

This vehicle belongs to the utility vehicle class, which has higher ground clearance and narrower tread in relation to the height of its center of gravity.

Utility 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. 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.

⚠ WARNING

■ Utility vehicle precautions

Always observe the following precautions to minimize the risk of death or serious 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 always fasten their seat belts.
- 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 (if equipped) 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

Your vehicle is not designed to be driven off-road. However, in the event that off-road driving cannot be avoided, please observe the following precautions to help avoid the areas prohibited to 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.

⚠ WARNING

■ Off-road driving precautions

Always observe the following precautions to minimize the risk of death or serious 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, water, etc., check that there is no grass, bush, paper, rags, stone, sand, etc. adhering or trapped to 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 water damage

Take all necessary safety measures to ensure that water damage to the engine or other components does not occur.

NOTICE

- 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.

When you drive through water

If driving through water, such as when crossing shallow streams, first check the depth of the water and the bottom of the riverbed for firmness. Drive slowly and avoid deep water.

Inspection after off-road driving

- Sand and mud that has accumulated around brake discs may affect braking efficiency and may damage brake system components.
- Always perform a maintenance inspection after each day of off-road driving that has taken you through rough terrain, sand, mud, or water.

Driving modes

The following driving modes can be used according to the driving/usage conditions.

Characteristics of each driving mode

■ Normal/Custom mode

● Normal mode

Suitable when driving in the city, for good fuel consumption efficiency, silence, and drive-ability.

● Custom mode

Driving is possible by setting the desired function for power train control, chassis control or air conditioning operations. Custom mode settings can only be changed on the drive mode customization display of the center display.

■ Eco mode

In contrast to Normal mode when stepping on the accelerator pedal, torque generation becomes slower, air conditioning operations (heating/cooling) are restrained, and driving is suited for improved fuel consumption.

■ Sport mode

● Sport S mode

Through control of the engine and transmission, the generated torque when the accelerator pedal is depressed is increased. Making this mode suitable for when powerful acceleration is desired.

● Sport S+ mode

Through control of the engine and transmission, the generated torque when the accelerator pedal is depressed is increased, and excellent stability is provided through comprehensive control of the steering and suspension. Making this mode suitable for sporty driving.

INFORMATION

■ Operation of the air conditioning system in Eco mode

● In the Eco mode, the air conditioning system is controlled as follows to prioritize fuel efficiency.

- Engine speed and compressor operation controlled to restrict heating/cooling capacity

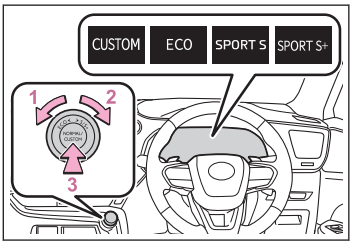
- Fan speed restricted when automatic mode is selected

● To improve air conditioning performance, perform the following operations:

- Adjust the fan speed
- Adjust the temperature setting
- Turn off Eco mode

● When the driving mode is set to Eco mode, the air conditioning system may automatically change to Eco mode. To cancel eco mode, press [**Eco Heat/Cool**].

Changing the driving mode



1 Eco mode

When not in Eco mode, turn the driving mode select switch to the left to change the driving mode to Eco mode. The Eco drive mode indicator will be displayed on the multi-information display.

2 Sport mode

- Sport S mode

  When not in Sport S mode, turn the driving mode select switch to the right to change the driving mode to Sport S mode. The Sport S mode indicator will be displayed on the multi-information display.

- Sport S+ mode

  When Sport S mode, turn the driving mode select switch to the right to change the driving mode to Sport S+ mode. The Sport S+ mode indicator will be displayed on the multi-information display.

3 Normal/Custom mode

Press the switch to select Normal mode or Custom mode. Each time the switch is pressed, the system changes between Normal mode and Custom mode.

When Custom mode is selected, the Custom mode indicator will be displayed on the multi-information display.

If the switch is pressed when in Eco mode or Sport mode, the system will return to Normal mode.

INFORMATION

Canceling Sport/Custom mode

- Select another driving mode. Sport mode and Custom mode will be canceled automatically when the engine switch is turned off.
- Normal mode and Eco mode will not be canceled automatically until another driving mode is selected, even if the engine switch is turned off.

Display of the multi-information display according to selected driving mode

According to the driving mode selected, the gauges displayed on the multi-information display may change.

Related Links

Driving mode select switch(P. 663)

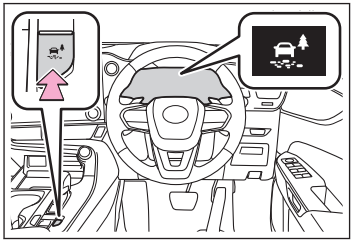
Trail Mode

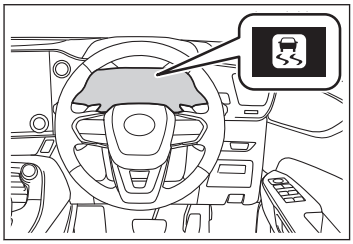
Trail Mode is designed to control the spinning of the drive wheels by integradely controlling AWD, brake and drive force control systems. Use the Trail Mode when driving bumpy roads, etc.

● **Press the Trail Mode switch.**

Press the Trail Mode switch, to turn the Trail Mode on. The Trail Mode indicator light will come on the multi-information display. To turn the system off, press the Trail Mode switch again.

If the tires are spinning, the slip indicator flashes to indicate that the Trail Mode is controlling the spinning of the tires.





INFORMATION

■ Trail Mode

- Trail Mode controls the vehicle so that it can use the maximum amount of drive force when driving on rough roads. As a result, fuel efficiency may diminish when compared to driving with Trail Mode off.
- If Trail Mode is continuously used for a long period of time, depending on the driving conditions, the load on related parts increases and the system may not function correctly. In this case, **"Traction Control Turned OFF"** will be shown on the multi-information display but the vehicle can be driven normally. The **"Traction Control Turned OFF"** on the multi-information display will turn off after a short while and the system will operate properly.

■ When Trail Mode is canceled

In the following situations, Trail Mode is automatically canceled even if it is selected:

- When the driving mode is changed.
- When the engine is restarted.

Sounds and vibrations when driving in Trail Mode

Any of the following conditions may occur when Trail Mode is operating. None of these indicates that a malfunction has occurred:

- Vibrations may be felt throughout the vehicle or steering
- Sounds may be heard from the engine compartment

When the Trail Mode indicator does not illuminate

When the Trail Mode indicator does not illuminate even thourgh the Trail Mode switch is pressed, the system may be malfunctioning.

Have the vehicle checked by your Lexus dealer immediately.

⚠ WARNING

Before using Trail Mode

Make sure to observe the following precautions. Failure to observe these precautions may result in an unexpected accident.

- Trail mode is intended for use when driving on rough roads.
- Check that the Trail Mode indicator is illuminated before driving.
- Trail Mode is not intended to expand the limits of the vehicle. Thoroughly check the road conditions and drive with caution.

⚠ NOTICE

In order to ensure that Trail Mode operates properly

Do not continuously use the Trail Mode for a long period of time. Depending on the driving conditions, the load on related parts increases and the system may not operate properly.

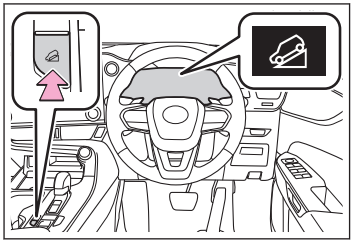
Related Links

Changing the driving mode(P. 202)

DAC (Downhill assist control system)

The downhill assist control system helps to prevent excessive speed on steep downhill slopes. The system will operate when the vehicle is traveling under 30 km/h (18 mph) with the accelerator and brake pedals released.

Press the "DAC" switch.



The downhill assist control system indicator will comes on and the system will operate. When the system is in operation, the slip indicator will flash, and the stop lights/high mounted stop lights will be lit. A sound may also occur during the operation. This does not indicated a malfunction.

Press the "DAC" switch while the system is in operation.

The downhill assist control system indicator will flash as the system gradually ceases operation, and will turn off when the system is fully off. Press the "DAC" switch while the downhill assist control system indicator is flashing to start the system again.

INFORMATION

Operating tips

The system will operate when the shift position is in a 1 range of S mode or R.

If the downhill assist control system indicator flashes

- In the following situations, the indicator flashes and the system will not operate:
  - The shift position is in a position other 1 range of S mode or R.
  - The vehicle speed exceeds approximately 25 km/h (15 mph).
  - The brake system overheats.
- In the following situation, the indicator flashes to alert the driver, but the system will operate:
  - The "DAC" switch is turned off while the system is operating.

    The system will gradually ceases operation. The indicator will flash during operation, and then go off when the system is fully off.

When the downhill assist control system is operated continuously

This may cause the brake actuator to overheat. In this case, the downhill assist control system will stop operating, a buzzer will sound and the downhill assist control system indicator will start flashing, and the **"Traction Control Turned OFF"** will be shown on the multi-information display. Refrain from using the system until the downhill assist control

system indicator stays on and the **"Traction Control Turned OFF"** goes off. (The vehicle can be driven normally during this time.)

Sounds and vibrations caused by the downhill assist control system

- 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 downhill assist control system.
- Either of the following conditions may occur when the downhill assist control system is operating. None of these are indicators 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.

System malfunction

In the following cases, have your vehicle checked by your Lexus dealer.

- The downhill assist control system indicator does not come on when the engine switch is turned to ON.
- The downhill assist control system indicator does not come on when the "DAC" switch is pressed.
- The slip indicator comes on.

⚠ WARNING

When using downhill assist control system

Do not rely overmuch on the downhill assist control system. This function does not extend the vehicle's performance limitations. Always thoroughly check the road conditions, and drive safely.

Situations in which the system may not operate properly

The system may not operate on the following surfaces, which may lead to an accident causing death or serious injury.

- Slippery surfaces such as wet or muddy roads
- Icy surface
- Unpaved roads

Brake hold system

⚠ WARNING

■ When the vehicle is on a steep incline

When using the brake hold system on a steep incline, exercise caution. The brake hold function may not hold the vehicle in such a situation.

■ When stopped on a slippery road

The system cannot stop the vehicle when the gripping ability of the tires has been exceeded. Do not use the system when stopped on a slippery road.

⚠ NOTICE

■ When parking the vehicle

The brake hold system is not designed for use when parking the vehicle for a long period of time. Turning the engine switch off while the system is holding the brake may release the brake, which would cause the vehicle to move. When operating the engine switch, depress the brake pedal, shift the shift position to P and set the parking brake.

Related Links

Parking brake operation(P. 158)

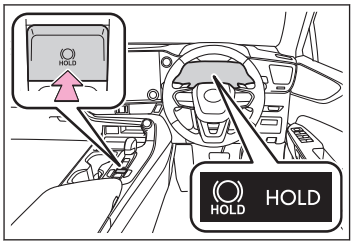
Brake hold operated indicator (warning buzzer)(P. 549)

Turns the brake hold system on

The brake hold system keeps the brake applied when the shift position is in D, M or N with the system on and the brake pedal has been depressed to stop the vehicle. The system releases the brake when the accelerator pedal is depressed with the shift position in D or M to allow smooth start off.

Turns the brake hold system on

The brake hold standby indicator (green) comes on. While the system is holding the brake, the brake hold operated indicator (yellow) comes on.



INFORMATION

Brake hold system operating conditions

The brake hold system cannot be turned on in the following conditions:

- The driver's door is not closed.
- The driver is not wearing the seat belt.
- The parking brake is engaged.
- "EPB Activation Stopped Incompletely" or "Parking Brake Malfunction Visit Your Dealer" is displayed on the multi-information display.

If any of the conditions above are detected when the brake hold system is enabled, the system will turn off and the brake hold standby indicator light will go off. In addition, if any of the conditions are detected while the system is holding the brake, a warning buzzer will sound and a message will be shown on the multi-information display. The parking brake will then be set automatically.

Brake hold function

- If the brake pedal is left released for a period of about 3 minutes after the system has started holding the brake, the parking brake will be set automatically. In this case, a warning buzzer sounds and a message is shown on the multi-information display.
- The brake hold function may not hold the vehicle when the vehicle is on a steep incline. In this situation, it may be necessary for the driver to apply the brakes. A warning buzzer will sound and the multi-information display will inform the driver of this situation. If a warning message is shown on the multi-information display, read the message and follow the instructions.
- To turn the system off while the system is holding the brake, firmly depress the brake pedal and press the button again.
- When do not wish for the parking brake to operate automatically, press and hold the brake hold switch until the standby indicator (green) turns off, and then turn the engine switch off.

When the parking brake is set automatically while the system is holding the brakes

Perform any of the following operations to release the parking brake.

- Depress the accelerator pedal. (The parking brake will not be released automatically if the seat belt is not fastened.)
- Operate the parking brake switch with the brake pedal depressed.

Make sure that the parking brake indicator light goes off.

When an inspection at your Lexus dealer is necessary

When the brake hold standby indicator (green) does not illuminate even when the brake hold switch is pressed with the brake hold system operating conditions met, the system may be malfunctioning.

Have the vehicle checked by your Lexus dealer immediately.

If "Brake Hold Malfunction" is displayed on the multi-information display

The system may be malfunctioning.

Have the vehicle checked by your Lexus dealer immediately.

Warning messages and buzzers

Warning messages and buzzers are used to indicate a system malfunction or to inform the driver of the need for caution. If a warning message is shown on the multi-information display, read the message and follow the instructions.

Related Links

Manual applying/releasing of the parking brake (manual mode)(P. 161)

4 Interior features

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My Settings*

By recognizing an individual through a device, such as an electronic key, the driving position and vehicle settings recorded for that driver can be recalled when the vehicle is entered. By assigning an authentication device to a driver in advance, the driver can enter the vehicle with their preferred settings. Settings for up to 3 drivers can be recorded by My Settings. For details on how to assign/delete electronic keys, set driver names, perform initialization, change drivers manually, or delete a driver, refer to the "Multimedia Owner's Manual".

■ Types of assigned authentication devices

An individual can be identified using the following authentication devices.

- Electronic key

  An individual is identified when the smart entry & start system detects their electronic key.

- Bluetooth devices

  An individual can be detected if the same Bluetooth device that was used as a hands-free phone the last time the vehicle was entered is connected to the audio system.

■ Recalled functions

When an individual is identified from an authentication device, settings for the following functions are recalled.

- Driving position (memory recall function)

  After an individual is identified, the driving position that was set when driving was last completed is recalled when the following operation is performed.

  The driver's doors is unlocked and opened using the smart entry & start system or wireless remote control.

- Meter displays, head-up display and multimedia information*1

  When an individual is identified, the vehicle settings used when the engine switch was last turned off are recalled.

- Vehicle settings that can be set using the center display*1

  When an individual is identified, the vehicle settings used when the engine switch was last turned off are recalled.

- Safe driving support function*1

*: If equipped

*1: Some settings are excluded

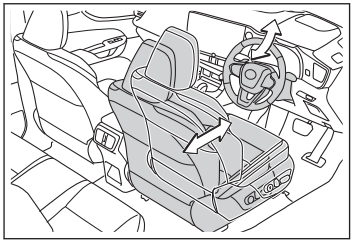
When an individual is identified, the vehicle settings used when the engine switch was last turned off are recalled.

Enabling easier driver entry and exit (Power easy access system)

⚠ WARNING

Never use any part of your body to intentionally activate the jam protection function.

When all of the following have been performed, the driver's seat and steering wheel are automatically adjusted to a position that allows driver to enter and exit the vehicle easily.



- The shift position has been shifted to P.
- The engine switch has been turned to ACC or ON.
- The driver's seat belt has been unfastened.

When any of the following has been performed, the driver's seat and steering wheel automatically return to their original positions.

- The engine switch has been turned to ACC or ON.
- The driver's seat belt has been fastened.

INFORMATION

Operation of the power easy access system

When exiting the vehicle, the power easy access system may not operate if the seat is already close to the rearmost position, etc.

Jam protection function

While the power easy access system is operating, if an object is stuck behind the front seat, the front seat will stop and then slightly move forward. When the jam protection function operates, the seat stops at a position other than the set seat position. Check the seat position.

Related Links

Power easy access system(P. 652)

Driving position registration/recall/deletion

This feature automatically adjusts the positions of the driver's seat, steering wheel, outside rear view mirrors and head-up display to make entering and exiting the vehicle easier or to suit your preferences.

Vehicle with the My Settings:

Driving positions can be recorded for 3 drivers that has been registered for My Settings. When electronic key (including a card key) assignment is registered for My Settings, the driving position for each driver can be recalled (memory recall function).

Vehicle without the My Settings:

Up to 3 different driving positions can be recorded.

INFORMATION

■ Using the voice control system*

The following operations can be performed using the voice control system:

- Driving position registration
- Driving position recall (only when the shift position is in P)

For details, refer to the "Multimedia Owner's Manual".

Registering a driving position into memory (position memory function)

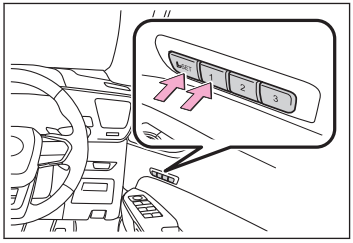
1 Check that the shift position is in P.

2 Turn the engine switch to ON.

3 Adjust the driver's seat, steering wheel, outside rear view mirrors and head-up display to the desired positions.

4 While pressing the "SET" button, or within 3 seconds after the "SET" button is pressed, press button "1", "2" or "3" until the buzzer sounds.

If a driving position has already been registered to the selected button, the previously registered position will be overwritten.



*: If equipped

INFORMATION

■ Seat positions that can be memorized

The adjusted positions other than the position adjusted by lumbar support switch can be recorded.

■ In order to correctly use the driving position memory function

If a seat position is already in the furthest possible position and the seat is operated in the same direction, the registered position may be slightly different when it is recalled.

⚠ WARNING

Take care during seat adjustment so that the seat does not contact a rear passenger or squeeze your body against the steering wheel.

Recalling a driving position (position memory function)

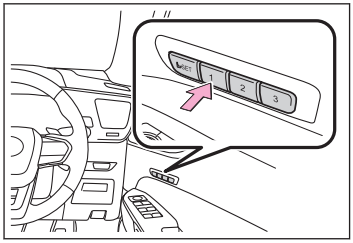
⚠ WARNING

Never use any part of your body to intentionally activate the jam protection function.

1 Check that the shift position is in P.

2 Turn the engine switch to ON.

3 Press one of the buttons for the driving position you want to recall until the buzzer sounds.



INFORMATION

■ To stop the position recall operation part-way through

Perform any of the following:

- Press the "SET" button.
- Press button "1", "2" or "3".
- Operate any of the seat adjustment switches (only cancels seat position recall).

● Operate the tilt and telescopic steering control switch (only cancels steering wheel position recall).

■ **Operating the driving position memory after turning the engine switch off**

Registered seat positions can be recalled up to 180 seconds after the driver's door is opened and another 61 seconds after it is closed again.

■ **When the recorded seat position cannot be recalled**

The seat position may not be recalled in some situations when the seat position is recorded in a certain range.

For details, contact your Lexus dealer.

■ **Jam protection function**

While the driving position is recalled or the power easy access system is operating, if an object is stuck behind the front seat, the front seat will stop and then slightly move forward. When the jam protection function operates, the seat stops at a position other than the set seat position. Check the seat position.

■ **Recalling a driving position**

Take care so that a head restraint does not contact the ceiling or a sun visor.

Registering/canceling/recall a driving position to an electronic key (memory recall function) *1

■ **When an individual is identified using My Settings:**

The driving positions can be automatically recalled for each driver registered in My Settings. (→P.212)

Driving position registration procedure

When the shift position is shifted to P after driving the vehicle, the current driving position will be recorded.

Driving position recall procedure

1 **Identifying with electronic key: Carry only the key that has been assigned and registered in My Settings, and then unlock and open the driver's door using the smart entry & start system or wireless remote control.**

The driving position other than the steering wheel and head-up display will move to the recorded position. However, the seat will move to a position slightly behind the recorded position in order to make entering the vehicle easier.

*1: Driver's side only

If the driving position is in a position that has already been recorded, the driving position will not move.

2 Turn the engine switch to ACC or ON.

The seat, steering wheel and head-up display (only when the engine switch is in ON) will move to the recorded position.

INFORMATION

■ Recalling the driving position using the memory recall function

- The timing of operation may differ depending on the device used to identify an individual.
- As a driving position can be registered to each electronic key, if 2 or more keys are carried, the recall driving position may different.

Different driving positions can be registered for each electronic key. Therefore, the driving position that is recalled may be different depending on the key being carried.

■ Jam protection function

While the driving position is recalled or the power easy access system is operating, if an object is stuck behind the front seat, the front seat will stop and then slightly move forward. When the jam protection function operates, the seat stops at a position other than the set seat position. Check the seat position.

Memory recall function cancelation procedure

How to cancel the memory call function varies depending on the authentication device.

For information on initializing driver registered settings, refer to the "Multimedia Owner's Manual".

Comfortable condition to be maintained without adjusting each system (Lexus Climate Concierge)

Operation of the seat heaters and seat ventilators of the front seats and the heated steering wheel* is performed automatically according to the temperature setting of the air conditioning system, outside temperature, temperature inside the vehicle, etc.

Lexus Climate Concierge

Lexus Climate Concierge operates in conjunction with [AUTO] of the air conditioning system.

1 Select the option screen switch.→P.222

2 Select the [Climate concierge] switch.

3 Turn the [AUTO] switch on.

Automatically controllable functions

- Automatic air conditioning system→P.221

  Operation of the air conditioning system is performed automatically according to the temperature setting for the driver's side/front passenger's side.

- Seat heaters→P.231

  Operation of the seat heaters is performed automatically according to the temperature setting for the driver's side/front passenger's side.

  Operation will automatically change between the seat heaters and seat ventilators according to the temperature setting of the air conditioning system, outside temperature, etc.

- Seat ventilators→P.233

  Operation of the seat ventilators is performed automatically according to the temperature setting for the driver's side/front passenger's side.

  Operation will automatically change between the seat heaters and seat ventilators according to the temperature setting of the air conditioning system, outside temperature, etc.

- Heated steering wheel→P.230

  Operation of the heated steering wheel is performed automatically according to the temperature setting of the air conditioning system, outside temperature, etc.

*: If equipped

INFORMATION

Passenger detection functions

- When a passenger is detected in the front passenger seat, the seat heater and ventilator will operate automatically.
- When the seat heater/seat ventilator switch is set to AUTO, the passenger detection function will not operate.

Rear seat heater operation (vehicles with rear seat heaters)

The rear seat heaters are not controlled by the Lexus Climate Concierge.

Air conditioning controls

When the [AUTO] switch is on, the air outlets and fan speed will automatically be changed according to the set temperature.

⚠ NOTICE

Do not leave the air conditioning system on longer than necessary when the engine is off.

INFORMATION

When driving on dusty roads

Close all windows. If dust thrown up by the vehicle is still drawn into the vehicle after closing the windows, it is recommended that the air intake mode be set to outside air mode and the fan speed to any setting except off.

When the outside temperature is low

The dehumidification function may not operate even when [A/C] is selected.

Ventilation and air conditioning odors

- To let fresh air in, set the air conditioning system to the outside air mode.
- During use, various odors from inside and outside the vehicle may enter into and accumulate in the air conditioning system. This may then cause odor to be emitted from the vents.
- To reduce potential odors from occurring:
  - It is recommended that the air conditioning system be set to outside air mode prior to turning the vehicle off.
  - The start timing of the blower may be delayed for a short period of time immediately after the air conditioning system is started in automatic mode.
- When parking, the system automatically switches to outside air mode to encourage better air circulation throughout the vehicle, helping to reduce odors that occur when starting the vehicle.

Using the voice command system

Air conditioning system can be operated using voice commands. For details, refer to "Multimedia Owner's Manual"

Customization

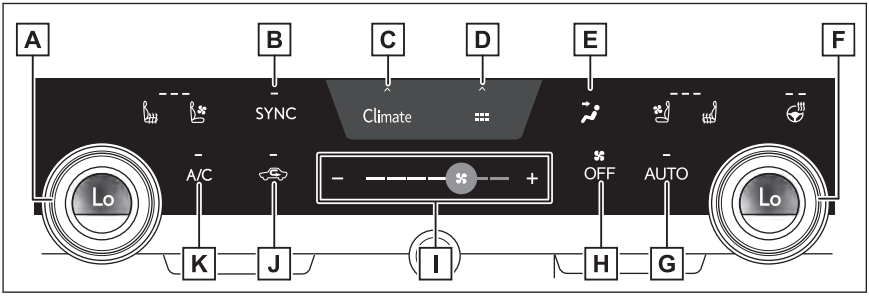
Functions that are linked to automatic mode (when the [AUTO] switch is on) can be set through [**Vehicle customise**] on the center display.

Related Links

Automatic air conditioning system(P. 663)

Option screen switch

▶ 14-inch center display model



A Left-hand side temperature control switch

B [SYNC] switch

C Option screen switch

D Shortcut screen switch

Select to display shortcut icons for various functions.

E Airflow mode control switch

F Right-hand side temperature control switch

G [AUTO] switch

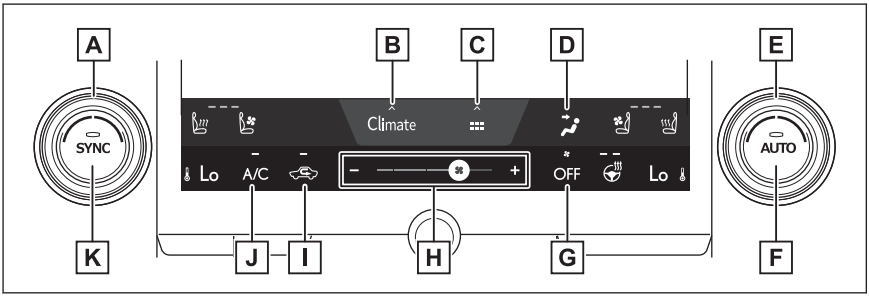
H [OFF] switch

I Fan speed control switch

J Outside/recirculated air mode switch

K [A/C] switch

▶ 9.8-inch center display model



A Left-hand side temperature control switch

B Option screen switch

C Shortcut screen switch

Select to display shortcut icons for various functions.

D Airflow mode control switch

E Right-hand side temperature control switch

F [AUTO] switch

G [OFF] switch

H Fan speed control switch

I Outside/recirculated air mode switch

J [A/C] switch

K [SYNC] switch

Adjusting the temperature

Turn temperature control dial clockwise to increases the temperature and turn the dial counterclockwise to decreases the temperature.

When the indicator on the [SYNC] switch is illuminated, the temperature setting for the front passenger's side will match the setting for the driver's side.

When the indicator on the [SYNC] switch is off, turning the [SYNC] switch on will illuminate the [SYNC] switch indicator and the temperature setting for the front passenger's side will become the same as that for the driver's side.

When the front passenger's side temperature adjustment switch is operated, the indicator on the [SYNC] switch will turn off and the temperature setting for the front passenger's side will be able to be adjusted.

When the indicator on the [A/C] switch is off, the blower and heater can be used.

Setting the fan speed

To increase the fan speed, select the [+] fan speed adjustment switch or slide the icon of the fan speed adjustment switch right. To decrease the fan speed, select the [-] fan speed adjustment switch or slide the icon of the fan speed adjustment switch left.

Select the [OFF] switch to turn the fan off.

The fan can also be stopped by touching and holding the [-] fan speed adjustment switch or sliding the icon of the fan speed adjustment switch to the leftmost position and holding it.

Changing the air flow mode

Select the airflow mode control switch

The airflow mode changes each time the switch is selected.

The air outlets and air volume changes according to the selected air flow mode.

: Air flows to the upper body

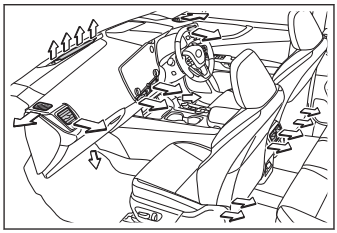
: Air flows to the upper body and feet

: Air flows to the feet

: Air flows to the feet and the windshield defogger operates

INFORMATION

Location of air outlets



Switching between outside air mode and recirculated air mode

Temporarily changing the air mode to recirculated air mode is recommended to prevent dirty air from entering the vehicle, such as when in a tunnel or heavy traffic, and to help cool the interior when the outside air temperature is high.

Select the outside/recirculated air mode switch.

The air mode changes between outside air mode and recirculated air mode each time the switch is selected. When recirculated air mode is selected, the indicator will illuminate.

The air mode may change automatically depending on the temperature setting, temperature inside the vehicle, etc.

Front seat concentrated airflow mode (S-FLOW)

This function automatically controls the air conditioning airflow so that priority is given to the front seats. Unnecessary air conditioning is suppressed, contributing to increased fuel efficiency.

If S-Flow mode is disabled manually, it will be automatically enabled when the engine switch is turned to ON after being off for a period of time.

The S-Flow switch is  (ON) on the option screen.

When a rear door is opened while S-Flow mode is enabled, S-Flow mode will be disabled automatically.

In front seat concentrated airflow mode, directing airflow to the front seats only and to all seats can be switched via switch operation. When the mode has been switched manually, automatic airflow control stops operating.

1 **Select the option screen switch.**

2 **Select the [S-Flow] switch.**

- Indicator illuminated: Airflow to the front seats only
- Indicator off: Airflow to all the seats

INFORMATION

Operation of automatic airflow control

- In order to maintain a comfortable interior, airflow may be directed to seats without passengers immediately after the engine is started and at other times depending on the outside temperature.
- After the engine is started, if passengers move around inside or enter/exit the vehicle, the system cannot accurately detect the presence of passengers and automatic airflow control will not operate.
- If a rear seat passenger is on board before the engine switch is turned to ON, the system will determine that there are no passengers in the rear seats.

  The presence of a rear seat passenger is determined by opening and closing of a rear door.

  Once the system determines the presence of a rear seat passenger, it will not determine otherwise during that trip.
- If it is very hot or very cold and the system determines that air conditioning to the whole vehicle is required, airflow will be directed to the rear seats, regardless of whether S-FLOW mode is enabled/disabled.
- If front seat concentrated airflow mode is disabled manually, it will be automatically enabled when the engine is started after being stopped for a period of time.
- When S-Flow mode is enabled, opening of a rear door to load luggage, etc. will disable S-Flow mode.

  To re-enable S-Flow mode, turn the S-Flow switch on the option screen to ON.

■ **Passenger detection conditions**

The detection of a rear seat passenger is made by the opening/closing of a rear door.

Once the system determines the presence of a rear seat passenger, it will not determine otherwise during that trip.

■ **To return to automatic airflow control**

1. With the indicator off, turn the engine switch off.
2. After 60 minutes or more elapse, turn the engine switch to ON.

Eco air conditioning mode

The air conditioning is controlled with low fuel consumption prioritized such as reducing fan speed, etc.

1 Select the option screen switch.

2 Select the [Eco Heat/Cool].

- In Eco drive mode, the air conditioning system is controlled as follows to prioritize fuel efficiency. To improve air conditioning performance, turn off Eco air conditioning mode.
  - Engine speed and compressor operation controlled to restrict heating/cooling capacity.
  - Fan speed restricted when automatic mode is selected.
- When the driving mode is set to Eco driving mode, the Eco air conditioning mode will be turned on automatically. Even in this case, the Eco air conditioning mode can be turned off by selecting the [Eco Heat/Cool].

Warming the interior quickly (Max heat)

When [Max heat] is turned on, in order to warm the interior quickly, the settings of the air conditioning system will be changed immediately.

1 Select the shortcut screen switch.

2 Select the [Max heat] switch.

- The temperature setting of the air conditioning system will be set to [Hi] and the [AUTO] switch will be turned on.
- Seat heaters will be set to Hi.
- Heated steering wheel will be set to Hi. (vehicles with heated steering wheel)
- In the following situations, the front passenger's side seat heater/seat ventilator will be set to [AUTO].
  - When [Climate concierge] is on

- When the system determines that a passenger is in the front passenger seat

● When the indicator on the [SYNC] switch is illuminated, the temperature setting for the front passenger's side will also be set to [Hi].

INFORMATION

■ [Max heat]

● The [Max heat] switch cannot be used to turn the setting off.

● After the [Max heat] switch has been operated, the temperature setting can be adjusted using the temperature control switches of the air conditioning system.

● When [Climate concierge] is on, if the [AUTO] switch is turned on, the seat heaters and seat ventilators of the front seats, and the heated steering wheel will be operated automatically according to the temperature setting.*

● Each function can also be adjusted to the desired setting.

Cooling the interior quickly (Max cool)

When [Max cool] is turned on, in order to cool the interior quickly, the settings of the air conditioning system will be changed immediately.

1 **Select the shortcut screen switch.**

2 **Select the [Max cool] switch.**

● The temperature setting of the air conditioning system will be set to [Lo] and the [AUTO] switch will be turned on.

● Seat ventilators will be set to Hi. (vehicles with seat ventilators)

● In the following situation, the heated steering wheel will be set to [AUTO]. (vehicles with heated steering wheel)

- When [Climate concierge] is on

● In the following situations, the front passenger's side seat heater/seat ventilator will be set to [AUTO] .

- When [Climate concierge] is on
- When the system determines that a passenger is in the front passenger seat

● When the indicator on the [SYNC] switch is illuminated, the temperature setting for the front passenger's side will also be set to [Lo] .

INFORMATION

■ [Max cool]

● The [Max cool] switch cannot be used to turn the setting off.

*: If equipped

- After the [**Max cool**] switch has been operated, the temperature setting can be adjusted using the temperature control switches of the air conditioning system.
- When [**Climate concierge**] is on, if the [**AUTO**] switch is turned on, the seat heaters and seat ventilators of the front seats, and the heated steering wheel will be operated automatically according to the temperature setting.*
- Each function can also be adjusted to the desired setting.

nanoe™ X*1*2 generator

A nanoe™ X generator is installed in this air conditioning system. This provides clean and refreshing air through the window side air of the driver's seat side vent by emitting nanoe™ X particles.*3

- When nanoe™ X is turned on, the nanoe™ X generator is automatically activated when the fan is turned on.
- The effects of nanoe™ X are maximized in the following conditions:
  - The upper body, upper body and feet, and feet vents are being used.
  - The driver side vent is open.
- When nanoe™ X particles are generated, a small amount of ozone is emitted so a faint odour may be detectable. This is approximately the same as the amount that already exists in nature, such as in forests, and it has no effect on the human body.
- A slight noise may be detectable during operation. It may take some time for operation to begin. A more noticeable noise may be detectable immediately upon the start of operation. This is not a malfunction.

⚠ WARNING

■ nanoe™ X generator

Do not disassemble or attempt to repair the nanoe™ X generator because it contains high voltage parts. Contact your Lexus dealer if the generator needs repair.

*: If equipped

*1: nanoe™ and the nanoe™ X mark are trademarks of Panasonic Holdings Corporation.

*2: nanoe™ X particles are nano-sized electrostatic atomised water particles that contain hydroxyl radicals, which have beneficial effects.

*3: According to temperature and humidity conditions, fan speed and direction of the air flow, the nanoe™ X generator may not operate at full capacity.

NOTICE

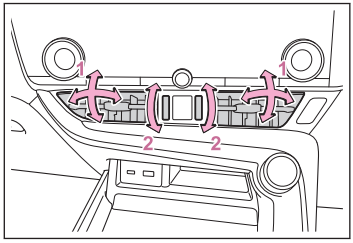
■ To prevent damage to the nanoe™ X generator

Do not insert anything into the driver's side vent, attach anything to it, or use sprays around it. These actions could cause the generator to malfunction.

Adjusting the position of and opening and closing the air outlets

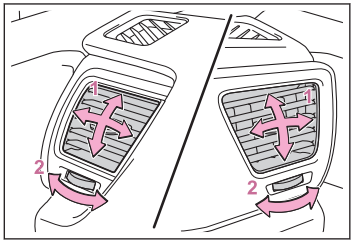
To adjust the position of and opening and closing the air outlets, perform the following operations:

▶ Front center



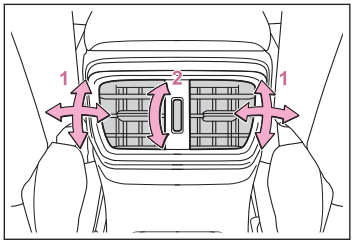
1 Direct air flow to the left or right, up or down
2 Turn the knob to open or close the vent

▶ Front side



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

▶ Rear



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

Heated steering wheel*

Warm up the grip of the steering wheel.

⚠ WARNING

Care should be taken if anyone in the following categories comes in contact with the steering wheel when the heater is on:

- Babies, small children, the elderly, the sick and the physically challenged
- Persons with sensitive skin
- Persons who are fatigued
- Persons who have taken alcohol or drugs that induce sleep (sleeping drugs, cold remedies, etc.)

⚠ NOTICE

Do not use the functions when the engine is off.

INFORMATION

■ Operating conditions

When the engine switch is ON.

Turn the steering heater ON/OFF

Select  on the center display.

Each time the switch is selected, the operation condition changes as follows.

AUTO→Hi (2 segments lit)→Lo (1 segment lit)→Off

The level indicator (red) lights up during operation. [AUTO] indicator lights up during automatic operation.

INFORMATION

■ Customization

The temperature setting of the heated steering wheel can be set through [**Vehicle customise**] on the center display.

*: If equipped

Seat heaters

Warm up the seat upholstery.

⚠ WARNING

■ To prevent minor burn injuries

Care should be taken if anyone in the following categories comes in contact with the seats when the heater is on:

- Babies, small children, the elderly, the sick and the physically challenged
- Persons with sensitive skin
- Persons who are fatigued
- Persons who have taken alcohol or drugs that induce sleep (sleeping drugs, cold remedies, etc.)

■ To prevent causes of overheating and minor burn injuries

Observe the following precautions when using a seat heater:

- Do not cover the seat with a blanket or cushion when using the seat heater.
- Do not use seat heater more than necessary.

⚠ NOTICE

■ To prevent damage to the seat heaters

Do not put heavy objects that have an uneven surface on the seat and do not stick sharp objects (needles, nails, etc.) into the seat.

■ To prevent battery discharge

Do not use the functions when the engine is off.

INFORMATION

■ Operating conditions

The engine switch is in ON.

Turn the front seat heaters ON/OFF

Select  or  on the center display.

Each time the switch is selected, the operation condition changes as follows.

AUTO → Hi (3 segments lit) → Mid (2 segments lit) → Lo (1 segment lit) → Off

The level indicator (yellow) lights up during operation.

The level indicator (red) lights up during operation. [AUTO] indicator lights up during automatic operation.

INFORMATION

Customization

The temperature setting of the seat heaters of the front seats can be set through [**Vehicle customise**] on the center display.

Seat ventilators

Using fans inside the seats, improved ventilation can be provided at the surface of the seats.

NOTICE

■ To prevent damage to the seat ventilators

Do not put heavy objects that have an uneven surface on the seat and do not stick sharp objects (needles, nails, etc.) into the seat.

■ To prevent battery discharge

Do not use the functions when the engine is off.

INFORMATION

■ Operating conditions

The engine switch is in ON.

Turn the seat ventilators (front) ON/OFF

Select  or  on the center display.

Each time the switch is selected, the operation condition changes as follows.

Hi (3 segments lit) → Mid (2 segments lit) → Lo (1 segment lit) → Off

The level indicator (blue) lights up during operation. [AUTO] indicator lights up during automatic operation.

INFORMATION

■ Air conditioning system-linked control mode

When a seat ventilator is set to Hi, the fan speed of the seat ventilator may increase according to the fan speed of the air conditioning system.

■ Customization

The fan speed setting of the seat ventilators can be set through [**Vehicle customise**] on the center display.

Using the moon roof*

For comfortable cabin experience, the moon roof can be opened or tilted up.

⚠ WARNING

Observe the following precautions.

- 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.
- The driver is responsible for moon roof opening and closing operations. In order to prevent accidental operation, especially by a child, do not let a child operate the moon roof. It is possible for children and other passengers to have body parts caught in the moon roof.
- Make sure that all passengers do not have any part of their body in a position where it could be caught when the moon roof is being operated.
- When using the wireless remote control or mechanical key to operate the moon roof, operate the moon roof after making sure that there is no possibility of any passenger having any of their body parts caught in the moon roof.

  Also, do not let a child operate moon roof with the wireless remote control or mechanical key. It is possible for children and other passengers to get caught in the moon roof.
- If a child is riding in the vehicle, when exiting the vehicle, turn the engine switch off, carry the key and exit the vehicle along with the child. If a child is left in the vehicle, they may accidentally operate the moon roof, due to mischief, etc., possibly leading to an accident.

INFORMATION

■ Operating conditions of the moon roof

The engine switch is in ON.

■ Operating the moon roof after turning the engine off

The moon roof can be operated for approximately 45 seconds after the engine switch is turned to ACC or OFF.

They cannot, however, be operated once either front door is opened.

■ Using the voice control system*

The moon roof can be opened/closed using the voice control system.

For details, refer to the "Multimedia Owner's Manual".

*: If equipped

Sunshade

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

Related Links

Moon roof(P. 654)

Power windows and moon roof or panoramic moon roof (P. 653)

Functions which aid in safe opening and closing of the moon roof

The following functions aid in safe opening and closing of the moon roof.

- Jam protection function

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

- Moon roof open warning buzzer

  The buzzer sounds and a message is shown on the multi-information display in the instrument cluster when the engine switch is turned off and the driver's door is opened with the moon roof open.

⚠ WARNING

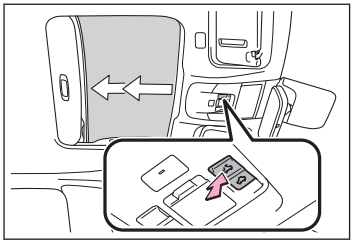
Jam protection function

- Never use any part of your body to intentionally activate the jam protection function.
- The jam protection function may not operate if something gets caught just before the moon roof is fully closed.

  Also, the jam protection function is not designed to operate while the moon roof switch is being pressed.

  Take care so that your fingers, etc. do not get caught.

Opening the moon roof

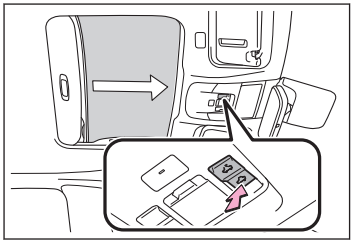


Press the switch.*1

The moon roof stops slightly before the fully open position to reduce wind noise.

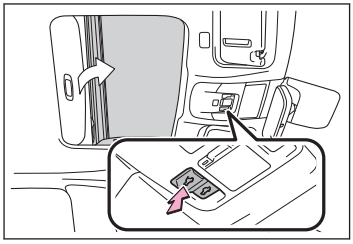
Closing the moon roof

Press the switch.*2



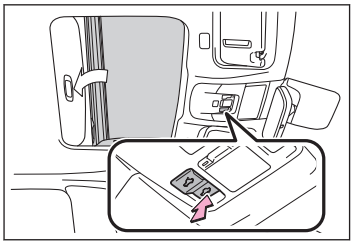
Tilting up the moon roof

Press the switch.*3



Tilting down the moon roof

Press the switch.*4



*1: Lightly press either end of the moon roof switch to stop the moon roof while it is operating.

*2: Lightly press either end of the moon roof switch to stop the moon roof while it is operating.

*3: Lightly press either end of the moon roof switch to stop the moon roof while it is operating.

*4: Lightly press either end of the moon roof switch to stop the moon roof while it is operating.

Using the panoramic moon roof*

For comfortable cabin experience, the panoramic moon roof can be opened or tilted up.

⚠ WARNING

Observe the following precautions when opening and closing the panoramic moon roof.

- The driver is responsible for panoramic moon roof opening and closing operations. In order to prevent accidental operation, especially by a child, do not let a child operate the panoramic moon roof. It is possible for children and other passengers to have body parts caught in the panoramic moon roof.
- Make sure that all passengers do not have any part of their body in a position where it could be caught when the panoramic moon roof is being operated.
- When using the wireless remote control or mechanical key to operate the panoramic moon roof, operate the panoramic moon roof after making sure that there is no possibility of any passenger having any of their body parts caught in the panoramic moon roof.

  Also, do not let a child operate panoramic moon roof with the wireless remote control or mechanical key. It is possible for children and other passengers to get caught in the panoramic moon roof.
- If a child is riding in the vehicle, when exiting the vehicle, turn the engine switch off, carry the key and exit the vehicle along with the child. If a child is left in the vehicle, they may accidentally operate the panoramic moon roof, due to mischief, etc., possibly leading to an accident.

INFORMATION

■ Operating conditions of the panoramic moon roof

The engine switch is in ON.

■ Operating the panoramic moon roof after turning the engine off

The panoramic moon roof can be operated for approximately 45 seconds after the engine switch is turned to ACC or OFF.

They cannot, however, be operated once either front door is opened.

■ Using the voice control system*

The panoramic moon roof can be opened/closed using the voice control system.

For details, refer to the "Multimedia Owner's Manual".

*: If equipped

Related Links

Power windows and moon roof or panoramic moon roof (P. 653)

Functions which aid in safe opening and closing of the panoramic moon roof

The following functions aid in safe opening and closing of the panoramic moon roof.

- Jam protection function

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

- Panoramic moon roof open warning buzzer

  The buzzer sounds and a message is shown on the multi-information display in the instrument cluster when the engine switch is turned off and the driver's door is opened with the panoramic moon roof open.

⚠ WARNING

■ Jam protection function

- Never use any part of your body to intentionally activate the jam protection function.
- The jam protection function may not operate if something gets caught just before the panoramic moon roof is fully closed.

  Also, the jam protection function is not designed to operate while the moon roof switch is being pressed.

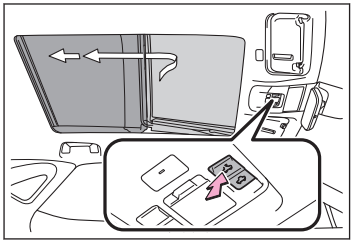
  Take care so that your fingers, etc. do not get caught.

Opening the panoramic moon roof

Press the switch.*1

Press the switch. The panoramic moon roof and electronic sunshade will open automatically.

The panoramic moon roof can be opened from the tilt-up position.



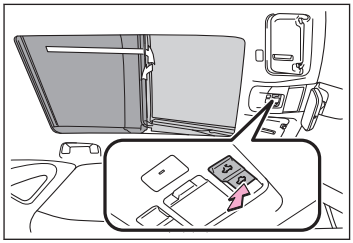
*1: Lightly press either end of the panoramic moon roof switch to stop the panoramic moon roof while it is operating.

Closing the panoramic moon roof

Press the switch.*1

The panoramic moon roof can be opened from the tilt-up position.

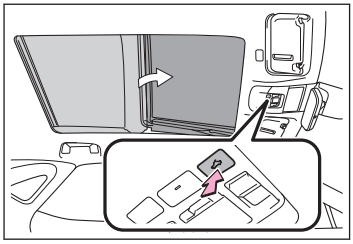
Press the switch forward. The panoramic moon roof will fully close automatically.



Tilting up the panoramic moon roof

Press the switch.*2

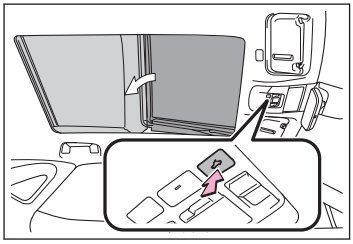
When the panoramic moon roof is tilted up, the electronic sunshade will open to the half-open position of the roof.



Tilting down the panoramic moon roof

Press and hold the switch.

The panoramic moon roof can be tilted down only when it is in the tilt-up position.



*1: Lightly press either end of the panoramic moon roof switch to stop the panoramic moon roof while it is operating.

*2: Lightly press either end of the panoramic moon roof switch to stop the panoramic moon roof while it is operating.

Opening and closing the electronic sunshade*

For comfortable cabin experience, the electronic sunshade can be opened.

⚠ WARNING

Observe the following precautions when opening and closing the electronic sunshade.

- Make sure that all passengers do not have any part of their body in a position where it could be caught when the electronic sunshade is being operated.
- Do not allow children to operate the electronic sunshade. Closing the electronic sunshade on someone can cause death or serious injury.
- Keep fingers free of the gaps between the underside of the roof and the electronic sunshade.

  Otherwise a hand may become pinched, possibly causing injury. Also, if the vehicle is left in direct sunlight for a long time, the underside of the roof could be very hot and possibly cause burns.

INFORMATION

■ Operating conditions of the electronic sunshade

The engine switch is in ON.

■ Operating the electronic sunshade after turning the engine off

The electronic sunshade can be operated for approximately 45 seconds after the engine switch is turned to ACC or OFF.

They cannot, however, be operated once either front door is opened.

Functions which aid in safe opening and closing of the electronic sunshade

The following function aid in safe opening and closing of the electronic sunshade.

Jam protection function

If an object is detected between the electronic sunshade and the frame while the electronic sunshade is closing, travel is stopped and the electronic sunshade opens slightly.

When the jam protection function has operated, even if the side of the switch is pressed again, the electronic sunshade will not move in the close direction until the reverse operation has stopped completely.

Depending on the driving conditions and the surroundings, the electronic sunshade may collide with something and operate in reverse.

*: If equipped

⚠ WARNING

- Never use any part of your body to intentionally activate the jam protection function.
- The jam protection function may not work if something gets caught just before the electronic sunshade fully closes.

  Also, the jam protection function is not designed to operate while the moon roof switch is being pressed.

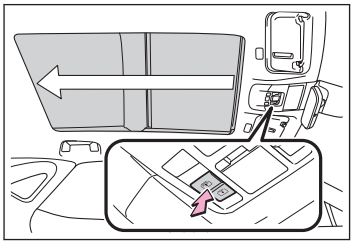
  Take care so that your fingers, etc. do not get caught.

Opening the electronic sunshade

Press the switch.

The electronic sunshade will open.

If the switch is pressed and held, the electronic sunshade will fully open automatically.*1

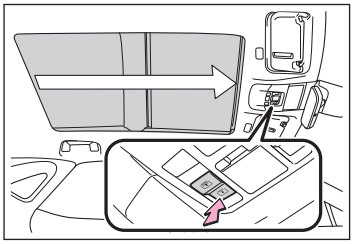


Closing the electronic sunshade

Press the switch.

The electronic sunshade will close.

If the switch is pressed and held, the electronic sunshade will fully close automatically.*2

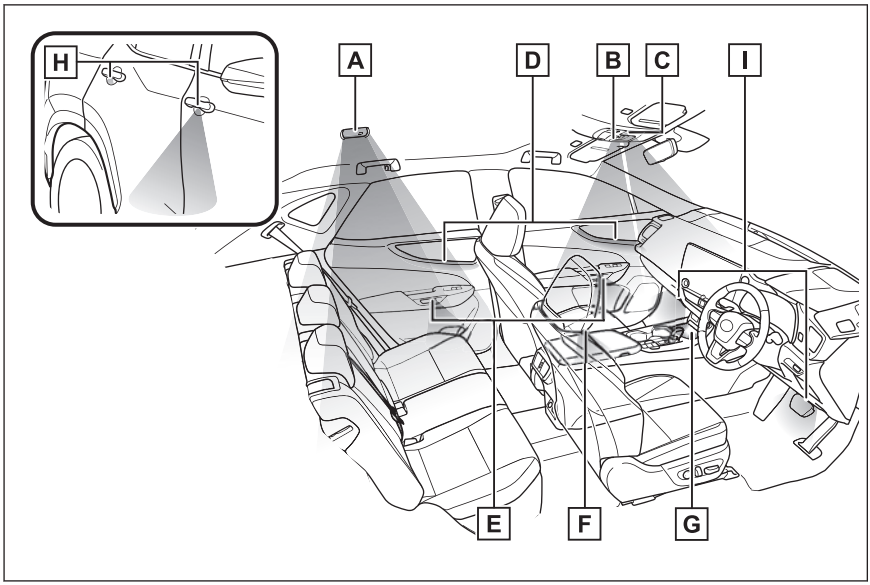


*1: Lightly press either end of the switch to stop the electronic sunshade while it is operating.

*2: Lightly press either end of the switch to stop the electronic sunshade while it is operating.

Using the interior lights

Location of the interior lights



A Rear interior light
B Front interior light
C Personal lights
D Door trim ornament lights*
E Inside door handle lights*1
F Door courtesy lights
G Center console light*1
H Outside door handle lights
I Footwell lights*1

When the engine switch is in ON, the door trim ornament lights, inside door handle lights, center console light, footwell lights will turn on. However, if the instrument panel light control switch is turned to minimum, the footwell lights will turn off.

*: If equipped

*1: The illumination color can also be changed.

INFORMATION

Each lights automatic on/off

- Illuminated entry system: The lights automatically turn on/off according to engine switch mode, the presence of the electronic key, whether the doors are locked/unlocked, and whether the doors are opened/closed.
- If the interior lights remain on when the engine switch is turned off, the lights will go off automatically after 20 minutes.

Automatic illumination of the interior lights

If any of the SRS airbags deploy (inflate) or in the event of a strong rear impact, the interior lights will turn on automatically. The interior lights will turn off automatically after approximately 20 minutes.

The interior lights can be turned off manually. However, in order to help prevent further collisions, it is recommended that they be left on until safety can be ensured. (The interior lights may not turn on automatically depending on the force of the impact and conditions of the collision.)

Using the voice control system*

The following operations can be performed using the voice control system:

- Turning interior light on/off
- Changing color of each lights

For details, refer to the"Multimedia Owner's Manual".

NOTICE

Removing light lenses

Never remove the lens for the front interior light and personal lights. Otherwise, the lights will be damaged. If the lens need to remove, contact your Lexus dealer.

To prevent battery discharge

Do not leave the lights on longer than necessary when the engine is off.

Related Links

Illumination(P. 664)

*: If equipped

Interior lights

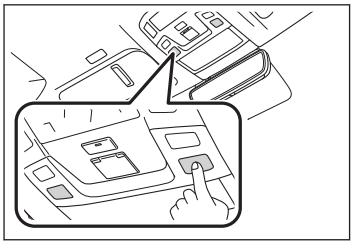
INFORMATION

The front interior lights may not operate normally when

The front interior lights may not operate normally in the following situations:

- When water, dirt, etc., have adhered to the lens surface
- When operated with a wet hand
- When wearing gloves, etc.

Turning the interior lights on/off



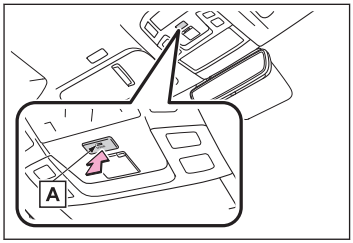
Touch the light.

The front interior light will turn on/off each time it is touched.

The rear interior light will also turn on/off.

However, when the rear interior light has already been turned on, it will not be controlled by front interior light operations.

Linking the opening/closing of the doors to the front interior light operation



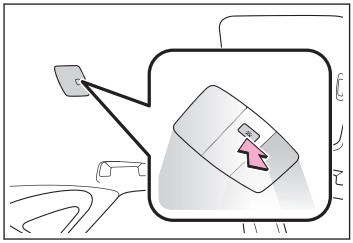
Press the DOOR switch.

The link between the front interior light operation and doors will change between ON/OFF each time the DOOR switch is pressed.

The operation of the rear interior lights will also be linked to the opening/closing of the doors.

When the door link is turned on, the indicator A will illuminate.

Turning the rear interior light on/off



Press the switch.

The rear interior light will turn on/off each time the switch is pressed.

Operation of the rear interior light is linked to the turning on/off of the front interior light.

When the rear interior light has been turned on by front interior light operation, the rear interior light cannot be turned off by pressing the switch.

Personal lights

INFORMATION

The personal lights may not operate normally when

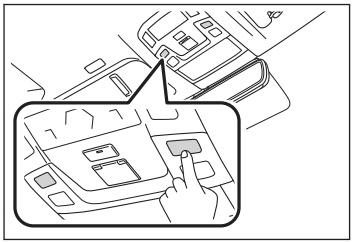
The personal lights may not operate normally in the following situations:

- When water, dirt, etc., have adhered to the lens surface
- When operated with a wet hand
- When wearing gloves, etc.

Using the personal lights

Touch the light.

The personal lights will turn on/off each time they are touched.

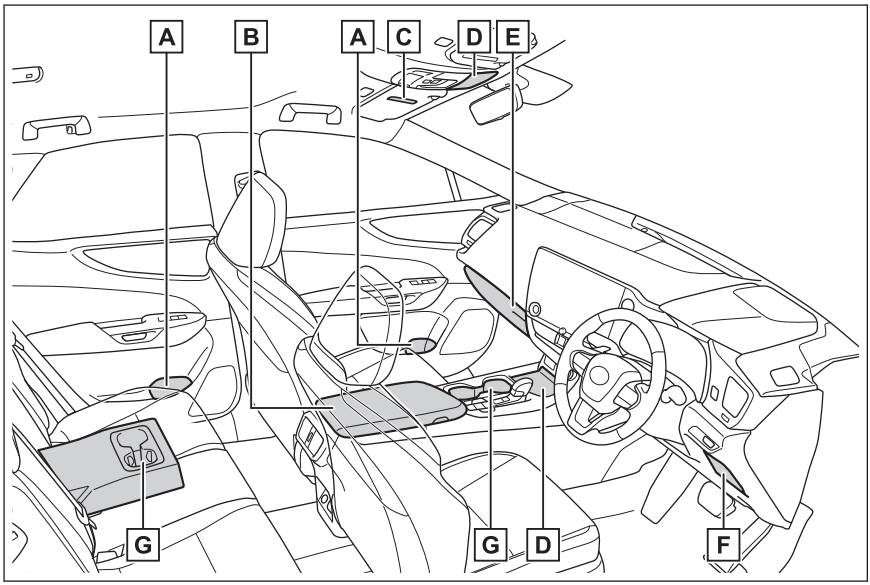


Location of the storage features

⚠ WARNING

Do not leave eyeglasses, lighters or spray cans in the storage spaces, as the following may occur when cabin temperature becomes high:

- Eyeglasses may be deformed by heat or cracked if they come into contact with other stored items.
- Lighters or spray cans may explode. If they come into contact with other stored items, a lighter may catch fire or a spray can may release gas, causing a fire hazard.



A Bottle holders
B Console box
C Card holders
D Auxiliary boxes
E Glove box
F Coin box
G Cup holders

INFORMATION

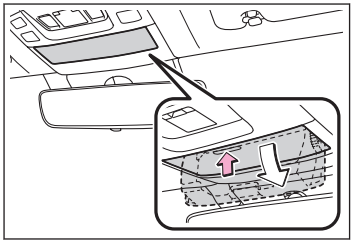
■ Glove box light and console box light

The glove box light and the console box light turn on when the tail lights are on.

Using the auxiliary boxes

Press in the lid.

▶ **Type A**



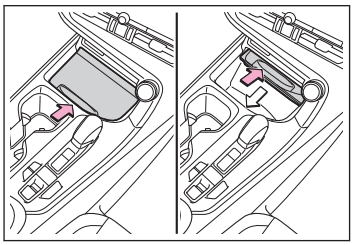
⚠ WARNING

- Do not store items heavier than 200 g (0.44 lb.). Doing so may cause the auxiliary box to open and the items inside may fall out, resulting in an accident.
- When driving or when the auxiliary box is not in use, keep the lid closed. In the event of sudden braking or sudden swerving, an accident may occur due to an occupant being struck by the items stored inside.

Push the lid.

To close, press in and release the lid.

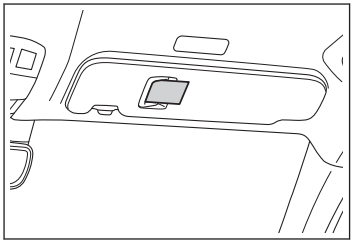
▶ **Type B**



⚠ WARNING

When driving or when the auxiliary box is not in use, keep the lid closed. In the event of sudden braking or sudden swerving, an accident may occur due to an occupant being struck by the items stored inside.

Location of the card holders



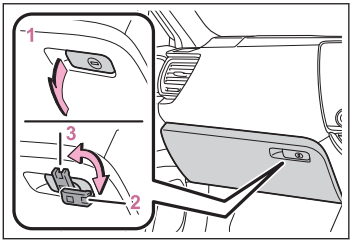
Using the glove box

⚠ WARNING

When driving or when the glove box is not in use, keep it closed.

If left open, in the event of sudden braking or swerving, the front passenger may strike the glove box lid or stowed items may fly out, possibly leading to an accident.

To open the glove box, pull the lever. The glove box can be locked and unlocked using the mechanical key.



1 To open the glove box, pull the lever.
2 Lock with the mechanical key.
3 Unlock with the mechanical key.

INFORMATION

■ Glove box light

The glove box light turns on when the tail lights are on.

Use the cup holders

⚠ WARNING

- Do not place anything other than cups or aluminum cans in the cup holders.

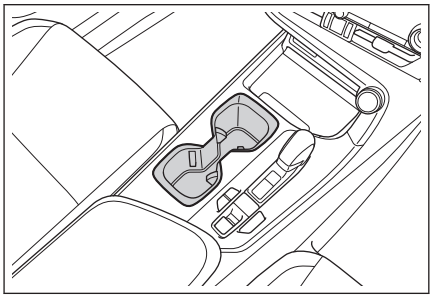
  Other items may be thrown out of the holders in the event of an accident or sudden braking, causing injury.

⚠ WARNING

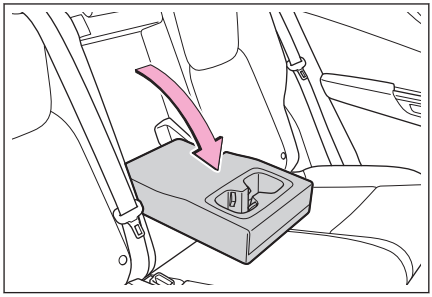
If possible, cover hot drinks to prevent burns.

- Depending on the shape of the container installed in the cup holder, nearby switch buttons may be touched by it, unintentionally operating the switch.

▶ **Front**



▶ **Rear**



Pull down the armrest.

Locations of the bottle holders

⚠ NOTICE

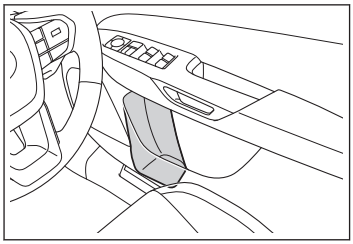
When using a bottle holder, observe the following precautions.

- Do not place open bottles, glass cups, or paper cups containing liquid in the bottle holders.

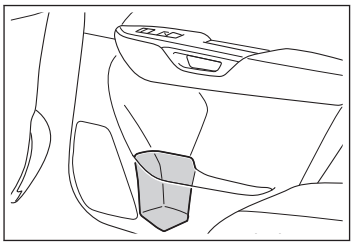
  The liquid may spill out and glass cups may break.

- When storing a bottle, close the cap.

▶ **Front**



▶ **Rear**



INFORMATION

■ Bottle holders

A bottle may not be able to be stored depending on its size or shape.

Using the console box

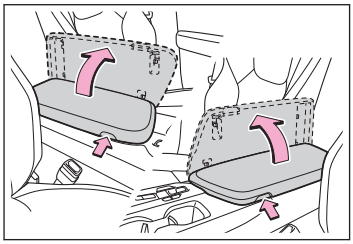
⚠ WARNING

When driving or when the console box is not in use, keep it closed.

If left open, in the event of sudden braking or swerving, an occupant may strike the console box lid or stowed items may fly out, possibly leading to an accident.

To open the console box, press the button and lift the lid.

The console box can be opened from either side.



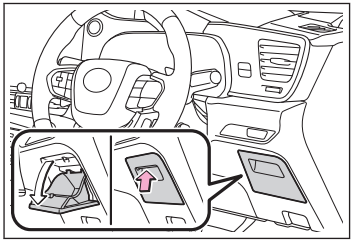
INFORMATION

Console box light

The console box light turns on when the tail lights are on.

Using the coin box

Push the knob up to open the lid.



WARNING

When driving or when the coin box is not in use, keep it closed.

If left open, in the event of sudden braking or sudden swerving, the driver may strike the coin box lid or stowed items may fly out, possibly leading to an accident.

Convenient interior features

Function and operation of the USB charging port

⚠ NOTICE

■ To prevent damage to the USB charging ports

- Do not insert foreign objects into the ports.
- Do not spill water or other liquids into the ports.
- Rear console: When the USB charging ports are not in use, close the lids. If a foreign object or liquid enters a port may cause a short circuit.
- Do not apply excessive force to or impact the USB charging ports.
- Do not disassemble or modify the USB charging ports.

■ To prevent damage to external devices

- Do not leave external devices in the vehicle. The temperature inside the vehicle may become high, resulting in damage to an external device.
- Do not push down on or apply unnecessary force to an external device or the cable of an external device while it is connected.

■ To prevent battery discharge

Do not use the USB charging ports for a long period of time with the engine stopped.

The USB charging ports are used to supply 3.0 A of electricity at 5 V to external devices.

The USB charging ports are for charging only. They are not designed for data transfer or other purposes.

Depending on the external device, it may not charge properly. Refer to the manual included with the device before using a USB charging port.

INFORMATION

■ The USB charging ports can be used when

The engine switch is in ACC or ON mode.

■ Situations in which the USB charging ports may not operate correctly

- If a device which consumes more than 3.0 A at 5 V is connected.
- If a device designed to communicate with a personal computer, such as a USB memory device, is connected
- If the connected external device is turned off (depending on device)

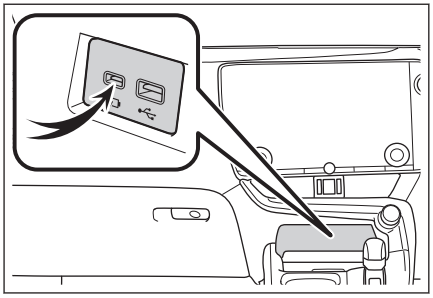
- If the temperature inside the vehicle is high, such as after the vehicle has been parked in the sun

About connected external devices

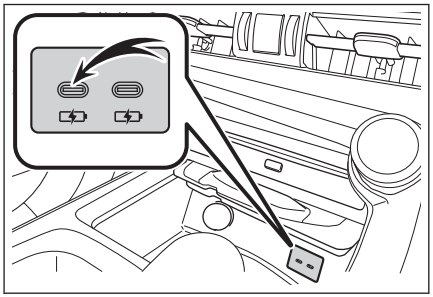
Depending on the connected external device, charging may occasionally be suspended and then start again. This is not a malfunction.

Use the USB charging port

▶ **Instrument panel (TypeA)**

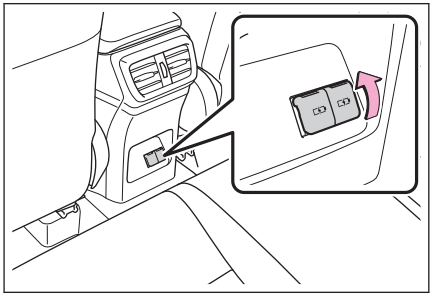


▶ **Instrument panel (TypeB)**



Open the lid.

▶ **On the rear console**



Open the lid.

Function and operation of the power outlet (12 VDC)

NOTICE

To prevent damage to the power outlet (12 VDC)

- Do not insert foreign objects into the ports.
- Do not spill water or other liquids into the ports.
- When the power outlets (12 VDC) are not in use, close the lids. If a foreign object or liquid enters a port may cause a short circuit.
- Do not apply excessive force to or impact the power outlets (12 VDC) ports.

To prevent battery discharge

Do not use the power outlets (12 VDC) for a long period of time with the engine stopped.

The power outlet can be used to supply power for devices which operate on 12 VDC at less than 10A (power consumption of 120 W).

When connecting multiple devices, make sure that the total power consumption of all the connected devices is less than 120 W.

INFORMATION

The power outlet can be used when

The engine switch is in ACC or ON.

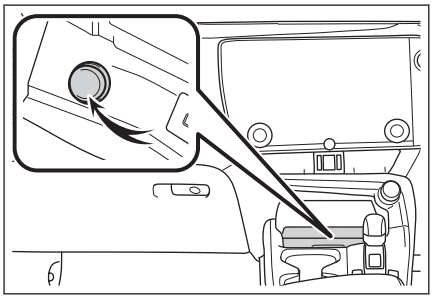
When turning the engine switch off

Disconnect electrical devices with charging functions, such as mobile battery packs.

If such devices are left connected, the engine switch may not be turned off normally.

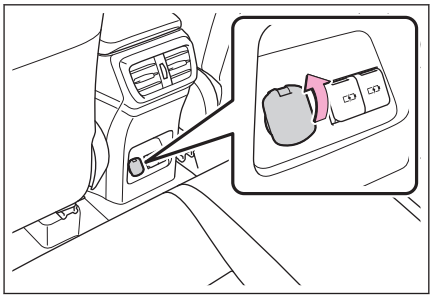
Using the accessory sockets (12 VDC)

▶ **Instrument panel**



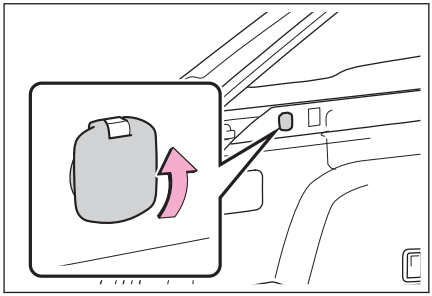
Remove the cap.

▶ On the rear console



Open the lid.

▶ In the luggage compartment



Open the lid.

Function and operation of the wireless charger*

A portable device, such as a smartphone or mobile battery, can be charged by just placing it on the charging area, provided the device is compatible with the Qi wireless charging standard created by the Wireless Power Consortium. The compatible portable devices can be found on the following Wireless Power Consortium website. https://www.wirelesspowerconsortium.com/

The wireless charger cannot be used with a portable device that is larger than the charging tray. Additionally, depending on the portable device, the wireless charger may not operate properly. Refer to the operation manual of the portable device.

⚠ WARNING

■ Caution while driving

When charging a portable device while driving, for safety reasons, the driver should not operate the portable device.

*: If equipped

⚠ WARNING

Precautions for when driving

Do not charge small, lightweight portable devices, such as wireless earbuds, while driving. Lightweight devices may fly off of the charging tray, possibly leading to an accident.

Caution regarding interference with electronic devices

People with implantable cardiac pacemakers, cardiac resynchronization therapy pacemakers or implantable cardioverter defibrillators, as well as any other electrical medical device, should consult their physician about the usage of the wireless charger.

Operations of the wireless charger may have an affect on medical devices.

To prevent damage or burns

Observe the following precautions.

Failure to do so may result in the possibility of fire, equipment failure or damage, or burns due to heat.

- Do not put any metallic objects between the charging area and the portable device while charging.
- Do not attach metallic objects, such as aluminum stickers, to the charging area.
- Do not charge portable devices with aluminum stickers or other metallic objects attached to the side which touches the charging area.
- Do not store items on the wireless charger instead of in an auxiliary box.
- Do not apply force or impact to the wireless charger.
- Do not disassemble, modify or remove the wireless charger.
- Do not attempt to charge portable devices which are not compatible with the Qi wireless charging standard.
- Do not allow magnetic objects to come near the wireless charge
- Do not perform charging if the charging area is dirty
- Do not cover the wireless charger with a cloth or other object while charging.

⚠ NOTICE

Preventing malfunction and corruption of data

- Do not place magnetic cards, such as a credit card, or magnetic recording media, close to the wireless charger while charging. Otherwise, data may be erased due to the influence of magnetism. Additionally, do not bring precision instruments such as wrist watches, close to the wireless charger, as such objects may malfunction.
- Do not perform charging with a contactless smart card, such as a transportation system IC card, between the charging surface of a portable device and the charging

NOTICE

area. The IC chip in the card may become extremely hot, possibly damaging the portable device or smart card.

Be extra careful to not charge a portable device with a case or cover which a contactless smart card can be inserted.

- Do not leave portable devices in the vehicle. The temperature inside the vehicle may become high, when in direct sunlight, possibly damaging the device.

To prevent battery discharge

Do not use the wireless charger for a long period of time with the engine stopped.

INFORMATION

The wireless charger can be operated when

The engine switch is in ACC or ON.

Portable devices that can be charged

- Portable devices compatible with the Qi wireless charging standard can be charged by the wireless charger. However, compatibility with portable devices that comply with Qi Ver. 1.0, 1.3.2 and later versions is not guaranteed.
- The wireless charger is designed to supply low power electricity (5 W or less) to a cellular phone, smartphone, or other portable device.

  However, portable devices, such as the following, can be charged with more than 5 W.

  - 7.5 W charging compatible iPhones can be charged at 7.5 W or less.
  - Charging at 10 W or less is supported by Galaxy device that support 10 W charging of original standard.
  - Portable devices compliant with EPP output as defined by WPC standard Ver1.3.2. can be charged at 15 W or less.

Using the smart entry & start system

During charging, when the smart entry & start system searches for an electronic key, charging may be temporarily suspended.

If a cover or accessory is attached to the portable device

Do not charge a portable device if a cover or accessory which is not Qi compatible is attached.

Depending on the type of cover (including the certain genuine manufacture parts) and/or accessory attached, it may not be possible to charge the portable device. If the portable device is placed on the charging area and does not charge, remove the cover and/or accessories.

Charging precautions

- If the electronic key cannot be detected within the vehicle interior, charging can not be done. When the door is opened and closed, charging may be temporarily suspended.
- While charging, the wireless charger and the portable device will become warm. This is not a malfunction. If a portable device becomes warm while charging and charging stops due to the protection function of the portable device, wait until the portable device cools down and charge it again. Also, to decrease the temperature inside the wireless charger, a fan may operate. This does not indicate a malfunction.

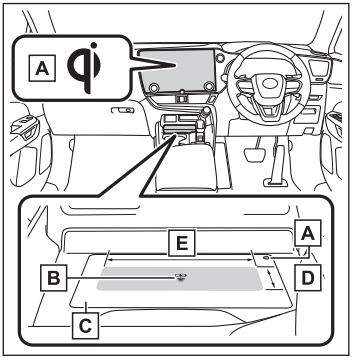
Sound generated during operation

Operation sounds may be heard when the engine switch is pressed to change to ACC or ON, or when a portable device is being detected. This does not indicate a malfunction.

"Qi" symbol

The "Qi" logo is a trademark of the Wireless Power Consortium.

Names of the parts of the wireless charger



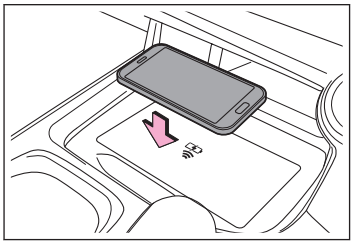
A Operation indicator light
B Charging area*1
C Charging tray
D Approximately 2.5 cm (1.0 in.)
E Approximately 10 cm (3.9 in.)

*1: The charging coil in the wireless charger can be moved within the charge area up to the position of the charging coil inside a portable device. Charging is possible if the center of the coil of the portable device is placed within the charge area.

Additionally, if 2 or more portable devices are placed on the charging tray at the same time, each charging coil may not be detected correctly and charging may not be possible.

Use the wireless charger

● **Place the portable device on the wireless charger.**



Place the charging side of the portable device down with the center of the device in the center of the charge area.

When charging, the operation indicator light (orange) on the wireless charger comes on.

Refer to "Situations in which the wireless charger may not operate correctly"(→P.260) when charging is not performed.

When charging is complete, the operation indicator light (green) on the wireless charger comes on.

INFORMATION

■ Recharging function

- If a certain amount of time has elapsed since charging completed and the portable device has not been moved, the wireless charger will restart charging.
- If a portable device is moved significantly within the charging area, the charging coil may disconnect and charging may temporarily be stopped. However, if a charging coil is detected within the charging area, the charging coil inside the wireless charger will move near the other coil and charging will resume.

■ Rapid charging function

The following portable devices support rapid charging.

- Portable devices compliant with WPC Ver1.3.2 and compatible with rapid charging
- iPhone's with an iOS version that supports 7.5 W charging (iPhone 8 and later models)
- Portable devices compatible with Galaxy original rapid charging standard.

When a portable device that supports rapid charging is charged, charging automatically switches to the rapid charging function.

■ AM radio broadcast linked function during charging

- During charging, if noise occurs when listening to the AM radio, the charging frequency is automatically changed to reduce the noise.
- When automatically seeking AM radio stations, charging will be suspended to prevent charging noise from being detected as a radio station. Charging will resume automatically when seek tuning is stopped.

Situations in which the wireless charger may not operate correctly

In the following situations, the wireless charger may not operate correctly:

- When a portable device is fully charged
- When a portable device is being charged by a wired connection.
- When there is a foreign object between the charging area and portable device
- When the temperature of a portable device becomes high while charging
- When the temperature near the charging tray is 35°C (95°F) or more due to being in direct sunlight, etc.
- When a portable device is placed with its charging surface facing up
- The small portable device such as foldable type is placed in an area misaligned from the charge area
- When a portable device is larger than the charging tray
- When the vehicle is near a TV tower, electric power plant, fuel station, radio station, large display, airport, or other facility that generates strong radio waves or electrical noise
- The electronic key is not inside the vehicle
- When the any of the following objects are between or attached to a portable device and cause a gap of 2 mm (0.08 in.) or more between the charging surface of a portable device and the charging area:
  - Thick cases or covers
  - Thick decorations
  - Cases or covers which the charging surface is not flat, but is grooved or changes in thickness
  - Accessories, such as finger rings, straps, etc.
- When there is a gap between the charging side of the portable device and the charge area due to a protrusion such as a camera on the charging side of the portable device.
- When the portable device is in contact with, or is covered by any of the following metallic objects:
  - Cards covered with metal, such as aluminum foil
  - Cigarette boxes that have aluminum foil inside
  - Metallic wallets or bags
  - Coins
  - Heat packs
  - Recorded media such as CDs and DVDs

- Metallic decorations
- Metallic cases or covers
- Casing which has magnet in it on the charging side of the portable device

● When wireless keys (that emit radio waves) other than those of your vehicle are being used nearby

● When 2 or more portable devices are placed on the charging tray at the same time

● If a portable device built in S-pen (Galaxy "Note" series etc.) used, a portable device that inserted S-pen is placed on the tray

In situations other than above, if the wireless charger does not operate properly or the operation indicator light blinks continuously, the wireless charger may be malfunctioning.

Contact your Lexus dealer.

■ If the smartphone OS has been updated

If the smartphone OS has been updated to a newer version, its charging specifications may have changed significantly. For details, check the information on the manufacturer's website.

Wireless charger operation indicator light status

The operation indicator light of the wireless charger indicates the operating state of the wireless charger as follows:

Operation indicator light		State
Charging tray	Center display	
Turning off	Disappear	When power for Multimedia is off or the engine switch is off
Green (comes on)	Gray	On Standby (charging possible state)(1)
		When charging is complete(2)
Orange (comes on)	Blue	Charging

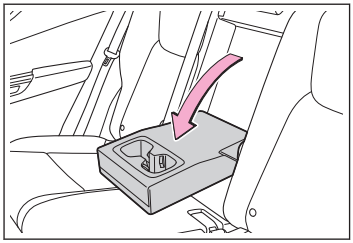
(1) Charging power will not be output during standby. A metallic object will not be heated, if it is placed on the wireless charger in this state.

(2) Depending on the portable device, there are cases where the operation indicator light will continue being lit up orange even after the charging is complete.

Using the armrest

⚠ NOTICE

Do not apply excessive load to the armrest. Doing so may damage the armrest.



● Fold down the armrest for use.

Assist grip functions and operation

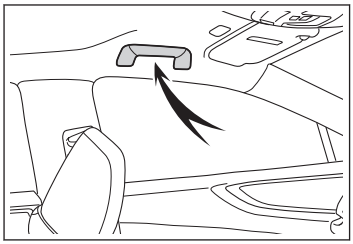
⚠ WARNING

Do not use the assist grip when getting in or out of the vehicle or rising from your seat.

⚠ NOTICE

Do not hang any heavy object or put a heavy load on the assist grip.

An assist grip installed on the ceiling can be used to support your body while sitting on the seat.

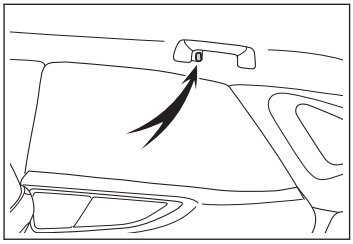


Locations of coat hooks

⚠ WARNING

Do not hang coat hangers or other hard or sharp objects on the hook. If the SRS curtain shield airbags deploy, these items may become projectiles, causing death or serious injury.

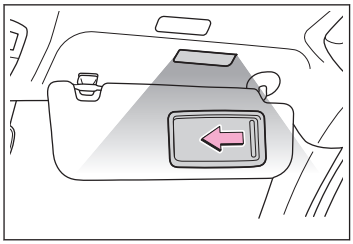
The coat hooks are provided with the rear assist grips.



Using the vanity mirrors

● Slide the cover to open.

The vanity light turns on when the cover is opened.



⚠ NOTICE

Do not leave the vanity lights on longer than necessary with the engine stopped. Doing so may lead to the battery becoming discharged.

INFORMATION

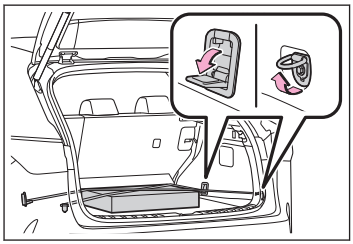
■ Automatic light off function

When the engine switch is off, if the vanity lights are turned on, they will be turned off automatically after 20 minutes.

Using the cargo hooks

The cargo hooks are provided for securing loose items.

● Raise the hook to use.



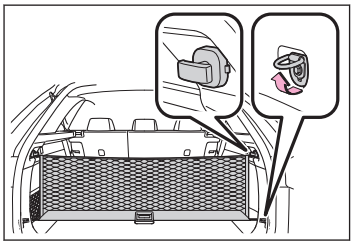
⚠ WARNING

To avoid injury, when the cargo hooks are not in use, make sure to return them to their stowed position.

Using the cargo net hooks

The cargo net can be hung using the cargo net hooks.

● **Raise the hook to use.**

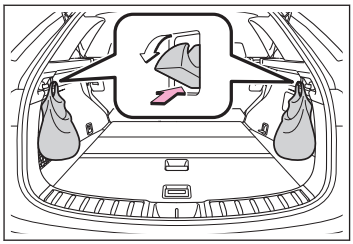


⚠ WARNING

To avoid injury, when the cargo net hooks are not in use, make sure to return them to their stowed position.

Using the grocery bag hooks

● Push the grocery back hook to use.



⚠ NOTICE

Do not hang objects heavier than 4 kg (8.8 lb.) on the grocery bag hooks.

Doing so may damage the grocery bag hook.

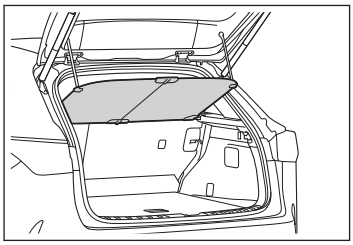
Deck board

Opening the deck board

⚠ WARNING

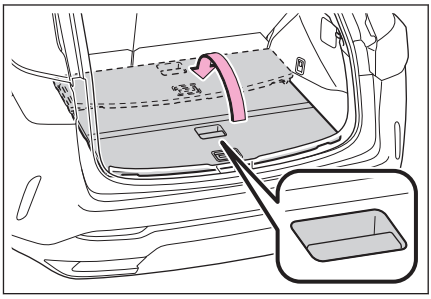
If a deck board has been opened or removed, return it to its original position before driving. Otherwise, in the event of sudden braking or an accident, a deck board or stored items may fly out and strike an occupant.

1 Open the back door.

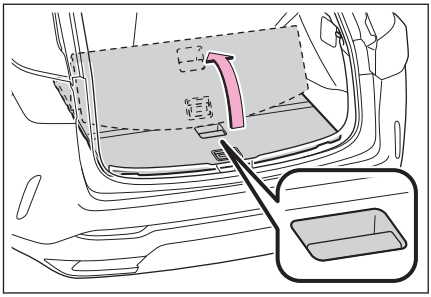


2 Open the deck board.

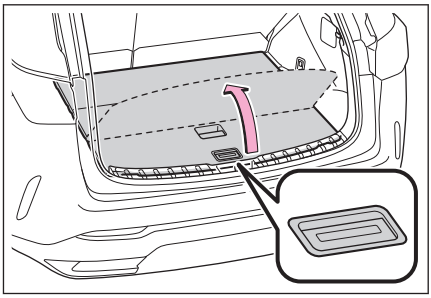
▶ **Pattern A**



▶ **Pattern B**



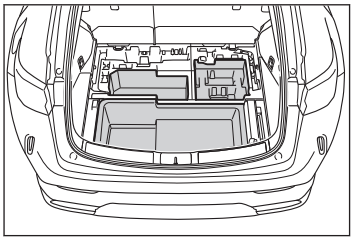
▶ **Pattern C**



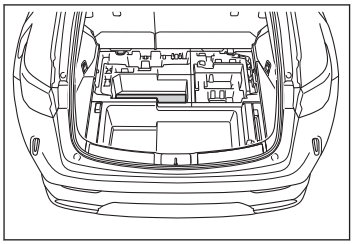
Storing items in the deck under tray

The following items can be stowed.

● Accessories



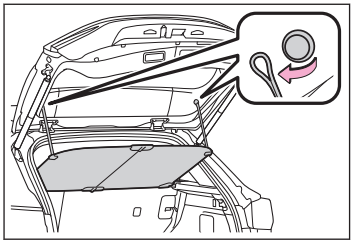
● Warning reflector*1



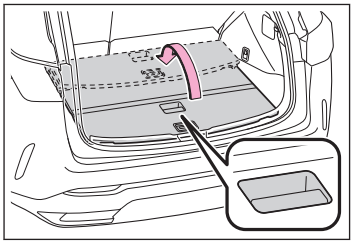
*1: A warning reflector itself is not included as an original equipment.

Stowing the luggage cover

1 Unhook each cord.

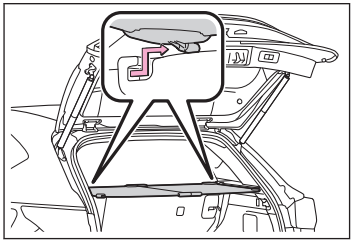


2 Pull the lever upwards and fold the deck board.

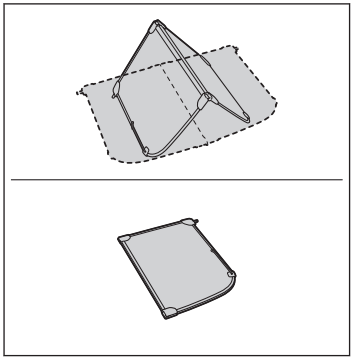


3 Remove the luggage cover.

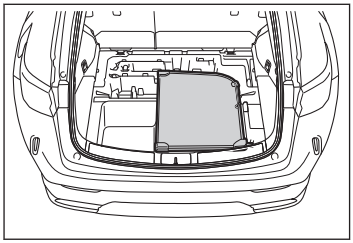
If a rear seat seatback is reclined, remove the luggage cover after moving the seatback to the upright position.



4 Fold the luggage cover



5 **Lift the deck board and stow the luggage cover in the deck under tray.**



⚠ WARNING

- Do not stow items on the luggage cover. In the event of sudden braking or swerving, the items may fly about and strike an occupant.
- Do not allow children to climb on the luggage cover. Doing so may damage the luggage cover.

5 Vehicle status information and indicators

5-1. Functions and displays of the meter

Warning lights and indicators.. 272

Gauges and meters..... 279

5-2. Functions of the displays

Multi-information display..... 284

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5-3. Changing the settings of the displays

Changing the instrument panel light brightness..... 299

Changing settings for the head-up display..... 300

Warning lights and indicators

The warning lights and indicators on the instrument cluster and outside rear view mirrors inform the driver of the status of the vehicle's various systems.

For the purpose of explanation, the following illustrations display all warning lights and indicators illuminated.



List of warning lights

Warning lights inform the driver of malfunctions in the indicated vehicle's systems.

(red)	Brake system warning light(1)
(yellow)	Brake system warning light(1)
	High coolant temperature warning light(2)
	Charging system warning light(2)
	Low engine oil pressure warning light(2)
	Malfunction indicator lamp(1)

	SRS warning light(1)
	ABS warning light(1)
	Inappropriate pedal operation warning light(2)
 (red)	Electric power steering system warning light(1)
 (yellow)	Electric power steering system warning light(1)
	Low fuel level warning light
	Driver's and front passenger's seat belt reminder light
	Rear passengers' seat belt reminder light
	Tire pressure warning light(1)
 (yellow)	LDA indicator
 (yellow)	LTA indicator
 (flashes)	Stop & Start cancel indicator(1)
 (flashes)	Stop & Start indicator(1)

	Lexus parking assist-sensor OFF indicator *(1)
 (yellow)	Cruise control indicator
 (yellow)	Dynamic radar cruise control indicator
	Driving assist information indicator(1)
	PCS warning light(1)
	Slip indicator(1)
 (flashes)	Parking brake indicator
 (flashes)	Brake hold operated indicator(1)

(1) These lights come on when the engine switch is turned to ON 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 light does not come on, or turn off. Have the vehicle inspected by your Lexus dealer.

(2) This light illuminates on the multi-information display.

⚠ WARNING

Should a safety system light such as the ABS and SRS warning light not come on when you start the engine, 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.

Related Links

If a warning light turns on/flashes(P. 539)

*: If equipped

List of indicators

The indicators inform the driver of the operating state of the vehicle's various systems.

	Turn signal indicator
	Tail light indicator
	Headlight high beam indicator
 (green)	AHS indicator(1) AHB indicator(1)
	Front fog light indicator
	Rear fog light indicator
	PCS warning light(1)(3)
 (green)  (white)	Cruise control indicator
 (green)  (white)	Dynamic radar cruise control indicator

 (green)  (white)	LDA indicator
 (yellow)	LDA OFF indicator(3)
 (green)  (white)	LTA indicator
	Outside rear view mirror indicators*(2)
	Lexus parking assist-sensor OFF indicator*(1)(3)
	Lexus parking assist-sensor detection indicator*
	Driving assist information indicator(1)(3)
	Stop & Start indicator(1)
	Stop & Start cancel indicator(1)(3)
 (flashes)	Slip indicator(1)
	VSC OFF indicator(1)(3)

*: If equipped

	Parking brake indicator
	Brake hold standby indicator(1)
	Brake hold operated indicator(1)
	Eco driving indicator light(1)
	Low outside temperature indicator(4)
	Downhill assist control system indicator*
	Eco drive mode indicator
	Sport S mode indicator
	Sport S+ mode indicator
	Custom mode indicator
	Trail Mode indicator

(1) These lights come on when the engine switch is turned to ON 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 light does not come on, or turn off. Have the vehicle inspected by your Lexus dealer.

(2) This light illuminates on the outside rear view mirrors.

(3) This light comes on when the system is turned off.

(4) When the outside temperature is approximately 3°C (37°F) or lower, this indicator will flash for approximately 10 seconds, then stay on.

*: If equipped

INFORMATION

Lexus parking assist-sensor OFF indicator

Vehicles with Lexus parking assist-sensor: The indicators turn off when the shift position is changed to R regardless of whether the Lexus parking assist function is turned on or off.

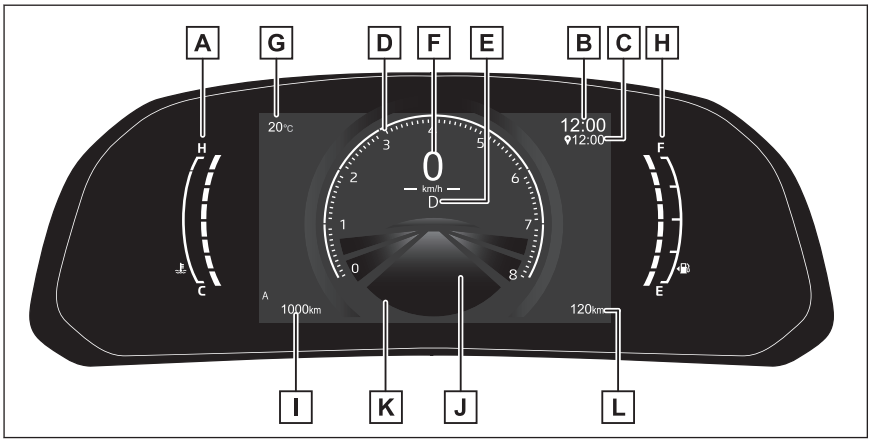
Related Links

Gauges, meters and multi-information display(P. 646)

Gauges and meters

Depending on the shift position or current drive mode, the meter displays or position of some gauges will change.

▶ Ring display state



A Engine coolant temperature gauge

Displays the engine coolant temperature

B Clock

Automatically adjusts the time by using the GPS time information (GPS clock). For details, refer to "Multimedia Owner's Manual".

C Navigation system estimated time of arrival display*

Displays the estimated time of arrival according to the navigation system.

D Tachometer

Displays the engine speed in revolutions per minute

- Rev indicator
- Rev peak

Analog speedometer

Depending on the selected drive mode or certain settings, the display will change.

E Shift position/shift range/gear position

F Digital speedometer

G Outside temperature

Displays the ambient temperature within the range of -40°C (-40°F) to 60°C (140°F).

*: If equipped

H Fuel gauge

Displays the quantity of fuel remaining in the tank.

I Odometer and trip meter display

J Multi-information display

Presents the driver with a variety of vehicle data and displays warning messages if a malfunction occurs.

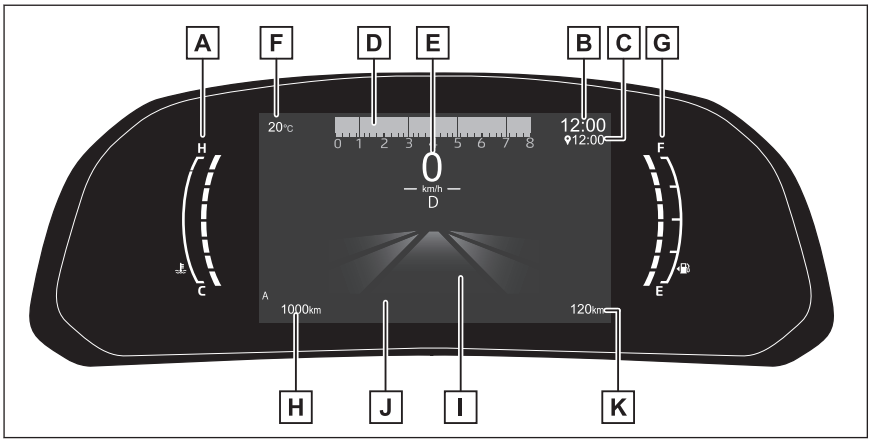
K Background color of driving mode

Background color changes according to the driving mode.

L Distance to empty

Displays the driving range with remaining fuel.

▶ Bar display state



A Engine coolant temperature gauge

Displays the engine coolant temperature

B Clock

Automatically adjusts the time by using the GPS time information (GPS clock). For details, refer to "Multimedia Owner's Manual".

C Navigation system estimated time of arrival display*

Displays the estimated time of arrival according to the navigation system.

D Tachometer

Displays the engine speed in revolutions per minute

- Rev indicator
- Rev peak

*: If equipped

E Shift position/shift range/gear position/digital speedometer

F Outside temperature

Displays the ambient temperature within the range of -40°C (-40°F) to 60°C (140°F).

G Fuel gauge

Displays the quantity of fuel remaining in the tank.

H Odometer and trip meter display

I Multi-information display

Presents the driver with a variety of vehicle data and displays warning messages if a malfunction occurs.

J Background color of driving mode

Background color changes according to the driving mode.

K Distance to empty

Displays the driving range with remaining fuel.

INFORMATION

■ The meters and display illuminate when

The engine switch is in ON.

■ Outside temperature display

- In the following situations, the correct outside temperature may not be displayed, or the display may take longer than normal to change:
  - When stopped, or driving at low speeds (less than 25 km/h [16 mph])
  - When the outside temperature has changed suddenly (at the entrance/exit of a garage, tunnel, etc.)
- When **"--"** or **"E"** is displayed, the system may be malfunctioning.

  Take your vehicle to your Lexus dealer.

■ Distance to empty

- 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.
- When only a small amount of fuel is added to the tank, the display may not be updated. When refueling, turn the engine switch off. If the vehicle is refueled without turning the engine switch off, the display may not be updated.

■ Liquid crystal display

Small spots or light spots may appear on the display.

This phenomenon is characteristic of liquid crystal displays, and there is no problem continuing to use the display.

Free/Open Source Software Information

This product contains Free/Open Source Software (FOSS). The license information and/or the source code of such FOSS can be found at the following URL.
https://www.denso.com/global/en/opensource/meter/toyota/

⚠ WARNING

Allow the interior of the vehicle to warm up before using the liquid crystal information display. At extremely low temperatures, the information display monitor may respond slowly, and display changes may be delayed.

For example, there is a lag between the driver's shifting and the new gear number appearing on the display. This lag could cause the driver to downshift again, causing rapid and excessive engine braking and possibly an accident resulting in death or injury.

⚠ NOTICE

To prevent the engine or components from being damaged, observe the following precautions.

- 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); or **"Engine Coolant Temp High Stop in a Safe Place See Owner's Manual"** is shown on the multi-information display. In this case, immediately stop the vehicle in a safe place, and check the engine after it has cooled completely.

Related Links

Gauges, meters and multi-information display(P. 646)

Rev indicator/Rev peak display

Rev indicator

When the engine speed reaches a set speed or the red zone, the tachometer will be highlighted.

The indicators will be displayed in amber when the engine speed reaches a set speed, and in red when the engine speed reaches the red zone.

The engine speed at which the Rev indicator is displayed can be changed on the center display.

Rev peak

When the engine speed reaches or exceeds 5000 r/min, an afterimage of the tachometer will be displayed at the highest engine speed for approximately 1 second.

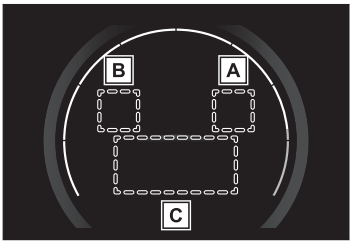
Related Links

Gauges, meters and multi-information display(P. 646)

Multi-information display

A variety of driving-related information can be displayed. Depending on the situation, warning or advice pop-up displays will also be displayed.

Display area



A Driving support system information display area

When driving support system information is not displayed in the content display area, if the driving support system operates, the system operating state will be displayed.

B Navigation system-linked display area*

If the navigation system linked-display is not displayed in the content display area, route guidance will be displayed.

C Content display area

Items displayed in the content display area

The following items can be displayed.

- Drive information 1
- Drive information 2
- Drive information 3
- Eco Driving Indicator
- Audio system-linked display
- Navigation system-linked display**1
- Boost gauge/engine oil temperature gauge/engine oil pressure gauge
- G-force
- Gear Position
- Driving support system information display*1
- Blank (No items)

*: If equipped

*1: Displayed on the head-up display when the display mode is set to display the maximum.

INFORMATION

Liquid crystal display

Small spots or light spots may appear on the display. This phenomenon is characteristic of liquid crystal displays, and there is no problem continuing to use the display.

WARNING

Caution for use while driving

- When operating the multi-information display while driving, pay extra attention to the safety of the area around the vehicle.
- Do not look continuously at the multi-information display while driving as you may fail to see pedestrians, objects on the road, etc. ahead of the vehicle.

The information display at low temperatures

Allow the interior of the vehicle to warm up before using the liquid crystal information display. At extremely low temperatures, the information display monitor may respond slowly, and display changes may be delayed.

For example, there is a lag between the driver's shifting and the new gear number appearing on the display. This lag could cause the driver to downshift again, causing rapid and excessive engine braking and possibly an accident resulting in death or injury.

Cautions during setting up the display

As the engine needs to be running during setting up the display, ensure that the vehicle is parked in a place with adequate ventilation. In a closed area such as a garage, exhaust gases including harmful carbon monoxide (CO) may collect and enter the vehicle. This may lead to death or a serious health hazard.

NOTICE

To prevent battery discharge, ensure that the engine is running while setting up the display features.

Related Links

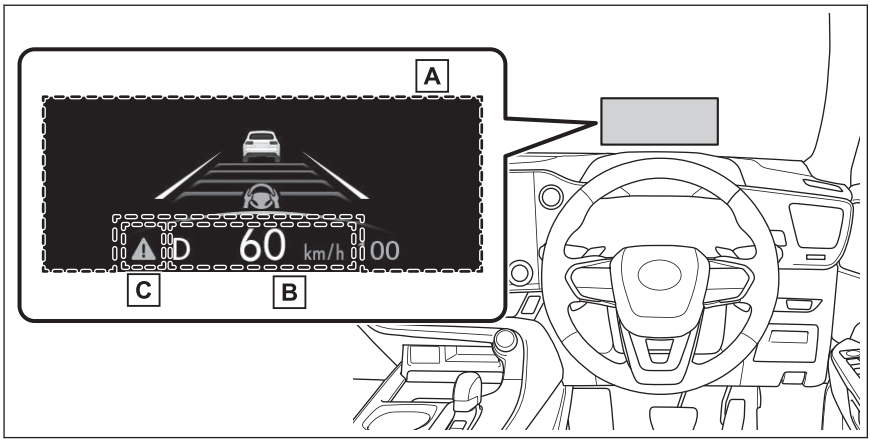
Displayed content(P. 289)

Changing the instrument panel light brightness(P. 299)

Head-up display

The head-up display projects a variety of driving-related information and the operating state of the driving support systems on the windshield.

The content displayed will differ according to the driving conditions and display mode of the head-up display. Depending on the situation, pop-up displays will also be displayed.



A Main display area

Displays the following items:

- Driving support system information display
- Tachometer/Eco Driving Indicator
- Compass*

B Driving information display area

Displays the following items:

- Speedometer
- Shift position/shift range/gear position

C ⚠ : Master warning icon

Displayed when a warning message is displayed.

INFORMATION

Head-up display will operate when

The engine switch is in ON.

*: If equipped

When using the head-up display

The head-up display may seem dark or hard to see when viewed through sunglasses, especially polarized sunglasses. Adjust the brightness of the head-up display or remove your sunglasses.

The tachometer/Eco Driving Indicator is displayed when

When the following conditions are met, the tachometer or Eco Driving Indicator will be displayed on the head-up display.

- The head-up display is set to display the maximum. (→P.647)
- LTA (Lane Tracing Assist) is disabled. (→P.334)
- LDA (Lane Departure Alert) is disabled. (→P.656)
- The cruise control, selected by pressing the driving assist mode select switch, is canceled. (→P.359,360)

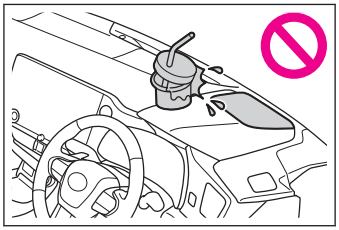
⚠ WARNING

Do not continuously look at the head-up display while driving as you may fail to see pedestrians, objects on the road, etc. ahead of the vehicle.

⚠ NOTICE

Observe the following precautions.

- Do not place any drinks near the head-up display projector. If the projector gets wet, electrical malfunctions may result.



- Do not place anything on or put stickers onto the head-up display projector.

  Doing so could interrupt head-up display indications.
- Do not touch the inside of the head-up display projector or thrust sharp edges or the like into the projector.

  Doing so could cause mechanical malfunctions.

Related Links

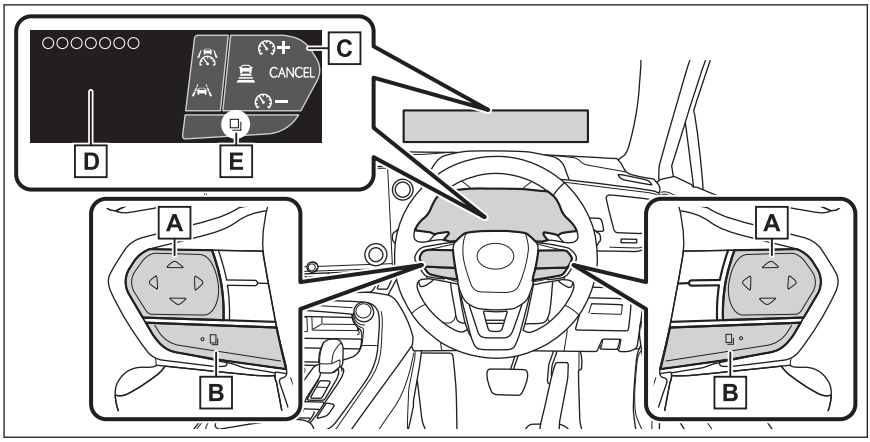
Displayed content(P. 289)

Changing settings for the head-up display(P. 300)

Head-up Display(P. 647)

Displayed content

Operating the meters/displays



A The function of each switch differs depending on the conditions and settings.

When a switch is touched, the function of each switch is displayed. If the head-up display is off, check functions on the multi-information display.

Also, preferred functions for each switch can be set on the center display.

B Each time this switch is pressed, the functions will change.

C Switch icon display

The icon of each switch will be displayed. The touched switch will be highlighted. (E)

D Switch function guide display

The function guide for the touched switch will be displayed.

INFORMATION

If the steering wheel switches do not respond when touched

- It is easier to make the steering wheel switches respond by moving your thumb while touching them.
- If the surface of a steering wheel switch is dirty, turn the engine switch off and then clean the switches.
- By turning winter glove mode on, the sensitivity of the switch sensors can be increased.

Related Links

Gauges, meters and multi-information display(P. 646)

Switching the display of the multi-information display

INFORMATION

Switching with the steering wheel switches

If ❮DISP / DISP❯ is set as a favorite steering wheel switch function, the display can be switched by pushing ❮DISP or DISP❯.

1 Select ⚙ on the center display.
2 Select [Vehicle customise].
3 Select [Meter].
4 Select < or > of "Display switching".
The display changes each time the switch is selected.

Display of drive information

Driving related information is displayed on the following displays.

- Multi-information display
- Head-up display
- Center display

The items displayed will differ depending on the display.

Drive information 1

The following items can be displayed on the multi-information display.

Use the displayed values as a reference only.

- Current fuel consumption
  Displays the instantaneous current fuel consumption
- Average fuel consumption*1

Related Links

Current fuel consumption/history screen(P. 293)

Drive information 2

The following items can be displayed on the multi-information display.

*1: Data can be reset on the history screen of the center display.

- Average vehicle speed*1
- Total driving time*1

Related Links

Current fuel consumption/history screen(P. 293)

Drive information 3

The following items can be displayed on the multi-information display.

- Average fuel consumption since starting

  Displays the average fuel consumption since starting.

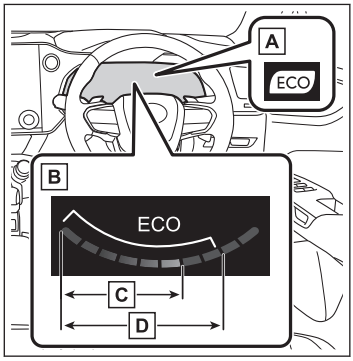
- Current fuel consumption

  Displays the instantaneous current fuel consumption

Eco Driving Indicator

Eco Driving Indicator can be displayed on the multi-information display and the head-up display.

This illustration is for explanation only and may differ depending on the specifications of the vehicle.



A Eco Driving Indicator Light

During Eco-friendly acceleration (Eco driving), the Eco Driving Indicator Light will turn on. When the acceleration exceeds the Zone of Eco driving, or when the vehicle is stopped, the light turns off.

B Eco Driving Indicator Zone Display

Suggests the Zone of Eco driving with current Eco driving ratio based on acceleration.

C Eco driving ratio based on acceleration

If the acceleration exceeds the Zone of Eco driving, the right side of the Eco Driving Indicator Zone Display will illuminate.

At this time, the Eco Driving Indicator Light will turn off.

D Zone of Eco driving

*1: Data can be reset on the history screen of the center display.

INFORMATION

Eco Driving Indicator will not operate under the following conditions:

- The shift position is in any position other than D.
- A paddle shift switch is operated.
- The driving mode is set to sport mode.
- The driving mode is set to custom mode and the powertrain control is set to power.
- The vehicle speed is approximately 130 km/h (80 mph) or higher.

Boost gauge/engine oil temperature gauge/engine oil pressure gauge

The following items can be displayed on the multi-information display.

- Boost gauge

  Displays the boost pressure. The display will change color if the specified pressure is exceeded.

- Engine oil temperature gauge

  Displays the engine oil temperature. The display will flash if the engine oil temperature exceeds 140 °C (284 °F).

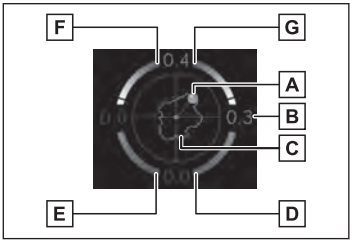
- Engine oil pressure gauge

  Displays the engine oil pressure. A buzzer will sound and warning message will be displayed if the engine oil pressure becomes low.

G-force

Displays lateral G-forces on the vehicle on the multi-information display.

Displays around the periphery of the G-force display, the left and right steering amount, accelerator pedal input, and brake fluid pressure.



A Acceleration G-force on the vehicle

B Current G-force value (analyzed value of front/rear and left/right G-forces)

C Record of the maximum G-forces

The display is reset each time the engine is started.

D Accelerator pedal input

E Brake fluid pressure

F Left steering amount

G Right steering amount

If lateral G-forces of 0.5 G or greater are generated, the G-force value display will turn amber and be held for 2 seconds. (Peak hold function)

This display is intended for use as a guideline. Depending on factors such as the road surface condition, temperature and vehicle speed, the display may not show the actual condition of the vehicle.

INFORMATION

- The G-force values may not be zero even when the vehicle is parked, such as when it is parked on an incline.
- Depending on the vehicle usage conditions, the brake fluid pressure display may not reach its maximum reading even though the brake pedal is fully depressed.
- If a battery terminal is disconnected and reconnected, the steering amount display may be disabled temporarily. After driving the vehicle for a while, the display will be enabled.

Gear Position

Displays the current shift range or gear position when the shift position is in D or M.

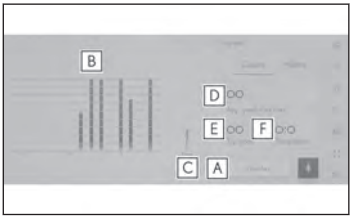
Blank (No items)

Displays no drive information contents on the multi-information display.

Current fuel consumption/history screen

Fuel consumption information can be displayed on the center display.

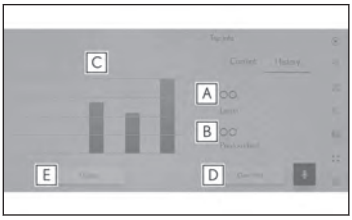
Current fuel consumption screen



- A Resetting the history data
- B Fuel consumption in the past 15 minutes
- C Current fuel consumption
- D Average vehicle speed since the engine was started.
- E Trip range
- F Elapsed time since the engine was started.

Use the displayed average fuel consumption as a reference. The image is an example only, and may vary slightly from actual conditions.

History fuel consumption screen



A Latest fuel consumption
B Best recorded fuel consumption
C Previous fuel consumption record
D Resetting the history data
E Updating the latest fuel consumption data

Use the displayed average fuel consumption as a reference. The image is an example only, and may vary slightly from actual conditions.

INFORMATION

Updating the history data

Update the latest fuel consumption by selecting [**Update**] to measure the current fuel consumption again.

Resetting the data

The fuel consumption data can be deleted by selecting [**Clear data**].

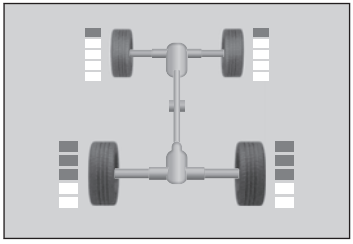
Trip range

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.

Displaying fuel consumption/history screen on the center display

1 Select on the main menu.
2 Select [Trip information].
3 Select [Current] or [History].

AWD operation status display



AWD operation status display can be displayed on the center display.

The illustration used is intended as an example, and may differ from the image that is actually displayed on the center display.

Torque distribution display:

Displays the drive status of each wheel in 6 steps from 0 to 5.

Displaying AWD operation status display on the center display

1 Select on the main menu.

2 Select [All wheel drive].

Tire pressure

The tire pressure detected by the tire pressure warning system can be displayed on the center display.

INFORMATION

- It may take a few minutes to display the tire inflation pressure after the engine switch is turned to ON.

  It may also take a few minutes to display the tire inflation pressure after inflation pressure has been adjusted.
- "---" may be displayed if the tire position information cannot be determined due to unfavorable radio wave conditions.
- Tire inflation pressure changes with temperature. The displayed values may also be different from the values measured using a tire pressure gauge.

Related Links

Operation of the tire pressure warning system(P. 505)

Displaying the tire pressure on the center display

1 Select on the main menu.

2 Select [Tyre pressure].

Driving support system information display

The operating state of the following systems can be displayed on the multi-information display or head-up display.

- Dynamic radar cruise control
- Cruise control
- LTA (Lane Tracing Assist)
- LDA (Lane Departure Alert)
- RSA (Road Sign Assist)
- PCS (Pre-Collision System)

INFORMATION

Display position

When the display mode of the head-up display is set to display the maximum, driving support system information will be displayed on the head-up display and not in the content display area of the multi-information display.

Audio system-linked display

The operating conditions of the audio system can be displayed on the multi-information display.

Navigation system-linked display*

The following information is displayed on the multi-information display.

- Route guidance to destination
- Street name
- Compass

INFORMATION

Display position

When the display mode of the head-up display is set to display the maximum, some content may be displayed on the head-up display and not in the content display area of the multi-information display.

Pop-up display information

Pop-up displays will be displayed on the multi-information display or the head-up display when necessary.

When a pop-up display is displayed, a current display may no longer be displayed. In this case, the display will return after the pop-up display disappears.

Driving support systems

Displays a warning/suggestion/advice message or the operating state of a relevant system.

- Dynamic radar cruise control
- Cruise control
- LTA (Lane Tracing Assist)

*: If equipped

- LDA (Lane Departure Alert)
- PCS (Pre-Collision System)
- RSA (Road Sign Assist)
- Safe Exit Assist *

Warning message

Some warning messages are displayed when necessary, according to certain conditions.

Hands-free system status

Displayed when the hands-free system is operated.

Suggestion function

Displays suggestions to the driver in the following situations. To select a response to a displayed suggestion, use the steering switches.

Suggestion to enable the power back door *

If the power back door system is disabled (setting on the center display set to off) and the power back door switch on the instrument panel is operated, a suggestion message will be displayed asking if you wish to enable the power back door system.

To enable the power back door system, select [**Yes**].

After enabling the power back door system, press the power back door switch again to open or close the power back door.

Suggestion to close the power windows (linked to windshield wiper operation)

If the windshield wipers are operated with a power window open, a suggestion message will be displayed asking if you wish to close the power windows.

To close all of the power windows, select [**Yes**].

Suggestion to close the power windows (Driving at high speeds)

If the vehicle speed exceeds a certain speed with a power window open, a suggestion message will be displayed asking if you wish to close the power windows.

To close all of the power windows, select [**Yes**].

Related Links

Gauges, meters and multi-information display(P. 646)

*: If equipped

Steering wheel switch operation display

When a steering wheel switch is touched, the icon of each switch and a function guide is displayed.

Related Links

Operating the meters/displays(P. 289)

Navigation system-linked information*

In certain situations, the following items which are linked to the navigation system will be displayed:

- Route guidance to destination

Items displayed when the engine switch is turned off

The following items will be displayed on the multi-information display when the engine switch is turned off.

- Average fuel consumption since starting*1
- Distance driven since starting*1
- Driving time since starting*1

*: If equipped

*1: It is reset each time the engine stops.

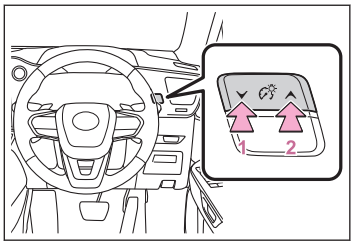
Changing the instrument panel light brightness

The brightness of the instrument panel lights can be adjusted.

INFORMATION

The instrument panel brightness levels when the tail lights are on and off can be adjusted individually.

However, when the surroundings are bright (daytime, etc.), turning on the tail lights will not change the instrument panel brightness.



1 Darker
2 Brighter

Changing settings for the head-up display

⚠ WARNING

- Check that the position and brightness of the head-up display image does not interfere with safe driving.

  Incorrect adjustment of the image's position or brightness may obstruct the driver's view and lead to an accident, resulting in death or serious injury.
- As the engine needs to be running while changing the settings of the head-up display, ensure that the vehicle is parked in a place with adequate ventilation. In a closed area such as a garage, exhaust gases including harmful carbon monoxide (CO) may collect and enter the vehicle. This may lead to death or a serious health hazard.

⚠ NOTICE

To prevent battery discharge, ensure that the engine is running while the changing the settings of the head-up display.

INFORMATION

Changing settings with the steering wheel switches

If any of the following items have been set as a favorite steering wheel switch function, settings of the head-up display can be changed using the steering wheel switches.

- 

: Display on/off
- 

: Display mode
-  / 
: Height
-  / 
: Brightness

Enabling/disabling of the head-up display

If the head-up display is disabled, it will remain disabled when the engine switch is turned off then back to ON.

Display brightness

- In addition to the brightness setting, the brightness of the display will change automatically according to the ambient brightness.
- When the temperature around the head-up display is high, the display will gradually become darkto protect the head-up display. It will gradually returun to normal when the temperatrure drops.

■ **Head-up display automatic position adjustment**

If the display position is recorded into memory, the head-up display will be automatically adjusted to the desired position.

1 Select ⚙ on the center display.

2 Select [Vehicle customise].

3 Select [Head-up display].

The following settings for the head-up display can be changed.

- Display on/off
- Display mode
- Height
- Brightness
- Angle

Related Links

Head-up Display(P. 647)

6 Driving support system

6-1. Features of the safe driving support functions

Driving assist systems 304

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6-2. Using the safe driving support functions

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Lane Tracing Assist 332

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Road Sign Assist 343

Dynamic radar cruise control 346

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Emergency Driving Stop System 362

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Sudden start restraint control . 453

6-3. Reducing impact to the occupants in a collision

Reducing impact to passengers in a collision 454

Driving assist systems

To keep 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)

Helps to prevent wheel lock when the brakes are applied suddenly, or if the brakes are applied while driving on a slippery road surface.

■ 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.

Provides cooperative control of the ABS, TRC, VSC and EPS.

Helps to maintain directional stability when swerving on slippery road surfaces by controlling steering performance.

■ Trailer Sway Control

Helps the driver to control trailer sway by selectively applying brake pressure for individual wheels and reducing driving torque when trailer sway is detected.

■ TRC (Traction Control)

Helps to maintain drive power and prevent the drive wheels from spinning when starting the vehicle or accelerating on slippery roads

■ Active Cornering Assist (ACA)

Helps to prevent the vehicle from drifting to the outer side by performing inner wheel brake control when attempting to accelerate while turning.

■ Hill-start assist control

Helps to reduce the backward movement of the vehicle when starting on an uphill.

■ EPS (Electric Power Steering)

Employs an electric motor to reduce the amount of effort needed to turn the steering wheel.

■ Dynamic Torque Control AWD system*

Automatically controls the driving force distribution to the front and rear wheels according to various running conditions including normal driving, during cornering, on a uphill, when starting off, during acceleration, on a slippery roads due to snow or rain, thus contributing to stable operability and driving stability.

■ AVS (Adaptive Variable Suspension System)

By independently controlling the damping force of the shock absorbers for each of the 4 wheels according to the road and driving conditions, this system helps riding comfort with superior vehicle stability, and helps good vehicle posture.

Also, the damping force changes depending on the selected driving mode.

■ Emergency brake signal

When the brakes are applied suddenly, the stop lights automatically flash to alert the vehicle behind.

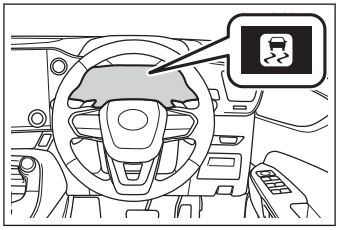
■ The Secondary Collision Brake

When the SRS airbag sensor detects a collision and the system operates, the brakes and brake lights are automatically controlled to reduce the vehicle speed and help reduce the possibility of further damage due to a secondary collision.

INFORMATION

■ When the TRC/VSC/Trailer Sway Control systems are operating

The slip indicator light will flash while the TRC/VSC/Trailer Sway Control systems are operating.



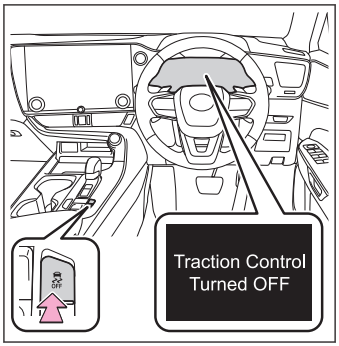
■ Disabling the TRC system

If the vehicle gets stuck in mud, dirt or snow, the TRC system may reduce power from the engine to the wheels. Pressing [OFF] to turn the system off may make it easier for you to rock the vehicle in order to free it.

*: If equipped

To turn the TRC system off, quickly press and release [OFF].

The **"Traction Control Turned OFF"** will be shown on the multi-information display. Press [OFF] again to turn the system back on.



Turning off both TRC, VSC and Trailer Sway Control systems

To turn the TRC, VSC and Trailer Sway Control systems off, press and hold [OFF] for more than 3 seconds while the vehicle is stopped.

The VSC OFF indicator light will come on and the **"Traction Control Turned OFF"** will be shown on the multi-information display. Press OFF again to turn the system back on.

When the message is displayed on the multi-information display showing that TRC has been disabled even if [OFF] has not been pressed

TRC is temporary deactivated.

If the information continues to show, contact your Lexus dealer.

Operating conditions of hill-start assist control

When the following four conditions are met, the hill-start assist control will operate:

- The shift position is in a position other than P or N (when starting off forward/backward on an upward incline)
- The vehicle is stopped

- The accelerator pedal is not depressed
- The parking brake is not engaged
- Engine switch is turned to ON

Automatic system cancelation of hill-start assist control

The hill-start assist control will turn off in any of the following situations:

- The shift position is shifted to P or N
- The accelerator pedal is depressed
- The parking brake is engaged
- 2 seconds at maximum elapsed after the brake pedal is released
- Engine switch is turned to OFF

Sounds and vibrations caused by the ABS, brake assist, VSC, Trailer Sway Control, TRC and hill-start assist control systems

- A sound may be heard from the engine compartment when the brake pedal is depressed repeatedly, 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 also 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.

Active Cornering Assist operation sounds and vibrations

When the Active Cornering Assist is operated, operation sounds and vibrations may be generated from the brake system, but this is not a malfunction.

Automatic reactivation of TRC, Trailer Sway Control and VSC systems

After turning the TRC, Trailer Sway Control and VSC systems off, the systems will be automatically re-enabled in the following situations:

- When the engine switch is turned off
- If only the TRC system is turned off, the TRC will turn on when vehicle speed increases

  If both the TRC and VSC systems are turned off, automatic re-enabling will not occur when vehicle speed increases.

Operating conditions of Active Cornering Assist

The system operates when the following occurs.

- TRC/VSC can operate
- The driver is attempting to accelerate while turning
- The system detects that the vehicle is drifting to the outer side
- The brake pedal is released

Reduced effectiveness of the EPS system

The effectiveness of the EPS system is reduced to prevent the system from overheating when there is frequent steering input over an extended period of time. The steering wheel may feel heavy as a result.

Should this occur, refrain from excessive steering input or stop the vehicle and turn the engine off. The EPS system should return to normal within 10 minutes.

Operating conditions of emergency brake signal

When the following conditions are met, the emergency brake signal will operates:

- The emergency flashers are off.
- Actual vehicle speed is over 55 km/h (35 mph).
- The system judges from the vehicle deceleration that it is a sudden braking operation.

Automatic system cancelation of emergency brake signal

The emergency brake signal will be canceled in any of the following situations:

- The emergency flashers are turned on.
- The system judges from the vehicle deceleration that is not a sudden braking operation.

Secondary Collision Brake operating conditions

The system operates when the SRS airbag sensor detects a collision while the vehicle is in motion. However, the system does not operate when the components are damaged.

Secondary Collision Brake automatic cancelation

The system is automatically canceled in any of the following situations.

- The vehicle speed drops to approximately 0 km/h (0 mph).
- A certain amount of time elapses during operation
- The accelerator pedal is depressed a large amount

⚠ WARNING

The ABS does not operate effectively when

- The limits of tire gripping performance have been exceeded (such as excessively worn tires on a snow covered road).

⚠ WARNING

- The vehicle hydroplanes while driving at high speed on wet or slick roads.

■ Stopping distance when the ABS is operating may exceed that of normal conditions

The ABS is not designed to shorten the vehicle's stopping distance. Always maintain a safe distance from the vehicle in front of you, especially 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 uneven surfaces

■ TRC/VSC may not operate effectively when

Directional control and power may not be achievable while driving on slippery road surfaces, even if the TRC/VSC system is operating. Drive the vehicle carefully in conditions where stability and power may be lost.

■ Active Cornering Assist does not operate effectively when

- Do not overly rely on Active Cornering Assist. Active Cornering Assist may not operate effectively when accelerating down slopes or driving on slippery road surfaces.
- When Active Cornering Assist frequently operates, Active Cornering Assist may temporarily stop operating to ensure proper operation of the brakes, TRC and VSC.

■ Hill-start assist control does not operate effectively when

- Do not overly rely on hill-start assist control. Hill-start assist control may not operate effectively on steep inclines and roads covered with ice.
- Unlike the parking brake, hill-start assist control is not intended to hold the vehicle stationary for an extended period of time. Do not attempt to use hill-start assist control to hold the vehicle on an incline, as doing so may lead to an accident.

■ When the TRC/VSC/Trailer Sway Control is activated

The slip indicator light flashes. Always drive carefully. Reckless driving may cause an accident. Exercise particular care when the indicator light flashes.

■ When the TRC/VSC/Trailer Sway Control systems are turned off

Be especially careful and drive at a speed appropriate to the road conditions.

As these are the systems to help ensure vehicle stability and driving force, do not turn the TRC/VSC/Trailer Sway Control systems off unless necessary.

Trailer Sway Control is part of the VSC system and will not operate if VSC is turned off or experiences a malfunction.

⚠ WARNING

■ Replacing tires

Make sure that all tires are of the specified size, brand, tread pattern and total load capacity. In addition, make sure that the tires are inflated to the recommended tire inflation pressure level.

The ABS, TRC, Trailer Sway Control and VSC systems will not function correctly if different tires are installed on the vehicle.

Contact your Lexus dealer for further information when replacing tires or wheels.

■ Handling of tires and the suspension

Using tires with any kind of problem or modifying the suspension will affect the driving assist systems, and may cause a system to malfunction.

■ Trailer Sway Control precaution

The Trailer Sway Control system is not able to reduce trailer sway in all situations. Depending on many factors such as the conditions of the vehicle, trailer, road surface and driving environment, the Trailer Sway Control system may not be effective. Refer to your trailer owner's manual for information on how to tow your trailer properly.

■ If trailer sway occurs

Observe the following precautions. Failing to do so may cause death or serious injury.

- Firmly grip the steering wheel. Steer straight ahead. Do not try to control trailer sway by turning the steering wheel.
- Begin releasing the accelerator pedal immediately but very gradually to reduce speed.

  Do not increase speed. Do not apply vehicle brakes.

  If you make no extreme correction with the steering or brakes, your vehicle and trailer should stabilize.

■ Secondary Collision Brake

Do not rely solely upon the Secondary Collision Brake. This system is designed to help reduce the possibility of further damage due to a secondary collision, however, that effect changes according to various conditions. Overly relying on the system may result in death or serious injury.

Related Links

Trailer towing (vehicles with towing package)(P. 90)

Tires and wheels(P. 642)

Lexus Safety System +

The Lexus Safety System + consists of the driving assist systems and contributes to a safe and comfortable driving experience:

⚠ WARNING

■ Lexus Safety System +

The Lexus Safety System + operates under the assumption that the driver will drive safely, and is designed to help reduce the impact to the occupants in a collision and assist the driver under normal driving conditions.

As there is a limit to the degree of recognition accuracy and control performance that this system can provide, do not overly rely on this system. The driver is solely responsible for paying attention to the vehicle's surroundings and driving safely.

■ For safe use

- Do not overly rely on this system. The driver is solely responsible for paying attention to the vehicle's surroundings and driving safely. This system may not operate in all situations and provided assistance is limited. Over-reliance on this system to drive the vehicle safely may lead to an accident resulting in death or serious injury.
- Do not attempt to test the operation of the system, as it may not operate properly, possibly leading to an accident.
- If attention is necessary while performing driving operations or a system malfunction occurs, a warning message or warning buzzer will be operated. If a warning message is displayed on the display, follow the instructions displayed.
- Depending on external noise, the volume of the audio system, etc. it may be difficult to hear the warning buzzer. Also, depending on the road conditions, it may be difficult to recognize the operation of the system.

■ When it is necessary to disable the system

In the following situations, make sure to disable the system.

Failure to do so may lead to the system not operating properly, possibly leading to an accident resulting in death or serious injury.

- When the vehicle is tilted due to being overloaded or having a flat tire
- When driving at extremely high speeds
- When towing another vehicle
- When the vehicle is being transported by a truck, ship, train, etc.
- When the vehicle is raised on a lift and the tires are allowed to rotate freely
- When inspecting the vehicle using a drum tester such as a chassis dynamometer or speedometer tester, or when using an on vehicle wheel balancer

⚠ WARNING

- When the vehicle is driven in a sporty manner or off-road
- When using an automatic car wash
- When a sensor is misaligned or deformed due to a strong impact being applied to the sensor or the area around the sensor
- When accessories which obstruct a sensor or light are temporarily installed to the vehicle
- When a compact spare tire or tire chains are installed to the vehicle or an emergency tire puncture repair kit has been used
- When the tires are excessively worn or the inflation pressure of the tires is low
- When tires other than the manufacturer specified size are installed
- When the vehicle cannot be driven stably, due to a collision, malfunction, etc.

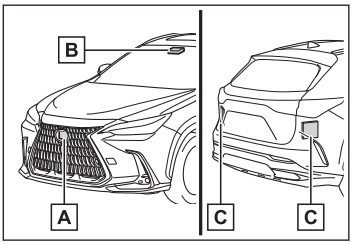
Driving assist systems

- AHS (Adaptive High-beam System)
  →P.169
- AHB (Automatic High Beam)
  →P.173
- PCS (Pre-Collision System)
  →P.319
- LTA (Lane Tracing Assist)
  →P.332
- LDA (Lane Departure Alert)
  →P.337
- RSA (Road Sign Assist)
  →P.343
- Dynamic radar cruise control
  →P.346
- Cruise Control
  →P.358
- Emergency Driving Stop System
  →P.362

Sensors used by Lexus Safety System +

Various sensors are used to obtain the necessary information for system operation.

Sensors which detect the surrounding conditions



A Front radar sensor
B Front camera
C Rear side radar sensors*

⚠ WARNING

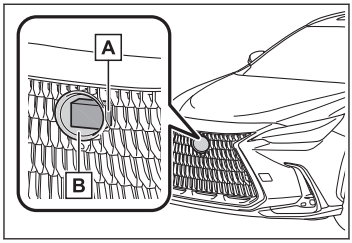
To prevent malfunction of the radar sensors

Observe the following precautions. Failure to do so may lead to a radar sensor not operating properly, possibly leading to an accident resulting in death or serious injury.

- Keep the radar sensors and radar sensor covers clean at all times.

  Clean the front of a radar sensor or the front or back of a radar sensor cover if it is dirty or covered with water droplets, snow, etc.

  When cleaning the radar sensor and radar sensor cover, use a soft cloth to remove dirt so as to not damage them.



A Radar sensor
B Radar sensor cover

- Do not attach accessories, stickers (including transparent stickers), aluminum tape, etc. to a radar sensor or radar sensor cover and their surrounding area.
- Do not subject a radar sensor or its surrounding area to impact.

  If a radar sensor, the front grille, or front bumper has been subjected to a impact, have the vehicle inspected by your Lexus dealer.
- Do not disassemble the radar sensors.
- Do not modify or paint the radar sensors or radar sensor cover, or replace them with anything other than Lexus genuine parts.

*: If equipped

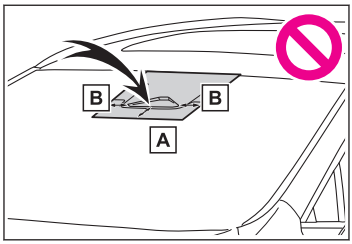
⚠ WARNING

- In the following situations, recalibration of the radar sensors will be necessary. For details, contact your Lexus dealer.
  - When a radar sensor is removed and installed, or replaced
  - When the front bumper or the front grille has been replaced

To prevent malfunction of the front camera

Observe the following precautions. Failure to do so may lead to the front camera not operating properly, possibly leading to an accident resulting in death or serious injury.

- Always keep the windshield clean.
  - If the windshield is dirty or covered with an oily film, water droplets, snow, etc., clean the windshield.
  - Even if a glass coating agent is applied to the windshield, it will still be necessary to use the windshield wipers to remove water droplets, etc. from the area of the windshield in front of the front camera.
  - If the inner side of the windshield where the front camera is installed is dirty, contact your Lexus dealer.
- Do not attach stickers (including transparent stickers) or other items to the area of the windshield in front of the front camera (shaded area in the illustration).



A Approximately 4cm (1.6 in.)
B Approximately 4cm (1.6 in.)

- If the part of the windshield in front of the front camera is fogged up or covered with condensation or ice, use the windshield defogger to remove the fog, condensation, or ice.
- If water droplets cannot be properly removed from the area of the windshield in front of the front camera by the windshield wipers, replace the wiper insert or wiper blade.
- Do not attach window tint to the windshield.
- Replace the windshield if it is damaged or cracked.

  If the windshield has been replaced, recalibration of the front camera will be necessary.

  Contact your Lexus dealer for details.
- Do not allow liquids to contact the front camera.

⚠ WARNING

- Do not allow bright lights to shine into the front camera.
- Do not damage the lens of the front camera or allow it to become dirty.

  When cleaning the inside of the windshield, do not allow glass cleaner to contact the lens of the front camera. Do not touch the lens of the front camera.

  If the lens of the front camera is dirty or damaged, contact your Lexus dealer.
- Do not subject the front camera to a strong impact.
- Do not change the position or orientation of the front camera or remove it.
- Do not disassemble the front camera.
- Do not modify any parts around the front camera, such as the inside rear view mirror or ceiling.
- Do not attach accessories which may obstruct the front camera to the hood, front grille, or front bumper.

  Contact your Lexus dealer for details.
- If a surfboard or other long object is to be mounted on the roof, make sure that it will not obstruct the front camera.
- Do not modify or change the headlights and other lights.

Front camera installation area on the windshield

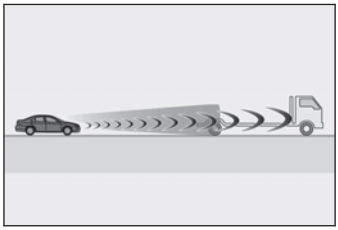
If the system determines that the windshield may be fogged up, it will automatically operate the heater to defog the part of the windshield around the front camera. When cleaning, etc., be careful not to touch the area around the front camera until the windshield has cooled sufficiently, as touching it may cause burns.

INFORMATION

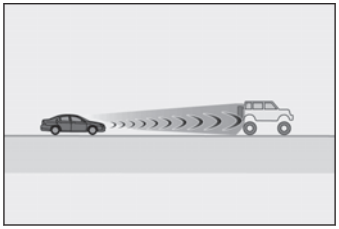
Situations in which the sensors and the systems may not operate properly

- When the height or inclination of the vehicle has been changed due to modifications
- When the windshield is dirty, fogged up, cracked or damaged
- When the ambient temperature is high or low
- When mud, water, snow, dead insects, foreign matter, etc., is attached to the front of the sensor
- When in inclement weather such as heavy rain, fog, snow, or a sandstorm
- When water, snow, dust, etc. is thrown up in front of the vehicle, or when driving through mist or smoke
- When the headlights are not illuminated while driving in the dark, such as at night or when in a tunnel

- When the lens of a headlight is dirty and illumination is weak
- When the headlights are misaligned
- When a headlight is malfunctioning
- When a the headlights of another vehicle, sunlight, or reflected light shines directly into the front camera
- When the brightness of the surrounding area changes suddenly
- When driving near a TV tower, broadcasting station, electric power plant, radar equipped vehicles, etc., or other location where strong radio waves or electrical noise may be present
- When a wiper blade is blocking the front camera
- When in a location or near objects which strongly reflect radio waves, such as the following:
  - Tunnels
  - Truss bridges
  - Gravel roads
  - Rutted, snow-covered roads
  - Walls
  - Large trucks
  - Manhole covers
  - Guardrail
  - Metal plates
- When near a step or protrusion
- When a detectable vehicle is narrow, such as a small mobility vehicle
- When a detectable vehicle has a small front or rear end, such as an unloaded truck
- When a detectable vehicle has a low front or rear end, such as a low bed trailer



- When a detectable vehicle has extremely high ground clearance



- When a detectable vehicle is carrying a load which protrudes from its cargo area
- When a detectable vehicle has little exposed metal, such as a vehicle which is partially covered with cloth, etc.
- When a detectable vehicle is irregularly shaped, such as a tractor, sidecar, etc.
- When the distance between the vehicle and a detectable vehicle has become extremely short
- When a detectable vehicle is at an angle
- When snow, mud, etc. is attached to a detectable vehicle
- When driving on the following kinds of roads:
  - Roads with sharp curves or winding roads
  - Roads with changes in grade, such as sudden inclines or declines
  - Roads which is sloped to the left or right
  - Roads with deep ruts
  - Roads which are rough and unmaintained
  - Roads which frequently undulate or are bumpy
- When the steering wheel is being operated frequently or suddenly
- When the vehicle is not in a constant position within a lane
- When parts related to this system, the brakes, etc. are extremely hot or cold, wet, etc.
- When the wheels are misaligned
- When driving on slick road surfaces, such as when it is covered with ice, snow, gravel, etc.
- When the course of the vehicle differs from the shape of a curve
- When the vehicle speed is excessively high when entering a curve
- When entering/exiting a parking lot, garage, car elevator, etc.
- When driving in a parking lot
- When driving through an area where there are obstructions which may contact your vehicle, such as tall grass, tree branches, a curtain, etc.

- When driving in strong wind

Situations in which the lane may not be detected

- When the lane is extremely wide or narrow
- Immediately after changing lanes or passing through an intersection
- When driving in a temporary lane or lane regulated by construction
- When there are structures, patterns, shadows which are similar to lane lines in the surrounding
- When there are multiple white lines for a lane line
- When the lane lines are not clear or driving on a wet road surface
- When a lane line is on a curb
- When driving on a bright, reflective road surface, such as concrete

Situations in which some or all of the functions of the system cannot operate

- When a malfunction is detected in this system or a related system, such as the brakes, steering, etc.
- When the VSC, TRC, or other safety related system is operating
- When the VSC, TRC, or other safety related system is off

Changes in brake operation sound and pedal response

- When the brakes have been operated, brake operation sounds may be heard and the brake pedal response may change, but this does not indicate a malfunction.
- When the system is operating, the brake pedal may feel stiffer than expected or sink. In either situation the brake pedal can be depressed further. Further depress the brake pedal as necessary.

Pre-Collision System

PCS (Pre-Collision System)

The pre-collision system uses sensors to detect objects (→P.319) in the path of the vehicle. When the system determines that the possibility of a frontal collision with a detectable object is high, a warning operates to urge the driver to take evasive action and the potential brake pressure is increased to help the driver avoid the collision. If the system determines that the possibility of a collision is extremely high, the brakes are automatically applied to help avoid the collision or help reduce the impact of the collision.

The pre-collision system can be disabled/enabled and the warning timing can be changed. (→P.331)

⚠ WARNING

■ For safe use

- Driving safely is solely the responsibility of the driver. Pay careful attention to the surrounding conditions in order to ensure safe driving. Never use the pre-collision system in place of normal braking operations. This system cannot help avoid or reduce the impact of a collision in every situation. Over-reliance on this system to drive the vehicle safely may lead to an accident resulting in death or serious injury.
- Although the pre-collision system is designed to help avoid or help reduce the impact of a collision, its effectiveness may change according to various conditions. Therefore, it may not always be able to achieve the same level of performance. Read the following items carefully. Do not overly rely on this system and always drive carefully.
  - For safe use: →P.311

■ When to disable the pre-collision system

- When it is necessary to disable the system: →P.311

Detectable objects

The system can detect the following as detectable objects. (Detectable objects differ depending on the function.)

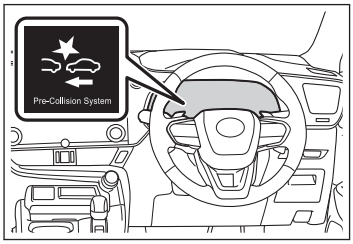
- Vehicles
- Bicycles*1
- Pedestrians
- Motorcycles*1

*1: Detected as a detectable object only when being ridden.

● Walls

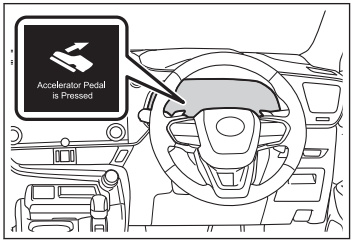
System functions

■ Pre-collision warning



When the system determines that the possibility of a collision is high, a buzzer will sound and an icon and warning message will be displayed on the multi-information display to urge the driver to take evasive action.

If the detectable object is a vehicle, there may be cases where moderate braking will be performed with the warning.



If the system determines that the accelerator pedal is strongly depressed, the following icon and message will be displayed on the multi-information display.

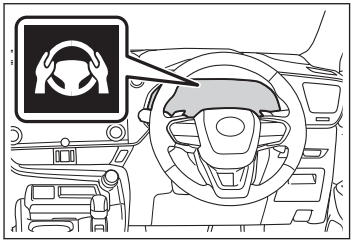
■ Pre-collision brake assist

If the system determines that the possibility of a collision is high and the brake operation by the driver is insufficient, the braking power will be increased.

■ Pre-collision brake control

If the system determines that the possibility of a collision is extremely high, the brakes are automatically applied to help avoid the collision or reduce the impact of the collision.

■ Emergency steering assist



If the system determines that the following conditions are met, assistance will be provided to help enhance vehicle stability and prevent lane departure. During assistance, in addition to the pre-collision warning, the following icon will be displayed on the multi-information display.

● The possibility of a collision is high

● There is sufficient space within the lane to perform evasive steering maneuvers

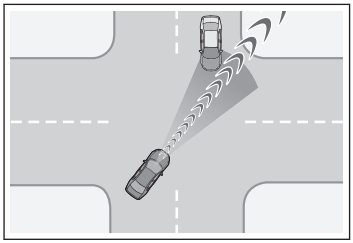
● The driver is operating the steering wheel

During assistance, the pre-collision warning will operate and a message will be displayed to warn the driver.

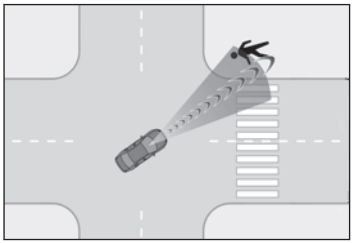
■ Intersection collision avoidance support (left/right turn)

In situations such as the following, if the system determines that the possibility of a collision is high, the pre-collision warning and pre-collision braking will operate. Depending on the intersection, assistance may not operate correctly.

● When turning left/right at an intersection and crossing the path of an oncoming vehicle/ motorcycle

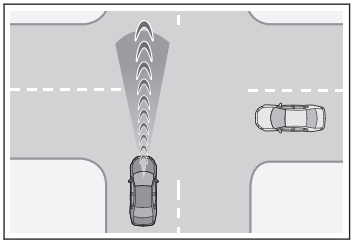


● When turning left/right and a pedestrian or bicycle is detected

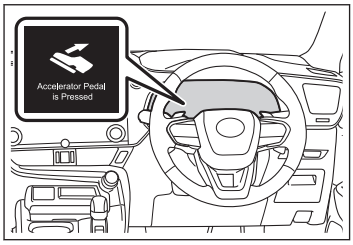


■ Intersection collision avoidance support (crossing vehicles)

At an intersection, etc., if the system determines that the possibility of a collision with an approaching vehicle or motorcycle is high, the pre-collision warning and pre-collision braking will operate. Depending on the intersection, assistance may not operate correctly.



■ Acceleration Suppression at Low Speed



When driving at a low speed, if the accelerator pedal is strongly depressed and the system determines that there is a possibility of a collision, engine output will be restrained or the brakes will be applied weakly to restrict acceleration. During operation, a buzzer will sound and a warning indicator and message will be displayed on the multi-information display.

■ Suspension control

When the system determines that the possibility of a collision is high, the AVS(→P.304) controls the damping force of the shock absorbers to help maintain an appropriate vehicle posture.

⚠ WARNING

■ Pre-collision braking

- When the pre-collision braking function is operating, a large amount of braking force will be applied.
- The pre-collision braking function is not designed to hold the vehicle stopped. If the vehicle is stopped by pre-collision brake control, the driver should operate the brakes immediately as necessary.
- The pre-collision braking function may not operate if certain operations are performed by the driver. If the accelerator pedal is being depressed strongly or the steering wheel is being turned, the system may determine that the driver is taking evasive action and possibly prevent the pre-collision braking function from operating.
- If the brake pedal is being depressed, the system may determine that the driver is taking evasive action and possibly delay the operation timing of the pre-collision brake control.

■ Acceleration Suppression at Low Speed

If the steering wheel is being turned, the system may determine that the driver is taking evasive action and possibly prevent the Acceleration Suppression at Low Speed function from operating or possibly causing its operation to be canceled.

■ Emergency steering assist

- The emergency steering assist will be canceled when the system determines that lane departure prevention control has completed.
- Depending on operations performed by the driver, emergency steering assist may not operate or operation may be canceled.

⚠ WARNING

- If the accelerator pedal is depressed strongly, the steering wheel is turned heavily, the brake pedal is depressed, or the turn signal lever is operated, the system may determine that the driver is taking evasive action and the emergency steering assist may not operate.
- While the emergency steering assist is operating, if the accelerator pedal is depressed strongly, the steering wheel is turned heavily, or the brake pedal is depressed, the system may determine that the driver is taking evasive action and emergency steering assist operation may be canceled.
- While the emergency steering assist is operating, if the steering wheel is held or turned in the opposite direction of system operation, emergency steering assist operation will be canceled.

INFORMATION

Operating conditions of each function of the pre-collision system

The pre-collision system is enabled and the system determines that the possibility of a frontal collision with a detected object is high.

However, the system will not operate in the following situations:

- When the vehicle has not been driven a certain amount after a terminal of the battery has been disconnected and reconnected
- When the shift position is in R
- When the VSC OFF indicator is illuminated (only the pre-collision warning function will be operational)

The following are the operational speeds and cancelation conditions of each function:

- Pre-collision warning

Detectable objects	Vehicle speed	Relative speed between your vehicle and object
Preceding vehicles, stopped vehicles	Approximately 5 to 180 km/h (3 to 110 mph)	Approximately 5 to 180 km/h (3 to 110 mph)
Oncoming vehicles	Approximately 30 to 180 km/h (20 to 110 mph)	Approximately 80 to 220 km/h (50 to 130 mph)
Bicycles	Approximately 5 to 80 km/h (3 to 50 mph)	Approximately 5 to 80 km/h (3 to 50 mph)

Detectable objects	Vehicle speed	Relative speed between your vehicle and object
Pedestrians	Approximately 5 to 80 km/h (3 to 50 mph)	Approximately 5 to 80 km/h (3 to 50 mph)
Preceding motorcycles, stopped motorcycles	Approximately 5 to 180 km/h (3 to 110 mph)	Approximately 5 to 80 km/h (3 to 50 mph)
Oncoming motorcycles	Approximately 30 to 180 km/h (20 to 110 mph)	Approximately 30 to 180 km/h (20 to 110 mph)

While the pre-collision warning is operating, if the steering wheel is operated heavily or suddenly, the pre-collision warning may be cancelled.

● Pre-collision brake assist

Detectable objects	Vehicle speed	Relative speed between your vehicle and object
Preceding vehicles, stopped vehicles	Approximately 30 to 180 km/h (20 to 110 mph)	Approximately 10 to 180 km/h (7 to 110 mph)
Bicycles	Approximately 30 to 80 km/h (20 to 50 mph)	Approximately 30 to 80 km/h (20 to 50 mph)
Pedestrians	Approximately 30 to 80 km/h (20 to 50 mph)	Approximately 30 to 80 km/h (20 to 50 mph)
Preceding motorcycles, stopped motorcycles	Approximately 30 to 180 km/h (20 to 110 mph)	Approximately 10 to 80 km/h (7 to 50 mph)

● Pre-collision braking

Detectable objects	Vehicle speed	Relative speed between your vehicle and object
Preceding vehicles, stopped vehicles	Approximately 5 to 180 km/h (3 to 110 mph)	Approximately 5 to 180 km/h (3 to 110 mph)
Oncoming vehicles	Approximately 30 to 180 km/h (20 to 110 mph)	Approximately 80 to 220 km/h (50 to 130 mph)
Bicycles	Approximately 5 to 80 km/h (3 to 50 mph)	Approximately 5 to 80 km/h (3 to 50 mph)

Detectable objects	Vehicle speed	Relative speed between your vehicle and object
Pedestrians	Approximately 5 to 80 km/h (3 to 50 mph)	Approximately 5 to 80 km/h (3 to 50 mph)
Preceding motorcycles, stopped motorcycles	Approximately 5 to 180 km/h (3 to 110 mph)	Approximately 5 to 80 km/h (3 to 50 mph)
Oncoming motorcycles	Approximately 30 to 180 km/h (20 to 110 mph)	Approximately 30 to 180 km/h (20 to 110 mph)

If either of the following occur while the pre-collision braking function is operating, it will be canceled:

- The accelerator pedal is strongly depressed
- The steering wheel is operated heavily or suddenly

● Emergency steering assist

The emergency steering assist will not operate when the turn signal lights are flashing.

Detectable objects	Vehicle speed	Relative speed between your vehicle and object
Preceding vehicles, stopped vehicles, bicycles, pedestrians, motorcycles	Approximately 40 to 80 km/h (25 to 50 mph)	Approximately 40 to 80 km/h (25 to 50 mph)

While the emergency steering assist is operating, if any of the following are performed, emergency steering assist operation may be cancelled:

- The accelerator pedal is strongly depressed
- The steering wheel is operated heavily or suddenly
- The brake pedal is depressed

● Intersection collision avoidance support (left/right turn)

The intersection collision avoidance support (for left/right turning vehicles) will not operate when the turn signal lights are not flashing.

Detectable objects	Vehicle speed	Oncoming vehicle speed	Relative speed between your vehicle and object
Oncoming vehicles	Approximately 5 to 40 km/h (3 to 25 mph)	Approximately 5 to 75 km/h (3 to 45 mph)	Approximately 10 to 115 km/h (7 to 70 mph)

Detectable objects	Vehicle speed	Oncoming vehicle speed	Relative speed between your vehicle and object
Pedestrians	Approximately 5 to 30 km/h (3 to 20 mph)	-	Approximately 5 to 40 km/h (3 to 25 mph)
Bicycles	Approximately 5 to 30 km/h (3 to 20 mph)	-	Approximately 5 to 50 km/h (3 to 30 mph)
Oncoming motorcycles	Approximately 5 to 40 km/h (3 to 25 mph)	Approximately 5 to 75 km/h (3 to 45 mph)	Approximately 10 to 115 km/h (7 to 70 mph)

- Intersection collision avoidance support (crossing vehicles)

Detectable objects	Vehicle speed	Crossing vehicle speed	Relative speed between your vehicle and object
Vehicles, Motorcycles (side)	Approximately 5 to 60 km/h (3 to 38 mph)	● Your vehicle speed or less ● Approximately 40 km/h or less (25 mph or less)	Approximately 5 to 60 km/h (3 to 38 mph)

- Acceleration Suppression at Low Speed

The Acceleration Suppression at Low Speed function will not operate when the turn signal lights are flashing.

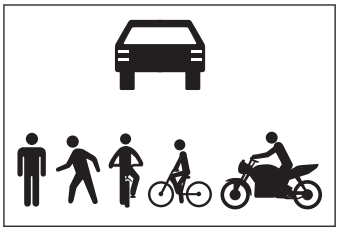
Detectable objects	Vehicle speed	Relative speed between your vehicle and object
Preceding vehicles, stopped vehicles, Pedestrians, Bicycles, Wall	Approximately 0 to 15 km/h (0 to 9 mph)	Approximately 0 to 15 km/h (0 to 9 mph)

While the Acceleration Suppression at Low Speed function is operating, if any of the following are performed, the low speed sudden acceleration suppression function operation will be cancelled:

- The accelerator pedal is released.
- The steering wheel is operated heavily or suddenly

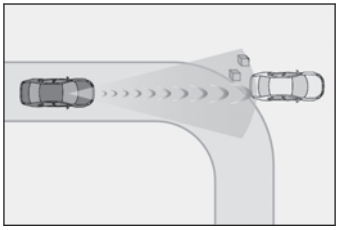
Detection of detectable objects

Objects are detected based on their size, shape, and movement. Depending on the ambient brightness, movement, posture and direction of a detectable object, it may not be detected and the system may not operate properly. The system detects shapes, such as the following, as detectable objects.

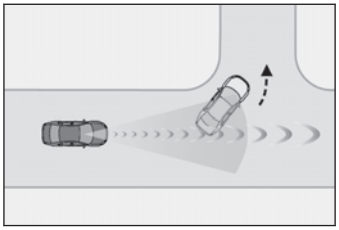


Situations in which the system may operate even though the possibility of a collision is not high

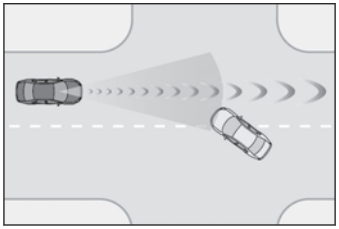
- In certain situations, such as the following, the system may determine that the possibility of a collision is high and operate:
  - When passing a detectable object
  - When changing lanes while overtaking a detectable object
  - When suddenly approaching a detectable object
  - When approaching a detectable object or other object on the roadside, such as guardrails, utility poles, trees, walls, etc.
  - When there is a detectable object or other object by the roadside of a curve



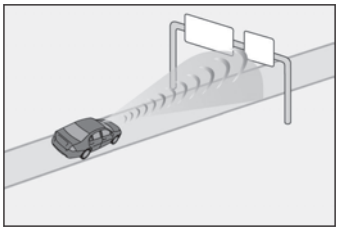
  - When there are patterns or a painting ahead of the vehicle that may be mistaken for a detectable object
  - When passing a detectable object that is changing lanes or turning left/right



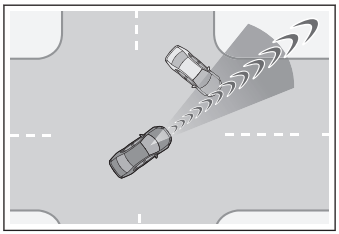
- When passing a detectable object which is stopped to make a left/right turn



- When a detectable object stops immediately before entering the path of the vehicle
- When passing through a location with a structure above the road (traffic sign, billboard, etc.)

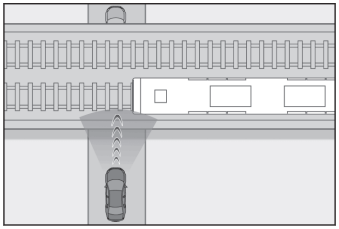


- When approaching an electric toll gate barrier, parking lot barrier, or other barrier that opens and closes
- When turning left/right and an oncoming vehicle, oncoming motorcycle, pedestrian or bicycle crosses in front of the vehicle
- When attempting to turn left/right in front of an oncoming vehicle, oncoming motorcycle, pedestrian or bicycle
- When turning left/right and an oncoming vehicle, oncoming motorcycle, pedestrian or bicycle stops or changes course immediately before entering the path of the vehicle
- When turning left/right and an oncoming vehicle/motorcycle turns left/right in front of the vehicle



- When the steering wheel is operated toward the path of an oncoming vehicle

- When there is an object moving above or under the road

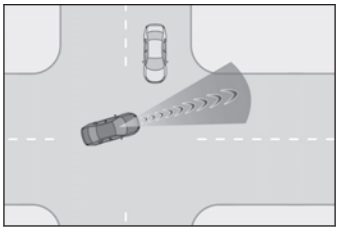


Situations in which the system may not operate properly

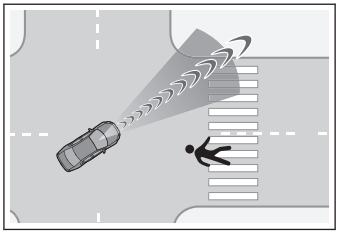
In certain situations, such as the following, a detectable object may not be detected by the front sensors, and the system may not operate properly:

- When a detectable object is approaching your vehicle
- When your vehicle or a detectable object is wandering
- When a detectable object makes an abrupt maneuver (such as sudden swerving, acceleration or deceleration)
- When suddenly approaching a detectable object
- When the detectable object is near a wall, fence, guardrail, manhole cover, steel plate on the road surface, or another vehicle
- When there is a structure above a detectable object
- When part of a detectable object is hidden by another object (large luggage, umbrella, guardrail, etc.)
- When multiple detectable objects are overlapping
- When a bright light, such as the sun, is reflecting off of a detectable object
- When a detectable object is white and looks extremely bright
- When the color or brightness of a detectable object causes it to blend in with its surroundings
- When a detectable object cuts in front of or suddenly emerges in front of your vehicle
- When approaching a vehicle which is diagonal
- If a bicycle is a child sized bicycle, is carrying a large load, is carrying an extra passenger, is carrying a forward leaning rider, or has an unusual shape (bicycles equipped with a child seat, tandem bicycles, etc.)
- If a pedestrian or bicycle is shorter than approximately 1 m (3.2 ft.) or taller than approximately 2 m (6.5 ft.).
- When the silhouette of a pedestrian or bicycle is unclear (such as when they are wearing a raincoat, long skirt, etc.)

- When a pedestrian is bending forward or squatting
- When a pedestrian or bicycle is moving at high speed
- When a pedestrian is pushing a stroller, wheelchair, bicycle or other vehicle
- When a detectable object blends in with the surrounding area, such as when it is dim (at dawn or dusk) or dark (at night or in a tunnel)
- When the vehicle has not been driven for a certain amount of time after the engine was started
- While turning left/right or a few seconds after turning left/right
- While driving around a curve and a few seconds after driving around a curve
- When turning left/right and an oncoming vehicle/motorcycle is driving in a lane 3 or more lanes from the vehicle
- When turning left/right and the direction of the vehicle differs greatly from the direction traffic flows in the oncoming lane



- When turning left/right, a pedestrian or bicycle behind the vehicle comes in front of it as if it overtakes the vehicle



- When at an intersection, the approaching crossing vehicle is long in overall length, such as a large truck, towing trailer, etc.

● In addition to the preceding, in certain situations, such as the following, the emergency steering assist may not operate properly:

- When a detectable object is too close to the vehicle
- When there is insufficient space to perform evasive steering maneuvers or an obstruction exists in the evasion direction
- When there is an oncoming vehicle

● In addition to the preceding, in certain situations, such as the following, walls may not be detected as a target object and the Acceleration Suppression at Low Speed function may not operate properly:

- When scenery behind the wall is visible, such as a glass door, grid fence, etc.
- When the wall is slanted or low
- When the wall is narrow, such as a pole, etc.
- When the wall is made of plants, such as a hedge, etc.
- When the road, etc. is reflected on the wall
- When the vehicle is approaching the wall at an angle

Changing the pre-collision setting

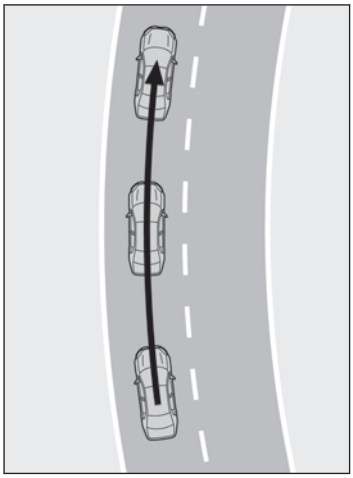
- The pre-collision system can be enabled/disabled through a customize setting.→P.656

  The system is enabled each time the engine switch is turned to ON.
- When the system is disabled, the PCS warning light will illuminate and a message will be displayed on the multi-information display.
- The pre-collision settings can be changed on the customize settings.→P.656
- When the pre-collision warning timing is changed, the emergency steering assist timing will also be changed.
- When [ (later)] is selected, the emergency steering assist will not operate in most cases.
- When the dynamic radar cruise control is operating, the pre-collision warning will operate at the [ (Earlier)] timing, regardless of the user setting.

Lane Tracing Assist

LTA (Lane Tracing Assist)

LTA functions



- When driving on a road with clear lane lines with the dynamic radar cruise control operating, lane lines and preceding and surrounding vehicles are detected using the front camera and radar sensor, and the steering wheel is operated to maintain the vehicle's lane position.

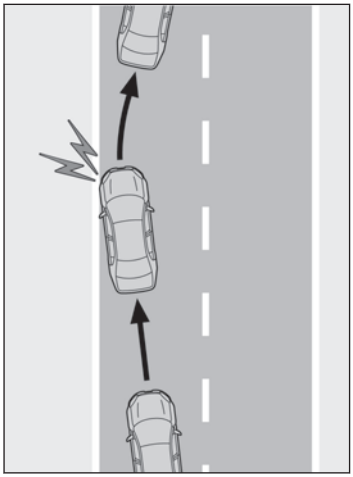
  Use the this function only on highways and expressways.

  If the dynamic radar cruise control is not operating, the function will not operate.

  In situations where the lane lines are difficult to see or are not visible, such as when in a traffic jam, support will be provided using the path of preceding and surrounding vehicles.

  If the system determines that the steering wheel has not been operated for a certain amount of time or the steering wheel is not being firmly gripped, the driver will be alerted and this function will be temporarily canceled.

  If the steering wheel is firmly gripped, the function will begin operating again.



- When the function is operating, if the vehicle is likely to depart from its lane, the driver will be alerted via a display and buzzer.

  When the buzzer sounds, check the area around the vehicle and carefully operate the steering wheel to move the vehicle back to the center of the lane.

⚠ WARNING

Before using the LTA system

- Do not overly rely on the LTA system. The LTA system is not a system which provides automated assistance in driving and it is not a system which reduces the amount of attention necessary for safe driving. The driver is solely responsible for paying attention to their surroundings and operating the steering wheel as necessary to ensure safety. Also, the driver is responsible for taking adequate breaks when fatigued, such as when driving for a long time.
- Failure to perform appropriate driving operations and pay careful attention may lead to an accident.
- When not using the LTA system, turn it off using the LTA switch.

INFORMATION

Operating conditions of function

- This function is operable when all of the following conditions are met:
  - The LTA system detects lane lines or the path of preceding or surrounding vehicles.
  - The dynamic radar cruise control is operating.
  - The lane width is approximately 3 to 4 m (10 to 13 ft.).
  - The turn signal lever is not being operated.
  - The vehicle is not being driven around a sharp curve.
  - The vehicle is not accelerating or decelerating more than a certain amount.
  - The steering wheel is not being turned with a large force.
  - The hands off steering wheel warning(→P.334) is not operating.
  - The vehicle is being driven in the center of a lane.

Temporary cancelation of functions

- When the operating conditions are no longer met, a function may be temporarily canceled. However, when the operation conditions are met again, operation of the function will automatically be restored. (→P.333)
- If the operating conditions of a function are no longer met while the function is operating, a buzzer may sound to indicate that the function has been temporarily canceled.
- The steering assist operation of the function can be overridden by the steering wheel operation of the driver.

Lane departure warning function when the LTA is operating

- Even if the LDA warning method is changed to vibration of the steering wheel, if the vehicle deviates from the lane while the LTA is operating, the warning buzzer will sound to alert the driver.
- If steering wheel operation equivalent to that necessary for a lane change is detected, the system will determine the vehicle is not deviating from the lane and the warning will not operate.

Hands off steering wheel warning operation

When the system determines the driver is not holding the steering wheel, a message urging the driver to grip the steering wheel and the icon shown in the illustration will be displayed on the multi-information display to warn the driver. If the system detects that the steering wheel is held, the warning will be canceled. When using the system, make sure to grip the steering wheel firmly, regardless of whether the warning is operating or not.



- If no operations are detected for a certain amount of time, the warning will operate and the function will be temporarily canceled. This warning may also operate if the driver only operates steering wheel a small amount continuously.

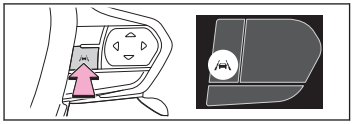
Situations in which the hands off steering wheel warning may not operate properly

- Depending on the condition of the vehicle, handle control condition and road surface, the warning function may not operate.

Enabling/disabling the system

The LTA will change between ON/OFF each time the LTA switch is pressed.

When the LTA is ON, the LTA indicator will illuminate.



⚠ WARNING

Situations in which the functions may not operate properly

In the following situations, the functions may not operate properly and the vehicle may depart from its lane. Do not overly rely on these functions. The driver is solely responsible for paying attention to their surroundings and operating the steering wheel as necessary to ensure safety.

⚠ WARNING

- When a preceding or surrounding vehicle changes lanes (Your vehicle may follow the preceding or surrounding vehicle and also change lanes)



- When a preceding or surrounding vehicle is swaying (Your vehicle may sway accordingly and depart from the lane)
- When a preceding or surrounding vehicle departs from a lane (Your vehicle may follow the preceding or surrounding vehicle and also depart from the lane)
- When a preceding or surrounding vehicle is being driven extremely close to the left/right lane line (Your vehicle may follow the preceding or surrounding vehicle accordingly and depart from the lane)
- When there are moving objects or structures in the surrounding area (Depending on the position of the moving object or structure relative to your vehicle, your vehicle may sway)
- When the vehicle is struck by a crosswind or the turbulence of other nearby vehicles
- Situations in which the sensors may not operate properly: →P.315
- Situations in which the lane may not be detected: →P.318
- When it is necessary to disable the system: →P.311

Operation display of steering wheel operation support

The operating state of the LTA system is indicated.

Indicator	Lane display	Steering icon	Situation
 White	 Gray/White	 Gray	LTA is on standby
 Green	 Green	 Green	LTA is operating

Indicator	Lane display	Steering icon	Situation
 Yellow Flashing	 Yellow Flashing	 Green	The vehicle is departing the lane toward the side which the lane display is flashing

Lane Departure Alert

LDA (Lane Departure Alert)

Basic functions

The LDA system warns the driver if the vehicle may deviate from the current lane or course*1, and also can slightly operate the steering wheel to help avoid deviation from the lane or course*1.

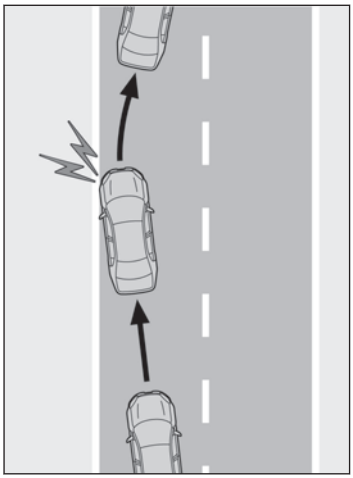
The front camera is used to detect lane lines or a course*1.

■ Lane departure alert function

When the system determines that the vehicle might depart from its lane or course*1, a warning is displayed on a display, and either a warning buzzer will sound or the steering wheel will vibrate to alert the driver.

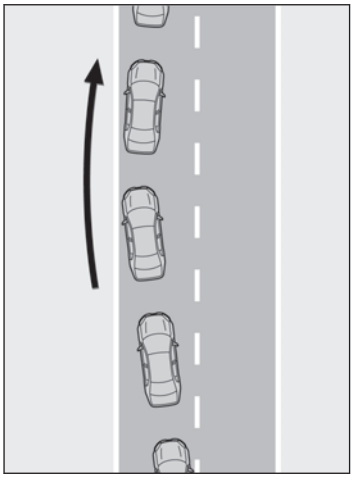
Check the area around your vehicle and carefully operate the steering wheel to move the vehicle back to the center of the lane or course*1.

Vehicles with BSM: If the system determines that the vehicle may collide with a vehicle in an adjacent lane, the lane departure alert will operate even if the turn signals are operating.



*1: Boundary between the asphalt and grass, soil, etc., or structures, such as a curb, guardrail, etc.

Lane departure prevention function

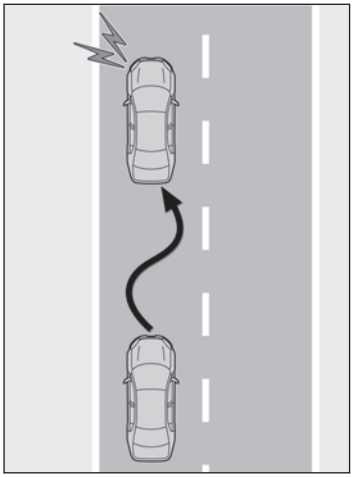


If the system determines that the vehicle is likely to depart from its lane or course*1, it provides assistance through steering wheel operations to help avoid deviation from the lane or course.

If the system determines that the steering wheel has not been operated for a certain amount of time or the steering wheel is not being firmly gripped, a warning message may be displayed and a warning buzzer may sound to alert the driver.

Vehicles with BSM: If the system determines that the vehicle may collide with a vehicle in an adjacent lane, the lane departure prevention function will operate even if the turn signals are operating.

Break suggestion function



If the vehicle is swaying, a message will be displayed and a buzzer will sound to urge the driver to take a break.

⚠ WARNING

Before using the LDA system

- Do not overly rely on the LDA system. The LDA system is not a system which provides automated assistance in driving. However, as it is not a system which reduces the amount of attention necessary for safe driving. The driver is solely responsible for

*1: Boundary between the asphalt and grass, soil, etc., or structures, such as a curb, guardrail, etc.

⚠ WARNING

paying attention to their surroundings and operating the steering wheel as necessary to ensure safety. Also, the driver is responsible for taking adequate breaks when fatigued, such as when driving for a long time.

- Failure to perform appropriate driving operations and pay careful attention may lead to an accident.

INFORMATION

Operating conditions of each function

- Lane departure alert/prevention function

This function is operable when all of the following conditions are met:

- The vehicle speed is approximately 50 km/h (30 mph) or more.

  Operation may be possible when the vehicle speed is approximately 40 km/h (25 mph) or more if vehicles, motorcycles, bicycles, or pedestrians are detected near the lane.
- The system recognizes a lane or course*1. (When recognized on only one side, the system will operate only for the recognized side.)
- The lane width is approximately 3 m (9.8 ft.) or more.
- The turn signal lever is not being operated.

  (Vehicles with BSM: Except when a vehicle is detected in the direction that the turn signal lever is operated.)
- The vehicle is not being driven around a sharp curve.
- The vehicle is not accelerating or decelerating more than a certain amount.
- The steering wheel is not being turned sufficiently to perform a lane change.
- When the VSC or TRC system is not turned off

Temporary cancellation of functions

When the operating conditions are no longer met, a function may be temporarily canceled. However, when the operation conditions are met again, operation of the function will automatically be restored. (→P.339)

Operation of the lane departure alert function/lane departure prevention function

- Depending on the vehicle speed, road conditions, lane departure angle, etc., operation of the lane departure prevention function may not be felt or the function may not operate.

*1: Boundary between the asphalt and grass, soil, etc., or structures, such as a curb, guardrail, etc.

- Depending on the conditions, the warning buzzer may operate even if vibration is selected through a customize setting.
- If a course*1 is not clear or straight, the lane departure alert function or lane departure prevention function may not operate.
- The lane departure alert function or lane departure prevention function may not operate if the system judges that the vehicle is intentionally being steered to avoid a pedestrian or parked vehicle.
- Vehicles with BSM: It may not be possible for the system to judge if there is danger of a collision with a vehicle in an adjacent lane.
- The steering assist operation of the lane departure prevention function can be overridden by the steering wheel operation of the driver.

Hands off steering wheel warning operation

In the following situations, a message urging the driver to operate the steering wheel and an icon will be displayed and a buzzer will sound to warn the driver. When using the system, make sure to grip the steering wheel firmly, regardless of whether the warning is operating or not.



- When the system determines that the driver is not securely holding the steering wheel, or the steering wheel is not being operated when the steering assist operation of the lane departure prevention function is operating

  The length of time that the warning buzzer operates will become longer as the frequency of the steering assist operating increases. Even if the system judges that the steering wheel has been operated, the warning buzzer will sound for a certain amount of time.

Break suggestion function

This function is operable when all of the following conditions are met:

- The vehicle speed is approximately 65 km/h (40 mph) or more.
- The lane width is approximately 3 m (9.8 ft.) or more.

Depending on the condition of the vehicle and road surface, the break suggestion function may not operate.

*1: Boundary between the asphalt and grass, soil, etc., or structures, such as a curb, guardrail, etc.



Changing LDA settings

- The LDA system can be enabled/disabled through a customize setting.→P.656
- The settings of the LDA can be changed on the customize settings.→P.656

⚠ WARNING

Situations in which the system may not operate properly

In the following situations, the system may not operate properly and the vehicle may depart from its lane. Do not overly rely on these functions. The driver is solely responsible for paying attention to their surroundings and operating the steering wheel as necessary to ensure safety.

- When the boundary between the asphalt and grass, soil, etc., or structures, such as a curb, guardrail, etc. is not clear or straight
- When the vehicle is struck by a crosswind or the turbulence of other nearby vehicles
- Situations in which the lane may not be detected :→P.318
- Situations in which the sensors may not operate properly: →P.315
- Situations in which some or all of the functions of the system cannot operate: →P.318
- When it is necessary to disable the system: →P.311

Displays and system operation

The operating state of the lane departure alert function and steering assist operation of the lane departure prevention function are indicated.

Indicator	Lane display	Steering icon	Situation
 Yellow Illuminated	Not illuminated	Not illuminated	System disabled

Indicator	Lane display	Steering icon	Situation
Not illuminated	 Gray	Not illuminated	Lane lines are not detected by the system
Not illuminated	 White	Not illuminated	Lane lines are detected by the system
 Yellow Flashing	 Yellow Flashing	Not illuminated	Lane departure alert function is operating for the side which the lane display is flashing
 Green	 Green	 Green	Lane departure prevention function is operating for the side which the lane display is illuminated
 Yellow Flashing	 Yellow Flashing	 Green	Lane departure alert function/lane departure prevention function is operating for the side which the lane display is flashing

Road Sign Assist

RSA (Road Sign Assist)

The RSA system detects specific road signs using the front camera and warns the driver via displays and buzzers.

⚠ WARNING

■ For safe use

- Driving safely is solely the responsibility of the driver. Pay careful attention to the surrounding conditions in order to ensure safe driving.
- Do not rely solely upon the RSA. The RSA assists the driver by providing road sign information, but it is not a replacement for the driver's own vision and awareness. Driving safely is solely the responsibility of the driver. Pay careful attention to the surrounding conditions in order to ensure safe driving.

■ Situations in which the RSA should not be used

- When it is necessary to disable the system: →P.311

■ Situations in which the system may not operate properly

- Situations in which the sensors may not operate properly: →P.315

Display Function

When the front camera detects a sign, the sign will be displayed on the display.

- Multiple signs can be displayed.

  Depending on the specifications of the vehicle, the number of displayed signs may be limited.

INFORMATION

■ Operating conditions of sign display

Signs will be displayed when the following conditions are met:

- The system has detected a sign

In the following situations, a displayed sign may stop being displayed:

- When a new sign has not been detected for a certain distance
- When the system determines that the road being driven on has changed, such as after a left or right turn

Situations in which the display function may not operate properly

In the following situations, the RSA system may not operate properly and may not detect signs or may display the incorrect sign. However, this does not indicate a malfunction.

- When a sign is dirty, faded, tilted or bent
- When the contrast of an electronic sign is low
- When all or part of a sign is hidden by a tree, utility pole, etc.
- When a sign is detected by the front camera for a short amount of time
- When the driving state (turning, changing lanes, etc.) is judged incorrectly
- When a sign is immediately after a freeway junction or in an adjacent lane just before merging
- When stickers are attached to the rear of a preceding vehicle
- When a sign similar to a system compatible sign is detected as a system compatible sign
- When a speed limit sign for a frontage road is within detection range of the front camera
- When driving around a roundabout
- When a sign intended for trucks, etc. is detected
- When a sign has a supplemental sign (end point, day of week, time of day, etc.)
- When there is a sign within a traffic restricted area, such as a roadworks area

Notification function

In the following situations, the RSA system will output a warning to notify the driver.

- If the vehicle speed exceeds the speed warning threshold of the speed limit sign displayed on the display, the sign display will be emphasized and a buzzer will sound.

INFORMATION

Operating conditions of the notification functions

- Excess speed notification function

  This function will operate when the following condition is met:

  - A speed limit road sign is recognized by the system.

Types of road signs supported

- The following types of road signs can be displayed.

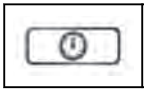
However, non-standard or recently introduced traffic signs may not be displayed.

▶ Speed limit road signs(1)

	Speed limit

(1)  is displayed when a speed limit sign is not available.

▶ Speed limit with supplemental mark(1)

	Time

(1) Displayed simultaneously with a speed limit sign.

- Depending on the specifications of the vehicle, signs may be displayed overlapping.

	Duplicate display example

Changing RSA settings

The following settings of the RSA can be changed through customize settings.
→P.658

Dynamic radar cruise control

Dynamic radar cruise control

This dynamic radar cruise control detects the presence of vehicles ahead, determines the current vehicle-to-vehicle distance, and operates to maintain a suitable distance from the vehicle ahead. The desired vehicle-to-vehicle distance can be set by operating the vehicle-to-vehicle distance switch.

Use the dynamic radar cruise control only on highways and expressways.

⚠ WARNING

■ For safe use

- Driving safely is solely the responsibility of the driver. Do not overly rely on this system, and pay careful attention to the surrounding conditions in order to ensure safe driving.
- The dynamic radar cruise control provides driving assistance to reduce the driver's burden. However, there are limitations to the assistance provided.

  Read the following items carefully. Do not overly rely on this system and always drive carefully.

  - Conditions under which the system may not operate correctly: →P.350
- Set the speed appropriately according to the speed limit, traffic flow, road conditions, weather conditions, etc. The driver is responsible for confirming the set speed.
- Even if the system is operating correctly, the condition of a preceding vehicle as recognized by the driver and detected by the system may differ. Therefore, it is necessary for the driver to pay attention, assess risks, and ensure safety. Over-reliance on this system to drive the vehicle safely may lead to an accident resulting in death or serious injury.

■ Precautions for the driving assist systems

Observe the following precautions, as there are limitations to the assistance provided by the system. Over-reliance on this system may lead to an accident resulting in death or serious injury.

- Details of support provided for the driver's vision

  The dynamic radar cruise control is only intended to help the driver in determining the distance between the driver's own vehicle and a designated preceding vehicle. It is not a system which allows for careless or inattentive driving, and is not a system which assists in poor visibility conditions.

  The driver must pay attention to their surroundings, even when the vehicle stops.
- Details of support provided for the driver's judgement

⚠ WARNING

The dynamic radar cruise control determines whether the distance between the driver's own vehicle and a designated preceding vehicle is within a set range. It is not capable of making any other type of judgement. Therefore, it is absolutely necessary for the driver to remain vigilant and to determine whether or not there is a possibility of danger.

- Details of support provided for the driver's operation

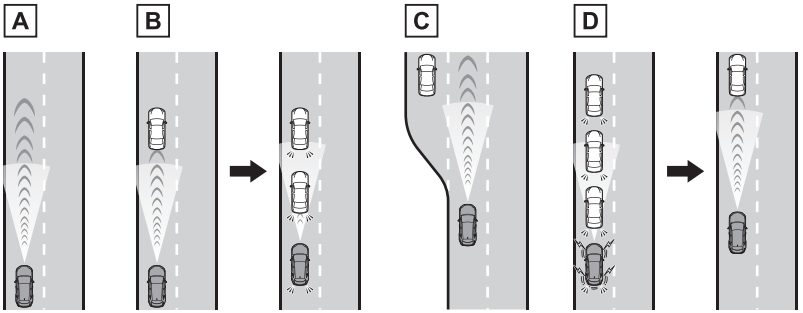
  The dynamic radar cruise control does not include functions which will prevent or avoid collisions with vehicles ahead of your vehicle. Therefore, if there is ever any possibility of danger, the driver must take immediate and direct control of the vehicle and act appropriately in order to ensure safety.

Situations in which the dynamic radar cruise control should not be used

Do not use the dynamic radar cruise control in the following situations. As the system will not be able to provide appropriate control, using it may lead to an accident resulting in death or serious injury.

- Roads where there are pedestrians, cyclists, etc.
- When driving on a highway or expressway entrance or exit
- When the approach warning sounds frequently
- Situations in which the sensors may not operate properly: →P.315
- When it is necessary to disable the system: →P.311

Basic functions



A Constant speed cruising:

When there are no vehicles ahead

The vehicle drives at the speed set by the driver.

If the set vehicle speed is exceeded while driving down a hill, the set vehicle speed display will blink and a buzzer will sound.

B Deceleration and follow-up cruising

When a preceding vehicle driving slower than the set vehicle speed is detected

When a vehicle is detected driving ahead of your vehicle, the vehicle automatically decelerates and if a greater reduction in vehicle speed is necessary, the brakes are applied (the stop lights will come on at this time). The vehicle is controlled to maintain the vehicle-to-vehicle distance set by the driver, in accordance with changes in the speed of the preceding vehicle. If vehicle deceleration is not sufficient and the vehicle approaches the vehicle ahead, the approach warning will sound.

C Acceleration

When there are no longer any preceding vehicles driving slower than the set vehicle speed

The vehicle accelerates until the set vehicle speed is reached and then resumes constant speed cruising.

D Starting off:

If a preceding vehicle stops, the vehicle will also stop (controlled stop). After the preceding vehicle starts off, pressing the [RES] switch or depressing the accelerator pedal will resume follow-up cruising (start off operation). If a start off operation is not performed, the controlled stop will continue.

INFORMATION

Operating conditions

- The D shift position is selected.
- The desired set speed can be set when the vehicle speed is approximately 30 km/h (20 mph) or more.
  - If the vehicle speed is set while driving at below approximately 30 km/h (20 mph), the set speed will be set to approximately 30 km/h (20 mph).
  - If the vehicle speed is set while driving at a speed that exceeds the system's upper limit, the set vehicle speed will be the system's upper limit.

Accelerating after setting the vehicle speed

As with normal driving, acceleration can be performed by depressing the accelerator pedal. After accelerating, the vehicle will return to the set vehicle speed. However, while in vehicle-to-vehicle distance control mode, the vehicle speed may decrease to below the set vehicle speed in order to maintain the distance from the preceding vehicle.

When the vehicle is stopped by system control during follow-up cruising

- When the [RES] switch is pressed while the vehicle is stopped by system control, if the preceding vehicle starts off within approximately 3 seconds, follow-up cruising will resume.
- If the preceding vehicle starts off within approximately 3 seconds of the vehicle being stopped by system control, follow-up cruising will resume.

Automatic cancellation of vehicle-to-vehicle distance control mode

In the following situations, vehicle-to-vehicle distance control mode will be canceled automatically:

- When the brake control or output restriction control of a driving support system operates (For example: Pre-Collision System, drive-start control)
- When the parking brake has been operated
- When the driver's seat belt is unfastened while driving
- When the Pre-Collision System is disabled
- When the vehicle is stopped by system control on a steep incline
- When any of the following are detected while the vehicle is stopped by system control:
  - The driver's seat belt is unfastened

- The driver's door is opened
- Approximately 3 minutes have elapsed since the vehicle was stopped

The parking brake may be actived automatically.

● Situations in which some or all of the functions of the system cannot operate: →P.318

■ Dynamic radar cruise control system warning messages and buzzers

For safe use: →P.311

■ Preceding vehicles that the sensor may not detect correctly

In the following situations, depending on the conditions, if the system cannot provide sufficient deceleration or acceleration is necessary, operate the brake pedal or accelerator pedal.

As the sensor may not be able to correctly detect these types of vehicles, the approach warning (→P.353) may not operate.

- When a vehicle cuts in front of your vehicle or changes lanes away from your vehicle extremely slowly or quickly
- When changing lanes
- When a preceding vehicle is driving at a low speed
- When a vehicle is stopped in the same lane as the vehicle
- When a motorcycle is traveling in the same lane as the vehicle

■ Conditions under which the system may not operate correctly

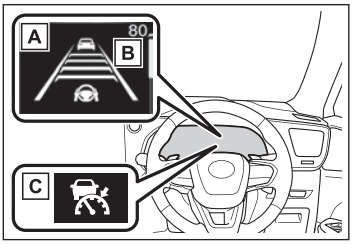
In the following situations, operate the brake pedal (or accelerator pedal, depending on the situation) as necessary.

As the sensor may not be able to correctly detect a vehicle, the system may not operate properly.

- When a preceding vehicle brakes suddenly
- When changing lanes at low speeds, such as in a traffic jam

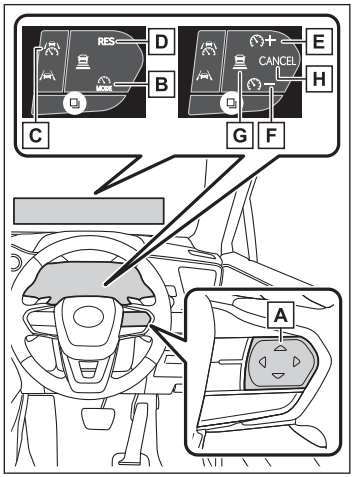
System components

■ Meter display



A Multi-information display
B Set vehicle speed
C Indicators

Switches



A The function of each switch differs depending on the conditions and settings.

When a switch is touched, the function of each switch is displayed. If the head-up display is off, check functions on the multi-information display.

B Driving assist mode select switch

C Driving assist switch

D [RES] switch

E [+]switch

F [-]switch

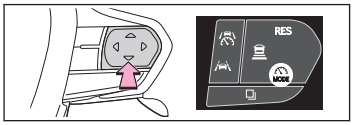
G Vehicle-to-vehicle distance switch

H Cancel switch

Using the dynamic radar cruise control

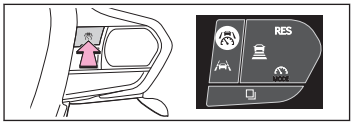
Setting the vehicle speed

1 Press the driving assist mode select switch to select Adaptive Cruise Mode.



The dynamic radar cruise control indicator will illuminate.

2 Using the accelerator pedal, accelerate or decelerate to the desired vehicle speed (approximately 30 km/h [20 mph] or more), and press the driving assist switch to set the set vehicle speed.



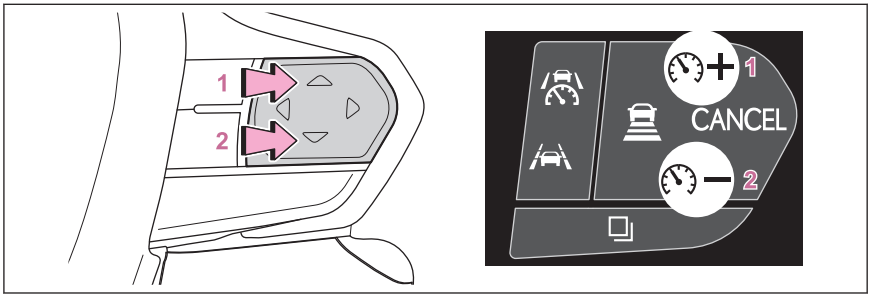
The set vehicle speed will be displayed on the multi-information display.

The vehicle speed at the moment the switch is released will be the set vehicle speed.

Adjusting the set vehicle speed

Adjusting the set vehicle speed using the switches

- To change the set vehicle speed, press the [+] switch or [-] switch until the desired speed is displayed.



1 Increase set vehicle speed

2 Decrease set vehicle speed

Short press adjustment : Press the switch

Long press adjustment : Press and hold the switch until the desired set vehicle speed is reached.

The set vehicle speed will increase or decrease as follows:

Short press adjustment : By 1 km/h (0.6 mph) or 1 mph (1.6 km/h) each time the switch is pressed

Long press adjustment : Increases or decreases in 5 km/h (3.1 mph) or 5 mph (8 km/h) increments continuously while the switch is pressed and held

The set vehicle speed adjustment increment can be changed through a customize setting.

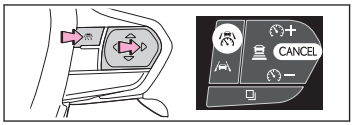
■ Increasing the set vehicle speed using the accelerator pedal

1 **Depress the accelerator pedal to accelerate the vehicle to the desired vehicle speed.**

2 **Press the [+] switch.**

Canceling/resuming control

1 **Press the cancel switch or driving assist switch to cancel control.**



Control will also be canceled if the brake pedal is depressed.

(If the vehicle has been stopped by system control, depressing the brake pedal will not cancel control.)

2 **Press the [RES] switch to resume control.**

Changing the vehicle-to-vehicle distance

● **Each time the switch is pressed, the vehicle-to-vehicle distance setting will change as follows:**

If a preceding vehicle is detected, the preceding vehicle mark will be displayed.



Illustration Number	Vehicle-to-vehicle distance	Approximate Distance (Vehicle Speed: 100 km/h [60mph])
1	Extra long	Approximately 70 m (230 ft)
2	Long	Approximately 60 m (200 ft)
3	Medium	Approximately 45 m (145 ft)
4	Short	Approximately 30 m (100 ft)

The actual vehicle-to-vehicle distance varies in accordance with the vehicle speed. Also, when the vehicle is stopped by system control, it will be stopped at a certain distance from the preceding vehicle, depending on the situation, regardless of the setting.

Approach warning

In situations where the vehicle approaches a preceding vehicle and the system cannot provide sufficient deceleration, such as if a vehicle cuts in front of the vehicle, a warning display will flash and a buzzer will sound to alert the driver. Depress the brake pedal to ensure appropriate vehicle-to-vehicle distance.

Warnings may not occur when

In the following situations, the warning may not operate even though the vehicle-to-vehicle distance is short.

- When the preceding vehicle is traveling at the same speed or faster than your vehicle
- When the preceding vehicle is traveling at an extremely low speed
- Immediately after the vehicle speed has been set
- When the accelerator pedal is depressed

Curve speed reduction function



When a curve is detected, the vehicle speed will begin being reduced. When the curve ends, the vehicle speed reduction will end.

Depending on the situation, the vehicle speed will then return to the set vehicle speed.

In situations where vehicle-to-vehicle distance control needs to operate, such as when a preceding vehicle cuts in front of your vehicle, the curve speed reduction function will be canceled.

INFORMATION

Situations in which the curve speed reduction function may not operate

In situations such as the following, the curve speed reduction function may not operate:

- When the vehicle is being driven around a gentle curve
- When the accelerator pedal is being depressed
- When the vehicle is being driven around an extremely short curve

Support for lane change

If your vehicle is being driven at approximately 80 km/h (50 mph) or more and a lane change to the passing lane is performed, when the turn signal lever is operated and the lane is changed, the vehicle will accelerate up to the set speed to assist in overtaking.

The system's recognition of which lane is the passing lane may be based solely on the location of the steering wheel in the vehicle (left-hand drive/right-hand drive). If the vehicle is driven in a location where the passing lane is on the opposite side of that where the vehicle was originally sold, the vehicle may accelerate when the turn signal lever is operated away from the passing lane. (e.g. The vehicle was manufactured for a right-hand traffic location, but is being driven in a left-hand traffic location. The vehicle may accelerate when the turn signal lever is operated to the right.)

If your vehicle is being driven at approximately 80 km/h (50 mph) or more and the lane is changed to that with a vehicle traveling slower than your vehicle, when the turn signal lever is operated the vehicle will gradually decelerate to assist in changing lanes.

Dynamic Radar Cruise Control with Road Sign Assist

When RSA function is enabled and the dynamic radar cruise control system is operating, if a speed limit sign is detected, the detected speed limit will be

displayed with an up/down arrow. The set speed can be increased/reduced to the detected speed limit by pressing and holding the [+] switch or [-] switch.

When the set speed is lower than the detected speed limit

Press and hold the [+] switch.



When the set speed is higher than the detected speed limit

Press and hold the [-] switch.



INFORMATION

The dynamic radar cruise control with road sign assist may not operate properly when

As the dynamic radar cruise control with road sign assist may not operate properly in situations where the RSA may not operate or cannot detect signs correctly (→P.343), when using this function, make sure to confirm the actual speed limit.

In the following situations, the set speed may not change to the detected speed limit by pressing and holding the [+] switch or [-] switch:

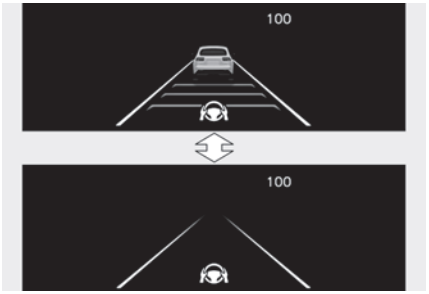
- When speed limit information is not available
- When the detected speed limit is the same as the set speed
- When the detected speed limit is outside of the speed range which the dynamic radar cruise control system can operate

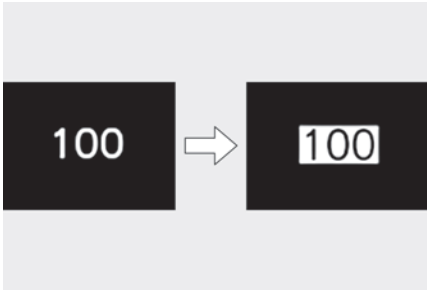
Changing Dynamic radar cruise control settings

- The settings of Dynamic radar cruise control can be changed through customize settings. →P.657

Display and system operation state

The operating state of Dynamic radar cruise control is indicated.

Indicator	Multi-information display		Situation
White		Vehicle-to-vehicle distance setting: Grey	Dynamic radar cruise control being OFF
Green		Vehicle-to-vehicle distance setting: Blue Set vehicle speed: Green	Constant speed cruising
Green		Vehicle-to-vehicle distance setting: Blue Set vehicle speed: Green Preceding vehicle: White	Follow-up cruising
Green		Vehicle-to-vehicle distance setting: Orange flashing Set vehicle speed: Green Preceding vehicle: Orange flashing	Approach warning

Indicator	Multi-information display		Situation
Green		Vehicle-to-vehicle distance setting: Grey Set vehicle speed: White Preceding vehicle: Grey	Accelerating with the accelerator pedal
Green		Set vehicle speed: Green in reverse display	Set vehicle speed being exceeded
Green		Vehicle-to-vehicle distance setting: Grey Set vehicle speed: White Preceding vehicle: Grey	Vehicle in controlled stop

Cruise Control

Cruise control

The vehicle can be driven at a set speed even if the accelerator pedal is not depressed.

Use the cruise control only on highways and expressways

⚠ WARNING

■ For safe use

- Driving safely is solely the responsibility of the driver. Therefore, do not overly rely on this system. The driver is solely responsible for paying attention to the vehicle's surroundings and driving safely.
- Set the speed appropriately according to the speed limit, traffic flow, road conditions, weather conditions, etc. The driver is responsible for confirming the set speed.

■ Situations in which cruise control should not be used

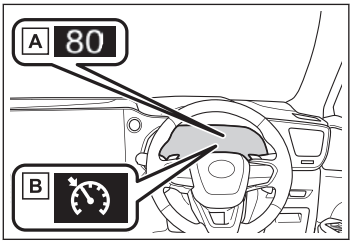
Do not use the cruise control in the following situations. As the system will not be able to provide appropriate control, using it may lead to an accident resulting in death or serious injury.

- On roads with sharp bends
- On winding roads
- On slippery roads, such as those covered with rain, ice or snow
- On steep downhills, or where there are sudden changes between sharp up and down gradients

  Vehicle speed may exceed the set speed when driving down a steep hill.
- When it is necessary to disable the system: →P.311

System Components

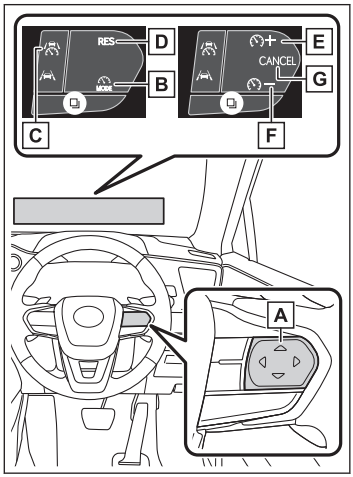
■ Meter display



A Set vehicle speed

B Cruise control indicator

Switches



A The function of each switch differs depending on the conditions and settings.

When a switch is touched, the function of each switch is displayed on the head-up display. If the head-up display is off, the functions will be displayed on the multi-information display.

B Driving assist mode select switch

C Driving assist switch

D [RES]switch

E [+]switch

F [-]switch

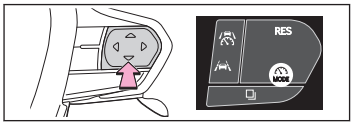
G Cancel switch

Using the cruise control

Setting the vehicle speed

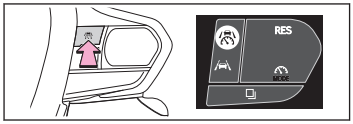
1 Press the driving assist mode select switch to select Cruise Control Mode.

The cruise control indicator will illuminate.



2 Using the accelerator pedal, accelerate to the desired vehicle speed (approximately 30 km/h [20 mph] or more), and press the driving assist switch to set the set vehicle speed.

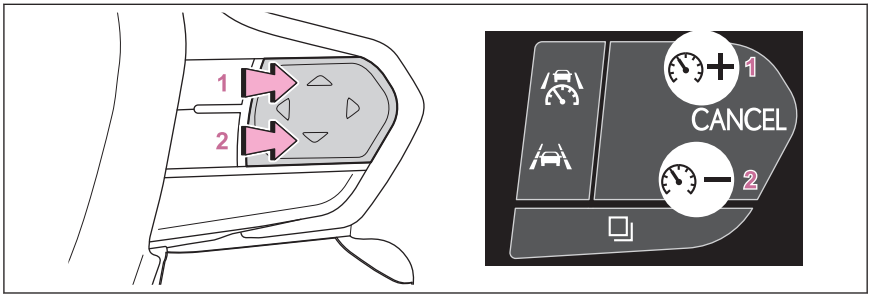
The vehicle speed at the moment the switch is released will be the set vehicle speed.



Adjusting the set vehicle speed

Adjusting the set vehicle speed using the switches

- To change the set vehicle speed, press the[+] switch or [-] switch until the desired speed is displayed.



1 Increase set vehicle speed

2 Decrease set vehicle speed

The set vehicle speed will increase or decrease as follows:

Fine adjustment: By 1 km/h (0.6 mph) or 1 mph (1.6 km/h) each time the switch is pressed

Large adjustment: Increases continuously while the switch is pressed and held

■ Increasing the set vehicle speed using the accelerator pedal

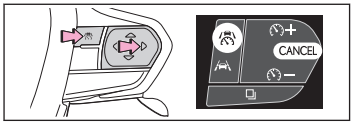
1 **Depress the accelerator pedal to accelerate the vehicle to the desired vehicle speed.**

2 **Press the [+] switch.**

Canceling/resuming control

1 **Press the cancel switch or driving assist switch to cancel control.**

Control will also be canceled if the brake pedal is depressed.



2 **Press the [RES] switch to resume control.**

INFORMATION

■ Automatic cancellation of the cruise control

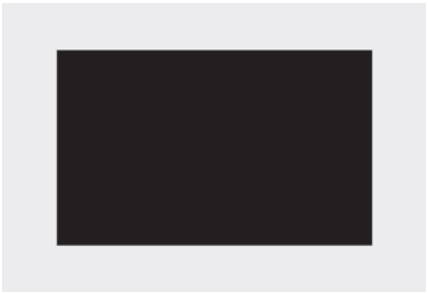
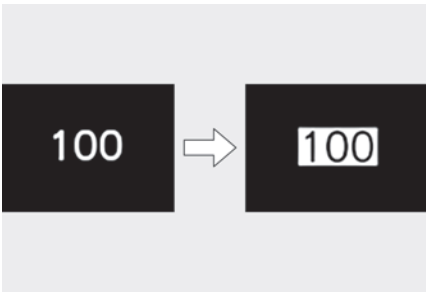
In the following situations, the cruise control will be canceled automatically:

- When the vehicle speed drops approximately 16 km/h (10 mph) or more below the set vehicle speed
- When the vehicle speed drops below approximately 30 km/h (20 mph)
- When the brake control or output restriction control of a driving support system operates (For example: PCS, drive-start control)
- When the parking brake has been operated

- When the driver's seat belt is unfastened
- Situations in which some or all of the functions of the system cannot operate: →P.318

Display and system operation state

The operating state of cruise control is indicated.

Indicator	Multi-information display		Situation
White		Blank	Cruise control being OFF
Green		Set vehicle speed: Green	Constant speed cruising
Green		Set vehicle speed: Green in reverse display	Set vehicle speed being exceeded

Emergency Driving Stop System

Emergency Driving Stop System

The emergency driving stop system is a system which automatically decelerates and stops the vehicle within its lane if the driver becomes unable to continue driving the vehicle, such as if they have suffered a medical emergency, etc.

During LTA (Lane Tracing Assist) control, if the system does not detect driving operations, such as if the driver is not holding the steering wheel, and determines the driver is not responsive, the vehicle will be decelerated and stopped within its current lane to help avoid a collision or reduce the impact of a collision.

⚠ WARNING

■ For safe use

- Driving safely is solely the responsibility of the driver. Pay careful attention to the surrounding conditions in order to ensure safe driving. The emergency driving stop system is designed to provide support in an emergency where it is difficult for the driver to continue driving, such as if they have had a medical emergency. It is not designed to support driving while drowsy or in poor physical health, or inattentive driving.
- Although the emergency driving stop system is designed to decelerate the vehicle within its lane to help avoid or help reduce the impact of a collision if the system determines that it is difficult for the driver to continue driving, its effectiveness may change according to various conditions. Therefore, it may not always be able to achieve the same level of performance. Also, if the operating conditions are not met, this function will not operate.
- After the emergency driving stop system operates, if driving becomes possible again, immediately begin driving again or, if necessary, park the vehicle on the shoulder of the road and set a warning reflector and flare to warn other drivers of your stopped vehicle.
- After this system operates, passengers should attend to the driver as necessary and take appropriate hazard prevention measures, such as moving to a place where safety can be ensured, such as the shoulder of the road or behind a guardrail.
- This system detects the condition of the driver through the operation of the steering wheel. This system may operate if the driver is aware but intentionally and continuously does not operate the vehicle. Also, the system may not operate if it cannot determine that the driver is not responsive, such as if they are leaning on the steering wheel.

Summary of the system

Operation of this system is separated into 4 control states. Through control state "warning phase 1" and "warning phase 2", the system determines if the driver is aware and responsive while outputting a warning and controlling the vehicle speed. If the system determines the driver is not responsive, it will operate in control state "deceleration stop phase" and "stop hold phase" and decelerate and stop the vehicle. It will then operate continuously in "stop hold phase".

INFORMATION

Operating conditions

This system operates when all of the following conditions are met:

- When the LTA is on
- When the vehicle speed is approximately 50 km/h (30 mph) or more

Operation cancelation conditions

In the following situations, system operation will be canceled:

- When LTA control has been canceled (the LTA switch has been pressed, etc.)
- When the dynamic radar cruise control has been canceled
- When driver operations are detected (the steering wheel is held, the brake pedal, accelerator pedal, parking brake, hazard light switch, or turn signal lever is operated)
- When the driving assist switch is pressed while in the stop and hold phase
- When the engine switch has been turned from ON to OFF
- Situations in which some or all of the functions of the system cannot operate: →P.318

LTA control when operation is canceled

When emergency driving stop system operation is canceled, LTA control may also be canceled.

Warning phase 1

If driving operations are not detected after the hands off steering wheel warning operates, a buzzer will sound intermittently and a message will be displayed to warn the driver, and the system will judge if the driver is responsive or not. If driving operations, such as holding the steering wheel, are not performed within a certain amount of time, the system will enter warning phase 2.

Warning phase 2

After entering warning phase 2, a buzzer will sound in short intervals and a message will be displayed to warn the driver, and the vehicle will slowly decelerate.

If driving operations, such as holding the steering wheel, are not performed within a certain amount of time, the system will determine that the driver is not responsive and enter the deceleration stop phase.

When the vehicle is decelerating, the brake lights may illuminate, depending on the road conditions, etc.

After the vehicle has decelerated a certain amount, the emergency flashers (hazard lights) will flash.

Deceleration stop phase

After the driver is judged as being not responsive, a buzzer will sound continuously and a message will be displayed to warn the driver, and the vehicle will slowly decelerate and stop. While the vehicle is decelerating, the emergency flashers (hazard lights) will flash to warn other drivers of the emergency.

Stop hold phase

After the vehicle is stopped, the parking brake will be applied automatically. After entering the stop and hold phase, the buzzer will continue sounding continuously, the emergency flashers (hazard lights) will flash to warn other drivers of the emergency, and the doors will unlock.

INFORMATION

Restricted functions after the operation is canceled

After shifting to the deceleration stop phase, the following functions will not be available until the engine is re-started even though the emergency driving stop system is canceled:

- LTA

Blind Spot Monitor*

Related Links

BSM (Blind Spot Monitor)(P. 659)

Purpose of the Blind Spot Monitor

The Blind Spot Monitor is a system that uses rear side radar sensors installed on the inner side of the rear bumper on the left and right side to assist the driver in confirming safety when changing lanes.

⚠ WARNING

■ Cautions regarding the use of the system

- The driver is solely responsible for safe driving. Always drive safely, taking care to observe your surroundings.
- The Blind Spot Monitor is a supplementary function which alerts the driver that a vehicle is in a blind spot of the outside rear view mirrors or is approaching rapidly from behind into a blind spot. Do not overly rely on the Blind Spot Monitor. As the function cannot judge if it is safe to change lanes, over reliance could lead to an accident resulting in death or serious injury.

  As the system may not function correctly under certain conditions, the driver's own visual confirmation of safety is necessary.

INFORMATION

■ Situations in which the Blind Spot Monitor cannot detect vehicles.

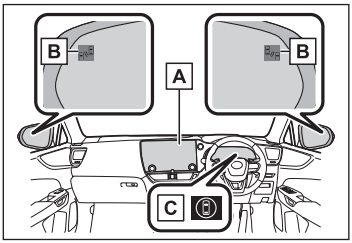
The Blind Spot Monitor cannot detect the following vehicles and other objects:

- Small motorcycles, bicycles, pedestrians, etc. *1
- Vehicles traveling in the opposite direction
- Guardrails, walls, signs, parked vehicles and similar stationary objects *1
- Following vehicles that are in the same lane *1
- Vehicles traveling 2 lanes away from your vehicle *1
- Vehicles which are being overtaken rapidly by your vehicle *1

*: If equipped

*1: Depending on the conditions, detection of a vehicle and/or object may occur.

System components



A Center display

Turning the Blind Spot Monitor on/off.

B Outside rear view mirror indicators

When a vehicle is detected in a blind spot of the outside rear view mirrors or approaching rapidly from behind into a blind spot, the outside rear view mirror indicator (→P.272) on the detected side will illuminate. If the turn signal lever is operated toward the detected side, the outside rear view mirror indicator flashes.

C Driving assist information indicator

Illuminates when the Blind Spot Monitor is turned off. At this time, a message will be displayed on the multi-information display.

INFORMATION

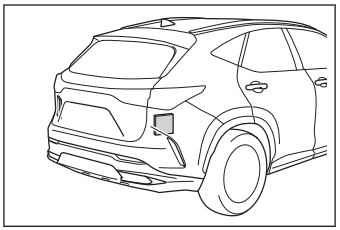
Outside rear view mirror indicator visibility

In strong sunlight, the outside rear view mirror indicator may be difficult to see.

⚠ WARNING

To ensure the system can operate properly

Blind Spot Monitor sensors are installed behind the left and right sides of the rear bumper respectively. Observe the following to ensure the Blind Spot Monitor can operate correctly.



- Keep the sensors and the surrounding areas on the rear bumper clean at all times.

  If a sensor or its surrounding area on the rear bumper is dirty or covered with snow, the Blind Spot Monitor may not operate and a warning message will be displayed. In this situation, clear off the dirt or snow and drive the vehicle with the operation conditions of the BSM function (→P.368) satisfied for approximately 10 minutes. If the warning message does not disappear, have the vehicle inspected by your Lexus dealer.

⚠ WARNING

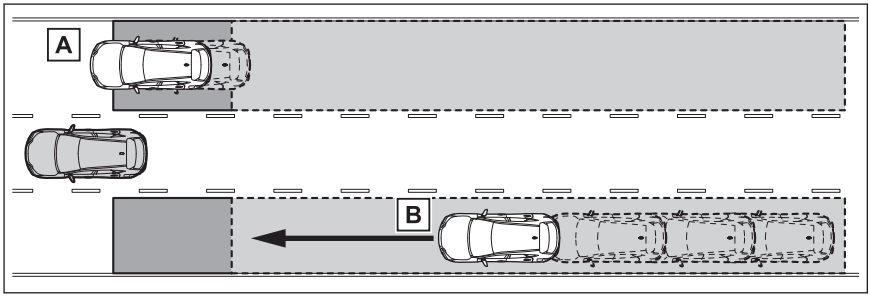
- Do not attach accessories, stickers (including transparent stickers), aluminum tape, etc., to a sensor or its surrounding area on the rear bumper.
- Do not subject a sensor or its surrounding area on the rear bumper to a strong impact.

  If a sensor is moved even slightly off position, the system may malfunction and vehicles may not be detected correctly. In the following situations, have your vehicle inspected by your Lexus dealer.

  - A sensor or its surrounding area is subject to a strong impact.
  - If the surrounding area of a sensor is scratched or dented, or part of them has become disconnected.
- Do not disassemble the sensor.
- Do not modify the sensor or surrounding area on the rear bumper.
- If a sensor or the rear bumper needs to be removed/installed or replaced, contact your Lexus dealer.
- Do not paint the rear bumper any color other than an official Lexus color.

Objects that can be detected while driving by the Blind Spot Monitor

The Blind Spot Monitor uses rear side radar sensors to detect the following vehicles traveling in adjacent lanes and advises the driver of the presence of such vehicles via the indicators on the outside rear view mirrors.

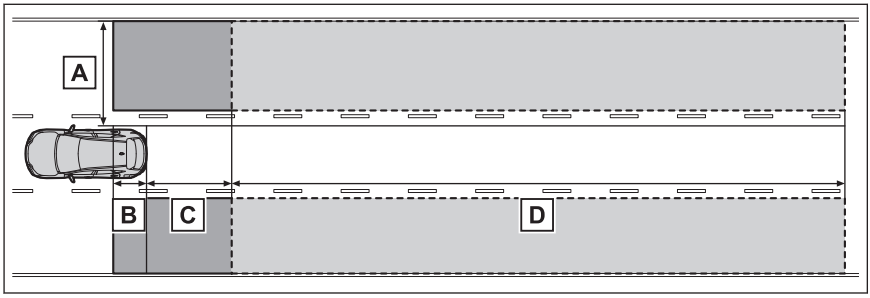


A Vehicles that are traveling in areas that are not visible using the outside rear view mirrors (the blind spots)

B Vehicles that are approaching rapidly from behind in areas that are not visible using the outside rear view mirrors (the blind spots)

The Blind Spot Monitor detection range while driving

The areas that vehicles can be detected in are outlined below.



The range of each detection area is:

A Approximately 0.5 m (1.6 ft.) to 3.5 m (11.5 ft.) from either side of the vehicle*1

B Approximately 1 m (3.3 ft.) forward of the rear bumper

C Approximately 3 m (9.8 ft.) from the rear bumper

D Approximately 3 m (9.8 ft.) to 60 m (197 ft.) from the rear bumper*2

The Blind Spot Monitor linked function

The LDA (Lane Departure Alert) has a function that uses information of detected vehicles driving in an adjacent lane. For details about the function and its operating conditions, →P.337

Turning the Blind Spot Monitor system on/off

The Blind Spot Monitor can be enabled/disabled through a customize setting. (→P.645)

When the Blind Spot Monitor is off, the driving assist information indicator (→P.272) will illuminate and a message will be displayed on the multi-information display.

Each time the engine switch is turned to ON, the Blind Spot Monitor is enabled.

INFORMATION

The Blind Spot Monitor is operational when

The Blind Spot Monitor is operational when all of the following conditions are met:

- The engine switch is in ON.
- The Blind Spot Monitor is on.

*1: The area between the side of the vehicle and 0.5 m (1.6 ft.) from the side of the vehicle cannot be detected.

*2: The greater the difference in speed between your vehicle and the detected vehicle is, the farther away the vehicle will be detected, causing the outside rear view mirror indicator to illuminate or flash.

- The shift position is in a position other than R.
- The vehicle speed is approximately 10 km/h (7 mph) or more.

The Blind Spot Monitor will detect a vehicle when

The Blind Spot Monitor will detect a vehicle present in the detection area in the following situations:

- A vehicle in an adjacent lane overtakes your vehicle.
- You overtake a vehicle in an adjacent lane slowly.
- Another vehicle enters the detection area when it changes lanes.

Conditions under which the system may not function correctly

- The Blind Spot Monitor may not detect vehicles correctly in the following situations:
  - When the sensor is misaligned due to a strong impact to the sensor or its surrounding area
  - When mud, snow, ice, a sticker, etc., is covering the sensor or surrounding area on the rear bumper
  - When driving on a wet road surface, such as in a puddle, while in inclement weather, such as heavy rain, snow, fog, etc.
  - When multiple vehicles are approaching with only a small gap between each vehicle
  - When the distance between your vehicle and a following vehicle is short
  - When there is a significant difference in speed between your vehicle and the vehicle that enters the detection area
  - When the difference in speed between your vehicle and another vehicle is changing
  - When a vehicle enters a detection area traveling at about the same speed as your vehicle
  - As your vehicle starts from a stop, a vehicle remains in the detection area
  - When driving up and down consecutive steep inclines, such as hills, dips in the road, etc.
  - When driving on roads with sharp bends, consecutive curves, or uneven surfaces
  - When vehicle lanes are wide, or when driving on the edge of a lane, and the vehicle in an adjacent lane is far away from your vehicle
  - When an accessory (such as a bicycle carrier) is installed to the rear of the vehicle
  - When there is a significant difference in height between your vehicle and the vehicle that enters the detection area
  - Immediately after the Blind Spot Monitor is turned on

- When towing with the vehicle

● Instances of the Blind Spot Monitor unnecessarily detecting a vehicle and/or object may increase in the following situations:

- When the sensor is misaligned due to a strong impact to the sensor or its surrounding area
- When the distance between your vehicle and a guardrail, wall, etc., that enters the detection area is short
- When driving up and down consecutive steep inclines, such as hills, dips in the road, etc.
- When vehicle lanes are narrow, or when driving on the edge of a lane, and a vehicle traveling in a lane other than the adjacent lanes enters the detection area
- When driving on roads with sharp bends, consecutive curves, or uneven surfaces
- When the tires are slipping or spinning
- When the distance between your vehicle and a following vehicle is short
- When an accessory (such as a bicycle carrier) is installed to the rear of the vehicle
- When towing with the vehicle

Safe Exit Assist*

Related Links

Safe Exit Assist(P. 659)

Purpose of the Safe Exit Assist

The safe exit assist (with door opening control) is a system that uses rear side radar sensors installed on the inner side of the rear bumper to help occupants judge if an approaching vehicle or bicycle may collide with a door when exiting or cancel opening of a door, to help reduce the possibility of a collision.

⚠ WARNING

■ Cautions regarding the use of the system

- The driver is solely responsible for safe driving. Always drive safely, taking care to observe your surroundings.
- The safe exit assist is a supplementary system that, when the vehicle is stopped, informs occupants of the existence of approaching vehicles and bicycles. As this system alone cannot be used to judge safety, over-reliance on this system may lead to an accident resulting in death or serious injury.

  In certain situations, this system may not function to its fullest extent. Therefore it is necessary for the occupants to visually check for safety directly and using the mirrors.

INFORMATION

■ Conditions under which the system will not detect a vehicle

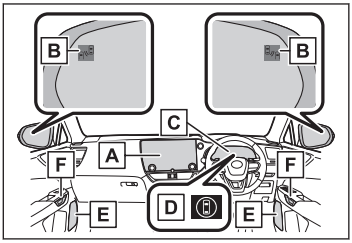
- Safe exit assist does not detect the following objects, vehicles, and bicycles:
  - Vehicles or bicycles which are approaching slowly *1
  - Vehicles or bicycles which are determined to have a low possibility of colliding with a door (other than the back door) when opened *1
  - Vehicles or bicycles which are approaching from directly behind *1
  - Vehicles or bicycles which are approaching from the front *1
  - Guardrails, walls, signs, parked vehicles, and other stationary objects *1
  - Pedestrians, animals, etc.*1
- In situations such as the following, safe exit assist will not operate:

*: If equipped

*1: Depending on the conditions, detection of a vehicle and/or object may occur.

- When 3 minutes or more have elapsed since the engine off (the time which operation is possible may be extended if a door is opened and closed)
- When your vehicle is not completely stopped

System components



A Center display

Turning the safe exit assist on/off.

B Outside rear view mirror indicators

When a vehicle or bicycle which may collide with a door (other than the back door) when opened is detected, the outside rear view mirror indicator (→P.272) on the detected side will illuminate. If the door on the detected side is open, or opening of the door is canceled, the outside rear view mirror indicator will blink.

C Multi-information display

If collision with a door is likely and the door is opened or opening of the door is canceled, the door will be displayed on the multi-information display. Also, if a door is opened when an outside rear view mirror indicator is illuminated, a buzzer will sound as a warning.

D Driving assist information indicator

Illuminates when the safe exit assist is turned off. At this time, a message will be displayed on the multi-information display.

E Speakers

When the outside rear view mirror indicator blinks, the driver is informed through voice guidance that the system has operated. After the notification through voice guidance is made, no more voice guidance notifications will be made again until the door is fully closed.

F Door opener switch (manual release handle)

If a door opener switch is operated to open a door while the outside rear view mirror indicator on that side is illuminated, opening of the door will be canceled.

INFORMATION

Outside rear view mirror indicator visibility

In strong sunlight, the outside rear view mirror indicator may be difficult to see.

Buzzer

If the volume setting of the audio system is high or the surrounding area is loud, it may be difficult to hear the buzzer.

Voice notifications

In the following situations, voice notifications will not be output:

- After opening a door and entering the vehicle, until the engine is started
- When 3 minutes or more have elapsed since the engine was stopped
- When the language setting of the center display has been set to a language that does not support voice notifications
- When all of the doors have been locked from outside the vehicle
- When a door remains open for 1 minute or more after the engine is stopped
- When the ACC mode (→P.644) has been enabled through a customize setting on the center display and the engine has been stopped
- When the parking assist volume setting on the center display has been set to off

Opening of a door can be canceled when

Opening of a door can be canceled only when the inside door opener switch is pushed in. Opening of a door will not be able to be canceled when the outside door opener switch is used.

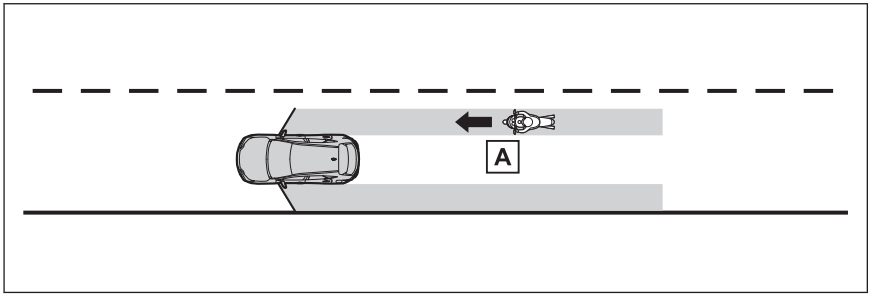
⚠ WARNING

To ensure the system can operate properly

→P.372

Objects that can be detected by the safe exit assist

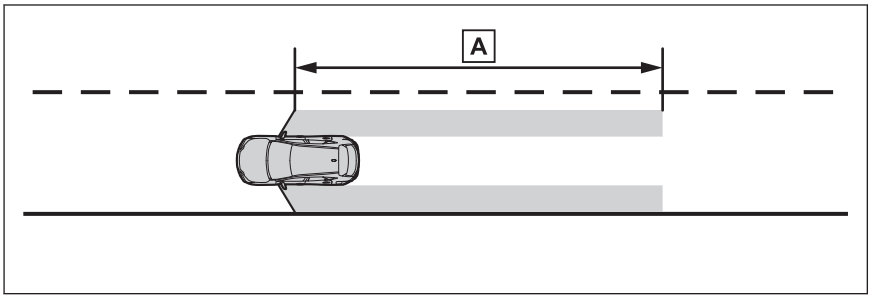
When the safe exit assist detects the following vehicles or bicycles behind your vehicle using a rear side radar sensor, the occupants of the vehicle are informed through an outside rear view mirror indicator, buzzer, multi-information display, and voice notification.



A Vehicle or bicycle which has a high possibility of colliding with a door (other than the back door) when opened

The safe exit assist detection areas

The areas that vehicles can be detected in are outlined below.



A Approximately 45 m (145 ft.) rearward from the front door*1

Turning the safe exit assist system ON/OFF

The safe exit assist system can be enabled/disabled through a customize setting. (→P.645)

When the safe exit assist is off, the driving assist information indicator will illuminate and a message will be displayed on the multi-information display.

*1: The faster a vehicle or bicycle is approaching, the distance at which an outside rear view mirror indicator will illuminate or blink will become further.

Each time the engine switch is turned to ON, the safe exit assist is enabled.*1

INFORMATION

The safe exit assist is operational when

The safe exit assist is operational when all of the following conditions are met:

- When the engine switch is ON, less than 3 minutes have elapsed since the engine was off, or less than 3 minutes have elapsed since a door was opened and someone has entered the vehicle (the time which operation is possible may be extended if a door is opened and closed)
- Safe exit assist is on
- The vehicle is stopped.
- The shift position is in a position other than R.

The safe exit assist will detect a vehicle when

The safe exit assist will detect a vehicle present in the detection area in the following situations:

When the vehicle is stopped and a vehicle or bicycle, which is traveling parallel to the vehicle, is approaching within the area that a door opens (other than the back door)

Opening the doors when opening is canceled by the system

Perform the following operation to open a door.

After the approaching vehicle or bicycle passes or changes direction, check the surrounding area and press the inside door opener switch again. Perform the following only in an emergency, etc., to open a door while the warning is operating, after checking the safety of the area around your vehicle.

- Press and hold an inside door opener switch for approximately 3 seconds or more
- Press an inside door opener switch quickly 3 times or more
- Pull a manual release handle

Conditions under which the system may not function correctly

- The safe exit assist may not detect vehicles correctly in the following situations:
  - When the sensor is misaligned due to a strong impact to the sensor or its surrounding area
  - When mud, snow, ice, a sticker, etc., is covering the sensor or surrounding area on the rear bumper
  - When the vehicle is stopped on a wet road surface, such as in a puddle, while in inclement weather, such as heavy rain, snow, fog, etc.

*1: When the engine switch is turned off and then to ON immediately after that, the safe exit assist may not be enabled.

- When a vehicle or bicycle approaches from behind a nearby parked vehicle
- When an approaching vehicle or bicycle suddenly changes direction
- Immediately after a vehicle or bicycle starts moving
- When the back door is open
- When a bicycle carrier, ramp, or other accessory is installed to the back of the vehicle
- When a parked vehicle, wall, sign, person or other stationary object is behind the vehicle
- When the vehicle is stopped at an angle to the road
- When a vehicle is traveling near an approaching vehicle or bicycle
- When an approaching vehicle or bicycle is traveling along a stationary object, such a wall or sign
- When a vehicle or bicycle is approaching at high speed
- When towing with the vehicle
- When stopped on a steep slope
- When stopped on a curve or at the exit of a curve

● Instances of the safe exit assist unnecessarily detecting a vehicle and/or object may increase in the following situations:

- When the sensor is misaligned due to a strong impact to the sensor or its surrounding area
- When a vehicle or bicycle approaches your vehicle from directly behind in an offset position
- When the vehicle is stopped at an angle to the road
- When a vehicle or bicycle approaches from behind a parked vehicle at an angle
- When a parked vehicle, wall, sign, person or other stationary object is behind the vehicle
- When an approaching vehicle or bicycle suddenly changes direction
- When an approaching vehicle or bicycle is traveling along a stationary object, such a wall or sign
- When the back door is open
- When a bicycle carrier, ramp, or other accessory is installed to the back of the vehicle
- When a vehicle or bicycle is approaching at high speed
- When towing with the vehicle

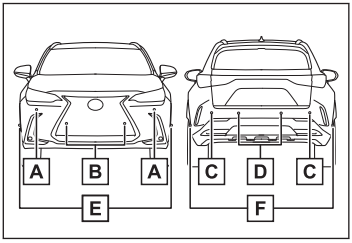
- When stopped on a steep slope
- When stopped on a curve or at the exit of a curve
- When a vehicle or bicycle approaches from behind a vehicle stopped in an adjacent lane

Lexus parking assist-sensor*

The Lexus parking assist-sensor function detects the approximate distance from the vehicle and an object such as a wall using ultrasonic sensors and informs the driver with the center display distance display and buzzer.

System components

■ Type of sensors



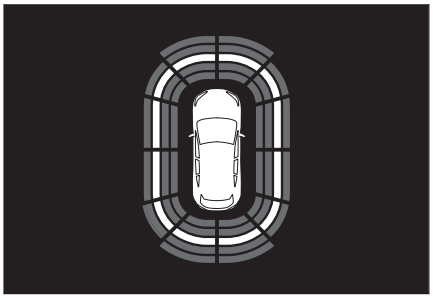
- A Front corner sensors
- B Front center sensors
- C Rear corner sensors
- D Rear center sensors
- E Front side sensors (vehicles with Advanced Park)
- F Rear side sensors (vehicles with Advanced Park)

■ Display

When the sensors detect an object, such as a wall, a graphic is shown on the center display depending on the position and distance to the object.

The illustration is an example for explanation and may differ depending on the specifications.

▶ **Center display**



Lexus parking assist-sensor detection indicator*

When the sensors detect an object, Lexus parking assist-sensor detection indicator illuminates.

*: If equipped

INFORMATION

How to check the presence of Lexus parking assist-sensor detection indicator

On vehicles with the Lexus parking assist-sensor detection indicator, the Lexus parking assist-sensor OFF indicator (→P.275) will turn off when the shift position is changed to R while the Lexus parking assist-sensor is disabled.

Turning the Lexus parking assist-sensor function ON/OFF

The Lexus parking assist-sensor function can be enabled/disabled through a customize setting. (→P.644)

When the Lexus parking assist-sensor function is disabled, the Lexus parking assist-sensor OFF indicator (→P.275) illuminates on the multi-information display.

If the system switches to OFF (disabled) and the Lexus parking assist-sensor is stopped, the Lexus parking assist-sensor will not be re-enabled until ON (enabled) is selected again from the customize setting (→P.644).

(It remains off even if the engine switch is turned to ON again after the engine switch has been turned off.)

Vehicles with the Lexus parking assist-sensor detection indicator: The system will automatically turn on (enabled) and the Lexus parking assist-sensor OFF indicator will turn off if the shift position is changed to R.

When the shift position is R, the Lexus parking assist-sensor cannot be turned on or off.

The setting of Lexus parking assist-sensor itself will not change.

⚠ WARNING

Cautions regarding the use of the system

There is a limit to the degree of recognition accuracy and control performance that this system can provide, do not overly rely on this system. The driver is always responsible for paying attention to the vehicle's surroundings and driving safely.

To ensure the system can operate properly

Make sure to observe the following precautions. The system may not operate properly and may lead to an unexpected accident. When these precautions cannot be observed, turn the system off.

- Do not damage the sensors, and always keep them clean.
- Do not attach a sticker or install a component, such as a backlit license plate (especially fluorescent type), fog lights, fender pole or wireless antenna near a radar sensor.

⚠ WARNING

- Do not subject the surrounding area of the sensor to a strong impact. If subjected to an impact, have the vehicle inspected by your Lexus dealer. If the front or rear bumper needs to be removed/installed or replaced, contact your Lexus dealer.
- Do not modify, disassemble or paint the sensors.
- Do not attach a license plate cover.
- Keep your tires properly inflated.
- Do not install a suspension other than a genuine suspension.

Notes when washing the vehicle

- When using a high pressure washer to wash the vehicle, do not spray the sensors directly, as doing so may cause a sensor to malfunction.
- When using steam to clean the vehicle, do not direct steam too close to the sensors, as doing so may cause a sensor to malfunction.

INFORMATION

The system can be operated when

- The engine switch is in ON.
- The Lexus parking assist-sensor is on.
- The vehicle speed is less than about 10 km/h (6 mph).
- Front corner sensors:
  - The shift position is in a position other than P.
- Front center sensors:
  - The shift position is in a position other than P or R.
- Rear corner and rear center sensors:
  - The shift position is in R.
- Side sensors:(vehicles with Advanced Park)
  - The vehicle is moving about 7 m (23.0 ft.) after the engine was started.
  - The vehicle is moving about 7 m (23.0 ft.) after the shift position was changed from R to D.
  - The shift position is in R.
  - VIEW switch has been pressed and the center display is displayed.
  - The front or rear sensor detects a stationary object.

- Vehicles with the Lexus parking assist-sensor detection indicator: Even when the Lexus parking assist-sensor is turned off (disabled), if the shift position is changed to R, the system will automatically turn on (enabled) and the Lexus parking assist-sensor OFF indicator will turn off.

  The setting of Lexus parking assist-sensor itself will not change.

Sensor detection information

- The sensor's detection areas are limited to the areas around the vehicle's front and rear bumpers.
- Certain vehicle conditions and the surrounding environment may affect the ability of a sensor to correctly detect an object.
- Objects may not be detected if they are too close to the sensor.
- There will be a short delay between object detection and display.

  Even at low speeds, there is a possibility that the object will come within the sensor's detection areas before the display is shown and the warning beep sounds.
- It might be difficult to hear the buzzer due to the volume of the audio system or air flow noise of the air conditioning system.
- It may be difficult to hear the sound of this system due to the buzzers of other systems.
- If the meter malfunctions, the buzzer may not sound.

Objects which the system may not be properly detected

The shape of the object may prevent the sensor from detecting it. Pay particular attention to the following objects:

- Wires, fences, ropes, etc.
- Cotton, snow and other materials that absorb sound waves
- Sharply-angled objects
- Low objects
- Tall objects with upper sections projecting outwards in the direction of your vehicle

People may not be detected if they are wearing certain types of clothing.

Situations in which the system may not operate properly

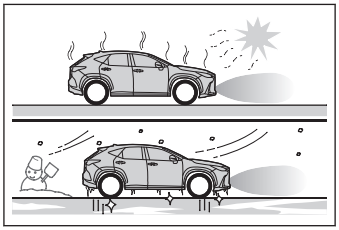
Certain vehicle conditions and the surrounding environment may affect the ability of a sensor to correctly detect objects. Particular instances where this may occur are listed below.

- There is dirt, snow, water drops or ice on a sensor.

  (Cleaning the sensors will resolve this problem.)
- A sensor is frozen. (Thawing the area will resolve this problem.)

In especially cold weather, if a sensor is frozen the sensor display may be displayed abnormally, or objects, such as a wall, may not be detected.

- When a sensor or the area around a sensor is extremely hot or cold.

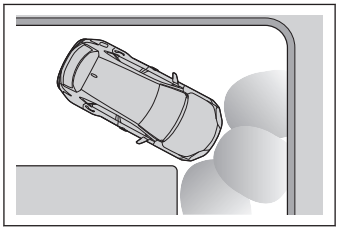


- On an extremely bumpy road, on an incline, on gravel, or on grass.
- When vehicle horns, vehicle detectors, motorcycle engines, air brakes of large vehicles, the clearance sonar of other vehicles or other devices which produce ultrasonic waves are near the vehicle
- A sensor is coated with a sheet of spray or heavy rain.
- If objects draw too close to the sensor.
- When a pedestrian is wearing clothing that does not reflect ultrasonic waves (ex. skirts with gathers or frills).
- When objects that are not perpendicular to the ground, not perpendicular to the vehicle traveling direction, uneven, or waving are in the detection range.
- When strong winds are blowing
- When driving in inclement weather such as fog, snow or a sandstorm
- When an object that cannot be detected is between the vehicle and a detected object
- If an object such as a vehicle, motorcycle, bicycle or pedestrian cuts in front of the vehicle or runs out from the side of the vehicle
- If the orientation of a sensor has been changed due to a collision or other impact
- When equipment such as a towing eyelet, transport hook, bumper protector, bumper trim, bicycle carrier or snow-removal device (snow plow) is installed near the sensor
- If the front of the vehicle is raised or lowered due to the carried load
- If the vehicle cannot be driven in a stable manner, such as when the vehicle has been in an accident or is malfunctioning
- When tire chains, compact spare tire or an emergency tire puncture repair kit are used
- When towing with the vehicle

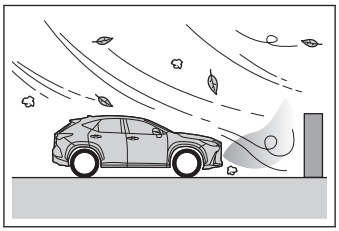
Situations in which the system may operate even if there is no possibility of a collision

In some situations, such as the following, the system may operate even though there is no possibility of a collision.

- When driving on a narrow road

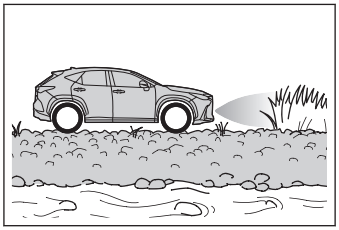


- When driving toward a banner, flag, low-hanging branch or boom barrier (such as those used at railroad crossings, toll gates and parking lots)
- When there is a rut or hole in the surface of the road
- When driving on a metal cover (grating), such as those used for drainage ditches
- When driving up or down a steep slope
- If a sensor is hit by a large amount of water, such as when driving on a flooded road
- There is dirt, snow, water drops or ice on a sensor. (Cleaning the sensors will resolve this problem.)
- A sensor is coated with a sheet of spray or heavy rain
- When driving in inclement weather such as fog, snow or a sandstorm
- When strong winds are blowing



- When vehicle horns, vehicle detectors, motorcycle engines, air brakes of large vehicles, the clearance sonar of other vehicles or other devices which produce ultrasonic waves are near the vehicle
- If the front of the vehicle is raised or lowered due to the carried load
- If the orientation of a sensor has been changed due to a collision or other impact
- The vehicle is approaching a tall or curved curb
- Driving close to columns (H-shaped steel beams, etc.) in multi-story parking garages, construction sites, etc.

- If the vehicle cannot be driven in a stable manner, such as when the vehicle has been in an accident or is malfunctioning
- On an extremely bumpy road, on an incline, on gravel, or on grass

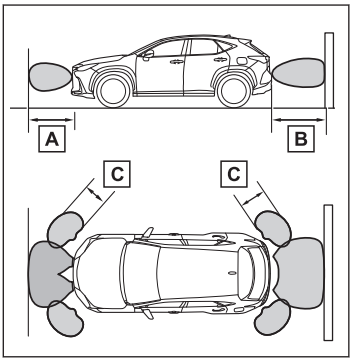


- When tire chains, compact spare tire or an emergency tire puncture repair kit are used
- When towing with the vehicle

Sensor detection display, object distance

■ Detection range of the sensors

▶ Vehicles without Advanced Park

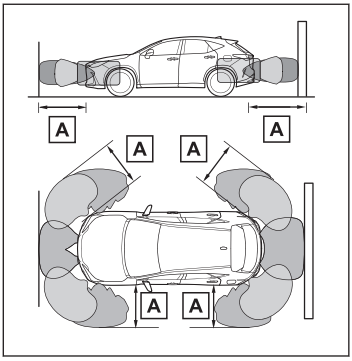


A Approximately 100 cm (3.3 ft.)
B Approximately 150 cm (4.9 ft.)
C Approximately 60 cm (2.0 ft.)

The diagram shows the detection range of the sensors. Note that the sensors cannot detect objects that are extremely close to the vehicle.

The range of the sensors may change depending on the shape of the object, etc.

▶ Vehicles with Advanced Park



A Approximately 200 cm (6.6 ft.)

The diagram shows the detection range of the sensors. Note that the sensors cannot detect objects that are extremely close to the vehicle.

The range of the sensors may change depending on the shape of the object, etc.

■ The distance and buzzer

▶ Vehicles without Advanced Park

Approximate distance to obstacle	Buzzer
Front center sensor: Approximately 100 cm (3.3 ft.) to 60 cm (2.0 ft.)(1) Rear center sensor: Approximately 150 cm (4.9 ft.) to 60 cm (2.0 ft.)(1)	Slow
Approximately 60 cm (2.0 ft.) to 45 cm (1.5 ft.)(1)	Medium
Approximately 45 cm (1.5 ft.) to 30 cm (1.0 ft.)(1)	Fast
Approximately less than 30 cm (1.0 ft.)	Continuous

(1) Automatic buzzer mute function is enabled. →P.386

▶ Vehicles with Advanced Park

Approximate distance to obstacle	Buzzer
Front center sensor: Approximately 200 cm (6.6 ft.) to 100 cm (3.3 ft.) Rear center sensor: Approximately 200 cm (6.6 ft.) to 150 cm (4.9 ft.) Corner sensor: Approximately 200 cm (6.6 ft.) to 60 cm (2.0 ft.)	Does not sound (Display only)
Front center sensor: Approximately 100 cm (3.3 ft.) to 60 cm (2.0 ft.)(1) Rear center sensor: Approximately 150 cm (4.9 ft.) to 60 cm (2.0 ft.)(1)	Slow
Front/Rear center sensor and Corner sensor: Approximately 60 cm (2.0 ft.) to 45 cm (1.5 ft.)(1)	Medium
Front/Rear center sensor and Corner sensor: Approximately 45 cm (1.5 ft.) to 30 cm (1.0 ft.)(1)	Fast
Approximately less than 30 cm (1.0 ft.)	Continuous

(1) Automatic buzzer mute function is enabled. →P.386

Lexus parking assist-sensor buzzer

A buzzer sounds when the sensors are operating.

- The buzzer beeps faster as the vehicle approaches a static object. When the vehicle comes within the approximately 30 cm (1.0 ft.) of the object, the buzzer will sound continuously.
- When 2 or more sensors simultaneously detect a static object, the buzzer sounds for the nearest object.
- After an intermittent buzzer begins sounding, if the distance between the vehicle and the detected a static object does not become shorter, the buzzer will be muted automatically. (automatic buzzer mute function)

INFORMATION

Adjusting the buzzer volume

The buzzer volume of the Lexus parking assist-sensor, RCTA and RCD can all be changed at once from the customize settings. (→P.644)

Muting a buzzer

When the temporary mute switch is displayed on the center display, this switch can be pressed to temporarily mute the buzzer.

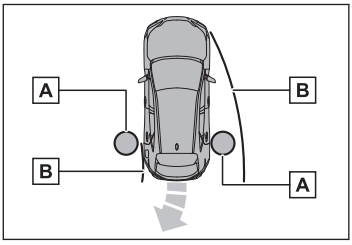
Select the switch to mute a buzzer of the Lexus parking assist-sensor, RCTA and RCD all together.

● Mute will be automatically canceled in the following situations:

- When the shift position is changed.
- When the vehicle speed exceeds a certain speed.
- When there is a malfunction in a sensor or the system is temporarily unavailable.
- When the operating function is disabled manually.
- When the engine switch is turned off.

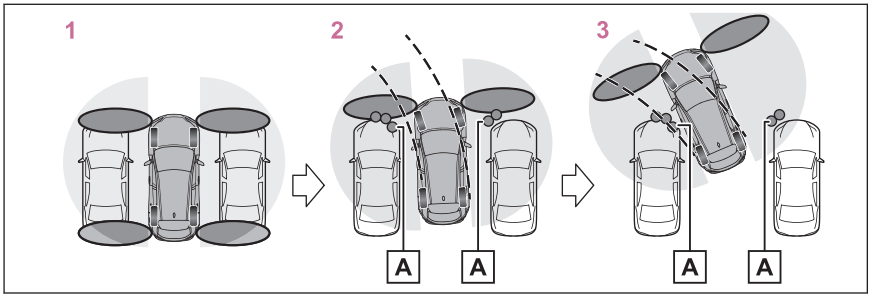
Lexus parking assist-sensor object warning function (vehicles with Advanced Park)

The object warning function informs the driver of the existence of objects along the side of the vehicle, using a display and buzzer, if the objects are within the estimated path of the vehicle.



A Object
B Calculated vehicle route

When the vehicle is moving, the side sensors or side cameras can detect objects. While the vehicle is moving, if a detected object can no longer be detected by the side sensors or side cameras, the location of the object relative to the vehicle is estimated. If the object is determined to be in the estimated path of the vehicle, the object warning function will operate.



A Object detected by side sensors or side cameras

1 The vehicle is stopped and objects along the sides of the vehicle are not detected.

2 Objects are detected as the vehicle is moving.

3 Even though the objects are outside of the detection area of the side sensors or side cameras, a warning is displayed and a buzzer sounds.

INFORMATION

Object warning function operating conditions

- The vehicle moves about 7 m (23.0 ft.) after the engine is started.
- The R shift position is selected.
- After the D shift position has been selected, the vehicle has moved 7 m (23.0 ft.) or less.
- VIEW switch has been pressed and the center display is displayed.
- The front or rear sensor detects a stationary object.

Detection of objects along the sides of the vehicle

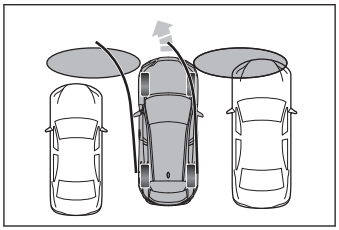
- Objects along the sides of the vehicle are not instantaneously detected. The location of objects in relation to the vehicle is estimated after they are first detected by the front or rear side sensors, or side cameras. Therefore, after the engine switch is changed to ON, even if an object is along the side of the vehicle, it may not be detected until the vehicle has been driven a small amount and the side sensors or side cameras completely scan the areas along the sides of the vehicle.
- If a vehicle, person, animal, etc., is detected by a side sensors or side cameras, but then leaves the detection area of the side sensors or side cameras, the system will assume the object has not moved.

⚠ WARNING

■ Side sensors and side cameras

In situations such as the following, the function may not operate correctly, possibly leading to an accident. Proceed carefully.

- When starting off shortly after the engine switch is turned to ON and a small vehicle or other object which cannot be detected by a front side sensor is next to the vehicle. In the situation shown in the following illustration, even if the vehicle starts off, the vehicle on the left will not be detected and the object warning function will not operate.



- When an object or person is in a position which cannot be detected by the side sensors or side cameras.
- When a vehicle, person, or other object approaches the side of the vehicle after the side sensors have completed scanning the areas along the sides of the vehicle.
- When the outside rear view mirror is folded.
- If the battery was discharged or has been removed and installed, fold and extend the outside rear view mirrors.

Rear Cross Traffic Alert*

The RCTA function uses the BSM rear side radar sensors installed behind the rear bumper. This function is intended to assist the driver in checking areas that are not easily visible when backing up.

⚠ WARNING

■ Cautions regarding the use of the system

The driver is solely responsible for safe driving. Always drive safely, taking care to observe your surroundings.

The RCTA function is only a supplementary function which alerts the driver that a vehicle is approaching from the right or left at the rear of the vehicle.

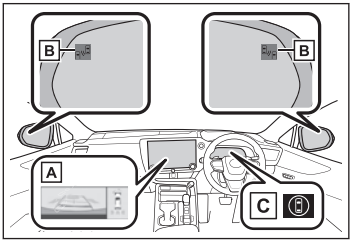
As the RCTA function may not function correctly under certain conditions, the driver's own visual confirmation of safety is necessary.

Over reliance on this function may lead to an accident resulting death or serious injury.

■ To ensure the system can operate properly

→P.366

System components



A Center display

Turning the RCTA function on/off in center display. If a vehicle approaching from the right or left at the rear of the vehicle is detected, the RCTA icon (→P.391) for the detected side will be displayed on the center display.

This illustration *1 shows an example of a vehicle approaching from both sides of the vehicle.

B Outside rear view mirror indicators

If a vehicle is detected as approaching from the left or right behind the vehicle, both outside rear view mirror indicators (→P.272) will blink and a buzzer will sound.

C Driving assist information indicator

*: If equipped

*1: Depending on the vehicle grade and equipped options, the actual screen may be different from this illustration.

Illuminates when the RCTA is turned off. At this time, a message will be displayed on the multi-information display.

Turning the RCTA function ON/OFF

The RCTA can be enabled/disabled through a customize setting.(→P.645)

When the RCTA function is off, the driving assist information indicator (→P.272) will illuminate and a message will be displayed on the multi-information display.

Each time the engine switch is turned to ON, the RCTA function is enabled.

INFORMATION

Outside rear view mirror indicator visibility

In strong sunlight, the outside rear view mirror indicator may be difficult to see.

Hearing the RCTA buzzer

The RCTA buzzer may be difficult to hear over loud noises, such as if the audio system volume is high.

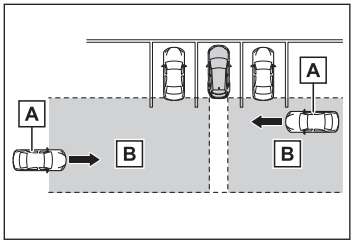
Rear side radar sensors

→P.366

RCTA function

Operation of the RCTA function

The RCTA function uses rear side radar sensors to detect vehicles approaching from the right or left at the rear of the vehicle and alerts the driver of the presence of such vehicles by flashing the outside rear view mirror indicators and sounding a buzzer.



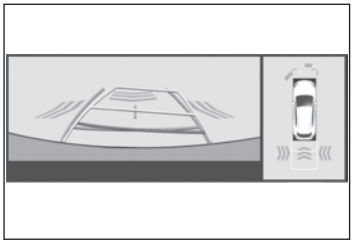
A Approaching vehicles

B Detection areas of approaching vehicles

RCTA icon display

When a vehicle approaching from the right or left at the rear of the vehicle is detected, the following will be displayed on the center display.

Example: Vehicles are approaching from both sides of the vehicle

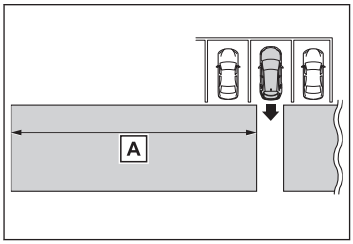


RCTA function detection areas

The areas that vehicles can be detected in are outlined below.

The buzzer can alert the driver of faster vehicles approaching from farther away.

Example:



Approaching vehicle speed	A Approximate alert distance
56 km/h (34 mph) (fast)	30 m (98 ft.)
8 km/h (5 mph) (slow)	4 m (13 ft.)

INFORMATION

The RCTA function is operational when

The RCTA function operates when all of the following conditions are met:

- The engine switch is in ON.
- The RCTA function is on.
- The shift position is in R.
- The vehicle speed is less than approximately 15 km/h (9 mph).
- The approaching vehicle speed is between approximately 8 km/h (5 mph) and 56 km/h (34 mph).

Setting the buzzer volume

The buzzer volume of the RCTA, Lexus parking assist-sensor, and RCD can be adjusted all together through a customize setting. (→P.645)

Muting a buzzer temporarily

When an object is detected, the temporary mute switch is displayed on the Center Display.Select the switch to mute the buzzer of the Lexus parking assist-sensor, RCTA, and RCD all together.

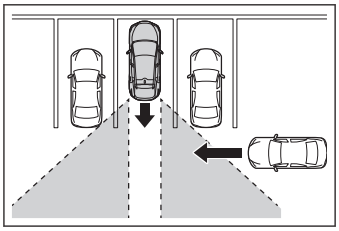
Mute will be canceled automatically in the following situations:

- When the shift position is changed.
- When the vehicle speed exceeds a certain speed.
- When there is a malfunction in a sensor or the system is temporarily unavailable.
- When the operating function is disabled manually.
- When the engine switch is turned off.

Conditions under which the system will not detect a vehicle

The RCTA function is not designed to detect the following types of vehicles and/or objects:

- Vehicles approaching from directly behind
- Vehicles backing up in a parking space next to your vehicle
- Vehicles that the sensors cannot detect due to obstructions



- Guardrails, walls, signs, parked vehicles and similar stationary objects*1
- Small motorcycles, bicycles, pedestrians, etc.*1
- Vehicles moving away from your vehicle
- Vehicles approaching from the parking spaces next to your vehicle*1
- The distance between the sensor and approaching vehicle gets too close

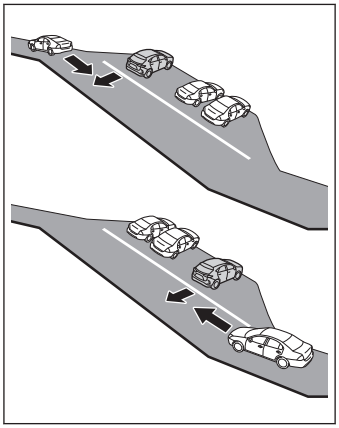
Situations in which the system may not operate properly

The RCTA function may not detect vehicles correctly in the following situations:

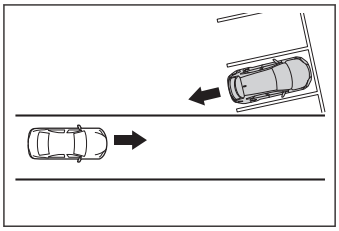
- When the sensor is misaligned due to a strong impact to the sensor or its surrounding area
- When mud, snow, ice, a sticker, etc., is covering the sensor or surrounding area on the rear bumper
- When driving on a wet road surface, such as in a puddle, while in inclement weather, such as heavy rain, snow, fog, etc.
- When multiple vehicles are approaching with only a small gap between each vehicle
- When a vehicle is approaching at high speed

*1: Depending on the conditions, detection of a vehicle and/or object may occur.

- When equipment that may obstruct a sensor is installed, such as a towing eyelet, bumper protector (an additional trim strip, etc.), bicycle carrier, or snow plow
- When backing up on a slope with a sharp change in grade

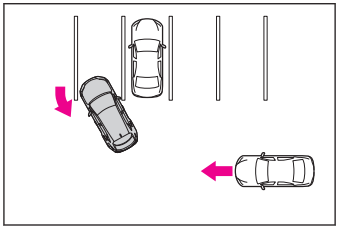


- When backing out of a sharp angle parking spot

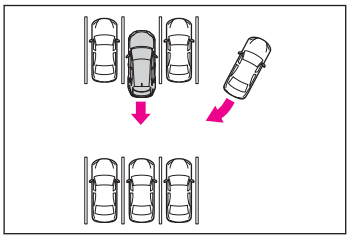


- Immediately after the RCTA function is turned on
- Immediately after the engine is started with the RCTA function on
- When the sensors cannot detect a vehicle due to obstructions
- When towing with the vehicle
- When there is a significant difference in height between your vehicle and the vehicle that enters the detection area
- When a sensor or the area around a sensor is extremely hot or cold.
- If the suspension has been modified or tires of a size other than specified are installed
- If the front of the vehicle is raised or lowered due to the carried load

- When turning while backing up



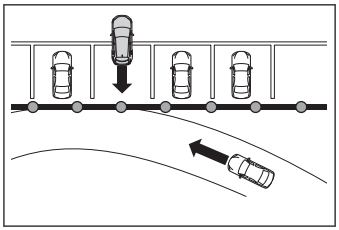
- When a vehicle turns into the detection area



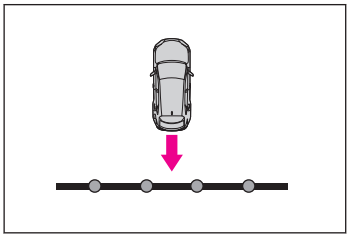
Situations in which the system may operate even if there is no possibility of a collision

Instances of the RCTA function unnecessarily detecting a vehicle and/or object may increase in the following situations:

- When the parking space faces a street and vehicles are being driven on the street

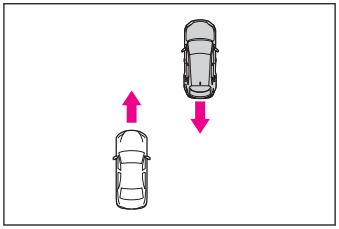


- When the distance between your vehicle and metal objects, such as a guardrail, wall, sigh, or parked vehicle, which may reflect electrical waves toward the rear of the vehicle, is short

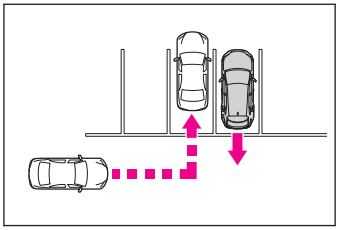


- When equipment that may obstruct a sensor is installed, such as a towing eyelet, bumper protector (an additional trim strip, etc.), bicycle carrier, or snow plow

- When a vehicle passes by the side of your vehicle



- When a detected vehicle turns while approaching the vehicle



- When there are spinning objects near your vehicle such as the fan of an air conditioning unit
- When water is splashed or sprayed toward the rear bumper, such as from a sprinkler
- Moving objects (flags, exhaust fumes, large rain droplets or snowflakes, rain water on the road surface, etc.)
- When the distance between your vehicle and a guardrail, wall, etc., that enters the detection area is short
- Gratings and gutters
- When a sensor or the area around a sensor is extremely hot or cold.
- If the suspension has been modified or tires of a size other than specified are installed
- If the front of the vehicle is raised or lowered due to the carried load
- When towing with the vehicle

RCD (Rear Camera Detection)*

When the vehicle is backing up, the rear camera detection function can detect pedestrians in the detection area behind the vehicle. If a pedestrian is detected, a buzzer will sound and an icon will be displayed on the center display to inform the driver of the pedestrian.

⚠ WARNING

■ Cautions regarding the use of the system

The recognition and control capabilities for this system are limited.

The driver should always drive safely by always being responsible without over relying on the system and have a understanding of the surrounding situations.

■ To ensure the system can operate properly

Observe the following, otherwise there is the danger that could lead to an accident.

- Always clean the camera without damaging it.
- Do not install market parts (such as illuminated license plate, fog lamps, etc.) in the camera vicinity.
- Do not subject the camera vicinity to strong impacts. If the vicinity is subjected to a strong impact, have the vehicle inspected by your Lexus dealer.
- Do not disassemble, remodel or paint the camera.
- Do not attach accessories or stickers to the camera.
- Do not install market protection parts (bumper trim, etc.) to the rear bumper.
- Maintain suitable tire air pressure.
- Make sure the back door is completely closed.

■ When to disable the RCD function

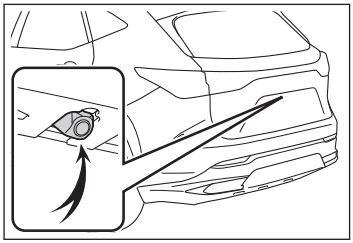
In the following situations, disable the system. The RCD function may not operate properly, possibly leading to an accident.

- The contents mentioned above are not observed.
- Suspensions other than the genuine parts are installed.

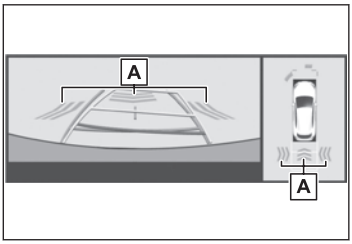
*: If equipped

System component

Location of the rear camera



RCD display



A Pedestrian detection icon

Displayed automatically when a pedestrian is detected behind the vehicle.

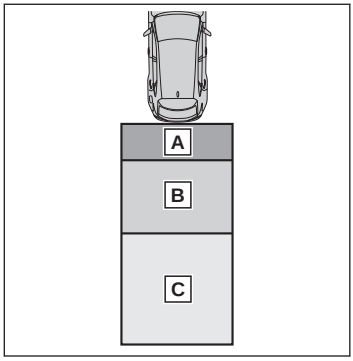
Turning the RCD function on/off

The RCD function can be enabled/disabled through a customize setting. (→P.644)

When the RCD function is disabled, the driving assist information indicator (→P.275) illuminates, and a message is displayed on the multi-information display. Each time the engine switch is turned off then changed to ON, the RCD function will be enabled automatically.

When a pedestrian is detected

If a pedestrian is in the area behind the vehicle or if the rear camera detected that a pedestrian is approaching the vehicle from behind, the system urges caution from the driver by sounding the buzzer and displaying the detection of a pedestrian on the center display as follows:



A If a pedestrian is detected in area A

Buzzer: Sounds repeatedly

Pedestrian detection icon: Blinks

B If a pedestrian is detected in area B

Buzzer (When the vehicle is stationary): Sounds 3 times

Buzzer (When the vehicle is backing up, when a pedestrian approaches the rear of the vehicle): Sounds repeatedly

Pedestrian detection icon: Blinks

C If the system determines that your vehicle may collide with a pedestrian in area C

Buzzer: Sounds repeatedly

Pedestrian detection icon: Blinks

INFORMATION

The rear camera detection function is operational when

- The engine switch is in ON.
- RCD function is on.
- The shift position is in R.
- Advanced Park* is not operating

Setting the buzzer volume

The buzzer volume of the Lexus parking assist-sensor, RCTA, and RCD can all be changed at once from the customize settings. (→P.644)

Muting a buzzer temporarily

When an object is detected, the temporary mute switch is displayed on the center display.

Select the switch to mute a buzzer of the Lexus parking assist-sensor, RCTA, and RCD all together.

Mute will be automatically canceled in the following situations:

- When the shift position is changed.
- When the vehicle speed exceeds a certain speed.
- When there is a malfunction in a sensor or the system is temporarily unavailable.

*: If equipped

- When the operating function is disabled manually.
- When the engine switch is turned off.

Situations in which the system may not operate properly

- Some pedestrians, such as the following, may not be detected by the rear camera detection function, preventing the function from operating properly:
  - Pedestrians who are bending forward or squatting
  - Pedestrians who are lying down
  - Pedestrians who are running
  - Pedestrians who suddenly appear from the shadow of the vehicle or a building
  - Pedestrians who are riding moving objects such as a bicycle or skateboard
  - Pedestrians wearing oversized clothing such as a rain coat, long skirt, etc., making their silhouette obscure
  - Pedestrians whose body is partially hidden by an object, such as a cart or umbrella
  - Pedestrians which are obscured by darkness, such as at night
- In some situations, such as the following, pedestrians may not be detected by the rear camera detection function, preventing the function from operating properly:
  - When backing up in inclement weather (rain, snow, fog, etc.)
  - The lens is dirty (by dirt or snow-melting agent, etc.) or scratched
  - When a very bright light, such as the sun, or the headlights of another vehicle, shines directly into the rear camera
  - When backing up in a place where the surrounding brightness changes suddenly, such as at the entrance or exit of a garage or underground parking lot
  - When backing up in a dim environment such as during dusk or in an underground parking lot
  - When the camera position and direction are deviated
  - When a towing hook is attached
  - When water droplets are flowing on the camera lens
  - When the vehicle height is extremely changed (nose up, nose down, etc.)
  - When tire chains or an emergency tire puncture repair kit are used
  - When the suspension has been lowered or tires that have a different size than the genuine tires are installed
  - When an aftermarket part (backlit license plate, fog light, etc.) is installed near the rear camera
  - If a bumper protector, such as an additional trim strip, is installed to the rear bumper

- When towing with the vehicle

Situations in which the system may operate unexpectedly

- Even though there are no pedestrians in the detection area, some objects, such as the following, may be detected, possibly causing the rear camera detection function to operate.
  - Three dimensional objects, such as a pole, traffic cone, fence, or parked vehicle
  - Moving objects, such as a car or motorcycle
  - Objects moving toward your vehicle when backing up, such as flags or puddles (or airborne matter, such as smoke, steam, rain, or snow)
  - Cobblestone or gravel roads, tram rails, road repairs, white lines, pedestrian crossings or fallen leaves on the road
  - Metal covers (gratings), such as those used for drainage ditches
  - Objects reflected in a puddle or on a wet road surface
  - Shadows on the road
- In some situations, such as the following, the rear camera detection function may operate even though there are no pedestrians in the detection area.
  - When backing up toward the roadside or a bump on the road
  - When backing up toward an incline/decline
  - When the vehicle height is extremely changed (nose up, nose down, etc.)
  - When an aftermarket part (backlit license plate, fog light, etc.) is installed near the rear camera
  - If a bumper protector, such as an additional trim strip, is installed to the rear bumper
  - If the orientation of the rear camera has been changed due to a collision or other impact, or removal and installation
  - If a towing eyelet is installed to the rear of the vehicle
  - When water is flowing over the rear camera lens
  - The lens is dirty (by dirt or snow-melting agent, etc.)
  - If there is a flashing light in the detection area, such as the emergency flashers of another vehicle
  - When tire chains or an emergency tire puncture repair kit are used
  - When towing with the vehicle
- Situations in which the rear camera detection function may be difficult to notice
  - The buzzer may be difficult to hear if the surrounding area is noisy or the audio system volume is high.

- If the temperature in the cabin is extremely high or low, the center display may not operate correctly.

PKSB (Parking Support Brake)*

The PKSB (Parking Support Brake) is a system that issues warnings and automatically performs braking to help reduce collision damage with operation targets that were detected when traveling at a low speed such as when parking.

PKSB (Parking Support Brake) system

The system has detected the following as operation targets. (The operation targets vary depending on the function.)

- Parking Support Brake function (static objects front and rear of the vehicle): (→P.408)
- Parking Support Brake function (moving vehicles rear of the vehicle): (→P.413)
- Parking Support Brake function (pedestrians rear of the vehicle): (→P.415)
- Parking Support Brake function (static objects around the vehicle) (vehicles with the Advanced Park): (→P.408)

⚠ WARNING

■ Cautions regarding the use of the system

Do not overly rely on the system, as doing so may lead to an accident. Always drive while checking the safety of the surroundings of the vehicle.

Depending on the vehicle and road conditions, weather, etc., the system may not operate.

The detection capabilities of sensors and radars are limited. Always drive while checking the safety of the surroundings of the vehicle.

- The driver is solely responsible for safe driving. Always drive carefully, taking care to observe your surroundings. The Parking Support Brake system is designed to provide support to lessen the severity of collisions. However, it may not operate in some situations.
- The Parking Support Brake system is not designed to stop the vehicle completely. Additionally, even if the system has stopped the vehicle, it is necessary to depress the brake pedal immediately as brake control will be canceled after approximately 2 seconds.
- It is extremely dangerous to check the system operations by intentionally driving the vehicle into the direction of a wall, etc. Never attempt such actions.

■ When to disable the Parking Support Brake

In the following situations, disable the Parking Support Brake as the system may operate even though there is no possibility of a collision.

*: If equipped

⚠ WARNING

- When inspecting the vehicle using a chassis roller, chassis dynamo or free roller
- When loading the vehicle onto a boat, truck or other transport vessel
- If the suspension has been modified or tires of a size other than specified are installed
- If the front of the vehicle is raised or lowered due to the carried load
- When equipment such as a towing hook, transport hook, bumper protector, bumper trim, bicycle carrier or snow-removal device (snow plow) is installed near the sensor
- When using automatic car washing devices
- If the vehicle cannot be driven in a stable manner, such as when the vehicle has been in an accident or is malfunctioning
- When the vehicle is driven in a sporty manner or off-road
- When the tires are not properly inflated
- When the tires are very worn
- When tire chains, a compact spare tire or an emergency tire puncture repair kit are used.
- When towing with the vehicle

■ Precautions for the suspension

Do not modify the suspension of the vehicle. If the height or tilt of the vehicle is changed, the sensors may not be able to detect detectable objects and the system may not operate correctly, possibly leading to an accident.

Enabling/Disabling the Parking Support Brake

The Parking Support Brake function can be enabled/disabled through a customize setting. (→P.644)

When the PKSB (Parking Support Brake) is disabled, the driving assist information indicator (→P.275) illuminates, and a message is displayed on the multi-information display.

If the PKSB (Parking Support Brake) is switched to OFF (disabled), the system will not be re-enabled until ON (enabled) is selected again from the customize setting (→P.644).

(It remains off even if the engine switch is turned to ON again after the engine switch has been turned off.)

Display and buzzer for engine output restriction control and brake control

If the engine output restriction control or brake control operates, a buzzer will sound and a message that indicates limited acceleration or prompts the driver to brake will be displayed on the center display and multi-information display, to alert the driver.

Depending on the situation, output restriction control operates to either limit acceleration or restrict output as much as possible.

- Engine output restriction control is operating (acceleration restriction)

  Acceleration greater than a certain amount is restricted by the system.

  Center display: No warning displayed

  Message example on the multi-information display: **"Object Detected Acceleration Reduced"**

  Driving assist information indicator: Not illuminated

  Buzzer: Does not sound

- Engine output restriction control is operating (output restricted as much as possible)

  The system has determined that stronger-than-normal brake operation is necessary.

  Message example on the center display (vehicles with a panoramic view monitor[*1] or Lexus parking assist monitor with RCD [Rear Camera Detection]): **"BRAKE!"**

  Message example on the multi-information display: **"BRAKE!"**

  Driving assist information indicator: Not illuminated

  Buzzer: Short beep

- Brake control is operating

  The system determined that emergency braking is necessary.

  Message example on the center display (vehicles with a panoramic view monitor[*1] or Lexus parking assist monitor with RCD [Rear Camera Detection]): **"BRAKE!"**

  Message example on the multi-information display: **"BRAKE!"**

  Driving assist information indicator: Not illuminated

  Buzzer: Short beep

- Vehicle stopped by system operation

  The vehicle has been stopped by brake control operation.

*1: This may not be displayed depending on the specification of the panoramic view monitor.

Message example on the center display (vehicles with a panoramic view monitor[*1] or Lexus parking assist monitor with RCD [Rear Camera Detection]): **"Switch to Brake"**

Message example on the multi-information display: **"Accelerator Pedal is Pressed Press Brake Pedal"**, **"Press Brake Pedal"**

Driving assist information indicator: Illuminated

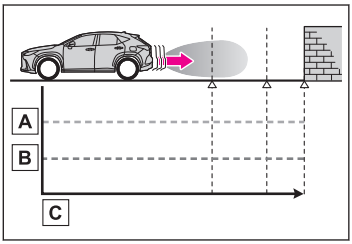
Buzzer: Sounds repeatedly

System overview

If the Parking Support Brake determines that a collision with a detected object or pedestrian is possible, the engine output will be restricted to restrain any increase in the vehicle speed. (Engine output restriction control: See figure 2 below.)

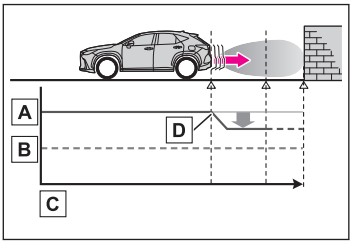
Additionally, if the accelerator pedal continues to be depressed, the brakes will be applied automatically to reduce the vehicle speed. (Brake control: See figure 3.)

● Figure 1: When the PKSB (Parking Support Brake) is not operating



A Engine output
B Braking force
C Time

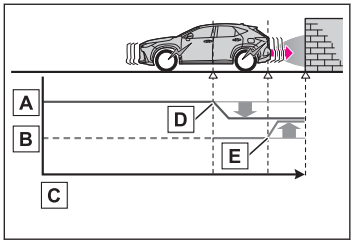
● Figure 2: When engine output restriction control operates



A Engine output
B Braking force
C Time
D Engine output restriction control begins operating (System determines that possibility of collision with detected object is high)

● Figure 3: When engine output restriction control and brake control operates

*1: This may not be displayed depending on the specification of the panoramic view monitor.



A Engine output
B Braking force
C Time
D Engine output restriction control begins operating (System determines that possibility of collision with detected object is high)
E Brake control begins operating (System determines that possibility of collision with detected object is extremely high)

INFORMATION

If the Parking Support Brake has operated

If the vehicle is stopped due to operation of the Parking Support Brake, the Parking Support Brake will be disabled and the driving assist information indicator will illuminate.

In addition, even when the PKSB (Parking Support Brake) operates, the brake control is canceled after approximately 2 seconds to start off.

Furthermore, the brake control also can be canceled by depressing the brake pedal. Depressing the accelerator pedal again after that allows the vehicle to start off.

Re-enabling the Parking Support Brake

To re-enable the Parking Support Brake when it is disabled due to operation of the PKSB (Parking Support Brake), either enable the system again, or turn the engine switch off and then back to ON.

Additionally, if any of the following conditions are met, the system will be re-enabled automatically and the driving assist information indicator will turn off (→P.275):

- The P shift position is selected
- Drive with no operation targets in the traveling direction of the vehicle
- Change the traveling direction of the vehicle

Buzzer

Regardless of whether the Lexus parking assist-sensor is enabled or not (→P.379), if the PKSB (Parking Support Brake) system is enabled (,404), the buzzer will sound to notify the driver of the approximate distance to the object when the brake control and the engine output restriction control are operated.

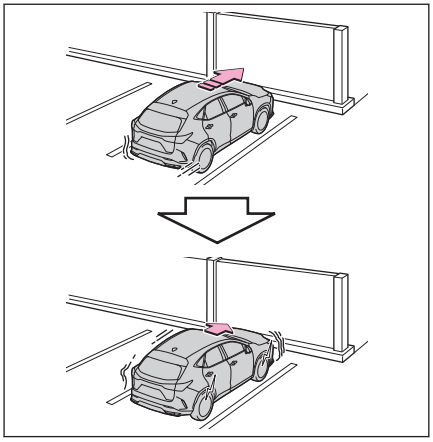
Parking Support Brake function (static objects front and rear of the vehicle/static objects around the vehicle)

If the sensors detect a static object, such as a wall, in the traveling direction of the vehicle and the system determines that a collision may occur due to the vehicle suddenly moving forward due to an accidental accelerator pedal operation, the vehicle moving the unintended direction due to the wrong shift position being selected, or while parking or traveling at low speeds, the system will operate to lessen the impact with the detected static object and reduce the resulting damage.

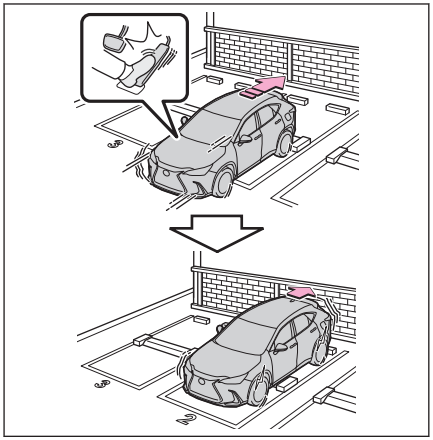
Examples of function operation (static objects front and rear of the vehicle)

This function will operate in situations such as the following if an object is detected in the traveling direction of the vehicle.

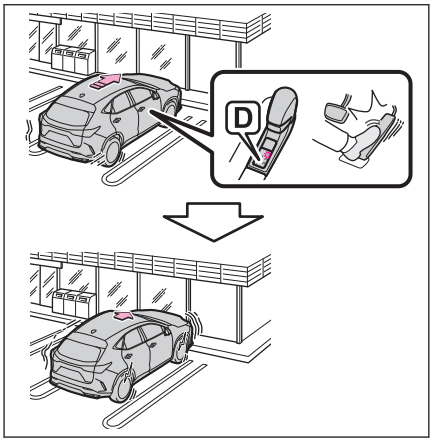
■ When traveling at a low speed and the brake pedal is not depressed, or is depressed late



■ **When the accelerator pedal is depressed excessively**



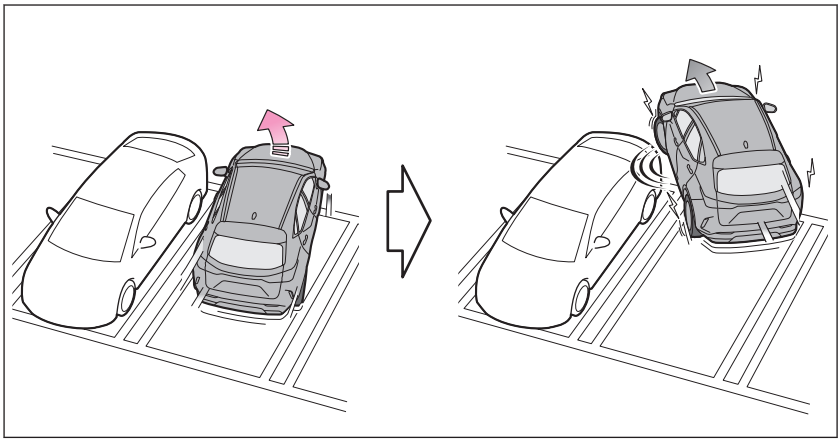
■ **When the vehicle moves forward due to the incorrect shift position being selected**



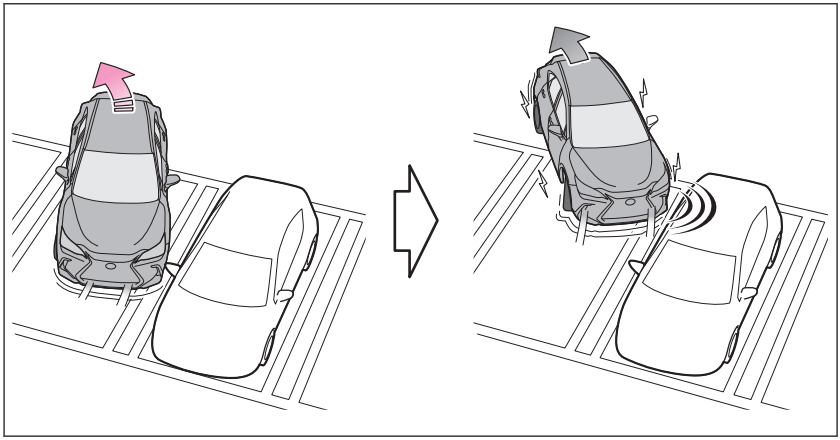
Examples of function operation (static objects around the vehicle) (Vehicles with Advanced Park)

The system will operate in the following situations when a stationary object is detected in the surrounding area.

When moving forward and a collision with a stationary object on the inner side of a turn is likely



When reversing and a collision with a stationary object on the outer side of a turn is likely



Types of sensors

→P.378

⚠ WARNING

To ensure the system can operate properly

→P.379

⚠ WARNING

■ If the Parking Support Brake function operates unnecessarily, such as at a railroad crossing

→P.406

■ Notes when washing the vehicle

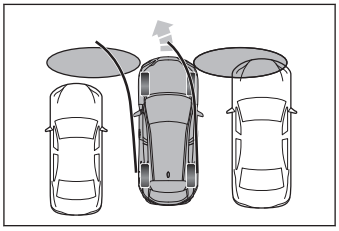
→P.379

■ Side sensors and side cameras (vehicles with Advanced Park)

In situations such as the following, Parking Support Brake function (static objects around the vehicle) may not operate correctly, possibly leading to an accident. Proceed carefully.

- When starting off shortly after the engine switch is turned to ON and a small vehicle or other object which cannot be detected by a front side sensor is next to the vehicle.

  In the situation shown in the following illustration, even if the vehicle starts off, the vehicle on the left will not be detected and the object warning function will not operate.



- When an object or person is in a position which cannot be detected by the side sensors or side cameras.
- When a vehicle, person, or other object approaches the side of the vehicle after the side sensors have completed scanning the areas along the sides of the vehicle.
- When the outside rear view mirror is closed.
- If the battery was discharged or has been removed and installed, fold and extend the outside rear view mirrors.

INFORMATION

■ The Parking Support Brake function (static objects front and rear of the vehicle) will operate when

The function will operate when the driving assist infomation indicator is not illuminated (→P.272,548) and all of the following conditions are met:

- Engine output restriction control
  - The Parking Support Brake is enabled.
  - The vehicle speed is approximately 15 km/h (9 mph) or less.
  - There is a static object in the traveling direction of the vehicle and approximately 2 to 4 m (6 to 13 ft.) away.

- The Parking Support Brake determines that a stronger-than-normal brake operation is necessary to avoid a collision.

● Brake control

- Engine output restriction control is operating.
- The Parking Support Brake determines that an immediate brake operation is necessary to avoid a collision.

■ The Parking Support Brake function (static objects around the vehicle) will operate when (vehicles with Advanced Park)

This function is operable when any of the following conditions is met in addition to the operating conditions for static objects in front and rear of the vehicle.

● After the engine has been started, the vehicle has moved approximately 7 m (23.0 ft.) or less

● The R shift position is selected

● After the shift position has been changed from R to D, the vehicle has moved approximately 7 m (23.0 ft.) or less

■ The Parking Support Brake function (static objects front and rear of the vehicle/static objects around the vehicle) will stop operating when

The function will stop operating if any of the following conditions are met:

● Engine output restriction control

- The Parking Support Brake is disabled.
- The system determines that the collision has become avoidable with normal brake operation.
- The static object is no longer approximately 2 to 4 m (6 to 13 ft.) away from the vehicle or in the traveling direction of the vehicle.

● Brake control

- The Parking Support Brake is disabled.
- Approximately 2 seconds have elapsed since the vehicle was stopped by brake control.
- The brake pedal is depressed after the vehicle is stopped by brake control.
- The static object is no longer approximately 2 to 4 m (6 to 13 ft.) away from the vehicle or in the traveling direction of the vehicle.

■ Detection range of the Parking Support Brake function (static objects front and rear of the vehicle/static objects around the vehicle)

The detection range of the Parking Support Brake function (static objects front and rear of the vehicle/static objects around the vehicle) differs from the detection range of the Lexus parking assist-sensor (→P.384). Therefore, even if the Lexus parking assist-sensor

detects an object and provides a warning, the Parking Support Brake function (static objects front and rear of the vehicle/static objects around the vehicle) may not start operating.

■ **Situations in which the system may not operate properly**

→P.379

■ **Situations in which the system may operate even if there is no possibility of a collision**

→P.379

■ **Situations in which the system may operate even though there is no possibility of a collision (static objects around the vehicle) (vehicles with Advanced Park)**

In addition to the situations in which static objects in front and rear of the vehicle may not be detected, objects may not be detected by the sensors in the following situations:

- When moving sideways, such as when parallel parking (→P.434)

■ **Detection of objects along the sides of the vehicle (static objects around the vehicle) (vehicles with Advanced Park)**

- Objects along the sides of the vehicle are not instantaneously detected. The location of objects in relation to the vehicle is estimated after they are first detected by the front or rear side sensors, or side cameras. Therefore, after the engine switch is changed to ON, even if an object is along the side of the vehicle, it may not be detected until the vehicle has been driven a small amount and the side sensors or side cameras completely scan the areas along the sides of the vehicle.
- If a vehicle, person, animal, etc., is detected by a side sensors or side cameras, but then leaves the detection area of the side sensors or side cameras, the system will assume the object has not moved.

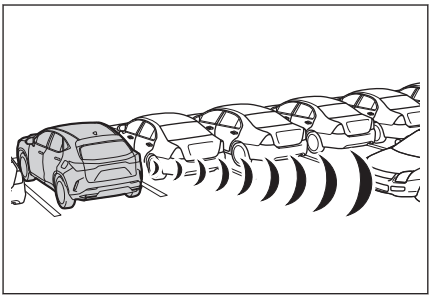
Parking Support Brake function (moving vehicles rear of the vehicle)

If a rear radar sensor detects a vehicle approaching from the right or left at the rear of the vehicle and the system determines that the possibility of a collision is high, this function will perform brake control to reduce the likelihood of an impact with the approaching vehicle.

Examples of the function operation

This function will operate in situations such as the following if a vehicle is detected in the traveling direction of the vehicle.

When reversing, a vehicle is approaching and the brake pedal is not depressed, or is depressed late



Types of sensors

→P.366

⚠ WARNING

To ensure the system can operate properly

→P.366

INFORMATION

The Parking Support Brake function (moving vehicles rear of the vehicle) will operate when

The function will operate when the driving assist infomation indicator is not illuminated (→P.272, ,275) and all of the following conditions are met:

- Engine output restriction control
  - The Parking Support Brake is enabled.
  - The vehicle speed is approximately 15 km/h (9 mph) or less.
  - Vehicles are approaching from the right or left at the rear of the vehicle at a traveling speed of approximately 8 km/h (5 mph) or more.
  - The shift position is in R.
  - The Parking Support Brake determines that a stronger than normal brake operation is necessary to avoid a collision with an approaching vehicle.
- Brake control
  - Engine output restriction control is operating.
  - The Parking Support Brake determined that an emergency brake operation was necessary to avoid a collision with a vehicle approaching from the rear.

■ **The Parking Support Brake function (moving vehicles rear of the vehicle) will stop operating when**

The function will stop operating if any of the following conditions are met:

● Engine output restriction control

- The Parking Support Brake is disabled.
- The collision becomes avoidable with normal brake operation.
- A vehicle is no longer approaching from the right or left at the rear of the vehicle.

● Brake control

- The Parking Support Brake is disabled.
- Approximately 2 seconds have elapsed since the vehicle was stopped by brake control.
- The brake pedal is depressed after the vehicle is stopped by brake control.

■ **Situations in which the system may not operate properly**

→P.392

■ **Situations in which the system may operate even if there is no possibility of a collision**

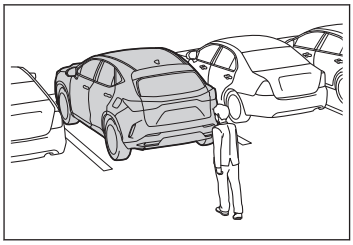
→P.392

Parking Support Brake function (pedestrians rear of the vehicle)

If the rear camera sensor detects a pedestrian behind the vehicle while backing up and the system determines that the possibility of colliding with the detected pedestrian is high, a buzzer will sound. If the system determines that the possibility of colliding with the detected pedestrian is extremely high, the brakes will be applied automatically to help reduce the impact of the collision.

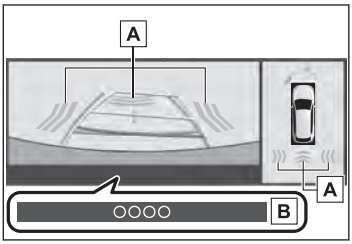
Examples of system operation

The system operates when an approaching pedestrian is detected behind the vehicle while backing up, and when the brake pedal is not depressed or is depressed late.



Screen display of pedestrians rear of the vehicle

Displays a message to prompt the driver to brake when a pedestrian is detected in the detection area behind the vehicle.



A Pedestrian detection icon

B Example: "BRAKE!"

⚠ WARNING

■ If the Parking Support Brake function (pedestrians rear of the vehicle) operates unnecessarily

Depress the brake pedal immediately after the Parking Support Brake function (pedestrians rear of the vehicle) operates. (Operation of the function is canceled by depressing the brake pedal.)

■ Correct use of the Parking Support Brake function (pedestrians rear of the vehicle)

→P.397

INFORMATION

■ The Parking Support Brake function (pedestrians rear of the vehicle) will operate when

The function will operate when the driving assist information indicator is not illuminated (→P.272, ,548) and all of the following conditions are met:

● Engine output restriction control

- The Parking Support Brake is enabled.
- The vehicle speed is 15 km/h (9 mph) or less.
- The shift position is in R.
- When a pedestrian is to the rear of the vehicle
- The PKSB (Parking Support Brake) determines that a stronger-than-normal-brake operation is necessary to avoid a collision.

● Brake control

- Engine output restriction control is operating.
- The Parking Support Brake determines that an emergency brake operation is necessary to avoid a collision with a pedestrian.

The Parking Support Brake function (pedestrians rear of the vehicle) will stop operating when

The function will stop operating if any of the following conditions are met:

- Engine output restriction control
  - The Parking Support Brake is disabled.
  - The collision becomes avoidable with normal brake operation.
  - The pedestrian is no longer detected behind your vehicle.
- Brake control
  - The Parking Support Brake is disabled.
  - Approximately 2 seconds have elapsed since the vehicle was stopped by brake control.
  - The brake pedal is depressed after the vehicle is stopped by brake control.

Re-enabling the Parking Support Brake function (pedestrians rear of the vehicle)

→P.406

Detection area of the Parking Support Brake function (pedestrians rear of the vehicle)

The detection area of the Parking Support Brake function (pedestrians rear of the vehicle) differs from the detection area of the RCD function (→P.398). Therefore, even if the RCD function detects a pedestrian and provides an alert, the Parking Support Brake function (pedestrians rear of the vehicle) may not start operating.

Situations in which the system may not operate properly

→P.398

Situations in which the system may operate unexpectedly

→P.398

Lexus Teammate Advanced Park*

Function description

The Advanced Park is a system which assists in a safe and smooth parking or exiting from a parking space by displaying the blind spots around the vehicle and the target parking spot through a bird's eye view, delivering operation guidance through displays and buzzer operation, and changing the shift position, operating the steering wheel, accelerator pedal, and brake pedal.Additionally, the panoramic view monitor *1 can display the area in front, behind, and from above the vehicle, helping confirm the condition of the area around the vehicle.The turn signal lights will blink automatically when the parking assistance starts until the vehicle reaches the target parking spot, to notify people around the vehicle that parking is being performed.Depending on the condition of the road surface or the vehicle, the distance between the vehicle and a parking space, etc., it may not be possible to assist in parking in the target space.Only use Advanced Park in accordance with all local road traffic laws and regulations.

Functions

■ Perpendicular parking (forward/reverse) function

Assistance is provided from the position the vehicle is stopped near the target parking space until the vehicle is in the parking space.→P.428

■ Perpendicular exiting (forward/reverse) function

Assistance is provided from the parked position until the vehicle is in a position where you can easily exit from the parking space.→P.432

■ Parallel parking function

Assistance is provided from the position the vehicle is stopped near the target parking space until the vehicle is in the parking space. →P.434

■ Parallel exiting function

Assistance is provided from the parked position until the vehicle is in a position where you can easily exit from the parking space.→P.438

■ Memory function

Assistance is provided until the vehicle is guided into a previously registered parking space. →P.441

*: If equipped

*1: For details on the panoramic view monitor refer to "Multimedia Owner's Manual".

INFORMATION

Trademarks

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Toyota Motor Corporation is under license. Other trademarks and trade names are those of their respective owners.

WARNING

Cautions regarding the use of the system

The recognition and control capabilities for this system are limited. The driver should always drive safety by always being responsible without over relying on the system and have a understanding of the surrounding situations.

- As with a normal vehicle, take care to observe your surroundings while the vehicle is moving.
- Always pay attention to the vehicle's surroundings while the system is operating and depress the brake pedal as necessary to slow or stop the vehicle.
- When parking, make sure that the vehicle can be parked in the target parking space before beginning operation.
- Depending on the condition of the road surface or the vehicle, the distance between the vehicle and a parking space, etc., it may not be possible to detect a parking space or the system may not be able to provide assistance to the point the vehicle is fully parked.
- This system will guide the vehicle to appropriate positions for changing the direction of travel, however, if you feel that the vehicle is approaching too close to an adjacent parked vehicle at any time, depress the brake pedal and change the shift position. However, if this is performed, the number of times the vehicle changes direction may increase, and the vehicle may be parked at an angle.
- As certain objects or materials, such as the following, may not be detected, make sure to check the safety of the area around your vehicle and depress the brake pedal to stop the vehicle if it may collide with an object.
  - Thin objects (wires, fences, ropes, poles, etc.) or objects that appear like thin from a certain angle of approach (signs, bicycles, etc.)
  - Materials that absorb sound waves (cotton, snow, etc.)
  - Sharp-edged objects (block walls/columns, wall corners, etc.)
  - Objects in lower places (curb stones/blocks, stairs, parking blocks, etc.)
  - Tall objects with upper sections that protrude outward (beams, etc.)
  - Objects which are not perpendicular to the ground

⚠ WARNING

- Objects to which the vehicle is approaching diagonally

- Even if there is an object in the target parking space, it may not be detected and assistance may be performed.
- If it is likely that your vehicle will collide with a nearby vehicle, object, or person, or go over the top of a parking block, depress the brake pedal to stop the vehicle and press the Advanced Park main switch to disable the system.
- Never use only the center display to view the area behind the vehicle. The image displayed may differ than the actual situation. Using only the screen when backing up may lead to an accident, such as a collision with another vehicle. When backing up, make sure to look directly or use the mirrors to check the safety of the area around your vehicle, especially behind the vehicle.
- When the ambient temperature is extremely low, the screen may appear dark or the displayed image may become unclear. Also, as moving objects may appear distorted or may not be able to be seen on the screen, make sure to directly check the safety of the area around your vehicle.
- In the following situations, while the vehicle is stopped and held by Advanced Park, it may be canceled and the vehicle may start moving. Immediately depress the brake pedal. Failure to do so may lead to an accident.
  - When the driver's door is opened
  - When operations instructed by the system are not performed within a certain amount of time
  - When the brake pedal is depressed and the vehicle is stopped for a certain amount of time
  - When the system malfunctions
- As the steering wheel will turn while this system is operating, pay attention to the following.
  - Be careful so that a necktie, scarf, or arm does not get caught. Keep your upper body away from the steering wheel. Also, keep children away from the steering wheel.
  - Long fingernails may be caught and when the steering wheel is rotating, leading to injury.
  - In an emergency, depress the brake pedal to stop the vehicle, and then press the Advanced Park main switch to disable the system.
- Do not allow anyone to put their hands outside of a window while this system is operating.

⚠ WARNING

To ensure correct operation of the Advanced Park

Observe the following precautions. Failing to do so may result in the vehicle being unable to be driven safely and possibly cause an accident.

- Do not use this system in situations such as the following:
  - When in areas other than common parking spaces
  - When the surface of the parking space is sand or gravel and is not clearly defined with parking space lines
  - When the parking space is not level, such as on a slope, or having differences in height, holes, or gutters
  - Mechanical parking system
  - Parking lot with a device which raises to contact the bottom of the vehicle
  - When the road surface is frozen, slick, or covered with snow
  - When it is extremely hot and the asphalt is melting
  - When there are objects around the vehicle
  - When there is an object between your vehicle and the target parking spot or within the target parking spot (within the displayed blue box)
  - When in high pedestrian or vehicle traffic areas
  - When the parking space is in a location that is difficult to park in (too narrow for your vehicle, etc.)
  - When images are unclear due to dirt or snow attached to the camera lens, light being shined into the camera or shadows
  - When tire chains or a compact spare tire is installed to the vehicle
  - When the doors or back door are not completely closed
  - When an arm is held outside of a window
  - In inclement weather such as heavy rain or snow
- Make sure to use only standard sized tires, such as those that were installed to the vehicle when it was shipped from the factory. Otherwise, Advanced Park may not operate properly. Also, when the tires have been replaced, the displayed position of the lines or box displayed on the screen may become incorrect. When replacing the tires, contact your Lexus Dealer.
- In situations such as the following, it may not be possible for the system to provide assistance to a registered parking spot or to operate correctly:
  - When the tires are extremely worn or the tire inflation pressure is low
  - When carrying a heavy load

⚠ WARNING

- When the vehicle is tilted due to the carried load
- When a heater is installed in the surface of the parking space (road surface freeze prevention heater)
- When the wheels are misaligned, such after a wheel has been subjected to a strong impact
- When a pedestrian or passing vehicle is detected during assistance
- When a device, such as a towing hook, bumper protector, bumper trim, bicycle carrier, snow plow, etc., is installed
- When something is incorrectly detected as a parking line (light, reflections from a building, difference in height on the parking surface, a gutter, painted road lines, redrawn lines, etc.)

If the vehicle deviates greatly from the set parking space in any situation other than the above, have the vehicle inspected by your Lexus dealer.

⚠ NOTICE

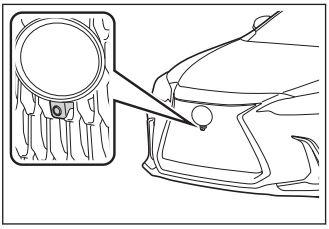
■ Precautions for use Advanced Park

If the battery was discharged or has been removed and installed, fold and extend the outside rear view mirrors.

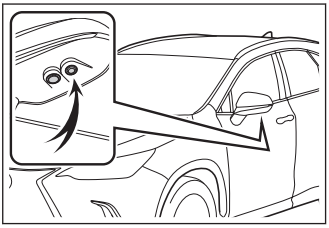
Types of cameras and sensors used for the Advanced Park

Cameras and sensors are used to detect parked vehicles, making it easier to identify parking spaces.

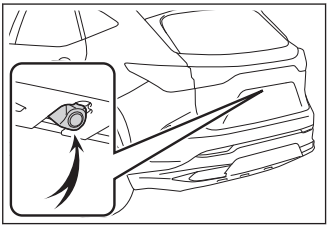
▶ **Front camera**



▶ **Side cameras**



▶ **Rear camera**



▶ **Sensors**

→P.384

INFORMATION

Camera images

As special cameras are used, the colors in displayed images may differ from the actual color.

Precautions for use

For details on the following, refer to "Panoramic view monitor (Vehicles equipped with Lexus Teammate Advanced Park)" in the "Multimedia Owner's Manual".

- Displayable range of the screens
- Cameras
- Differences between displayed images and the actual road
- Differences between displayed images and the actual objects

Detection range of the cameras and sensors

- If a parked vehicle is behind the target parking space and the distance between it and the vehicle becomes far, it may no longer be able to be detected. Depending on shape or condition of a parked vehicle, the detection range may become short or the vehicle may not be detected.
- Objects other than parked vehicles, such as columns, walls, etc., may not be detected. Also, if they are detected, they may cause the target parking space to be misaligned.

Situations in which parking space lines may not be recognized properly

- In situations such as the following, parking space lines on the road surface may not be detected:
  - When the parking space does not use lines (parking space boundaries are marked with rope, blocks, etc.)
  - When the parking space lines are faded or dirty, making them unclear

- When the road surface is bright, such as concrete, and the contrast between it and the white parking space lines is small
- When the parking space lines are any color other than yellow or white
- When the area surrounding the parking space is dark, such as at night, in an underground parking lot, parking garage, etc.
- When it is raining or has rained and the road surface is wet and reflective or there are puddles
- When the sun is shining directly into a camera, such as in the early morning or evening
- When the parking space is covered with snow or de-icing agent
- When there marks from repairs or other marks on the road surface, or there is a traffic bollard, or other object on the road surface
- When the color or brightness of the road surface is uneven
- When a camera has been splashed by hot or cold water and the lens has fogged up
- When the appearance of the parking space is affected by the shadow of the vehicle or trees
- When a camera lens is dirty or covered with water droplets

● In situations such as the following, the target parking space may not be recognized correctly:

- When there marks from repairs or other marks on the road surface, or there is a parking block, traffic bollard, or other object on the road surface
- When it is raining or has rained and the road surface is wet and reflective or there are puddles
- When the area around the vehicle is dark or backlit
- When the color or brightness of the road surface is uneven
- When the parking space is on a slope
- When there are diagonal lines (access aisle) near the parking space
- When the appearance of the parking space is affected by the shadow of a parked vehicle (such as shadows from the grille, side step, etc.)
- When accessories which obstruct the view of the camera are installed
- When the parking space lines are faded or dirty, making them unclear
- When the appearance of the parking space is affected by the shadow of the vehicle or trees

■ Sensor detection information

→P.384

■ **Objects which the sensor may not be properly detected**

→P.384

■ **Situations in which the sensor may not operate properly**

→P.384

■ **Situations in which parking assistance may not operate even if there is no possibility of a collision**

→P.384

⚠ WARNING

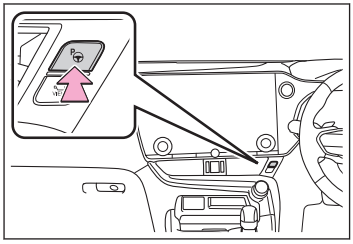
■ **Precautions for the cameras and sensors**

- Due to the characteristics of the camera lens, the position of and distance to people and objects displayed on the screen may differ from the actual situation. For details, refer to Panoramic view monitor [Vehicles equipped with Lexus Teammate Advanced Park (parking assist system)] in the "Multimedia Owner's Manual".
- Make sure to observe the precautions for using the Lexus parking assist-sensor, otherwise a sensor may not operate correctly, possibly leading to an accident. →P.379
- In situations such as the following, the sensors may not operate correctly, possibly leading to an accident. Proceed carefully.
  - When there is a parked vehicle next to the target parking space, if the displayed target parking space is far from the actual target parking space, a sensor may be misaligned. Have the vehicle inspected by your Lexus dealer.
  - Do not install any accessories near the detection area of the sensors.

Turning the Advanced Park system on/off

● **Press the Advanced Park main switch.**

If the switch is pressed while assistance is being performed, the assistance will be canceled.



INFORMATION

■ **Operating conditions of the Advanced Park**

Assistance will begin when all of the following conditions are met:

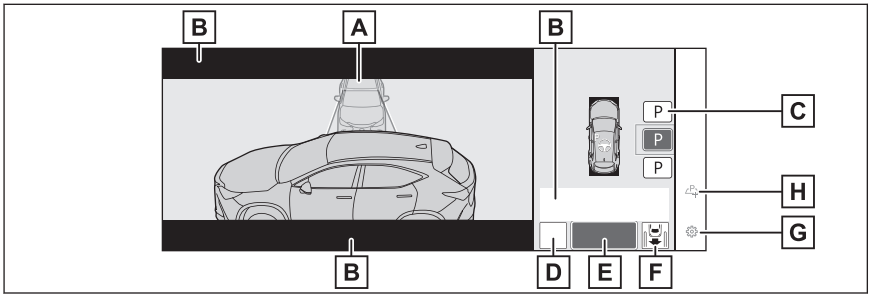
- The brake pedal is depressed
- The vehicle is stopped
- The driver's seat belt is fastened
- The steering wheel is not being operated
- The accelerator pedal is not depressed
- All of the doors and the back door are closed
- The outside rear view mirrors are not folded
- The parking brake is not engaged
- The dynamic radar cruise control are not operating
- ABS, VSC, TRC, PCS and PKSB are not operating
- The vehicle is not towing a trailer or another vehicle
- The vehicle is not on a steep slope
- The VSC and TRC are not turned off

If assistance cannot be started, check the message displayed on the center display→P.450

Advanced Park guidance screens

Guidance screens are displayed on the center display.

▶ Guidance screen (When assistance starts)



A Target parking space box (blue)

B Advice display

C Parking type change button

If multiple buttons are displayed, depending on the condition of the button its function differs as follows.

P or P : Change the target to another parking space.

or : Select the current target parking space.

: Select to change to the parallel parking function

: Change the perpendicular parking (forward/reverse) function

D [MODE] button

Select to change between the memory function and the perpendicular parking (forward/reverse) function and parallel parking function →P.441

E [Start] button

Select to start parking assistance.

F Perpendicular parking direction change button

Select to change between the parking (forward) function and parking (reverse) function

: Change the perpendicular parking (forward) function

: Change the perpendicular parking (reverse) function

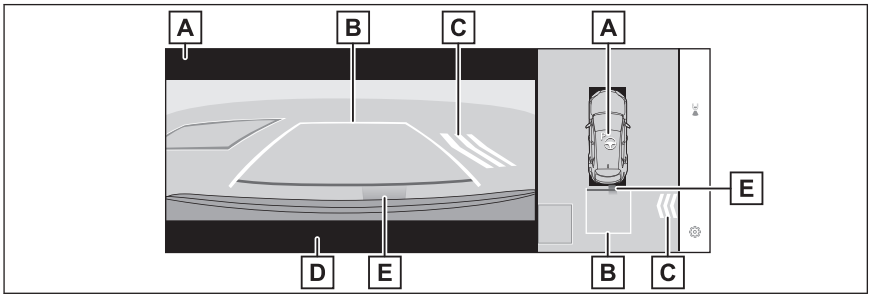
G Customize setting button

Select to display the Advanced Park setting screen. →P.448

H Registration button

Select to begin registering a parking space.

▶ **Guidance screen (When reversing)**



A Operation icon

Displayed when the Advanced Park is operating.

B Guide lines (yellow and red)

Display points from the center of the edge of the front or rear bumper to the target stopping position (yellow) *1 and approximately 0.3 m (1 ft.) (red) from the vehicle.

*1: The yellow lateral line is not displayed when the target stopping position is approximately 2.5 m (8.2 ft.) or more away from the vehicle.

C Moving object warning icon

D Emergency support brake control operation display

"Brake!" is displayed.

E Lexus parking assist-sensor display

→P.378

INFORMATION

■ Lexus parking assist-sensor pop-up display

Regardless of whether the Lexus parking assist-sensor is off or on (→P.378), if an object is detected by the Lexus parking assist-sensor when the Advanced Park is operating, the Lexus parking assist-sensor pop-up display will automatically be displayed over the guidance display.

■ Brake control operation when Advanced Park is operating

While the Advanced Park is operating, if the system determines that the possibility of collision with detected moving or stationary object is high, the engine output restriction control and brake control will operate.

If brake control operates, Advanced Park operation will be suspended and a message will be displayed on the multi-information display.

■ Buzzer

Depending on surrounding sounds or sounds from other systems, it may be difficult to hear the buzzer of this system.

■ If a black screen is displayed on the center display when the Advanced Park is operating

The system is being affected by radio waves or may be malfunctioning. If a radio antenna is installed near a camera, move it to a location as far from the cameras as possible. If a radio antenna is not installed near a camera, and the screen does not return to normal after turning the engine switch off and then starting the engine again, have the vehicle inspected by your Lexus dealer.

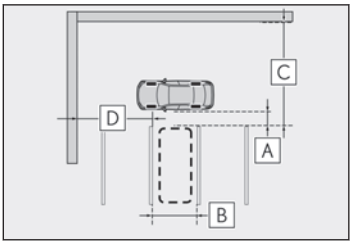
Perpendicular parking (forward/reverse) function

The perpendicular parking (forward/reverse) function can be used if the target parking space can be detected when the vehicle is stopped close and perpendicular to the center of the parking space. Also, depending on the condition of the parking space, etc., if it is necessary to change the direction of travel of the vehicle, the shift position can be changed by assistance control.

Parking using the perpendicular parking (forward/reverse) function

1 Stop the vehicle at a position close and perpendicular to the center of the target parking space.

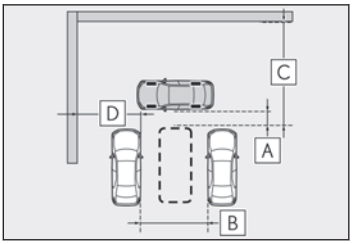
▶ **If there are parking space lines**



A Approximately 1 m (3.3 ft.) *1
B Approximately 2.5 m (8.2 ft.) *1
C Approximately 6 m (19.7 ft.) or more *1
D Approximately 5.5 m (18.0 ft.) or more *1

The system can operate even if there is a parking space line on only one side of the target parking space.

▶ **If there is an adjacent parked vehicle**

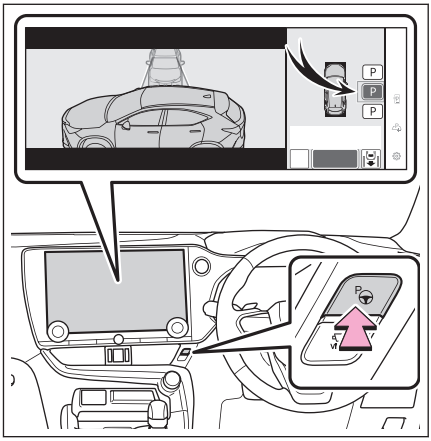


A Approximately 1 m (3.3 ft.) *1
B Approximately 3 m (9.8 ft.) or more *1
C Approximately 6 m (19.7 ft.) or more *1
D Approximately 5.5 m (18.0 ft.) or more *1

The system can operate even if there is a vehicle on only one side of the target parking space.

2 Press the Advanced Park main switch and check that a possible parking space is displayed on the center display.

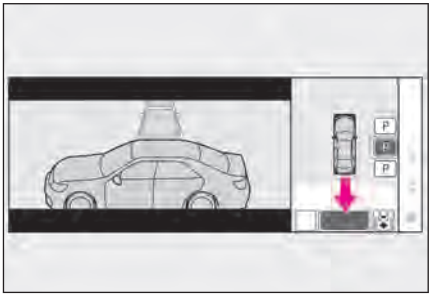
*1: This is a reference measurement for detection of a parking space. Depending on the surrounding environment, detection may not be possible.



- If a space which your vehicle can be parked is detected, a target parking space box will be displayed.
- If it is possible to parallel park in the space, select the parking space, and then select (P) to change to the parallel parking function.
- If it is possible to change the direction which a parking space is entered, select the parking space, and then select or change the direction.
- Depending on the surrounding environment, it may not be possible to use this function. According to the information displayed on the center display, use the function on another parking space.

3 **Select [Start] button.**

A buzzer will sound, an operation message will be displayed on the multi-information display, and assistance will begin operating.

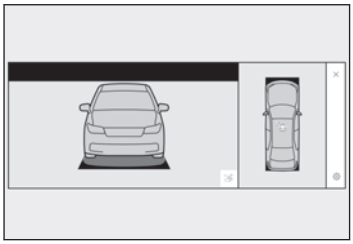


- When the brake pedal is released, **"Moving Forward..."**, **"Backing Up..."** will be displayed and the vehicle will begin moving forward/reverse.
- To cancel assistance, press the Advanced Park main switch.

If assistance is canceled, **"Advanced Park Cancel"** will be displayed.

If you feel that the vehicle is approaching close to a surrounding vehicle, object, person, or gutter: →P.432

4 **Perform operations as indicated by the advice displays until the vehicle stops in the target parking space.**



When the vehicle stops, **"Advanced Park Finished"** will be displayed and parking assistance will end.

If you select on the center display, the vehicle displayed on the parking assist completion screen will rotate.

INFORMATION

■ If you feel that the vehicle is approaching close to a surrounding vehicle, object, person, or gutter

Depress the brake pedal to stop the vehicle and then change the shift position to change the direction of travel of the vehicle. At this time, assist will be suspended. However, if the [**Start**] button is selected, assist will resume and the vehicle will move in the direction corresponding to the selected shift position.

■ When the brakes have been operated

When the brakes have been operated, brake operation sound may be heard. This does not indicate a malfunction.

NOTICE

■ When using the perpendicular parking (forward/reverse) function

- Make sure that there are no obstructions within the yellow guide lines and between the vehicle and target parking spot. If there are any obstructions between the vehicle and the target parking space, or between the yellow guide lines, cancel the function.
- As the target parking space will not be able to be set correctly if the surface of the parking space is on a slope or has differences in height, the vehicle may stray from the target parking space or be slanted. Therefore, do not use the function for this kind of parking spot.
- When parking in a narrow parking space, the vehicle may closely approach an adjacent parked vehicle. If a collision seems likely, depress the brake pedal to stop the vehicle.
- If a detected parked vehicle is narrow or parked extremely close to the curb, the position at which assistance will park the vehicle will also be close to the curb.

⚠ NOTICE

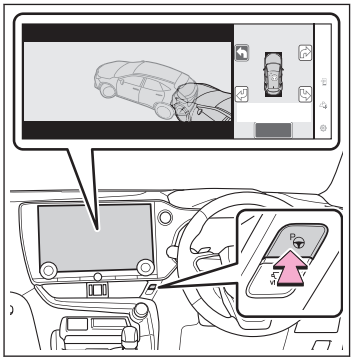
If it seems likely the vehicle will collide with something or drive off of the road, depress the brake pedal to stop the vehicle, and then press the Advance Park main switch to disable the system.

Advanced Park perpendicular exiting (forward/reverse) function

When exiting from a perpendicular parking space, if the system determines that exit is possible the perpendicular exiting (forward/reverse) function can be used. Also, depending on the surrounding environment, if it is necessary to change the direction of travel of the vehicle, the shift position can be changed by assistance control.

Leaving a parking space using the perpendicular exiting (forward/reverse) function

1 With the brake pedal depressed and P shift position selected, press the Advanced Park main switch and check that the exit direction selection screen is displayed on the center display.

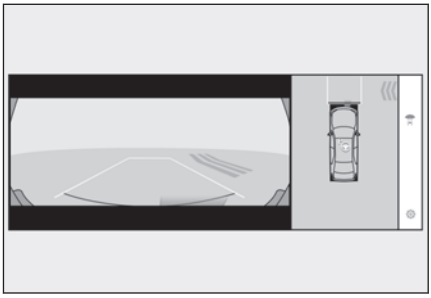


2 Select an arrow on the center display to select the direction you wish to exit.

If the turn signal lever is operated, only exit to the left or right can be selected.

3 Depress the brake pedal and select [Start] button.

A buzzer will sound, an operation message will be displayed on the multi-information display, and assistance will begin operating.

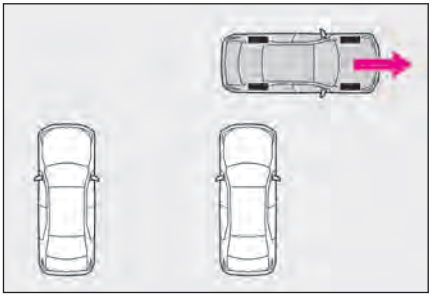


To cancel assistance, press the Advanced Park main switch. If assistance is canceled, **"Advanced Park Cancel"** will be displayed.

If you feel that the vehicle is approaching close to a surrounding vehicle, object, person, or gutter: →P.432

4 **Perform operations as indicated by the advice displays until the vehicle is in a position where exit is possible.**

If the steering wheel is not operated, the vehicle will stop at the exit position. Assistance can be ended by depressing the accelerator pedal or brake pedal.



INFORMATION

■ **If you feel that the vehicle is approaching close to a surrounding vehicle, object, person, or gutter**

→P.432

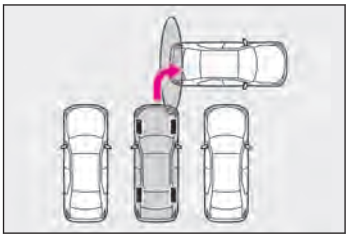
■ **Perpendicular exiting (forward/reverse) function**

Do not use perpendicular exiting (forward/reverse) function in any situation other than when exiting a perpendicular parking spot. If assistance is started unintentionally, depress the brake pedal and stop the vehicle, then press the Advanced Park main switch to cancel assistance.

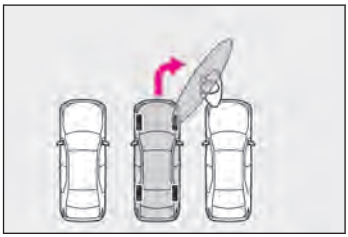
■ **Situations in which the perpendicular exiting (forward/reverse) function will not operate**

In situations such as the following, the perpendicular exiting (forward/reverse) function will not operate:

- When a vehicle which is waiting to park is in the exit direction



- When a wall, column, or person is detected as near a front or rear center or corner sensor



■ **When the brakes have been operated**

→P.429

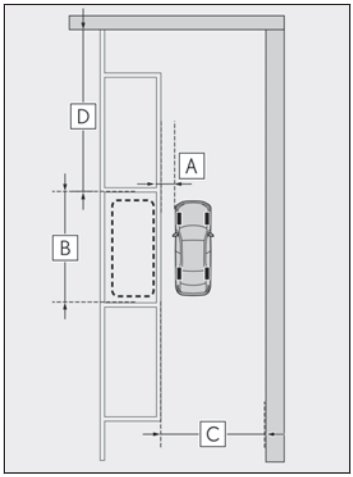
Advanced Park parallel parking function

The parallel parking function can be used if the target parking space can be detected when the vehicle is stopped close and aligned with the center of the parking space. Also, depending on the condition of the parking space, etc., if it is necessary to change the direction of travel of the vehicle, the shift position can be changed by assistance control.

Parking using the parallel parking function

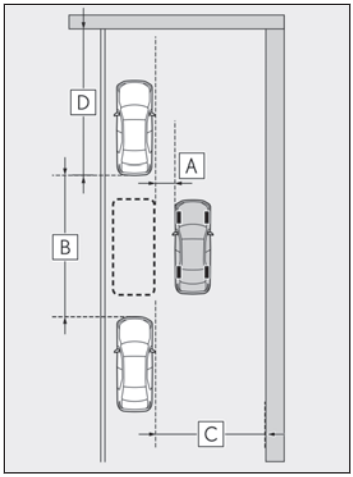
1 **Stop the vehicle with it aligned near the center of the target parking space.**

▶ **If there are parking space lines**



A Approximately 1 m (3.3 ft.) *1
B Approximately 6 m (19.7 ft.) *1
C Approximately 4.5 m (14.8 ft.) or more *1
D Approximately 8 m (26.2 ft.) or more *1

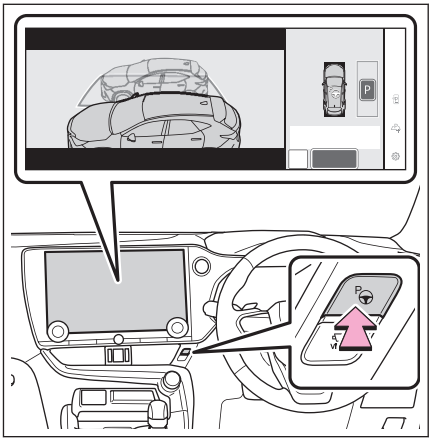
▶ **If there is an adjacent parked vehicle**



A Approximately 1 m (3.3 ft.)*1
B Approximately 7 m (23.0 ft.) or more *1
C Approximately 4.5 m (14.8 ft.) or more *1
D Approximately 8 m (26.2 ft.) or more *1

2 Press the Advanced Park main switch and check that a possible parking space is displayed on the center display.

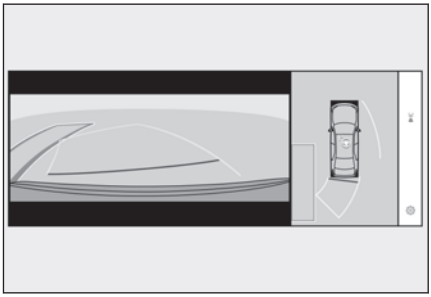
*1: This is a reference measurement for detection of a parking space. Depending on the surrounding environment, detection may not be possible.



- If a space which your vehicle can be parked is detected, a target parking space box will be displayed.
- If it is possible to perpendicular parking (forward/reverse) in the space, select the parking space, and then select to change to the perpendicular parking (forward/reverse) function.
- Depending on the surrounding environment, it may not be possible to use this function. According to the information displayed on the center display, use the function on another parking space.

3 **Select [Start] button.**

A buzzer will sound, an operation message will be displayed on the multi-information display, and assistance will begin operating.

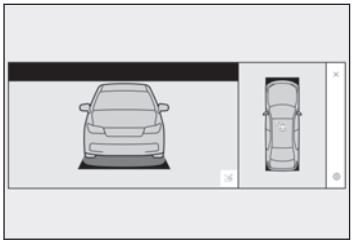


- When the brake pedal is released, **"Moving Forward..."** will be displayed and the vehicle will begin moving forward.
- To cancel assistance, press the Advanced Park main switch.

If assistance is canceled, **"Advanced Park Cancel"** will be displayed.

If you feel that the vehicle is approaching close to a surrounding vehicle, object, person, or gutter: →P.432

4 **Perform operations as indicated by the advice displays until the vehicle stops in the target parking space.**



When the vehicle stops, **"Advanced Park Finished"** will be displayed and parking assistance will end.

If you select on the center display, the vehicle displayed on the parking assist completion screen will rotate.

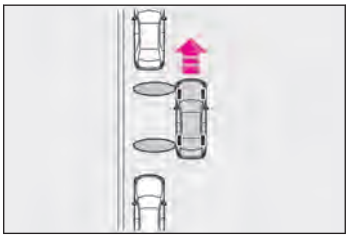
INFORMATION

If you feel that the vehicle is approaching close to a surrounding vehicle, object, person, or gutter

→P.432

If "No available parking space" is displayed

Even if the vehicle is stopped parallel to a parking space, an adjacent parked vehicle may not be detected. In this case, if the vehicle is moved to a position that a parked vehicle can be detected, assistance can be started.



When the brakes have been operated

→P.429

NOTICE

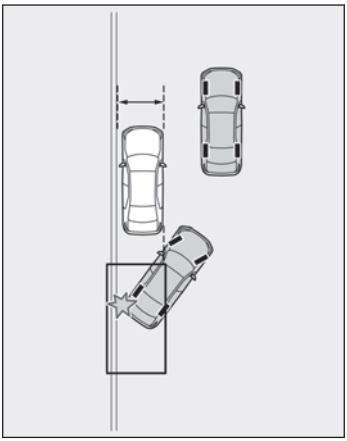
When using the parallel parking function

- Make sure that there are no obstructions within the yellow guide lines and between the vehicle and target parking spot. If any obstructions are detected within the yellow guide lines or between the vehicle and the target parking space, the parallel parking function will be cancelled or suspended.
- As the target parking space will not be able to be set correctly if the surface of the parking space is on a slope or has differences in height, the vehicle may stray from

⚠ NOTICE

the target parking space or be slanted. Therefore, do not use the parallel parking function for this kind of parking spot.

- If an adjacent parked vehicle is narrow or parked extremely close to the curb, the position at which assistance will park the vehicle will also be close to the curb. If it seems likely the vehicle will collide with the curb or drive off of the road, depress the brake pedal to stop the vehicle, and then press the Advanced Park main switch to disable the system.



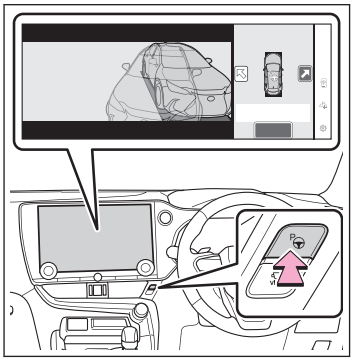
- If there is a wall or other barrier on the inner side of the parking space, the vehicle may stop at a position slightly outside of the set target parking space.

Advanced Park parallel exiting function

When exiting from a parallel parking space, if the system determines that exit is possible the parallel exiting function can be used. Also, depending on the surrounding environment, if it is necessary to change the direction of travel of the vehicle, the shift position can be changed by assistance control.

Leaving a parking space using the parallel exiting function

1 **With the brake pedal depressed and P shift position selected, press the Advanced Park main switch and check that the exit direction selection screen is displayed on the center display.**



2 **Select an arrow on the center display to select the direction you wish to exit.**

If the turn signal lever is operated, only exit to the left or right can be selected.

3 **Depress the brake pedal and select [Start] button.**

A buzzer will sound, an operation message will be displayed on the multi-information display, and assistance will begin operating. To cancel assistance, press the Advanced Park main switch. If assistance is canceled, **"Advanced Park Cancel"** will be displayed.

If you feel that the vehicle is approaching close to a surrounding vehicle, object, person, or gutter: →P.432

4 **Perform operations as indicated by the advice displays until the vehicle is in a position where exit is possible.**

When the vehicle reaches a position where exit is possible, **"You can exit by moving the steering wheel"** will be displayed. If the steering wheel is operated, **"Advanced Park Finished"** will be displayed and assistance will end. As assistance will end while the vehicle is moving, grip the steering wheel and drive forward.If the steering wheel is not operated, the vehicle will stop at the exit position. Assistance can be ended by depressing the accelerator pedal or brake pedal.



INFORMATION

If you feel that the vehicle is approaching close to a surrounding vehicle, object, person, or gutter

→P.432

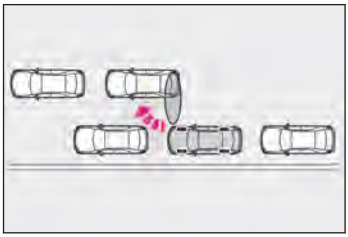
Parallel exiting function

Do not use parallel exiting function in any situation other than when exiting a parallel parking spot. If assistance is started unintentionally, depress the brake pedal and stop the vehicle, then press the Advanced Park main switch to cancel assistance.

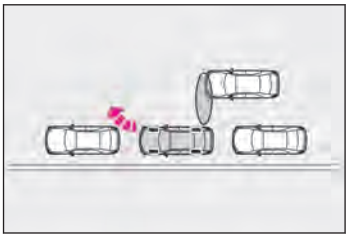
Situations in which the parallel exiting function will not operate

In situations such as the following, the parallel exiting function will not operate:

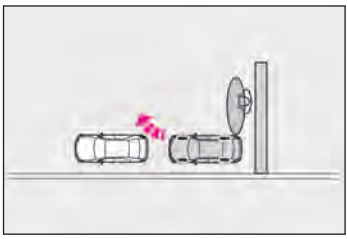
- When vehicles waiting at a traffic signal in the exit direction



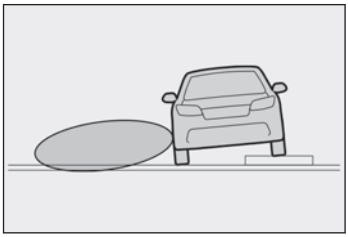
- When a vehicle is stopped in the area behind where the vehicle will exit



- When a wall, column, or person is detected as near a front or rear side sensor



- When the vehicle has been parked on a curb and a side sensor detects the road surface



- When a vehicle is not parked in front of the vehicle
- When there is excessive space between the front of the vehicle and a parked vehicle

■ **When the brakes have been operated**

→P.429

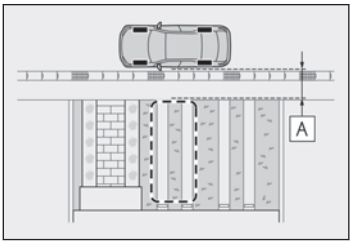
Advanced Park memory function

The memory function can be used to park in a previously registered parking space, even if there are no parking space lines or adjacent parked vehicles.

Up to 3 parking spaces can be registered.

Registering a parking space

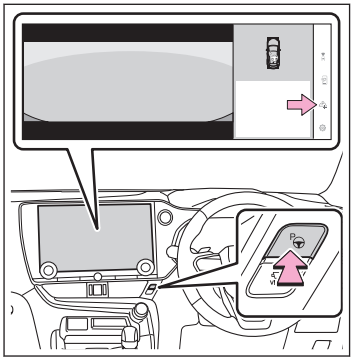
1 **Stop the vehicle with it aligned near the center of the target parking space.**



A Approximately 1 m (3.3 ft.)

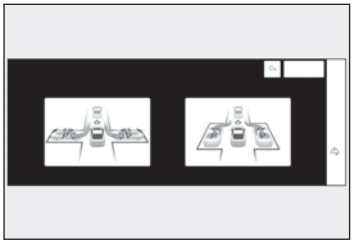
2 **Press the main switch and then select .**

If the Advanced Park main switch is pressed at a parking space without parking lines or any adjacent parked vehicles, **"No available parking space"** may be displayed. Continuously select and hold .



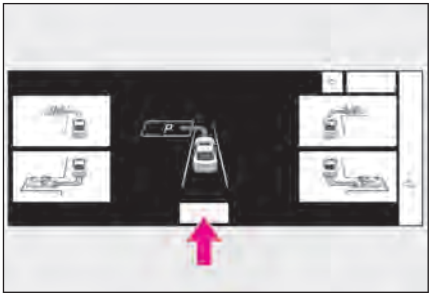
3 **Select perpendicular parking (forward/reverse) function or parallel parking function.**

Only parking spaces for which assist can be performed are displayed.

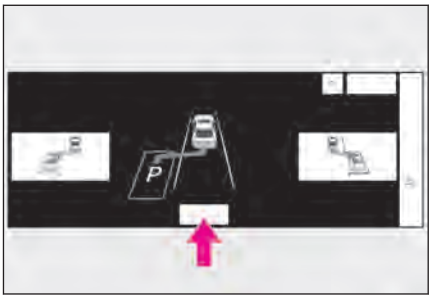


4 **Select the parking direction, and then select [OK] button.**

When perpendicular parking (forward/reverse) was selected in step 3:



When parallel parking was selected in step 3:



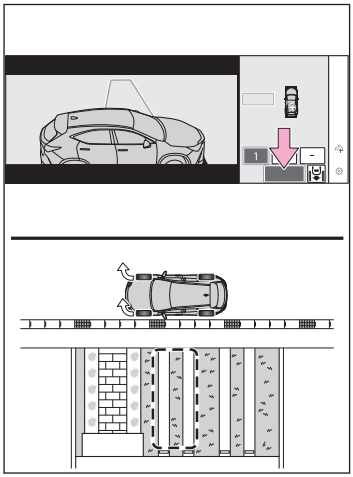
5 **Using the arrow buttons, adjust the position of the parking space to be registered, and then select [OK] button.**



6 **Select [Start] button.**

A buzzer will sound, an operation message will be displayed on the multi-information display, and assistance will begin operating. When the brake pedal is released, **"Moving Forward..."** will be displayed and the vehicle will begin moving forward.

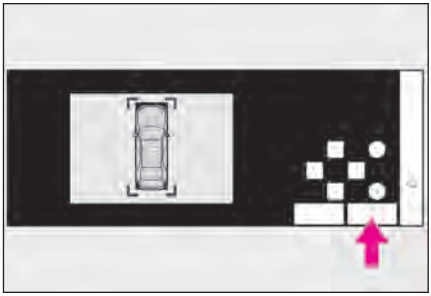
If you feel that the vehicle is approaching close to a surrounding vehicle, object, person, or gutter: →P.432



7 **Perform operations as indicated by the advice displays until the vehicle stops in the target parking space.**

8 **Check the position that the vehicle has stopped. If necessary, adjust the position of the parking spot to be registered using the arrow buttons, and then select [Reg.] button.**

"Registration Completed" will be displayed on the center display.

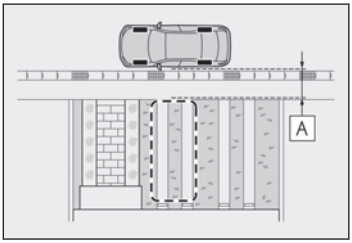


- Register the parking space only if there are no obstructions within the area shown by the thick lines.

● The amount that the position of the parking spot to be registered can be adjusted is limited.

When parking in a parking space registered to the memory function

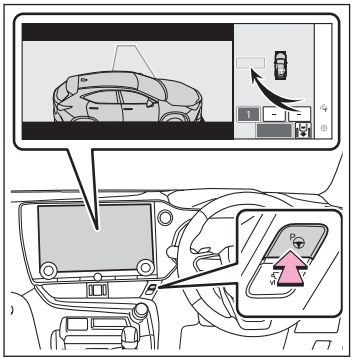
1 Stop the vehicle with it aligned near the center of the target parking space.



A Approximately 1 m (3.3 ft.)

2 Press the Advanced Park main switch and check that a possible parking space is displayed on the center display.

If the [MODE] button is displayed, the button can be touched to change between the memory function, perpendicular parking (forward/reverse) function and parallel parking function.



3 Select the desired parking space, and then select [Start] button.

Perform the procedure for the perpendicular parking (forward/reverse) function from step 3. →P.432

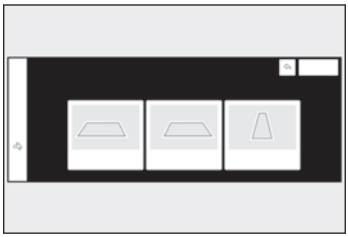
INFORMATION

■ If you feel that the vehicle is approaching close to a surrounding vehicle, object, person, or gutter

→P.432

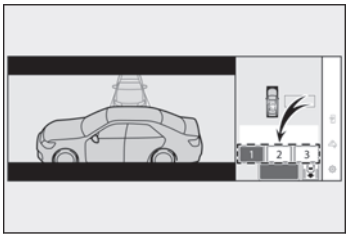
■ When overwriting a registered parking space

If the maximum number of parking spaces have been registered and P is selected, a registered parking space can be selected and then overwritten with a new parking space.



When multiple parking spaces are registered

Select the desired parking space, and then select [**Start**] button.



When the brakes have been operated

→P.429

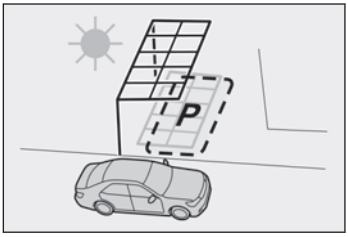
⚠ NOTICE

When using the memory function →P.428, ,434

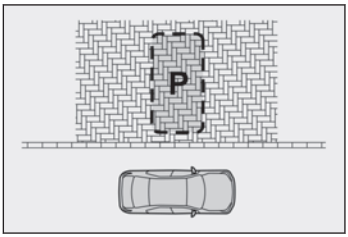
- The memory function is a function which provides assistance in parking in a previously registered parking space. If the condition of the road surface, vehicle, or surrounding area differs from when registration was performed, the parking space may not be able to be detected correctly or assistance may not be provided to the point that the vehicle is fully parked.
- Do not register a parking space in situations such as the following, as the set parking space may not be able to be registered or assistance may not be possible later.
  - When a camera lens is dirty or covered with water droplets
  - When it is raining or snowing
  - When the surrounding area is dark (at night, etc.)
- In situations such as the following, it may not be possible to register a parking space.
  - When there is insufficient space between the road and parking space
  - When the road surface around the parking space does not have any differences the system can recognize

⚠ NOTICE

- If a parking space has been registered in situations such as the following, assistance may not be able to be started later or assistance to the registered position may not be possible.
  - When shadows are cast on the parking space (there is a carport over the parking space, etc.)



  - When there are leaves, garbage, or other objects which will likely move, in the parking space
  - When the road surface around the parking space has the same repeating pattern (brick, etc.)



- In situations such as the following, it may not be possible for the system to provide assistance to a registered parking spot:
  - When the appearance of the parking space is affected by the shadow of the vehicle or trees
  - When an object is detected in the registered parking space
  - When a pedestrian or passing vehicle is detected during assistance
  - When the position the vehicle is stopped when assistance is started differs from the position when registration was performed
  - When the registered parking space cannot be reached due to the existence of parking blocks, etc.
  - When the road surface around the parking space has changed (road surface has degraded or been resurfaced)

⚠ NOTICE

- When the sunlight conditions differ from when registration was performed (due to weather or time of day)
- When the sun is shining directly into a camera, such as in the early morning or evening
- When the color or brightness of the road surface is uneven
- When a light is temporarily shined on the parking space (lights of another vehicle, security light, etc.)
- When the road surface around the parking space has the same repeating pattern
- When there is a low protrusion on the road surface near the parking space
- When the parking space is on a slope
- When a camera has been splashed by hot or cold water and the lens has fogged up
- When a camera lens is dirty or covered with water droplets
- When accessories which obstruct the view of the camera are installed

If assistance is ended during registration, perform registration again.

- When registering a parking space to the memory function, if the road surface cannot be detected **"No available parking space to register"** will be displayed.
- When using the memory function, make sure to stop immediately in front of the stop position. Otherwise the parking space may not be able to be detected correctly or assistance may not be provided to the point that the vehicle is fully parked.
- Do not use the memory function if a camera has been subjected to a strong impact or images of the panoramic view monitor are misaligned.
- If a camera has been replaced, as the installation angle of the camera will have changed, it will be necessary to reregister parking spaces of the memory function.

Advanced Park cancelation/suspension

■ Assistance will be canceled when

In situations such as the following, Advanced Park operation will be canceled. Firmly hold the steering wheel and depress the brake pedal to stop the vehicle.

As system operation has been canceled, begin the operation again or continue parking manually, using the steering wheel.

● The Advanced Park main switch is pushed

- The shift position has been changed to P
- The parking brake is engaged
- A door or the back door is opened
- The driver's seat belt is unfastened
- The outside rear view mirrors are folded
- The TRC or VSC is turned off
- The TRC, VSC or ABS operates
- The vehicle is towing a trailer or another vehicle
- The engine switch is pressed
- The system determines assistance cannot be continued in the current parking environment
- The system malfunctions
- While the vehicle was stopped, [**Cancel**] was selected on the center display

Assistance will be suspended when

In situations such as the following, Advanced Park operation will be suspended.

Assistance can be started again by following the directions displayed on the center display.

Also, when assistance is suspended, if the shift position is changed twice with the brake pedal depressed, assistance will be canceled in that shift position. However, if assistance is suspended by changing the shift position, assistance will be canceled if the shift position is changed once.

- The steering wheel is operated
- The accelerator pedal is depressed
- The shift position has been changed
- A moving object or stationary object that may collide with your vehicle has been detected, resulting in the operation of the engine output control/braking control.
- Camera switch is pressed

Changing the Advanced Park settings

Press the Advanced Park main switch, and select ⚙ on the center display, and then select [**Advanced Park**].

■ **Speed Profile**

The vehicle speed for when assistance is performed can be set.

This setting cannot be changed when registering a parking space to the memory function.

■ **Obstacle detection range**

The distance from which obstacles will be avoided while assistance is being performed can be set.

■ **Preferred parking method**

The preferred parking direction displayed when at a parking space which perpendicular (forward/reverse) or parallel parking is possible can be set.

■ **Preferred parking direction**

The preferred parking direction displayed when it is possible to pull perpendicular forward or reverse into a parking space can be selected.

■ **Preferred exit direction (perpendicular)**

The preferred exit direction displayed when it is possible to pull forward or reverse to the left or right out of a parking space can be selected.

■ **Preferred exit direction (parallel)**

The preferred exit direction displayed when it is possible to exit to the left or right from a parallel parking space can be selected.

■ **Camera view when parking**

The display angle of the camera image when using the perpendicular parking (forward/reverse) function or parallel parking function can be set.

■ **Camera view when exiting**

The display angle of the camera image when using the perpendicular exiting (forward/reverse) function or parallel parking exit function can be set.

■ **Parking path adjustment**

The course for when parking assistance is operating can be adjusted inward or outward.

If the tires are worn, the path of vehicle may be offset from the center of the parking space. In this case, use this setting to adjust the parking course.

■ **Road width adjustment**

When parking assistance is started, the amount of lateral movement while the vehicle is moving forward can be adjusted.

■ Park position adjustment (forward)

The position at which perpendicular parking (forward/reverse) is completed can be adjusted. (Except when using the memory function.)

■ Park position adjustment (reverse)

The position at which perpendicular parking (forward/reverse) is completed can be adjusted. (Except when using the memory function.)

■ Rear accessory setting

If an accessory, such as a trailer hitch, has been installed to the rear of the vehicle, the length of the rear of the vehicle can be adjusted to help avoid colliding with objects to the rear of the vehicle.

■ Clear registered parking space

The parking spaces registered to the memory function can be deleted. Parking space information cannot be deleted when assistance is being performed or when registering parking space information to the memory function.

⚠ NOTICE

- Take care when using the park position adjustment (forward) or park position adjustment (reverse) for adjusting because the vehicle may collide with parking blocks, curb stones, or other low objects.
- If it is likely that your vehicle will collide with a nearby vehicle/object, parking block, curb stone, etc., depress the brake pedal to stop the vehicle and press the Advanced Park main switch to disable the system.

Advanced Park displayed messages

The operating state, assistance operation, etc. of the Advanced Park is displayed on the center display. If a message is displayed, respond according to the content displayed.

INFORMATION

■ If "No available parking space" is displayed

Move the vehicle to a location where a parking space or parking lines can be detected.

■ If "Unavailable in current condition" is displayed

Move the vehicle to another location and use the system.

If "Not enough space to exit" is displayed

The parallel parking exit function cannot be used due to a situation such as the distance between your vehicle and vehicles parked in front of and behind your vehicle being short, the existence of an object in the exit direction, etc.

Check the conditions of the area around your vehicle and exit from the parking space manually.

If "Cannot control speed" is displayed

The system judged that it cannot adjust the speed of the vehicle when using the system in an area with a slope or step and assistance was canceled.

Use the system in a level location.

If "Obstacle detected" is displayed

As a moving object or stationary object that may collide with your vehicle has been detected, the engine output control/braking control operates to suspend Advanced Park assistance.

Check the condition of the surrounding area. To resume assistance, select the [**Start**] button on the center display.

If "No available parking space to register" is displayed

This message is displayed when  is selected at a parking space that cannot be detected.

Operate the system at a parking space where differences in the road surface can be recognized.→P.441

Engine output restriction when the accelerator pedal and brake pedal are depressed at the same time

Purpose of the brake override system

If the accelerator pedal and brake pedal are depressed at the same time, the brake override system may operate and restrain the engine output. A warning message is displayed on the multi-information display while the system is operating.

⚠ WARNING

To avoid depressing the wrong pedal, become familiar with the location of the brake pedal and accelerator pedal before driving the vehicle.

If the accelerator pedal is mistaken for the brake pedal and depressed, the vehicle may suddenly start off.

⚠ NOTICE

Do not depress the accelerator pedal and brake pedal at the same time while driving, as this may cause the engine output to be restrained.

Sudden start restraint control

Sudden start restraint control (Drive-Start Control [DSC])

When the following unusual operation is performed with the accelerator pedal depressed, the engine output may be restrained.

- When the shift lever is shifted to R*1
- When the shift lever is shifted from P or R to forward drive shift positon such as D*1

When the system operates, a message appears on the multi-information display. Read the message and follow the instruction.

INFORMATION

Drive-Start Control (DSC)

When the TRC is turned off, sudden start restraint control also does not operate. If your vehicle have trouble escaping from the mud or fresh snow due to sudden start restraint control operation, deactivate TRC so that the vehicle may become able to escape from the mud or fresh snow.

Also, sudden start restraint control will not operate in the following conditions:

- When Trail Mode is turned on

Related Links

Driving assist systems(P. 304)

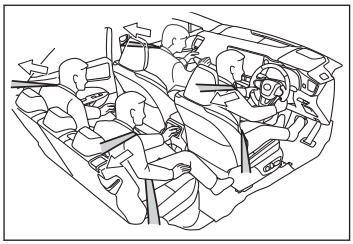
*1: Depending on the situation, the shift position may not be changed.

Reducing impact to passengers in a collision

Seat belt pretensioners

When the vehicle is subjected to a severe frontal or side impact, the pretensioners retract the seat belts of the front seats and rear outer seats to securely restrain the occupants.

The pretensioners will not operate in minor frontal or side impacts, rear impacts, or vehicle rollovers.



INFORMATION

Replacing the belt after the pretensioner has been activated

If the vehicle is involved in multiple collisions, the pretensioner will activate for the first collision, but will not activate for the second or subsequent collisions.

PCS-linked control

If the PCS (Pre-Collision System) determines that the possibility of a collision with a vehicle is high, the seat belt pretensioners will be prepared to operate.

⚠ WARNING

Seat belt pretensioners

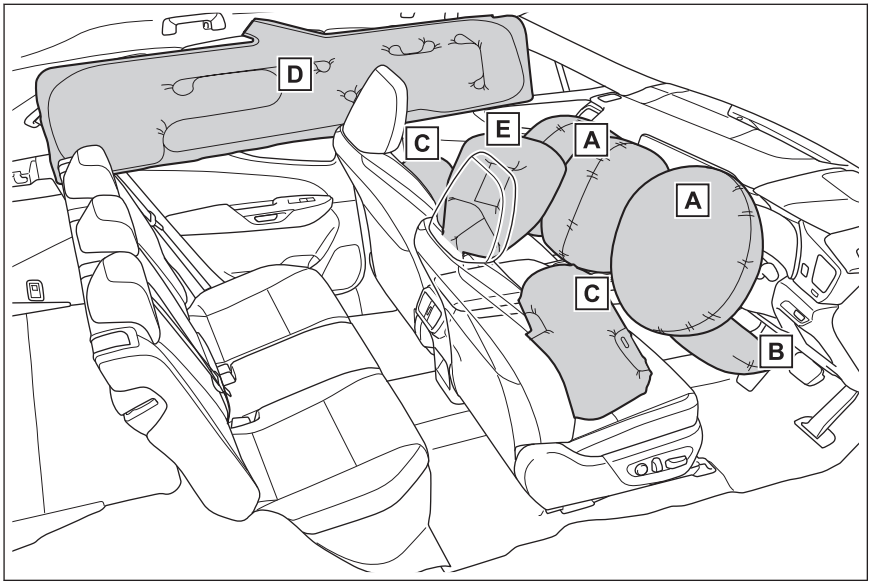
If a pretensioner has operated, the SRS warning light will illuminate.

In this situation, the seat belt cannot be used and must be replaced by your Lexus dealer.

Failure to do so may result in death or serious injury.

SRS airbags

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



A SRS front airbags (SRS driver airbag/SRS front passenger airbag)

Help reduce impact to the head and chest of the driver and front passenger

B SRS knee airbags

Help reduce impact to the driver

C SRS side airbags

- Help reduce impact to the chest of the occupants of the front seats

D SRS curtain shield airbags

Help reduce impact to the heads of the occupants of the front and rear outer seats

E SRS front center airbags

Help reduce impact to the head and neck of the occupants of the front seats

The main SRS airbag system components are shown above. The SRS airbag system is controlled by the airbag sensor assembly. As the airbags deploy, a chemical reaction in the inflators quickly fills the airbags with non-toxic gas to help restrain the motion of the occupants.

INFORMATION

If the SRS airbags deploy (inflate)

- Slight abrasions, burns, bruising, etc., may be sustained from SRS airbags, due to the extremely high speed of deployment (inflation) by hot gases.
- 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 parts around the airbags may be hot for several minutes. The airbag itself may also be hot.
- The windshield may crack.
- All of the doors will be unlocked.
- The brakes and stop lights will be controlled automatically.
- The interior lights will turn on automatically.
- The emergency flashers will turn on automatically.
- Fuel supply to the engine will be stopped.

Emergency call

- • When an SRS airbag has been deployed
  - When a seat belt pretensioner has operated
  - When the vehicle received an impact exceeding a certain level

  For Lexus Connected Services subscribers, if any of the following situations occur, the system is designed to send an emergency call to the response center.

Emergency services may be dispatched even if there is no response to calls from the agent.

The SRS airbags deploy in a frontal impact when

- The following SRS airbags will deploy in the event of an impact that exceeds a threshold level (level of force corresponding to an approximately 20 - 30 km/h [12 - 18 mph] frontal collision with a fixed wall that does not move or deform):
  - SRS front airbags
  - SRS knee airbags
- The threshold level at which the SRS airbags will deploy will be higher than normal in the in the following situations:
  - When the vehicle collides with an object, such as a parked vehicle or sign pole, which moves or deforms on impact

    If the vehicle is involved in an underride collision, such as a collision in which the front of the vehicle "underrides", or goes under, the bed of a truck
- Depending on the type of collision, only the following may deploy:
  - Seat belt pretensioners
- The SRS airbags for the front passenger's seat will not deploy if there is no passenger in the front passenger seat. However, the SRS airbags for the front passenger's seat may deploy, even if the seat is unoccupied, if luggage is put on the seat.

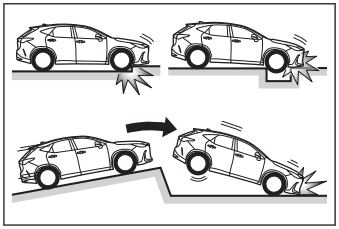
- In the event of an especially severe frontal collision, the left and right SRS curtain shield airbags may also deploy.

The SRS airbags deploy in a side impact when

- The following SRS airbags will deploy in the event of an impact that exceeds the set threshold level (level of force corresponding to the impact force produced by an approximately 1500 kg [3300 lb.] vehicle colliding with the passenger compartment at a perpendicular angle at an approximate speed of 20 - 30 km/h [12 - 18 mph]):
  - SRS side airbags
  - SRS curtain shield airbags
  - SRS front center airbags
- In the event of a side collision, regardless of the impacted side, both the left and right SRS curtain shield airbags will deploy.

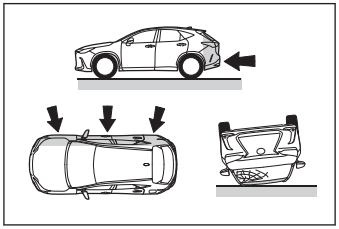
The SRS airbags deploy in an underside impact when

- The following airbags may deploy if the underside of the vehicle collides with a hard object:
  - SRS front airbags
  - SRS knee airbags
  - SRS side airbags
  - SRS curtain shield airbags

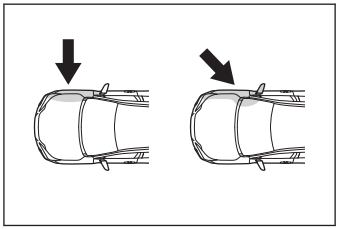


The SRS airbags will not deploy when

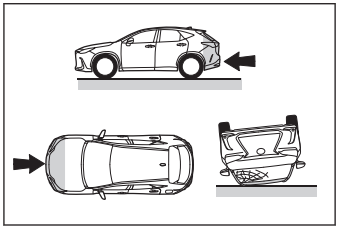
- The following SRS airbags will not normally deploy in side or rear collisions, vehicle rollovers, or low speed frontal collisions. However, if such a collision causes sufficient sudden deceleration, the SRS airbags may deploy.
  - SRS front airbags
  - SRS knee airbags



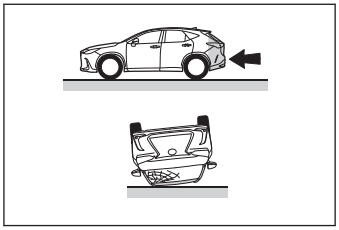
- The following SRS airbags may not deploy if the vehicle is collided with at a certain angle or in a side collision where an area of the vehicle other than the passenger compartment is collided with:
  - SRS side airbags
  - SRS curtain shield airbags
  - SRS front center airbags



- The following SRS airbags will not normally deploy in front or rear collisions, vehicle rollovers, or low speed side collisions:
  - SRS side airbags
  - SRS front center airbags



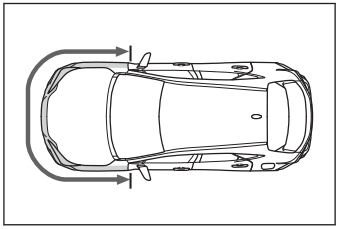
- The following SRS airbags will not normally deploy in rear collisions, vehicle rollovers, or low speed front or side collisions:
  - SRS curtain shield airbags



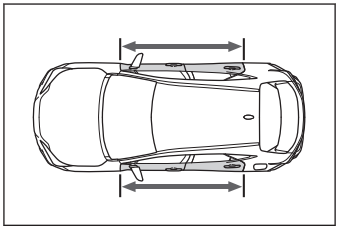
When to contact your Lexus dealer

In the following situations, the vehicle will require inspection and/or repair. Contact your Lexus dealer as soon as possible.

- When any of the SRS airbags have been deployed
- When the front of the vehicle is damaged or deformed, or was involved in a collision that was not severe enough to cause any of the following SRS airbags to deploy:
  - SRS front airbags
  - SRS knee airbags



- When a door or its surrounding area is damaged, deformed or has had a hole made in it, or was involved in a collision that was not severe enough to cause any of the following SRS airbags to deploy:
  - SRS side airbags
  - SRS curtain shield airbags
  - SRS front center airbags



- When the pad section of the steering wheel, the dashboard near the front passenger SRS airbag or the lower side of the instrument panel is scratched, cracked, or otherwise damaged.

- When the surface of a seat with an SRS side airbag or SRS front center airbag is scratched, cracked, or otherwise damaged.
- When the part of a front pillar, rear pillar or roof side rail garnish (padding) which covers a SRS curtain shield airbag is scratched, cracked, or otherwise damaged.

⚠ WARNING

■ SRS airbag precautions

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

- The driver and all passengers must wear their seat belts correctly.

  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.

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

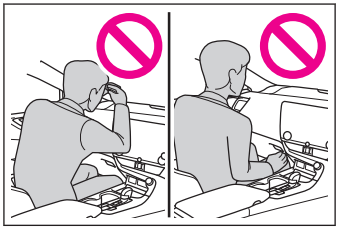
  - Move your seat to the rear as far as possible while still being able to reach the pedals comfortably.
  - Slightly recline the seatback. Although vehicle designs vary, many drivers can achieve the 250 mm (10 in.) distance, even with the driver seat all the way forward, simply by reclining the seatback somewhat. If reclining the seatback 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 above, while still being able to control the vehicle with the pedals and steering wheel, and maintaining your view of the instrument panel controls.

- The SRS front passenger airbag 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 positioned as far possible from the airbag with the seatback adjusted so that the passenger is sat upright.

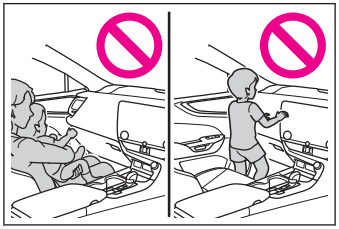
- Improperly seated and/or restrained infants and children can be killed or seriously injured by a deploying airbag. An infant or child who is too small to use a seat belt should be properly secured using a child restraint system. Lexus strongly recommends that all infants and children be placed in the rear seats of the vehicle and properly restrained. The rear seats are safer for infants and children than the front passenger seat.

⚠ WARNING

- Do not sit on the edge of the seat or lean against the dashboard.



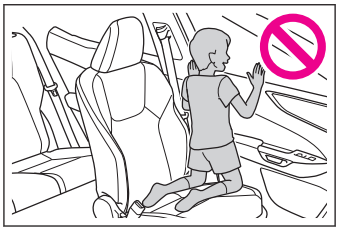
- Do not allow a child to stand in front of the SRS front passenger airbag or sit on the lap of a front passenger.
- Front seat occupants should never hold items on their lap.



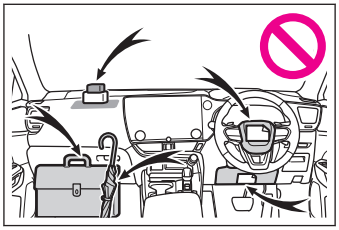
- Do not lean against the door, roof side rail, or front, side, or rear pillar.



- Do not allow anyone to kneel on a seat toward the door or put their head or hands outside the vehicle.

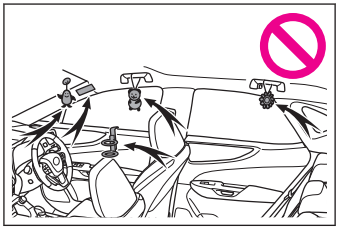


- Do not attach anything to or lean anything against areas such as the dashboard, steering wheel pad and lower portion of the instrument panel.



⚠ WARNING

- Do not attach anything to areas such as the doors, windshield, side windows, front or rear pillars, roof side rails and assist grips.(With the exception of the speed limit label)



- Do not hang coat hangers or other hard objects on the coat hooks. These items could become projectiles if the SRS curtain shield airbags deploy, possibly leading to death or serious injury.
- If a vinyl cover is attached to the area where the SRS knee airbag deploys, be sure to remove it.
- Do not use seat accessories which cover the parts from which the SRS airbags deploy, as they may interfere with inflation of the SRS airbags. Such accessories may prevent the SRS airbags from deploying correctly, may disable the system or cause the SRS airbags to inflate unintentionally, possibly resulting in death or serious injury.
- Do not strike or apply significant force to the SRS airbag system components, front doors or their surrounding area. Doing so may cause the SRS airbags to malfunction.
- Do not touch any components of the SRS airbags immediately after the SRS airbags have deployed (inflated) as they may be hot.
- If breathing becomes difficult after the SRS airbags have 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 a part where an SRS airbag is stored is damaged or cracked, have it replaced by your Lexus dealer.

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 airbags may malfunction or deploy unintentionally, possibly leading to death or serious injury.

- Removal, installation, disassembly or repair of the SRS airbags
- Repair, removal or modification of the following parts or their surrounding
  - Steering wheel
  - Instrument panel
  - Dashboard

⚠ WARNING

- Seats
- Seat upholstery
- Front pillars
- Side pillars
- Rear pillars
- Roof side rails
- Front door panels
- Front door trim
- Front door speakers

- Modifications to the front door panels (such as making holes in them)
- Repair or modification of the following parts or their surrounding
  - Front fender
  - Front bumper
  - Sides of the vehicle interior
- Installation of the following parts or accessories
  - Bull bars or kangaroo bars
  - Snow plows
  - Winches
- Modifications to the vehicle's suspension
- Installation of electronic devices such as mobile two-way radios (RF-transmitter) and CD players

Related Links

Operation of the fuel pump shut off system(P. 537)
Locking/unlocking the doors using smart entry & start system(P. 54)
Driving assist systems(P. 304)
Location of the interior lights(P. 242)
Using the emergency flashers to warn other drivers(P. 535)
Emergency assistance(P. 464)
Riding with children(P. 26)

7 Wireless communication

7-1. Emergency assistance

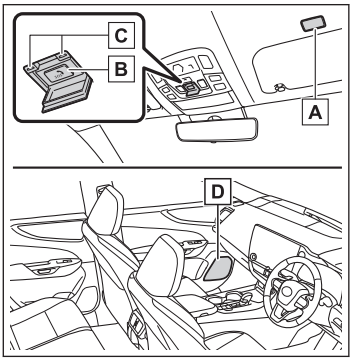
Lexus Connected Services..... 464

Lexus Connected Services*1

Lexus Connected Services are telematics services that use Global Positioning System (GPS) data and embedded cellular technology to enable the following emergency calls to be made: ACN (Automatic Collision Notification) and SOS Emergency Call (Manual emergency service notification) (by pressing the [SOS] button).

For more information about Lexus Connected Services, please visit: https://www.lexus.com.au/connectivity

Lexus Connected Services system components



A Microphone
B [SOS] button*2
C Indicator lights
D Speaker

Type of Lexus Connected Services

ACN (Automatic Collision Notification)

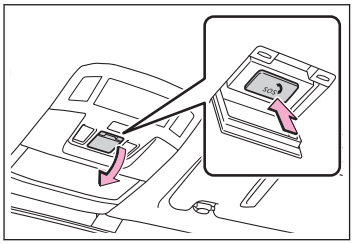
If any airbag deploys, the system is designed to automatically call the Emergency Call Centre. *3 The Call Centre Agent will determine your vehicle's location, the time of the incident and the vehicle VIN, and attempt to speak with the vehicle occupants to assess the situation. If the occupants are unable to communicate, the Call Centre Agent automatically treats the call as an emergency and contacts emergency services to describe the situation and request that assistance be sent to the location.

*1: Operates within the Lexus Connected Services coverage.

*2: This button is intended for communication with the Emergency Call Centre. Other [SOS] buttons available in other systems of a motor vehicle do not relate to the device and are not intended for communication with the Emergency Call Centre.

*3: In some cases, the call cannot be made. →P.465

SOS Emergency Call (Manual emergency service notification)



In the event of an emergency, press the [SOS] button to call the Emergency Call Center. *1 The Call Centre Agent will determine your vehicle's location, assess the situation, and dispatch the necessary assistance required.

Make sure to open the cover before pressing the [SOS] button.

If you accidentally press the [SOS] button, tell the Call Centre Agent that you are not experiencing an emergency.

Lexus Connected Services indicator lights

When the engine switch is turned to ON, the red/green indicator lights will blink intermittently, then the green indicator light will remain ON, indicating that the system is enabled. The indicator lights indicate the following:

- If the green indicator light illuminates and stays on, the system is enabled.
- If the green indicator light flashes twice per second, the ACN/SOS service is being made.
- If the red indicator light illuminates at any time other than immediately after the engine switch is turned to ON, the system may be malfunctioning or the backup battery may be depleted. Contact your Lexus dealer.

Free/Open Source Software Information

This product contains Free/Open Source Software (FOSS). The license information and/or the source code of such FOSS can be found at the following URL.

http://www.opensourceautomotive.com/dcm/lexus/19MC/

⚠ WARNING

When the ACN/SOS may not be made

- It may not be possible to make ACN/SOS in any of the following situations. In such cases, report to emergency services provider (000 system etc.) by other means such as nearby public phones.
  - Even when the vehicle is in the cellular phone service area, it may be difficult to connect to the Emergency Call Centre if the reception is poor or the line is busy. In such cases, you may not be able to connect to the Emergency Call Centre.

*1: In some cases, the call cannot be made. →P.465

⚠ WARNING

- When the vehicle is out of the cellular phone service area, the ACN/SOS cannot be made.
- When any related equipment (such as the [SOS] button panel, indicator lights, microphone, DCM, antenna, or any wires connecting the equipment) is malfunctioning, damaged or broken, the ACN/SOS cannot be made.
- During an ACN/SOS service, the system makes repeated attempts to connect to the Emergency Call Centre. However, if it cannot connect to the Emergency Call Centre due to poor radio wave reception, the system may not be able to connect to the cellular network and the call may finish without connecting. A voice prompt notification will play from the vehicle speaker to indicate call disconnection.

- If the battery's voltage decreases or there is a disconnection, the system may not be able to connect to the Emergency Call Centre.
- The ACN/SOS system might not work outside of Australia region, depending on the available infrastructure in the country.

When the ACN/SOS system is replaced with a new one

The ACN/SOS system should be registered. Contact your Lexus dealer.

For your safety

- Please drive safely. The function of this system is to assist you in contacting the appropriate emergency services in case of accidents such as traffic accidents or sudden medical emergencies, and it does not protect the driver or passengers in any way. Please drive safely and fasten your seatbelts at all times for your safety.
- In case of an emergency, ensure preservation of life is prioritised first.
- If you smell anything burning or other unusual smells, leave the vehicle and evacuate to a safe area immediately.
- If the airbags deploy when the system is operating normally, the system makes emergency call. The system also makes emergency call when the vehicle is struck from the rear or rolls over, even if the airbags do not deploy.
- For safety, do not press the [SOS] button while driving. Making calls during driving may cause mishandling of the steering wheel, which may lead to unexpected accidents. Stop the vehicle and confirm the safety of your surroundings before pressing the [SOS] button.
- When changing fuses, please use the specified fuses. Using other fuses may cause ignition or smoke in the circuit and lead to a fire.
- Using the system while there is smoke or an unusual smell may cause a fire. Stop using the system immediately and consult your Lexus dealer.

⚠ NOTICE

To prevent damage

Do not pour any liquids onto the [SOS] button panel, etc. and do not impact it.

If the [SOS] button panel, speaker or microphone malfunctions during an ACN/SOS service

It may not be possible to make ACN/SOS, confirm the system status, or communicate with the Call Centre Agent. If any of the above equipment is damaged, please consult your Lexus dealer.

8 Maintenance and care

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Washing the vehicle

⚠ WARNING

- When washing the vehicle, do not apply water to the inside of the engine compartment.

  If water contacts electrical components, it may cause the vehicle to catch fire.
- Exhaust gasses cause the exhaust pipes to become quite hot.

  When washing the vehicle, be careful not to touch the exhaust pipes until they have cooled sufficiently. Touching a hot exhaust pipe can cause burns.

⚠ NOTICE

■ To prevent paint deterioration and corrosion of the body and components (wheels, etc.)

- Wash the vehicle immediately in the following cases:
  - After driving near the sea coast
  - After driving on salted roads
  - If coal tar or tree sap is present on the paint surface
  - If dead insects, insect droppings or bird droppings are present on the paint surface
  - After driving in an area contaminated with soot, oily smoke, mine dust, iron powder or chemical substances
  - If the vehicle becomes heavily soiled with dust or mud
  - If liquids such as benzine or gasoline are spilled on the paint surface
- If the paint is chipped or scratched, have it repaired immediately.
- To prevent the wheels from corroding, remove any dirt and store in a place with low humidity when storing the wheels.

■ To prevent damage to the windshield wiper arms

When lifting the wiper arms away from the windshield, pull the driver side wiper arm upward first, and repeat for the passenger side. When returning the wipers to their original position, do so from the passenger side first.

Perform cleaning in a manner appropriate to each component and its material.

- 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.

INFORMATION

■ Self-restoring coat

The vehicle body has a self-restoring coating that is resistant to small surface scratches caused by a car wash, etc.

- The coating lasts for 5 to 8 years from when the vehicle is delivered from the plant.
- The restoration time differs depending on the depth of the scratch and outside temperature.

  The restoration time may become shorter when the coating is warmed by applying warm water.
- Deep scratches caused by keys, coins, etc., cannot be restored.
- Do not use waxes that contain abrasives.

■ When using a car wash

If the door handle becomes wet while the electronic key is within the effective range, the door may lock and unlock repeatedly. In that case, follow the following correction procedures to wash the vehicle:

- Place the key in a position 2 m (6 ft.) or more separate from the vehicle while the vehicle is being washed.

  Take care to ensure that the key is not stolen.
- Set the electronic key to battery-saving mode to disable the smart entry & start system.

■ Brake pads and calipers

Rust may form if the vehicle is parked with wet brake pads or disc rotors, causing them to stick. Before parking the vehicle after it is washed, drive slowly and apply the brakes several times to dry the parts.

Related Links

Cleaning the wheels and wheel ornaments(P. 473)

Using an automatic car wash

NOTICE

When using an automatic car wash, move the wiper lever to the off position.

If the wiper lever is in the AUTO position, the wipers may operate unintentionally and the wiper blades may be damaged.

- Perform the following before washing your vehicle:
  - Fold the mirrors.
  - Vehicles with power back door:

    Turn off the power back door.

  Start washing from the front of the vehicle.

  Extend the mirrors before driving.
- Brushes used in automatic car washes may scratch the vehicle surface, parts (wheel, etc.) and harm your vehicle's paint.
- Depending on the automatic car wash, the rear spoiler may become caught, preventing it from being washed or causing damage to it.
- When the shift position needs to be held in N, refer to P.146

Using a high pressure washer to wash the vehicle

⚠ NOTICE

- When washing the vehicle, do not spray any of the cameras or their surrounding area directly. The shock from high pressure water may cause a camera to malfunction.
- Do not bring the tip of the nozzle close to connectors or the boots (rubber or resin cover) of the following parts.

  The parts may be damaged if sprayed by high-pressure water.
  - Drivetrain related parts
  - Steering parts
  - Suspension parts
  - Brake parts
- Keep the tip of the nozzle at least 30 cm (11.9 in.) away from the vehicle body. Otherwise resin parts, such as the moldings, bumpers, etc., may be deformed and damaged. Also, do not continuously spray water on the same place.
- Do not spray the lower part of the windshield continuously. If water enters the air conditioning system intake located near the lower part of the windshield, the air conditioning system may not operate correctly.
- Do not wash the underside of the vehicle using a high pressure washer.

When using a high pressure washer, as water may enter the cabin, do not bring the tip of the nozzle near the gaps around the doors or perimeter of the windows, or spray these areas continuously.

Cleaning the wheels and wheel ornaments

Perform the following:

- **Remove any dirt immediately using a neutral cleaning agent.**
- **Wash detergent off with water immediately after use.**
- **To protect the finish from damage, make sure to observe the following precautions.**
  - Do not use acidic, alkaline or abrasive cleaners
  - Do not use hard brushes
  - Do not use detergent on the wheels when they are hot, such as after driving or parking in hot weather

Cleaning the bumpers

⚠ WARNING

If the paint of the front or rear bumper is chipped or scratched, the following systems may not function correctly. If this occurs, consult your Lexus dealer.

- Lexus Safety System +
- BSM*
- Safe Exit Assist (with door opening control)*
- RCTA*
- PKSB*

Do not scrub with abrasive cleaners.

Cleaning and protecting the plated portions

If dirt cannot be removed, clean the parts as follows:

- **Use a soft cloth dampened with an approximately 5 % solution of neutral detergent and water to clean the dirt off.**
- **Wipe the surface with a dry, soft cloth to remove any remaining moisture.**
- **To remove oily deposits, use alcohol wet wipes or a similar product.**

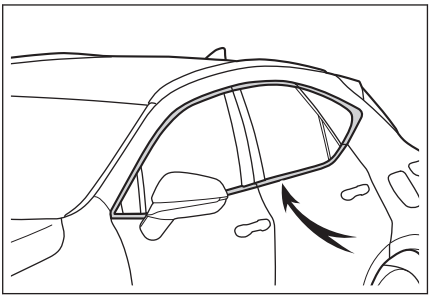
*: If equipped

INFORMATION

Black stainless steel window moldings*

The stainless steel window moldings are made of black oxide coated stainless steel.

When cleaning the vehicle, do not scrub the moldings with an abrasive cleaner as their finish may be damaged or the color may change.



Cleaning the exterior lights

NOTICE

- Wash carefully. Do not use organic substances or scrub with a hard brush.

  Doing so may damage the surface of the lights.
- Do not apply wax to the lights.

  Wax may damage the lenses.

Cleaning the windshield

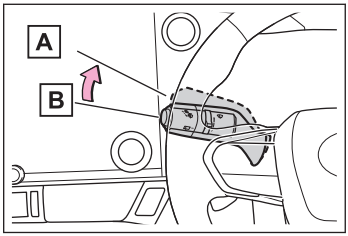
WARNING

Move the wiper lever to the off position.

If the wiper lever is in the AUTO position, the wipers may operate unexpectedly in the following situations, possibly leading serious injury from a hand being caught, or damage to the wiper blades.

*: If equipped

⚠ WARNING



A Off
B AUTO

- When the upper part of the windshield where the raindrop sensor is located is touched by hand
- When a wet rag or similar is held close to the raindrop sensor
- If something bumps against the windshield
- If you directly touch the raindrop sensor body or if something bumps into the raindrop sensor

INFORMATION

Front side windows water-repellent coating

The effectiveness of the water-repellent coating can be extended by paying attention to the following.

- Remove any dirt, etc., from the front side windows regularly.
- Do not allow dirt and dust to accumulate on the windows.

  If dirty, clean the windows with a soft, damp cloth as soon as possible.
- Do not use wax or glass cleaners that contain abrasives when cleaning the windows.
- Do not use any metallic objects to remove condensation build up.

Waxing the vehicle

Wax the vehicle when the waterproof coating has deteriorated.

If water does not bead on a clean surface, apply wax when the vehicle body is cool.

Cleaning the vehicle interior

⚠ WARNING

■ Water in the vehicle

- Do not splash or spill liquid in the vehicle. Doing so may cause electrical components, etc., to malfunction or catch fire.
- Do not get any of the SRS components or wiring in the vehicle interior wet.

  An electrical malfunction may cause the airbags to deploy or not function properly, resulting in death or serious injury.

■ Cleaning the interior (especially instrument panel)

Do not use wax polish or a polishing cleaner on the instrument panel. The instrument panel may reflect off the windshield, obstructing the driver's view and leading to an accident, resulting in death or serious injury.

⚠ NOTICE

■ Cleaning solvents

- Do not use the following cleaning solvents, as they may discolor the vehicle interior or cause streaks or damage to painted surfaces:
  - Areas other than the seats: Organic substances such as benzine or gasoline, alkaline or acidic solutions, dye, and bleach
  - Seats: thinner, benzine, alcohol, or alkaline or acidic solutions
- Do not use wax polish or a polishing cleaner. The painted surfaces of the instrument panel or other interior parts may be damaged.

■ Water on the floor

Do not wash the vehicle floor with water.

If water contacts audio system or other electrical components under the floor carpet, it may cause the vehicle to malfunction. Water may also cause the body to rust.

■ When cleaning the inside of the windshield

Do not allow glass cleaner to contact the lens of the front camera. Also, do not touch the lens.

■ Cleaning the inside of the windshield and rear window

- Do not use glass cleaners to clean the rear window, as this may cause damage to the rear window defogger heater wires or antenna. Use a cloth dampened with lukewarm water to gently wipe the window clean. Wipe the window in strokes running parallel to the heater wires or antenna.

⚠ NOTICE

- Be careful not to scratch or damage the heater wires or antenna.

Perform cleaning in a manner appropriate to each component and its material.

- **Remove dirt and dust using a vacuum cleaner. Wipe dirty surfaces with a cloth dampened with lukewarm water.**
- **If dirt cannot be removed, wipe it off with a soft cloth dampened with neutral detergent diluted to approximately 1%.**

  Wring out any excess water from the cloth and thoroughly wipe off remaining traces of detergent and water.

INFORMATION

■ Shampooing the carpets

Excellent results can be obtained by keeping the carpet as dry as possible. When cleaning, use a commercially available foaming-type cleaner.

Use a sponge or brush to apply the foam and rub it in overlapping circles. Do not use water. Wipe the surface to remove the cleaner and dirt and let it dry.

■ Handling the 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.

Cleaning the areas with satin-finish metal accents

- Remove dirt using a water-dampened soft cloth or synthetic chamois.
- Wipe the surface with a dry, soft cloth to remove any remaining moisture.

INFORMATION

Cleaning the areas with satin-finish metal accents

The metal areas use a layer of real metal for the surface. It is necessary to clean them regularly. If dirty areas are left uncleaned for long periods of time, they may be difficult to clean.

Cleaning the leather areas

⚠ NOTICE

Observe the following precautions to avoid damage to and deterioration of leather surfaces:

- Remove any dust or dirt from 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 containing wax on the upholstery, as they may stick to the leather surface if the vehicle interior heats up significantly.

- **Remove dirt and dust using a vacuum cleaner.**
- **Wipe off 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 a shaded and ventilated area.**

INFORMATION

■ 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.

Cleaning the synthetic leather areas

- Remove dirt and dust using a vacuum cleaner.
- Wipe it off with a soft cloth dampened with neutral detergent diluted to approximately 1%.
- Wring out any excess water from the cloth and thoroughly wipe off remaining traces of detergent and water.

Maintenance requirements

To ensure safe and economical driving, day-to-day care and regular maintenance are essential. Lexus recommends the following maintenance:

⚠ WARNING

■ If your vehicle is not properly maintained

Improper maintenance could result in serious damage to the vehicle and possible death or serious injury.

■ Handling of the battery

Battery posts, terminals and related accessories contain lead and lead compounds which are known to cause brain damage. Wash your hands after handling.

Scheduled maintenance outline

Scheduled maintenance should be performed at specified intervals according to the maintenance schedule.

For full details of your maintenance schedule, refer to the "Warranty and Service Booklet".

Resetting the engine oil change message

After the engine oil has been replaced, the engine oil maintenance data should be reset. Perform the following procedure:

1 Select the ⚙ on the center display.
2 Select [Vehicle customise].
3 Select [Utility].
4 Select [Oil maintenance].
5 Select [Reset].

"The data has been reset." will be displayed on the center display when the reset procedure has been completed.

Do-it-yourself maintenance

What about do-it-yourself maintenance?

Many of the maintenance items are easy to do yourself if you have a little mechanical ability and a few basic automotive tools.

Note, however, that some maintenance tasks require special tools and skills. These are best performed by qualified technicians. Even if you are an experienced do-it-yourself mechanic, we recommend that repairs and maintenance be conducted by your Lexus dealer who will keep a record of maintenance on your vehicle. This record could be helpful should you ever require Warranty Service.

INFORMATION

Does your vehicle need repairs?

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

- Engine misfire (or misses), stumbling or pinging
- Appreciable loss of power
- Strange engine noises
- A fluid leak under the vehicle

  However, water dripping from the air conditioning system after use is normal.
- Change in exhaust sound

  This may indicate a dangerous carbon monoxide leak. Drive with the windows open and have the exhaust system checked immediately.
- Flat-looking tires, excessive tire squeal when cornering, uneven tire wear
- Vehicle pulls to one side when driven straight on a level road
- Strange noises related to suspension movement
- Loss of brake effectiveness, spongy feeling brake pedal, pedal almost touches the floor, vehicle pulls to one side when braking
- Engine coolant temperature continually higher than normal

If you notice any of these clues, take your vehicle to your Lexus dealer as soon as possible. Your vehicle may need adjustment or repair.

Do-it-yourself service precautions

If you perform maintenance by yourself, be sure to follow the correct procedure as given in the section for each part.

⚠ WARNING

The engine compartment contains many mechanisms and fluids that may move suddenly, become hot, or become electrically charged. Observe the following precautions.

■ When working on the engine compartment

- Keep hands, clothing and tools away from the moving fan and engine drive belt.
- Be careful not to touch the engine, radiator, exhaust manifold, etc., right after driving as they may be hot. Oil and other fluids may also be hot.
- Do not leave anything that may burn easily, such as paper and rags, in the engine compartment.
- Do not smoke, cause sparks or expose an open flame to fuel or the battery. Fuel and battery fumes are flammable.
- Be extremely cautious when working on the battery. It contains poisonous and corrosive sulfuric acid.
- Take care because brake fluid can harm your hands or eyes and damage painted surfaces. If fluid gets on your hands or in your eyes, flush the affected area with clean water immediately. If you still experience discomfort, consult a doctor.

■ When working near the electric cooling fan or radiator grille

Be sure the engine switch is OFF.

With the engine switch in ON, the electric cooling fan may automatically start to run if the air conditioning is on or the coolant temperature is high.

■ Safety glasses

Wear safety glasses to prevent flying or falling material, fluid spray, etc., from getting in your eyes.

⚠ NOTICE

■ If you remove the air cleaner filter

Driving with the air cleaner filter removed may cause excessive engine wear due to dirt in the air.

■ If the fluid level is low or high

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.

⚠ NOTICE

If the reservoir needs frequent refilling, it may indicate a serious problem.

Maintenance

Items which require maintenance and the necessary parts and tools to perform maintenance on those items are as follows:

■ **Battery condition**

- Warm water
- Baking soda
- Grease
- Conventional wrench (for terminal clamp bolts)
- Distilled water

■ **Engine/intercooler coolant levelEngine coolant level**

- "Toyota Super Long Life Coolant" or a similar high quality ethylene glycol-based non-silicate, non-amine, nonnitrite and non-borate coolant with long-life hybrid organic acid technology

  "Toyota Super Long Life Coolant" is pre-mixed with 50% coolant and 50% deionized water.
- Funnel (used only for adding coolant)

■ **Engine oil level**

- "Toyota Genuine Motor Oil" or equivalent
- Rag or paper towel
- Funnel (used only for adding engine oil)

■ **Fuses**

Fuse with same amperage rating as original

■ **Light bulbs**

Bulb with same number and wattage rating as original

■ **Radiator, condenser and intercooler radiator**

-

■ **Tire inflation pressure**

- Tire pressure gauge

- Compressed air source

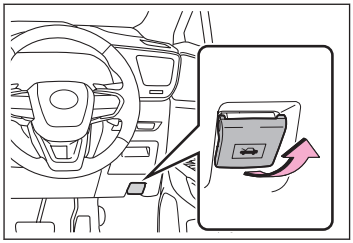
Washer fluid

- Water or washer fluid containing antifreeze (for winter use)
- Funnel (used only for adding water or washer fluid)

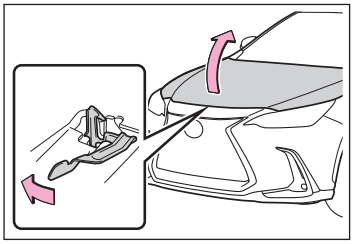
Opening the hood

1 **Pull the hood lock release lever.**

The hood will pop up slightly.



2 **Push the auxiliary catch lever to the left and lift the hood.**



INFORMATION

Closing the hood

When closing the hood, make sure to release it from a slightly high position (approximately 20 cm [7.9 in.]) to close it.

If the hood is pushed by hand to close it, it may not lock on both sides.

WARNING

When the hood is open

Even if the engine switch is turned off, the cooling fan may continue to operate for a short time. When the cooling fan is rotating, do not touch or approach the inside of the engine compartment.

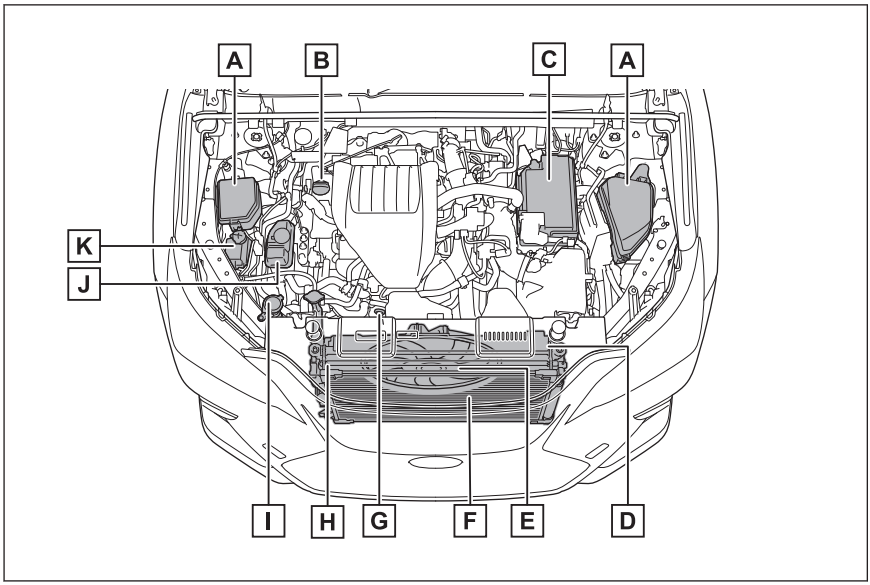
Pre-driving check

Check that the hood is fully closed and locked.

If the hood is not locked properly, the hood may suddenly open while driving.

Engine compartment

Engine compartment components



A Fuse boxes →P.629
B Engine oil filler cap →P.491
C Battery →P.494
D Radiator →P.493
E Electric cooling fan
F Condenser →P.493
G Engine oil level dipstick →P.488
H Intercooler radiator →P.493
I Washer fluid tank →P.498
J Intercooler coolant reservoir →P.492
K Engine coolant reservoir →P.492

Checking the engine oil

With the engine at operating temperature and turned off, check the oil level on the dipstick.

NOTICE

To prevent serious engine damage, check the oil level on a regular basis.

INFORMATION

Engine oil consumption

A certain amount of engine oil will be consumed while driving. In the following situations, oil consumption may increase, and engine oil may need to be added in between oil maintenance intervals.

- When the engine is new, for example directly after purchasing the vehicle or after replacing the engine
- If low quality oil or oil of an inappropriate viscosity is used
- When driving at high engine speeds or with a heavy load, when towing (vehicles with towing package only), or when driving while accelerating or decelerating frequently
- When leaving the engine idling for a long time, or when driving frequently through heavy traffic

Engine oil level rise

If the vehicle is repeatedly driven without the engine warmed up, moisture caused by dew condensation inside the engine or fuel which did not burn mixes into the engine oil, resulting in a rise in engine oil level. However, this is not a malfunction.

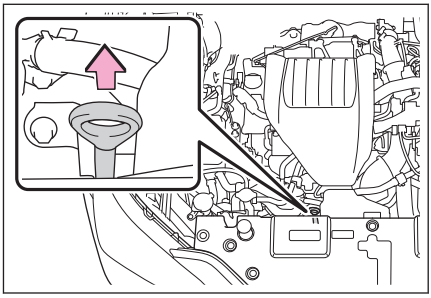
For example, the engine become difficult to be warmed up in the following situations.

- When driving a short distance
- When driving at a low speed
- When the outside temperature is low

When checking the engine oil, make sure that the engine is warmed up. If the engine oil level exceeds the refill upper limit mark, contact your Lexus dealer.

1 **Park the vehicle on level ground. After warming up the engine and turning off the engine, wait about 5 minutes for the oil to drain back into the bottom of the engine.**

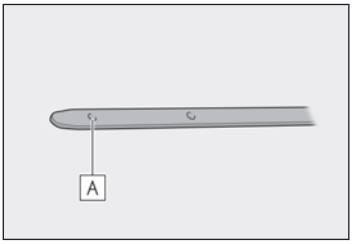
2 **Holding a rag under the end, pull the dipstick out.**



3 Wipe the dipstick clean.

4 Reinsert the dipstick fully.

5 Holding a rag under the end, pull the dipstick out and check whether the oil level is above low level mark.



A Low level mark

The shape of the dipstick may differ depending on the type of vehicle or engine.

6 Wipe the dipstick and reinsert it fully.

Adding engine oil

Checking the oil type and preparing the items needed

Make sure to check the oil type and prepare the items needed before adding oil.

- Engine oil selection
- Oil quantity (Low level mark → Refill upper limit mark)

  1.5 L (1.6 qt., 1.3 Imp.qt.)
- Items

  Clean funnel

Related Links

Lubrication system(P. 638)

Adding engine oil

If the oil level is below or near the low level mark, add engine oil of the same type as that already in the engine.

⚠ WARNING

- Used engine oil contains potentially harmful contaminants which may cause skin disorders such as inflammation and 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

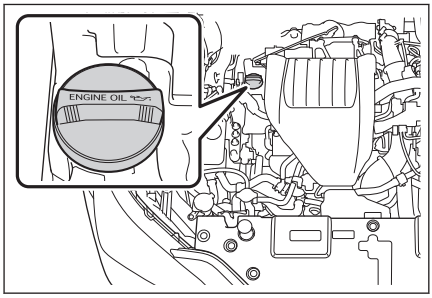
■ When replacing the engine oil

When replacing the engine oil, observe the following precautions.

- 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 tightened.

■ If oil is spilled on the engine cover

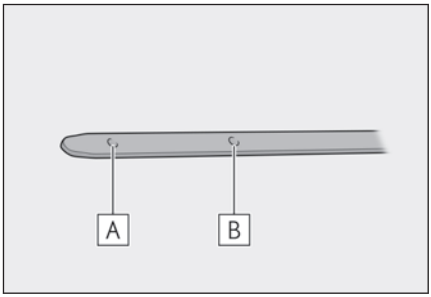
To prevent the engine cover from being damaged, remove any engine oil from the engine cover as soon as possible using a neutral detergent. Do not use an organic solvent such as brake cleaner.



1 Remove the oil filler cap by turning it counterclockwise.

2 **Add engine oil slowly, checking the dipstick.**

Make sure that the oil level does not exceed the refill upper limit mark and is between the low level mark and refill upper limit mark.



A Low level mark

B Refill upper limit mark

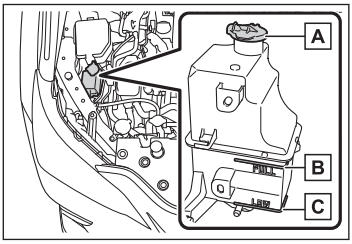
The shape of the dipstick may differ depending on the type of vehicle or engine.

3 **Install the oil filler cap by turning it clockwise.**

Checking the coolant

The coolant level is satisfactory if it is between the [FULL] and [LOW] lines on the reservoir when the engine is cold.

■ Engine coolant reservoir



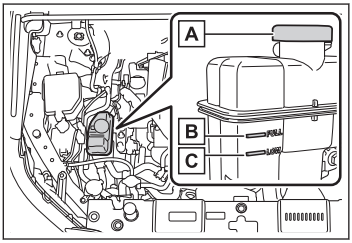
A Reservoir cap

B [FULL] line

C [LOW] line

If the level is on or below the [LOW] line, add coolant up to the [FULL] line.

■ Intercooler coolant reservoir



A Reservoir cap

B [FULL] line

C [LOW] line

If the level is on or below the [LOW] line, add coolant up to the [FULL] line.

INFORMATION

Coolant selection

Only use "Toyota Super Long Life Coolant" or a similar high quality ethylene glycol based non-silicate, non-amine, non-nitrite, and non-borate coolant with long-life hybrid organic acid technology.

"Toyota Super Long Life Coolant" is a mixture of 50% coolant and 50% deionized water. (Minimum temperature: -35°C [-31°F])

For more details about coolant, contact your Lexus dealer.

If the coolant level drops within a short time of replenishing

Visually check the radiator, hoses, engine coolant reservoir cap, drain cock and water pump.

If you cannot find a leak, have your Lexus dealer test the cap and check for leaks in the cooling system.

⚠ WARNING

When the engine is hot, do not remove the engine coolant reservoir cap or intercooler coolant reservoir cap.

The cooling system may be under pressure and may spray hot coolant if the cap is removed, causing serious injuries, such as burns.

⚠ NOTICE

When adding 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 from damaging parts or paint.

Checking the radiator, condenser and intercooler radiator*

Check the radiator, condenser and intercooler and clear away any foreign objects.

If any of the above parts are extremely dirty or you are not sure of their condition, have your vehicle inspected by your Lexus dealer.

*: If equipped

⚠ WARNING

■ When the engine is hot

Do not touch the radiator, condenser or intercooler as they may be hot and cause serious injuries, such as burns.

■ When the electric cooling fan are operating

Do not touch the engine compartment. With the engine switch in ON, the electric cooling fan may automatically start to run if the air conditioning is on or the coolant temperature is high. Be sure the engine switch is OFF when working near the electric cooling fan or radiator grille.

Battery

⚠ WARNING

■ Chemicals in the battery

Batteries contain 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 the 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 safely 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 insufficient ventilation.

■ 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 burning, get medical attention immediately.
- If electrolyte gets on your clothes, it may soak through your clothing on to your skin. Immediately take off the clothing and follow the procedure above if necessary.

⚠ WARNING

- If you accidentally swallow electrolyte, drink a large quantity of water or milk and get emergency medical attention immediately.

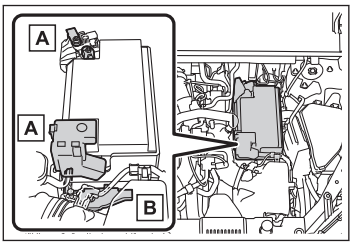
When there is insufficient battery fluid

Do not use if there is insufficient fluid in the battery. There is a possible danger that the battery may explode.

Checking the battery

Battery exterior

Make sure that the battery terminals are not corroded and that there are no loose connections, cracks, or loose clamps.



A Terminals
B Hold-down clamp

Before recharging

When recharging, the battery produces hydrogen gas which is flammable and explosive. Therefore, observe the following precautions before recharging:

- If recharging with the battery installed on the vehicle, be sure to disconnect the ground cable.
- Make sure the engine switch on the charger is off when connecting and disconnecting the charger cables to the battery.

⚠ NOTICE

When recharging the battery, make sure that the engine is not running and all accessories are off.

After recharging or reconnecting the battery

The engine may not start. Follow the procedure below to initialize the system.

1 Change the shift position to P.

2 Open and close any of the doors.

3 Restart the engine.

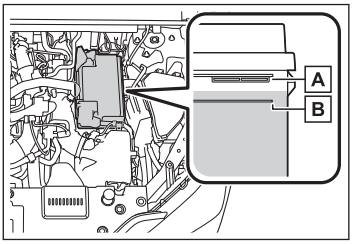
INFORMATION

- Unlocking the doors using the smart entry & start system may not be possible immediately after reconnecting the battery. If this happens, use the wireless remote control or the mechanical key to lock/unlock the doors.
- Start the engine with the engine switch in ACC. The engine may not start with the engine switch turned off. However, the engine will operate normally from the second attempt.
- The engine switch mode is recorded by the vehicle. If the battery is disconnected and reconnected, the vehicle will return the engine switch mode to the status it was in before the battery was disconnected. Make sure to turn off the engine switch before disconnecting the battery. Take extra care when connecting the battery if the engine switch mode prior to the battery being disconnected is unknown.

  If the system will not start even after multiple attempts at all the methods above, contact your Lexus dealer.

Checking battery fluid

Check that the level is between the [UPPER LEVEL] and [LOWER LEVEL] lines.



A [UPPER LEVEL] line

B [LOWER LEVEL] line

If the battery fluid level is at or below the [LOWER LEVEL] line, add distilled water.

Adding distilled water

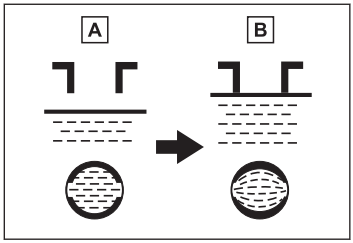
NOTICE

When adding distilled water, avoid overfilling the battery. Spilled battery fluid may cause corrosion.

1 Remove the vent plug.

2 Add distilled water.

If the [UPPER LEVEL] line cannot be seen, check the battery fluid level by looking directly at the cell.

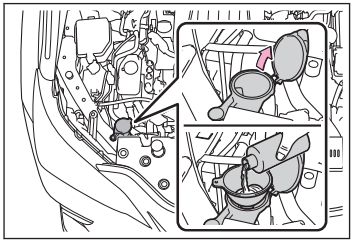


A Low
B O.K.

3 Put the vent plug back on and close it securely.

Adding washer fluid

If washer fluid does not spray from any of the washers or "Windshield Washer Fluid Low" is displayed on the multi-information display, the washer fluid bottle may be empty. Add washer fluid.



⚠ WARNING

Do not add washer fluid when the engine is hot or running.

As washer fluid contains alcohol, it may catch fire if spilled on the engine, etc.

⚠ 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, as well as damaging the pump leading to problems of the washer fluid not spraying.

■ Diluting washer fluid

Dilute washer fluid with water as necessary. Refer to the freezing temperatures listed on the label of the washer fluid bottle.

Air conditioning filter maintenance

The air conditioning filter must be changed regularly to maintain air conditioning efficiency.

Checking 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.

- If air flow from the vents decreases dramatically, the air conditioning filter may be clogged. Check the filter and replace it if necessary.

  (For scheduled maintenance information, please refer to the "Warranty and Service Booklet".)

- If air fresheners, etc. are used inside the vehicle, the service life of the deodorizing function of the air conditioning filter with deodorizing function may be reduced significantly. If odors from the air conditioning system become a concern, replace the filter.

Replacing the air conditioning filter

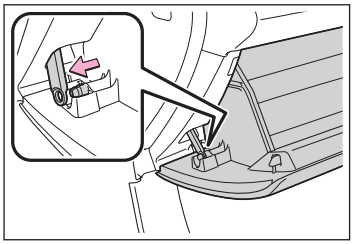
⚠ NOTICE

Observe the following precautions when using the air conditioning system.

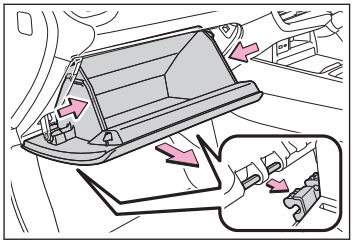
Make sure that a filter is always installed. Using the air conditioning system without a filter may cause damage to the system.

1 **Turn the engine switch off.**

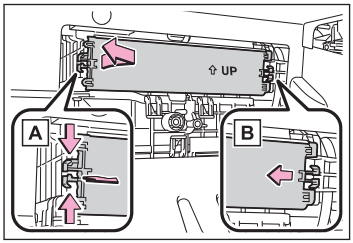
2 **Open the glove box and disconnect the damper stay from the pin.**



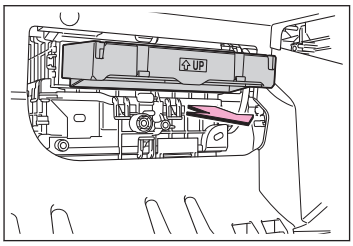
3 Push both the sides of the glove box inward and disengage each claw on the upper side. Then, pull the glove box to disengage the claws on the lower side and remove the glove box.



4 Unlock the filter cover (A), pull the filter cover out of the claws (B), and remove the filter cover.

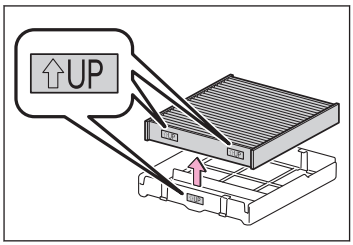


5 Remove the filter case.



6 Remove the air conditioning filter from the filter case and replace it with a new one.

The [UP] marks shown on the filter should be pointing up.



Tire maintenance

Replace or rotate tires in accordance with maintenance schedules and treadwear.

⚠ NOTICE

Take particular care when driving on uneven rough roads with cracks and potholes.

These conditions may cause loss of tire inflation pressure, reducing the cushioning ability of the tires. Driving on rough roads may also cause damage to the tires themselves, as well as the vehicle's wheels and body.

Tire inspection items

⚠ WARNING

■ When inspecting or replacing the tires

Observe the following precautions.

Failure to do so may lead to damage to the drivetrain or unstable handling.

- Do not mix tires of different makes, models or tread patterns. Also, do not mix tires of remarkably different treadwear.
- Do not use tire sizes other than those recommended by Lexus.
- Do not mix differently constructed tires (radial, bias-belted or bias-ply tires).
- Do not mix summer, all season and snow tires.
- Do not use tires that have been used on another vehicle.

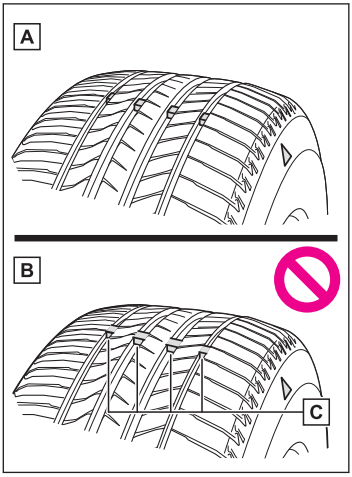
  Do not use tires if you do not know how they were used previously.

⚠ NOTICE

If tire inflation pressure becomes low while driving, do not continue driving. Otherwise the tire or wheel may be damaged.

Check if the treadwear indicators are showing on the tires. Also check the tires for uneven wear, such as excessive wear on one side of the tread.

Check the spare tire condition and pressure if not rotated.



A New tread

B Worn tread

C Treadwear indicator

The location of treadwear indicators is shown by a [TWI] or △ mark, etc., molded into the sidewall of each tire.

Replace the tires if the treadwear indicators are showing on a tire.

INFORMATION

When to replace your vehicle's tires

Tires should be replaced if:

- The treadwear indicators are showing on a tire.
- You have tire damage such as cuts, splits, cracks deep enough to expose the fabric, and 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.

Tire life

Any tire over 6 years old must be checked by a qualified technician even if it has seldom or never been used or damage is not obvious.

If the tread on snow tires wears down below 4 mm (0.16 in.)

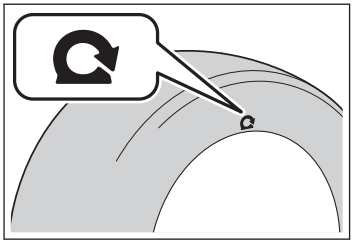
The effectiveness of the tires as snow tires is lost.

Run-flat tire features

When run-flat tires are installed, the vehicle can be driven for a maximum of 80 km (50 miles) at a speed below 80 km/h (50 mph) after any tire goes flat. (However, the vehicle speed may not increase to near 80 km/h [50 mph] depending on weather or driving conditions.)

Make sure to replace the flat tire before the vehicle has been driven for near 80 km (50 miles). Also, do not use a repaired tire.

A run-flat tire has a mark on the side wall.



INFORMATION

Precautions for run-flat tires

- The run-flat tires are for only this vehicle. Do not use the tires on other vehicles.
- Do not mix run-flat tires and normal tires.
- If non-genuine Lexus wheels are used, it may be impossible to sufficiently demonstrate the performance of run-flat tires.

Operation of the tire pressure warning system

Your vehicle 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.

The tire pressure warning system of this vehicle adopts a 2-type warning system.

▶ **Multi-information display**



▶ **Center display**



- When **"Adjust Pressure"** is displayed (Normal Warning)

  A warning with the tire pressure warning light and warning buzzer when there is an unknown level of low tire pressure with the appearance of the tire due to natural air leakage as well as the pressure lowering due to changes in the pressure according to the outside temperature.

- When **"Immediately Check tyre when Safe"** is displayed (Emergency Warning)

  A warning with the tire pressure warning light and warning buzzer when there is a known level of low tire pressure with the appearance of the tire due to pressure suddenly lowering.

  However, the system may not be able to detect sudden tire ruptures (bursting, etc.).

● The tire pressure detected by the tire pressure warning system can be displayed on the center display.

INFORMATION

■ 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 inflation pressure

● It may take a few minutes to display the tire inflation pressure after the engine switch is turned to ON.

It may also take a few minutes to display the tire inflation pressure after inflation pressure has been adjusted.

● Tire inflation pressure changes with temperature. The displayed values may also be different from the values measured using a tire pressure gauge.

■ Situations in which the tire pressure warning system may not operate properly

● In the following cases, the tire pressure warning system may not operate properly.

- If non-genuine Lexus wheels are used.
- A tire has been replaced with a tire that is not an OE (Original Equipment) tire.
- A tire has been replaced with a tire that is not of the specified size.
- Tire chains, etc. are equipped.
- If a window tint that affects the radio wave signals is installed.
- If there is a lot of snow or ice on the vehicle, particularly around the wheels or wheel housings
- If the tire inflation pressure is extremely higher than the specified level.
- 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 in the tire pressure warning computer.

● Performance may be affected in the following situations.

- Near a TV tower, electric power plant, gas station, radio station, large display, airport or other facility that generates strong radio waves or electrical noise.
- When carrying a portable radio, cellular phone, cordless phone or other wireless communication device.

If tire position information is not correctly displayed due to the radio wave conditions, the display may be corrected by changing the location of the vehicle as the radio wave conditions may change.

- When the vehicle is parked, the time taken for the warning to start or go off could be extended.
- When tire inflation pressure declines rapidly for example when a tire has burst, the warning may not operate.

Related Links

Tire pressure(P. 295)

Tire pressure warning light (warning buzzer)(P. 544)

Installing tire pressure warning valves and transmitters

NOTICE

Repairing or replacing tires, wheels, tire pressure warning valves, transmitters and tire valve caps

- When removing or fitting the wheels, tires or the tire pressure warning valves and transmitters, contact your Lexus dealer as the tire pressure warning valves and transmitters may be damaged if not handled correctly.
- Make sure to install the tire valve caps. If the tire valve caps are not installed, water could enter the tire pressure warning valves, corrode the valve, and cause sticking and air leaks.
- When replacing tire valve caps, do not use tire valve caps other than those specified. The cap may become stuck.

When replacing tires or wheels, tire pressure warning valves and transmitters must also be installed.

When new tire pressure warning valves and transmitters are installed, new ID codes must be registered in the tire pressure warning computer

INFORMATION

When replacing the tires and wheels

If the ID code of the tire pressure warning valve and transmitter is not registered, the tire pressure warning system will not work properly.

In this case, after driving for about 10 minutes, the tire pressure warning light blinks for 1 minute and stays on to indicate a system malfunction.

Registration of the position of each wheel after performing a tire rotation

It is necessary to register the position of each wheel after performing a tire rotation.

Wheel position registration can be performed by oneself. Wheel position registration is performed by driving forward with moderate left and right turns. However, depending on the driving conditions and driving environment, registration may take some time to complete.

1 **Park the vehicle in a safe place, turn the engine switch off and wait 15 minutes or more.**

2 **Start the engine.**

The wheel position registration procedure cannot be performed while the vehicle is moving.

3 **Select ⚙ on the center display.**

4 **Select [Vehicle customise].**

5 **Select [Tyre pressure].**

6 **Select [Tyre rotation].**

7 **Select [Continue].**

A message indicating that wheel position registration is being performed will be displayed on the multi-information display. **"---"** will be displayed for the tire inflation pressure of each tire and wheel position registration will begin.

8 **Drive straight (with occasional left and right turns) at approximately 40 km/h (25 mph) or more for approximately 10 to 30 minutes.**

When wheel position registration is complete, a message indicating that registration has been completed and the inflation pressure of each tire will be displayed on the multi-information display.

Even if it is not possible to drive continuously at approximately 40 km/h (25 mph) or more, registration can be completed by driving for a long time. However, if registration does not complete after driving for 1 hour or more, park the vehicle in a safe place and leave it with the engine switch in ON for approximately 15 minutes or more, and then perform the driving procedure again.

INFORMATION

When performing wheel position registration

- Normally, wheel position registration can be completed within approximately 30 minutes.
- Wheel position registration is performed while driving at a vehicle speed of approximately 40 km/h (25 mph) or more.

Wheel position registration procedure

- If the engine switch is turned off while registering the wheel position, the next time the engine switch is turned to ON, the wheel position registration will resume and it will not be necessary to restart the procedure.
- While the position of each wheel is being determined and the inflation pressures are not being displayed, if the inflation pressure of a tire drops, the tire pressure warning light will come on.

If the wheel position cannot be registered easily

- In the following situations, wheel position registration may take longer than usual to be completed or may not be possible.
  - Vehicle is not driven at approximately 40 km/h (25 mph) or more
  - Vehicle is driven on unpaved roads
  - If wheel position registration does not complete after driving for 1 hour or more, park the vehicle in a safe place for approximately 15 minutes and then drive the vehicle again.
- If the vehicle is reversed during wheel position registration, all data collected until then will be cleared. Perform driving again.

Setting the tire pressure

In the following situations, it will be necessary to perform the tire inflation pressure setting procedure of the tire pressure warning system.

- When the specified tire inflation pressure has changed, such as due to carried load, etc.
- When the tire inflation pressure is changed such as when the tire size is changed.

If the tire inflation pressure has been adjusted to the specified level, perform the tire inflation setting procedure by selecting specified inflation pressure on the center display.

When the tire inflation pressure is to be other than specified, such as when tires other than the specified size are used, etc., set the tire inflation pressure using

the current pressure. Make sure to adjust the tire inflation pressure of each tire to the appropriate level before performing tire pressure setting. The tire pressure warning system operates based on this tire inflation pressure.

Related Links

Setting by selecting a specified tire inflation pressure(P. 510)

Setting using the current tire inflation pressure(P. 511)

Setting by selecting a specified tire inflation pressure

1 **Start the engine.**

The tire inflation pressure cannot be set while the vehicle is moving.

2 **Select ⚙ on the center display.**

3 **Select [Vehicle customise].**

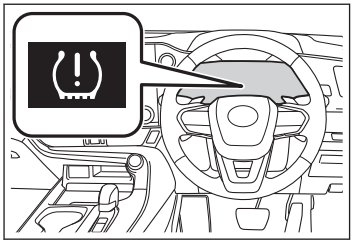
4 **Select [Tyre pressure].**

5 **Select [Set indicated air pressure] and then select the desired front and rear tire pressures.**

6 **Select [OK].**

The tire pressure warning light will slowly blink 3 times.

After setting the tire inflation pressure, a message indicating that setting has been completed will be displayed on the multi-information display.



INFORMATION

If the tire inflation pressure cannot be set easily

- If the tire pressure warning light does not blink 3 times when starting the tire inflation pressure setting procedure, the procedure may not have started. Perform the procedure again from the beginning.
- If tire inflation pressure setting procedure cannot be completed after performing the above procedure, contact your Lexus dealer.

Setting using the current tire inflation pressure

⚠ WARNING

Make sure to adjust the tire inflation pressure of each tire to the appropriate level before performing tire pressure setting. Otherwise, the tire pressure warning light may not illuminate even if the tire inflation pressure drops or may illuminate even though the tire inflation pressure is normal.

INFORMATION

Warning performance of the tire pressure warning system

- When performing the tire pressure setting using the current tire inflation pressure, the warning timing of the tire pressure warning system will vary according to the conditions under which tire pressure setting was performed. Therefore, a warning may be output even if the tire inflation pressure drops slightly or if the tire inflation pressure increases above that when the tire inflation pressure was set.
- Make sure to perform the tire pressure setting procedure after adjusting the tire inflation pressure. Also, make sure the tires are cold before performing the tire pressure setting procedure or adjusting the tire inflation pressure.

1 **Adjust the tire inflation pressure of each tire to the appropriate level.**

Make sure to adjust the tire inflation pressure with the tires cold.

2 **Start the engine.**

The tire inflation pressure cannot be set while the vehicle is moving.

3 **Select ⚙ on the center display.**

4 **Select [Vehicle customise].**

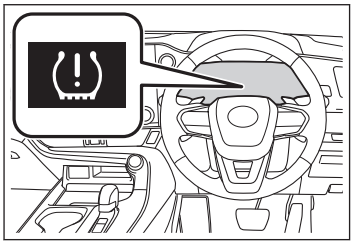
5 **Select [Tyre pressure].**

6 **Select [Set current air pressure].**

7 **Select [Continue].**

The tire pressure warning light will slowly blink 3 times and a message indicating that tire inflation pressure is being set will be displayed on the multi-information display.

After setting the tire inflation pressure, a message indicating that setting has been completed will be displayed on the multi-information display.



INFORMATION

■ Tire inflation pressure setting procedure

- If the engine switch is turned off while setting the tire inflation pressure, the next time the engine switch is turned to ON, the setting procedure will resume and it will not be necessary to restart the procedure.
- If the tire inflation pressure setting procedure is started unnecessarily, adjust the tire inflation pressure to the specified level with the tires cold and then perform setting by selecting a specified tire inflation pressure, or perform the tire inflation pressure setting procedure with the current tire inflation pressure.

■ If the tire inflation pressure cannot be set easily

- Normally, the tire inflation pressure setting procedure can be completed in 2 or 3 minutes.
- If the tire pressure warning light does not blink 3 times when starting the tire inflation pressure setting procedure, the procedure may not have started. Perform the procedure again from the beginning.
- If tire inflation pressure setting procedure cannot be completed after performing the above procedure, contact your Lexus dealer.

Registering ID codes

The tire pressure warning valve and transmitter is equipped with a unique ID code. When new tire pressure warning valves and transmitters are installed, new ID codes must be registered in the tire pressure warning computer.

INFORMATION

- ID codes can be registered by yourself, but depending on the driving conditions and driving environment, registration may take some time to complete.
- When using a wheel set which all of the ID codes have already been registered, the wheel set can be changed in a short amount of time.

Before performing ID code registration, make sure that no wheels with tire pressure warning valve and transmitters installed are near the vehicle.

1 **Park the vehicle in a safe place, turn the engine switch off and wait 15 minutes or more.**

2 **Start the engine.**

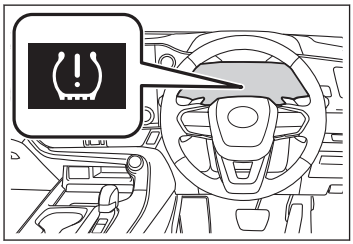
The ID code registration procedure cannot be performed while the vehicle is moving.

3 **Select ⚙ on the center display.**

4 Select [Vehicle customise].

5 Select [Tyre pressure].

6 Check if the desired wheel set ([Set 1] or [Set 2]) is displayed.



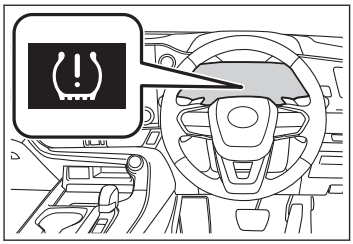
ID codes will be registered to the displayed wheel set.

To change the wheel set to be registered, select the displayed set, and then select the wheel set you wish to register.

If ID codes have already been registered for that wheel set, the tire pressure warning light will slowly blink 3 times, and a message indicating that change is occurring will be displayed on the multi-information display.

7 Select [New tyre registration].

8 Select [Continue].



The tire pressure warning light will slowly blink 3 times and a message indicating that ID code registration is being performed will be displayed on the multi-information display. Wheel set changing will be canceled and registration will begin.

When registration is being performed, the tire pressure warning light will blink for approximately 1 minute then illuminate and "---" will be displayed for the inflation pressure of each tire on the multi-information display.

INFORMATION

If the tire pressure warning light does not blink 3 times when starting ID code registration procedure, the procedure may not have started. Perform the procedure again from the beginning.

9 Drive straight (with occasional left and right turns) at approximately 40 km/h (25 mph) or more for approximately 10 to 30 minutes.

When registration is complete, the tire pressure warning light will turn off and a message indicating that registration has been completed will be displayed on the multi-information display.

Registration may take longer than normal to complete if the vehicle speed cannot be maintained at approximately 40 km/h (25 mph) or more. If registration cannot be completed after driving for 1 hour or more, perform the registration procedure again from the beginning.

INFORMATION

When registering ID codes

- Normally, wheel position registration can be completed within approximately 30 minutes.
- ID code registration is performed while driving at a vehicle speed of approximately 40 km/h (25 mph) or more.

If ID codes are not registered easily

- In the following situations, ID code registration may take longer than usual to be completed or may not be possible.
  - When the vehicle has not been parked for approximately 15 minutes or more before being driven
  - Vehicle is not driven at approximately 40 km/h (25 mph) or more
  - Vehicle is driven on unpaved roads
  - Vehicle is driven near other vehicles and system cannot recognize tire pressure warning valve and transmitters of your vehicle over those of other vehicles
  - Wheel with tire pressure warning valve and transmitter installed is inside or near the vehicle
- If the vehicle is reversed during registration, all data collected until then will be cleared. Perform driving again.
- If registration does not complete after driving for 1 hour or more, perform the ID code registration procedure again from the beginning.
- If the ID codes cannot be registered even when performing the above procedure, contact your Lexus dealer.

10 **If the tire inflation pressure of the wheel set installed differs from that of the previous set, it will be necessary to perform the tire inflation pressure setting procedure of the tire pressure warning system.**

If the specified tire inflation pressure is the same, it will not be necessary to perform the tire inflation pressure setting procedure.

Related Links

Setting the tire pressure(P. 509)

Canceling ID code registration

To cancel ID code registration after it has been started, select [**New tyre registration**] again on the center display.

If ID code registration has been canceled, the tire pressure warning light will turn off.

If the warning light does not turn off, ID code registration may not have been cancelled correctly. To cancel registration, select [**New tyre registration**] again on the center display.

Selecting wheel set

Your vehicle is equipped with a tire pressure warning system with a function to register two sets of ID codes. This allows for registration of a second wheel set, for example a winter set.

- The wheel set can be changed only if a second wheel set has been registered to the system. If a second wheel set has not been registered, **"Set 2(Unregistered)"** will be displayed and it will not be possible to change to the selected wheel set.

  ID codes can be registered by yourself.
- Only a change between both registered wheel set is possible, mixing between these wheel sets is not supported.
- While registering ID codes, it may not be possible to change between wheel sets normally. Cancel registration before changing between wheel sets.

1 **Install the desired wheel set.**

2 **Select ⚙ on the center display.**

3 **Select [Vehicle customise].**

4 **Select [Tyre pressure].**

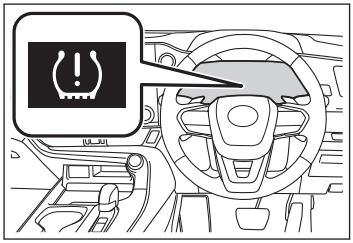
5 **Select the wheel set ([Set 1] or [Set 2]) displayed for the set selection setting.**

6 **Select the wheel set you wish to register, and then select [OK].**

The tire pressure warning light will slowly blink 3 times, a message indicating that change is occurring will be displayed, and the wheel set change will begin.

Wheel set change will begin and the tire pressure warning light will blink for 1 minute and then illuminate. Also, while the change is being performed, **"---"** will be displayed for the tire inflation pressure of each tire on the multi-information display.

After approximately 2 minutes, the wheel set change will complete, the tire pressure warning light will turn off, and a completion message will be displayed on the multi-information display.



If changing does not complete after approximately 4 minutes, a message indicating that the change could not be completed will be displayed.

Check which wheel set is installed and perform the change procedure again from the beginning.

7 **If the specified tire inflation pressure of the wheel set installed differs from that of the previous set, it will be necessary to perform the tire inflation pressure setting procedure of the tire pressure warning system.**

If the specified tire inflation pressure is the same, it will not be necessary to perform the tire inflation pressure setting procedure.

8 **Register the position of each wheel.**

Related Links

Registration of the position of each wheel after performing a tire rotation(P. 508)

Checking tire inflation pressure

Make sure to maintain proper tire inflation pressure. Tire inflation pressure should be checked at least once per month. However, Lexus recommends that tire inflation pressure be checked once every two weeks.

⚠ WARNING

In order to ensure the performance of the tires, maintain proper tire inflation pressure.

If the tires are not properly inflated, the following may occur:

- Excessive wear
- Uneven wear
- Poor handling
- Possibility of blowouts resulting from overheated tires
- Air leaking from between tire and wheel
- Wheel deformation and/or tire damage
- Greater possibility of tire damage while driving (due to road hazards, expansion joints, sharp edges in the road, etc.)

⚠ NOTICE

After inspecting and adjusting tire inflation pressure, make sure to install the tire valve caps.

If a valve cap is not installed, dirt or moisture may get into the valve and cause an air leak, resulting in decreased tire inflation pressure.

Driving with incorrect tire inflation pressure may result in the following:

- Reduced fuel economy
- Reduced driving comfort and poor handling
- Reduced tire life due to wear
- Reduced safety
- Damage to the drive train

If a tire needs frequent inflating, 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.

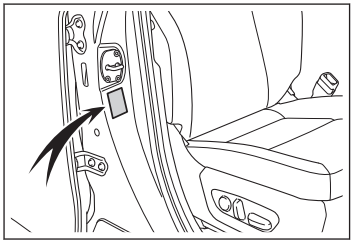
If your vehicle has been parked for at least 3 hours or has not been driven for more than 1.5 km or 1 mile, you will get an accurate cold tire inflation pressure reading.

- Always use a tire pressure gauge.

  It is difficult to judge if a tire is properly inflated based only on its appearance.
- It is normal for the tire inflation pressure to be higher after driving as heat is generated in the tire. Do not reduce tire inflation pressure after driving.
- Passengers and luggage weight should be placed so that the vehicle is balanced.

Checking the specified tire inflation pressure

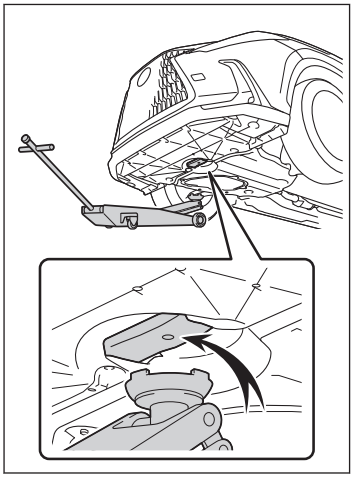
The recommended cold tire inflation pressure and tire size are displayed on the tire and loading information label.



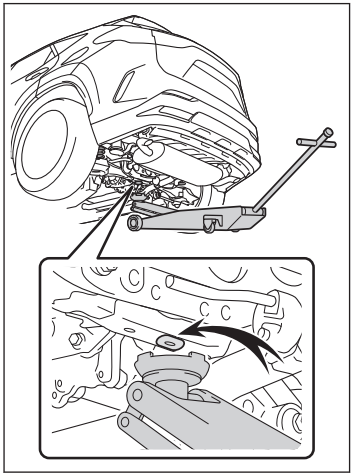
Lifting the vehicle with a floor jack

When using a floor jack, follow the instructions in the manual provided with the jack and perform the operation safely.When raising your vehicle with a floor jack, position the jack correctly.Improper placement may damage your vehicle or cause injury.

Front jack point position



Rear jack point position



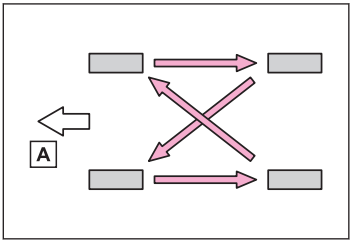
Rotating the tires

To equalize tire wear and help extend tire life, Lexus recommends that you rotate your tires approximately at the following intervals:

Rotate the tires every 5000 km (3000 miles)

Rotate the tires as shown in the illustration.

Make sure to perform wheel position registration procedure after rotating the tires.



A Front

Related Links

Registration of the position of each wheel after performing a tire rotation(P. 508)

Wheels

If a wheel is bent, cracked or heavily corroded, it should be replaced. Otherwise, the tire may separate from the wheel, causing a 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 inset*1.

Replacement wheels are available at your Lexus dealer.

Lexus does not recommend using the following:

- Wheels of different sizes or types
- Used wheels
- Bent wheels that have been straightened

INFORMATION

When replacing wheels

The wheels of your vehicle are equipped with tire pressure warning valves and transmitters that allow the tire pressure warning system to provide advance warning in the event of a loss in tire inflation pressure.

Whenever wheels are replaced, tire pressure warning valves and transmitters must be installed.

WARNING

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 a 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.
- Use the correct wheel bolts for the wheels to be installed.

  For details, contact your Lexus dealer.

Wheel bolts

Observe the following precautions to reduce the risk of death or serious injury:

- Do not over tighten.

*1: Conventionally referred to as offset.

⚠ WARNING

- Never use oil or grease on the wheel bolts. Oil and grease may cause the wheel bolts to be excessively tightened, leading to bolt or disc wheel damage. In addition, the oil or grease can cause the wheel bolts to loosen and the wheel may fall off, causing a serious accident. Remove any oil or grease from the wheel bolts.
- If there are any cracks or deformations in the wheel bolts, or if the surface treatment becomes worn, have the wheel bolts replaced at your Lexus dealer. Failure to follow these precautions could cause the wheel bolts to loosen and the tire to fall off, resulting in death or serious injury.

■ Use of defective wheels prohibited

Do not use cracked or deformed wheels.

Doing so could cause the tire to leak air during driving, possibly causing an accident.

⚠ 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.

Aluminum wheel precautions

Observe the following precautions when handling the aluminum wheels.

- Use only Lexus wheel bolts and wrenches designed for use with your aluminum wheels.
- When rotating, repairing or changing your tires, check that the wheel bolts are still tight after driving 1000 km (621 miles).
- 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.

Replacing the tire

When replacing the tires yourself, prepare the necessary tools and a jack.

This vehicle uses wheel bolts. When using wheels that were installed when the vehicle was shipped from the factory, specialized Lexus genuine wheel bolts must be used.

If necessary tire replacement seems difficult to perform, contact your Lexus dealer.

Preparation for lifting the vehicle with a jack

INFORMATION

Jack and tools

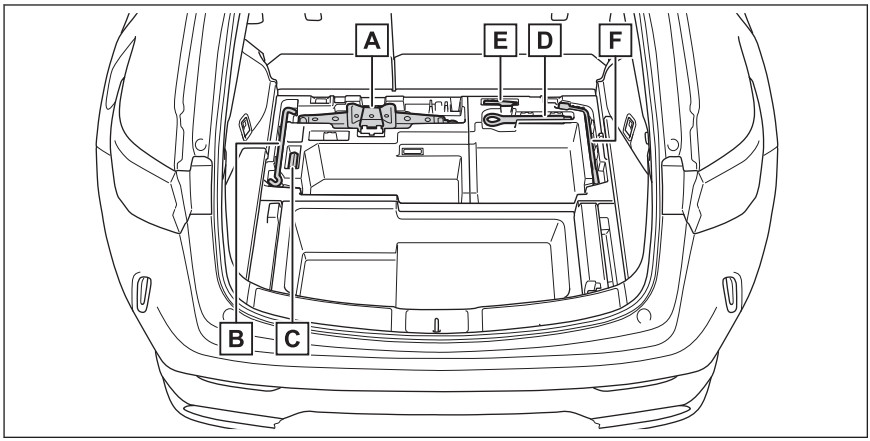
As your vehicle is equipped with run-flat tires, the following tools for replacing a tire are not included with your vehicle. They can be purchased at your Lexus dealer.

- Jack
- Jack handle
- Wheel bolt socket
- Guide pin
- Wheel bolt wrench

Before lifting the vehicle with a jack, perform the following.

- **Stop the vehicle in a safe place on a hard, flat surface.**
- **Set the parking brake.**
- **Change the shift position to P.**
- **Stop the engine.**

Storage position of the tools and jack



A Jack*

⚠ WARNING

Improper use of the tire jack may cause the vehicle to fall. Therefore, observe the following precautions.

- Do not use the tire jack for any purpose other than replacing tires or installing and removing tire chains.
- 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.

B Jack handle*

C Wheel bolt socket*

D Towing eyelet

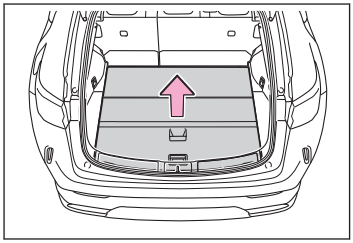
E Guide pin*

F Wheel bolt wrench*

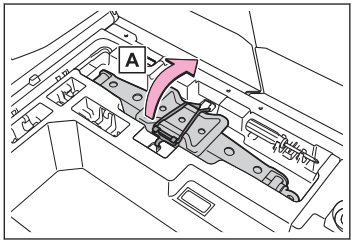
*: If equipped

Taking out the jack

1 Remove the deck board.



2 Take out the jack.



A Disengage the tightening strap.

Removing a tire

⚠ WARNING

■ Precautions for replacing a tire

- Do not try to remove the wheel ornament by hand.

  Take due care in handling the ornament to avoid unexpected personal injury.
- Do not touch the disc wheels or the area around the brakes immediately after the vehicle has been driven.

  After the vehicle has been driven the disc wheels and the area around the brakes will be extremely hot. Touching these areas with hands, feet or other body parts while changing a tire, etc., may result in burns.

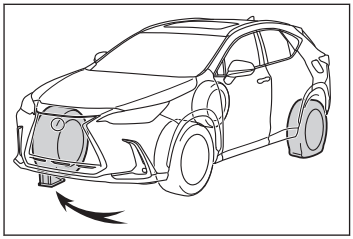
■ Setting the power back door* when replacing the tires

When replacing a tire, make sure to disable the power back door. If not disabled, the power back door may operate unintentionally, and hands or fingers may be caught and injured.

*: If equipped

1 **Chock the tires.**

Wheel chock position



- Flat tire: Front left

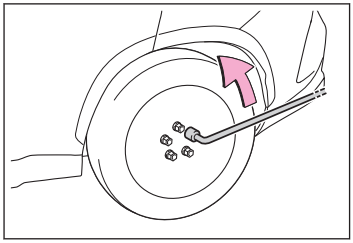
  Place the wheel chock behind the rear right tire.
- Flat tire: Front right

  Place the wheel chock behind the rear left tire.
- Flat tire: Rear left

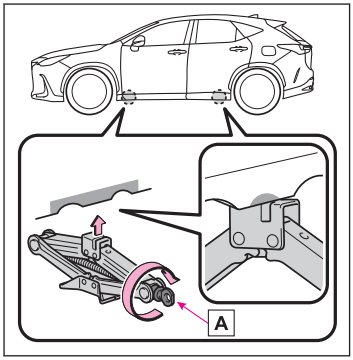
  Place the wheel chock in front of the front right tire.
- Flat tire: Rear right

  Place the wheel chock in front of the front left tire.

2 **Using a wheel bolt wrench, slightly loosen the wheel bolts (approximately one turn).**



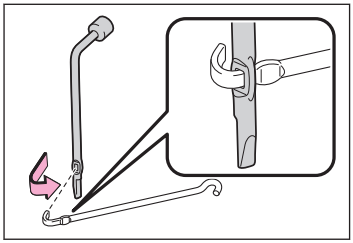
3 **Turn the tire jack portion A by hand until the notch of the jack is in contact with the jack point.**



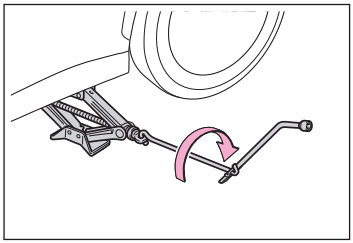
⚠ WARNING

Make sure the jack is positioned properly in the jack point.

4 **Install the wheel bolt wrench to the jack handle.**



5 **Raise the vehicle until the tire is slightly raised off the ground.**



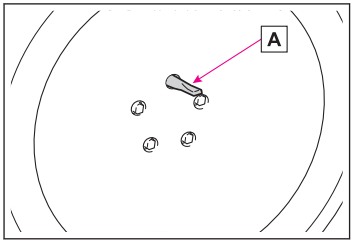
⚠ WARNING

Observe the following precautions when using the jack.

- Do not put any part of your body under the vehicle while it is supported by the jack.
- Do not start the engine or drive the vehicle while the vehicle is supported by the jack.
- Do not raise the vehicle while someone is inside.
- When raising the vehicle, do not put an object on or under the jack.
- Do not raise the vehicle to a height greater than that required to replace the tire.
- Use a jack stand if it is necessary to get under the vehicle.

6 **Remove the uppermost wheel bolt and install the guide pin A by hand.**

Turn the guide pin clockwise to tighten it until it stops.

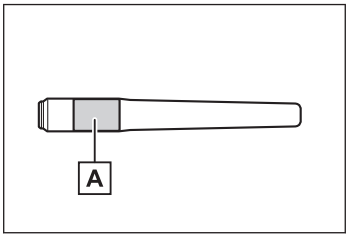


⚠ WARNING

When removing or installing a tire, make sure to use the guide pin.

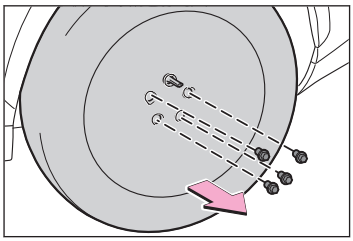
⚠ WARNING

Also, the guide pin is made of resin. It may be damaged if the wheel is placed anywhere other than A or if a large amount of force is applied to the guide pin.



7 **Remove the remaining wheel bolts and the tire.**

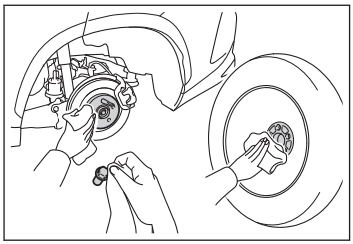
When resting the tire on the ground, place the tire so that the wheel design faces up, to avoid scratching the wheel surface.



Installing the tire

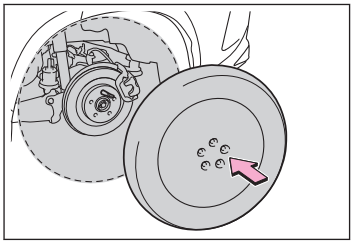
1 **Remove any dirt or foreign matter from the wheel contact surfaces and wheel bolts.**

If foreign matter is not removed, the wheel bolts may loosen while the vehicle is in motion, and the wheel may come off.



2 **Align a wheel bolt hole on the spare tire with the guide pin, and set the spare tire on the guide pin.**

Align the center hole of the wheel with the center of the hub and securely set the spare tire so that the wheel and hub contact surfaces are touching.

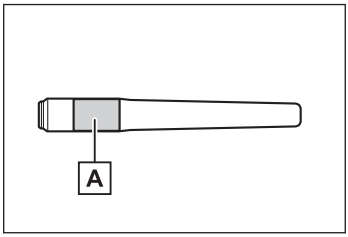


⚠ WARNING

When removing or installing a tire, make sure to use the guide pin.

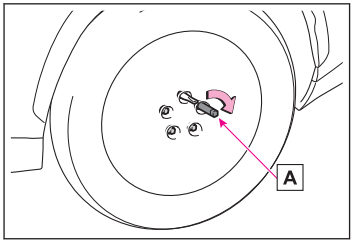
⚠ WARNING

Also, the guide pin is made of resin. It may be damaged if the wheel is placed anywhere other than A or if a large amount of force is applied to the guide pin.



3 **Loosely tighten each wheel bolt by hand or using a wheel bolt socket A.**

Do not use the wheel bolt socket for anything other than loosely tightening the wheel bolts by hand.



⚠ WARNING

Observe the following precautions. Failure to do so may lead to the wheel bolts loosening and the tire falling off.

- The contact surfaces of the wheel bolt and wheel are designed specifically to fit together. When using wheels that were installed when the vehicle was shipped from the factory, use specialized Lexus genuine wheel bolts. Do not use wheel bolts designed for other models, model years or types even if they are Lexus genuine parts.

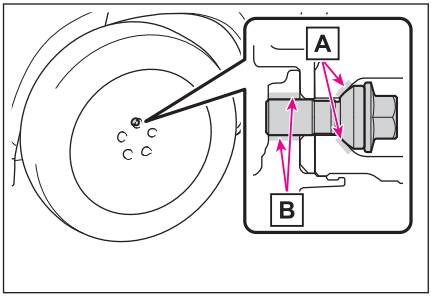
  If the vehicle does not have wheels that were installed to the vehicle when it was shipped from the factory, the factory-installed wheel bolts may not be appropriate for the wheel. Contact either the retailer where the wheels were purchased or the manufacturer of the wheels for proper installation advice.

- Never apply oil or grease to the wheel bolts or their contact surface on the wheel A.

  Doing so may cause the wheel bolts to be tightened excessively, leading to damage to the wheel bolts, the threaded portion the wheel bolts install to B, or the wheel.

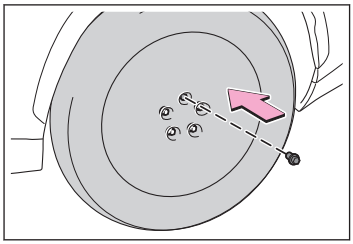
  Remove any oil or grease that has adhered when installing the wheel bolts.

⚠ WARNING

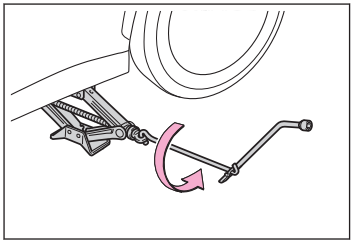


- After replacing a tire, check the tightening torque as soon as possible. If you cannot confirm the tightening torque yourself, have the vehicle inspected at your Lexus dealer.
- If a wheel bolt hole in a wheel or the threads of a wheel bolt or the wheel hub are deformed, cracked, rusty or otherwise damaged, have the vehicle inspected by your Lexus dealer.
- Do not install the wheel ornament if it is damaged, as it may fly off the wheel while the vehicle is being driven.

4 **Remove the guide pin and loosely tighten the wheel bolt as in step 3.**



5 **Lower the vehicle.**

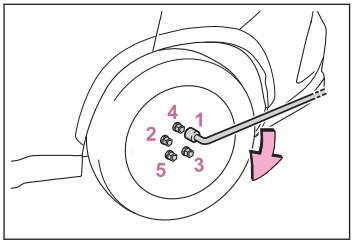


⚠ WARNING

When lowering the vehicle, make sure that no one is near the vehicle. If there are people nearby, warn them vocally before lowering the vehicle.

6 **Securely tighten the wheel bolts two or three times in the order shown in the illustration using a wheel bolt wrench.**

Tightening torque: 140 N•m (14.3 kgf•m, 103 ft•lbf)



⚠ WARNING

When tightening the wheel bolts, do not tighten them excessively. Doing so may cause the wheel bolts, the threads of the wheel hub, or the wheel to be damaged.

7 **Stow the jack and all tools.**

⚠ WARNING

- After using the tools and jack, before driving, make sure that the tools and jack are securely stored. Failure to do so may result in injury during a collision or sudden braking.
- After replacing a tire, check the tightening torque as soon as possible.

  If you cannot confirm the tightening torque yourself, have the vehicle inspected at your Lexus dealer.

⚠ NOTICE

When removing or fitting the wheels, tires or the tire pressure warning valves and transmitters, contact your Lexus dealer as the tire pressure warning valves and transmitters may be damaged if not handled correctly.

Related Links

Checking tire inflation pressure(P. 517)

Setting the tire pressure(P. 509)

Registration of the position of each wheel after performing a tire rotation(P. 508)

9 When trouble arises

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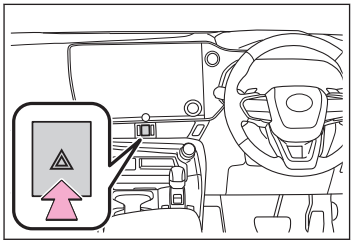
What to do if a problem occurs while driving

Using the emergency flashers to warn other drivers

Use the emergency flashers to inform other drivers of the presence of your vehicle when it is stopped on the road, such as if the vehicle has broke down.

Press the switch.

All the turn signal lights will flash. To turn them off, press the switch once again.



INFORMATION

Emergency flashers

- If the emergency flashers are used for a long time with the engine stopped, the battery may become discharged.
- If any of the SRS airbags deploy (inflate) or in the event of a strong rear impact, the emergency flashers will turn on automatically.

  The emergency flashers will turn off automatically after operating for approximately 20 minutes. To manually turn the emergency flashers off, press the switch twice. (The emergency flashers may not turn on automatically depending on the force of the impact and conditions of the collision.)

Stopping the vehicle in an emergency

Stop the vehicle using the following procedure only in an emergency, such as if it becomes impossible to stop the vehicle in the normal way:

⚠ WARNING

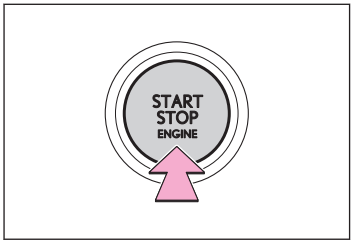
If the engine has to be stopped while driving

Power assist for the brakes and steering wheel will be lost, making the brake pedal harder to depress and the steering wheel heavier to turn. Decelerate as much as possible before stopping the engine.

1 **Steadily step on the brake pedal with both feet and firmly depress it.**

Do not pump the brake pedal repeatedly as this will increase the effort required to slow the vehicle.

2 Change the shift position to N.



- If the shift position is changed to N:

  After slowing down, stop the vehicle in a safe place by the road.

  Stop the engine.

- If the shift position cannot be changed to N:

  Keep depressing the brake pedal with both feet to reduce vehicle speed as much as possible.

  To stop the engine, press and hold the engine switch for 2 consecutive seconds or more, or press it briefly 3 times or more in succession.

3 Stop the vehicle in a safe place by the road.

⚠ WARNING

To restart the engine after performing an emergency shutdown, change the shift position to N and then press the engine switch.

If the vehicle is submerged or water on the road is rising

This vehicle is not designed to be able to drive on roads that are deeply flooded with water. Do not drive on roads where the roads may be submerged or the water may be rising. It is dangerous to remain in the vehicle, if it is anticipated that the vehicle will be flooded or set adrift.

Remain calm and follow the following.

- If the door can be opened, open the door and exit the vehicle.
- If the door cannot be opened, open the window using the power window switch and ensure an escape route.
- If the window can be opened, exit the vehicle through the window.
- If the door and window cannot be opened due to the rising water, remain calm, wait until the water level inside the vehicle rises to the point that the water pressure inside of the vehicle equals the water pressure outside of the vehicle and then open the door after waiting for the rising water to enter the vehicle, and exit the vehicle.

When the outside water level exceeds half the height of the door, the door cannot be opened from the inside due to water pressure.

INFORMATION

Water level exceeds the floor

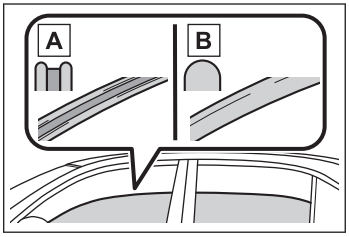
When the water level exceeds the floor and time has passed, the electrical equipment will get damaged, the power windows will not operate, the engine stop, and the vehicle may not be able to get moving.

Using an emergency escape hammer *1

Laminated glass* is used in the windshield and the windows on this vehicle. Laminated glass cannot be shattered with an emergency hammer*1.

How to distinguish laminated glass

When looking from the cross-sectional view point, laminated glass is two sheets of glass pasted together.



A Laminated glass
B Tempered glass

WARNING

Caution while driving

Do not drive on roads where the roads may be submerged or the water may be rising. Otherwise the vehicle may be damaged and cannot move, as well as become flooded and set adrift, which may lead to death.

Operation of the fuel pump shut off system

When a certain level of impact is detected by an impact sensor due to a collision and an airbag deploys or the engine is stopped, the fuel pump shut off system operates to stop the supply of fuel and minimize the risk of fuel leakage.

*1: Contact your Lexus dealer or aftermarket accessory manufacturer for further information about an emergency hammer.

*: If equipped

Restarting the engine

⚠ NOTICE

Before starting the engine, make sure to thoroughly check the area under the vehicle. If leaked fuel is found on the ground, the fuel system is damaged and needs to be repaired. In this situation, do not restart the engine.

Perform the following procedure to restart the engine after the fuel pump shut off system has operated.

1 Turn the engine switch to ACC or OFF.

2 Restart the engine.

If a warning light turns on/flashes

Calmly perform the following actions if any of the warning lights comes on or flashes. If a light comes on or flashes, but then goes off, this does not necessarily indicate a malfunction in the system. However, if this continues to occur, have the vehicle inspected by your Lexus dealer.

INFORMATION

Warning buzzer

In some cases, the buzzer may not be heard due to being in a noisy location or audio sound.

Brake system warning light (warning buzzer)

Condition	Cause / Remedy
 (red)	Indicates that: ● The brake fluid level is low; or ● The brake system is malfunctioning Immediately stop the vehicle and contact your Lexus dealer. Continuing to drive the vehicle may be dangerous.

⚠ WARNING

If both the ABS and the brake system warning lights remain on, stop your vehicle in a safe place immediately and contact your Lexus dealer.

The vehicle will become extremely unstable during braking, and the ABS system may fail, which could cause an accident resulting in death or serious injury.

Brake system warning light (warning buzzer)

Condition	Cause / Remedy
 (yellow)	Indicates a malfunction in the parking brake Have the vehicle checked by your Lexus dealer immediately.

⚠ WARNING

If both the ABS and the brake system warning lights remain on, stop your vehicle in a safe place immediately and contact your Lexus dealer.

The vehicle will become extremely unstable during braking, and the ABS system may fail, which could cause an accident resulting in death or serious injury.

High coolant temperature warning light (warning buzzer)

Condition	Cause / Remedy
 This light illuminates on the multi-information display.	Indicates that the engine coolant temperature is too high Immediately stop the vehicle in a safe take the corrective actions for overheating.

Related Links

If your vehicle overheats(P. 625)

Charging system warning light (warning buzzer)

Condition	Cause / Remedy
 This light illuminates on the multi-information display.	Indicates a malfunction in the vehicle's charging system Immediately stop the vehicle in a safe place and contact your Lexus dealer.

Low engine oil pressure warning light (warning buzzer)

Condition	Cause / Remedy
 This light illuminates on the multi-information display.	Indicates that the engine oil pressure is too low Immediately stop the vehicle in a safe place and contact your Lexus dealer.

Malfunction indicator lamp

Condition	Cause / Remedy
	Indicates a malfunction in: ● The electronic engine control system; ● The electronic throttle control system; or ● The electronic transmission control system Immediately stop the vehicle in a safe place and contact your Lexus dealer.

INFORMATION

If the malfunction indicator lamp comes on while driving

The malfunction indicator lamp will come on if the fuel tank becomes completely empty. If the fuel tank is empty, refuel the vehicle immediately. The malfunction indicator lamp will go off after several trips.

If the malfunction indicator lamp does not go off, contact your Lexus dealer as soon as possible.

SRS warning light

Warning light	Details / Actions
	● The SRS airbag system is malfunctioning ● The seat belt pretensioner system is malfunctioning **Have the vehicle checked by your Lexus dealer immediately.**

ABS warning light (warning buzzer)

Condition	Cause / Remedy
	Indicates a malfunction in: ● The ABS; or ● The brake assist system Have the vehicle checked by your Lexus dealer immediately.

⚠ WARNING

If both the ABS and the brake system warning lights remain on, stop your vehicle in a safe place immediately and contact your Lexus dealer.

The vehicle will become extremely unstable during braking, and the ABS system may fail, which could cause an accident resulting in death or serious injury.

Inappropriate pedal operation warning light (warning buzzer)

Condition	Cause / Remedy
 This light illuminates on the multi-information display.	When a buzzer sounds: ● Brake Override System is malfunctioning ● Drive-Start Control is malfunctioning ● Drive-Start Control is operating Follow the instructions displayed on the multi-information display.
	When a buzzer sounds: Indicates that the shift position was changed and Drive-Start Control was operated while depressing the accelerator pedal. **Momentarily release the accelerator pedal.**
	When a buzzer does not sound: Brake Override System is operating. **Release the accelerator pedal and depress the brake pedal.**

Electric power steering system warning light (warning buzzer)

Condition	Cause / Remedy
 (red)  (yellow)	Indicates a malfunction in the EPS (Electric Power Steering) system Have the vehicle checked by your Lexus dealer immediately.

INFORMATION

■ Electric power steering system warning light (warning buzzer)

When the battery charge becomes insufficient or the voltage temporarily drops, the electric power steering system warning light may come on and the warning buzzer may sound.

⚠ WARNING

When the electric power steering system warning light comes on yellow, the assist to the power steering is restricted. When the light comes on red, the assist to the power steering is lost and handling operations of the steering wheel become extremely heavy.

When steering wheel operations are heavier than usual, grip the steering wheel firmly and operate it using more force than usual.

Low fuel level warning light

Condition	Cause / Remedy
	Indicates that remaining fuel is approximately 8.5 L (2.3 gal., 1.9 Imp. gal.) or less Refuel the vehicle.

Driver's and front passenger's seat belt reminder light (warning buzzer)

Condition	Cause / Remedy
	Warns the driver and/or front passenger to fasten their seat belts Fasten the seat belt. If the front passenger's seat is occupied, the front passenger's seat belt also needs to be fastened to make the warning light (warning buzzer) turn off.

INFORMATION

■ Driver's and front passenger's seat belt warning buzzer

The driver's and front passenger's seat belt warning buzzer sounds to alert the driver and front passenger that his or her seat belt is not fastened. If the seat belt is unfastened, the buzzer sounds intermittently for a certain period of time after the vehicle reaches a certain speed.

■ **Front passenger detection sensor, seat belt reminder and warning buzzer**

- If luggage is placed on the front passenger seat, the front passenger detection sensor may cause the warning light to flash and the warning buzzer to sound 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.

Rear passengers' seat belt reminder light (warning buzzer)

Condition	Cause / Remedy
	Warns the rear passengers to fasten their seat belts Fasten the seat belt.

INFORMATION

■ **Rear passengers' seat belt warning buzzer**

The rear passengers' seat belt warning buzzer sounds to alert the rear passenger that his or her seat belt is not fastened. If the seat belt is unfastened, the buzzer sounds intermittently for a certain period of time after the vehicle reaches a certain speed.

Tire pressure warning light (warning buzzer)

Condition	Cause / Remedy
	When the light comes on after blinking for approximately 1 minute (a buzzer does not sounds): Malfunction in the tire pressure warning system Have the system checked by your Lexus dealer.
	When the light comes on (a buzzer sounds): Low tire inflation pressure from natural causes After the temperature of the tires has lowered sufficiently, check the inflation pressure of each tire and adjust them to the specified level.
	When the light comes on (a buzzer sounds): Low tire inflation pressure from flat tire Immediately stop the vehicle in a safe place and perform the necessary actions

INFORMATION

If the tire pressure warning light comes on

Inspect the tires to check if a tire is punctured.

- If a tire is punctured: →P.575
- If none of the tires are punctured: Turn the engine switch off then turn it to ON. Check if the tire pressure warning light comes on or blinks.
  - If the tire pressure warning light blinks for approximately 1 minute then stays on

    There may be a malfunction in the tire pressure warning system. Have the vehicle inspected by your Lexus dealer immediately.
  - If the tire pressure warning light comes on

    After the temperature of the tires has lowered sufficiently, check the inflation pressure of each tire and adjust them to the specified level.

    If the warning light does not turn off even after several minutes have elapsed, check that the inflation pressure of each tire is at the specified level and perform the tire inflation pressure setting procedure.

    If the warning light does not turn off even after several minutes have elapsed since performing the tire inflation pressure setting procedure, have the vehicle inspected by your Lexus dealer immediately.

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 and tire inflation pressure changes caused by temperature. In this case, adjusting the tire inflation pressure will turn off the warning light (after a few minutes).

⚠ WARNING

If the tire pressure warning light comes on

Be sure to observe the following precautions. Failure to do so could cause a loss of vehicle control and result in death or serious injury.

- Decelerate to the lowest appropriate speed as soon as possible. Do not drive over 80 km/h (50 mph).
- 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. Have the flat tire replaced 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.

⚠ WARNING

■ If a blowout or sudden air leakage should occur

The tire pressure warning system may not activate immediately.

⚠ NOTICE

■ To ensure the tire pressure warning system operates properly

Do not install tires with different specifications or makers, as the tire pressure warning system may not operate properly.

Stop & Start cancel indicator (warning buzzer)

Condition	Cause / Remedy
 (flashes)	The Stop & Start system may be malfunctioning. Have the vehicle checked by your Lexus dealer immediately.

Stop & Start system indicator (warning buzzer)

Condition	Cause / Remedy
 (flashes)	If the driver's door is opened when the engine is stopped by the Stop & Start system and the shift lever is in D, a buzzer will sound and the Stop & Start system indicator will flash. To stop the buzzer, close the driver's door.

Lexus parking assist-sensor OFF indicator (warning buzzer)

Condition	Cause / Remedy
	When a buzzer sounds: Indicates a malfunction in the Lexus parking assist-sensor function Have the vehicle checked by your Lexus dealer immediately.
	When a buzzer does not sound: Indicates that the system is temporarily unavailable, possibly due to a sensor being dirty or covered with ice, etc. Follow the instructions displayed on the multi-information display.

PCS warning light (warning buzzer)

Condition	Cause / Remedy
	Indicates a malfunction in the PCS (Pre-Collision System). Follow the instructions displayed on the display. ● **If the PCS (Pre-Collision System) or VSC (Vehicle Stability Control) system is disabled, the PCS warning light will illuminate.**

LTA indicator (warning buzzer)

Condition	Cause / Remedy
 (Yellow)	Indicates a malfunction in the LTA (Lane Tracing Assist). ● **Follow the instructions displayed on the display.**

LDA indicator (warning buzzer)

Condition	Cause / Remedy
 (Yellow)	Indicates a malfunction in the LDA (Lane Departure Alert). ● **Follow the instructions displayed on the display.**

Dynamic radar cruise control indicator (warning buzzer)

Condition	Cause / Remedy
 (Yellow)	Indicates a malfunction in the dynamic radar cruise control system. ● **Follow the instructions displayed on the display.**

Cruise control indicator (warning buzzer)

Condition	Cause / Remedy
 (Yellow)	Indicates a malfunction in the cruise control system. ● **Follow the instructions displayed on the display.**

Driving assist information indicator

Condition	Cause
	Indicates either of the following systems may be malfunctioning. ● PCS (Pre-Collision System) ● LDA (Lane Departure Alert)
	Indicates one of the following systems is malfunctioning or disabled. ● PKSB (Parking Support Brake)* ● RCD (Rear Camera Detection)* ● BSM (Blind Spot Monitor)* ● RCTA(Rear Cross Traffic Alert)* ● Safe Exit Assist (with door opening control)* ● **Follow the instructions displayed on the multi-information display.**

Slip indicator

Condition	Cause / Remedy
 (illuminates)	Indicates a malfunction in: ● The VSC system; ● The Trailer Sway Control system; ● The TRC system; ● The Trail Mode function; or ● The hill-start assist control system Have the vehicle checked by your Lexus dealer immediately.

*: If equipped

Parking brake indicator

Condition	Cause / Remedy
 (flashes)	It is possible that the parking brake is not fully engaged or released Operate the parking brake switch once again. This light 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.
	Indicates a malfunction in the parking brake system Have the vehicle checked by your Lexus dealer immediately.

Brake hold operated indicator (warning buzzer)

Condition	Cause / Remedy
 (flashes)	Indicates a malfunction in the brake hold system Have the vehicle checked by your Lexus dealer immediately.

If a warning message is displayed

The multi-information display shows warnings for system malfunctions and incorrectly performed operations, and messages that indicate a need for maintenance. When a message is displayed, perform the appropriate corrective action for the message.

If a warning message is displayed again after the appropriate actions have been performed, contact your Lexus dealer.

Additionally, if a warning light comes on or flashes at the same time that a warning message is displayed, take the appropriate corrective action for the warning light.

INFORMATION

Warning messages

The warning messages explained below may differ from the actual messages according to operation conditions and vehicle specifications.

Warning buzzer

In some cases, the buzzer may not be heard due to being in a noisy location or audio sound.

"Engine Oil Level Low Add or Replace"

Cause	Remedy
The engine oil level may be low.	Check the level of the engine oil, and add engine oil if necessary.(→P.491) This message may be displayed if the vehicle is stopped on a slope. Move the vehicle to a level surface and check if the message disappears.

"Engine Stopped Steering Power Low"

Cause	Remedy
This message is displayed if the engine is stopped while driving.	When steering wheel operations are heavier than usual, grip the steering wheel firmly and operate it using more force than usual.

"Auto Power OFF to Conserve Battery"

Cause	Remedy
Power was turned off due to the automatic power off function.	Next time when starting the engine, increase the engine speed slightly and maintain that level for approximately 5 minutes to recharge the battery.

Related Links

Changing the engine switch mode(P. 123)

"12-Volt Battery Charging System Malfunction Stop in a Safe Place See Owner's Manual"

Cause	Remedy
It may indicate a malfunction.	Immediately stop the vehicle and contact your Lexus dealer. Continuing to drive the vehicle may be dangerous.

"Tyre Set Switching Incomplete Retry Tyre Set Registration See Owner's Manual"

Cause	Remedy
The wheel set change could not be completed.	Check which wheel set is installed and perform the change procedure again from the beginning.

Related Links

Selecting wheel set(P. 515)

"Headlight System Malfunction Visit Your Dealer"

Cause	Remedy
The system may be malfunctioning.	Have the vehicle checked by your Lexus dealer.

"AWD System Overheated Switching to 2WD Mode"

Cause	Remedy
AWD system is overheated.	● **Stop the vehicle in a safe place with the engine running.**[*1] If the message disappears after a while, there is no problem. If the message remains, have the vehicle inspected by your Lexus dealer immediately.

"AWD System Overheated 2WD Mode Engaged"

Cause	Remedy
AWD system has been temporarily released and switched to front-wheel drive due to overheating.	● **Stop the vehicle in a safe place with the engine running.**[*1] If the message disappears after a while, AWD system will automatically recover. If the message remains, have the vehicle inspected by your Lexus dealer immediately.

"AWD System Malfunction 2WD Mode Engaged Visit Your Dealer"

Cause	Remedy
A malfunction occurs in the AWD system.	● **Have the vehicle inspected by your Lexus dealer immediately.**

"Engine Coolant Temp High Stop in a Safe Place See Owner's Manual"

Remedy
Take the corrective actions for overheating.

Related Links

If your vehicle overheats(P. 625)

"Smart Entry & Start System Malfunction See Owner's Manual"

Cause	Remedy
It may indicate a malfunction.	Have the vehicle checked by your Lexus dealer immediately.

*1: When stopping the vehicle, do not stop the engine until the display message has turned off.

"Braking Power Low Stop in a Safe Place See Manual"

Cause	Remedy
It may indicate a malfunction.	Immediately stop the vehicle and contact your Lexus dealer. Continuing to drive the vehicle may be dangerous.

"Braking power low Stop in a safe place See owners manual"

Cause	Remedy
It may indicate a malfunction.	Immediately stop the vehicle and contact your Lexus dealer. Continuing to drive the vehicle may be dangerous.

"Oil Pressure Low Stop in a Safe Place See Owner's Manual"

Cause	Remedy
It may indicate a malfunction.	Immediately stop the vehicle and contact your Lexus dealer. Continuing to drive the vehicle may be dangerous.

"High Power Consumption Power to Climate Temporarily Limited"

Cause	Remedy
If this message is displayed frequently, there is a possible malfunction relating to the charging system or the battery may be deteriorating.	Have the vehicle checked by your Lexus dealer immediately.

A message that indicates the need for visiting your Lexus dealer

Cause	Remedy
The system or part shown on the multi-information display is malfunctioning.	Have the vehicle inspected by your Lexus dealer immediately.

"A New Key has been Registered Contact Your Dealer for Details"

Cause	Remedy
This message will be displayed each time the driver's door is opened when the doors are unlocked from the outside for approximately 10 days after a new electronic key has been registered.	If this message is displayed but you have not had a new electronic key registered, ask your Lexus dealer to check if an unknown electronic key (other than those in your possession) has been registered.

"Parking Brake Temporarily Unavailable"

Cause	Remedy
If the parking brake is operated repeatedly over a short period of time, the system may restrict operation to prevent overheating.	If this happens, refrain from operating the parking brake. Normal operation will return after about 1 minute.

"EPB Activation Stopped Incompletely"

Cause	Remedy
Operate the parking brake switch. If the message does not disappear after operating the switch several times, the system may be malfunctioning.	Have the vehicle checked by your Lexus dealer.

"Parking Brake Unavailable"

Cause	Remedy
Operate the parking brake switch. If the message does not disappear after operating the switch several times, the system may be malfunctioning.	Have the vehicle checked by your Lexus dealer.

"Brake Hold Malfunction Press Brake to Deactivate Visit Your Dealer"

Cause	Remedy
The system may be malfunctioning.	Have the vehicle checked by your Lexus dealer immediately.

"Transmission Oil Temp High Stop in a Safe Place and See Owner's Manual"

Cause	Remedy
● Due to high load driving, oil is hot. ● The vehicle may be malfunctioning.	Have the vehicle checked by your Lexus dealer.

"Shift System Malfunction Shifting Unavailable Drive to a Safe Place and Stop"

Cause	Remedy
There is a malfunction in the shift control system.	Have the vehicle checked by your Lexus dealer immediately.

"Shift System Malfunction Driving Unavailable"

Cause	Remedy
There is a malfunction in the shift control system.	Have the vehicle checked by your Lexus dealer immediately.

Messages and warnings: Information

Cause	Remedy
To prevent the shift lever from being operated incorrectly or the vehicle from moving unexpectedly, a message that requires shifting the shift position may be displayed on the multi-information display.	In that case, follow the instruction of the message and shift the shift position.

"Shift System Malfunction Apply Parking Brake Securely When Parking See Owner's Manual"

Cause	Remedy
It may indicate a malfunction.	Have the vehicle checked by your Lexus dealer immediately.

"P Switch Malfunction Apply Parking Brake Securely When Parking See Owner's Manual"

Cause	Remedy
It may indicate a malfunction.	Have the vehicle checked by your Lexus dealer immediately.

"Shift System Unavailable Apply Parking Brake Securely When Parking See Owner's Manual"

Cause	Remedy
It may indicate a malfunction.	Have the vehicle checked by your Lexus dealer immediately.

"Shift System Malfunction See Owner's Manual"

Cause	Remedy
It may indicate a malfunction.	Have the vehicle checked by your Lexus dealer immediately.

"Shift System Malfunction Stop in a Safe Place See Owner's Manual"

Cause	Remedy
It may indicate a malfunction.	Have the vehicle checked by your Lexus dealer immediately.

"Battery Low Shifting Unavailable See Owner's Manual"

Cause	Remedy
It may indicate a malfunction.	Have the vehicle checked by your Lexus dealer immediately.

"Key Battery Low Replace Key Battery"

Cause	Remedy
The electronic key has a low battery.	Replace the electronic key battery.

"System Malfunction Visit Your Dealer"

Cause	Remedy
Indicates one of the following systems is disabled. ● PCS (Pre-Collision System) ● LDA (Lane Departure Alert) ● LTA (Lane Tracing Assist) ● AHB (Automatic High Beam) ● AHS (Adaptive High-beam System) ● Dynamic radar cruise control system ● RSA (Road Sign Assist) ● BSM (Blind Spot Monitor)* ● RCTA (Rear Cross Traffic Alert)* ● Safe Exit Assist* ● Lexus parking assist-sensor* ● PKSB (Parking Support Brake)* ● RCD (Rear camera detection)*	● **Have the vehicle inspected by your Lexus dealer immediately.**

*: If equipped

"System Stopped See Owner's Manual"

Cause	Remedy
Indicates one of the following systems is disabled. Check the displayed icon, and follow the following correction methods. ● PCS (Pre-Collision System) ● LDA (Lane Departure Alert) ● LTA (Lane Tracing Assist) ● AHB (Automatic High Beam) ● AHS (Adaptive High-beam System) ● Dynamic radar cruise control system ● RSA (Road Sign Assist) ● BSM (Blind Spot Monitor)* ● RCTA (Rear Cross Traffic Alert)* ● Safe Exit Assist* ● Lexus parking assist-sensor* ● PKSB (Parking Support Brake)* ● RCD (Rear camera detection)*	● Check the voltage of the battery ● Check the sensors that the Lexus Safety System + uses for foreign matter covering them. Remove them if any. (→P.313) ● Check if the back door is open.

*: If equipped

Cause	Remedy
Check the situations in which the sensors may not operate properly, and improve the situation if applicable.→P.315,369,375,381,413,417,401	● Check the sensors including camera sensors for foreign matter covering them. Remove them if any. →P.378,422 ● Check if there is any foreign matter attached to the rear bumper near the radar sensor and remove it if there is. ● When problems are solved and the sensors are operational, this indication may disappear by itself.

"System Stopped Front Camera Low Visibility See Owner's Manual"

Cause	Remedy
Indicates one of the following systems is disabled. ● PCS (Pre-Collision System) ● LDA (Lane Departure Alert) ● LTA (Lane Tracing Assist) ● AHB (Automatic High Beam) ● AHS(Adaptive High-beam System) ● Dynamic radar cruise control system ● RSA (Road Sign Assist)	● Follow the following correction methods. ● Using the windshield wipers, remove the dirt or foreign matter from the windshield. ● Using the air conditioning system, defog the windshield. ● Close the hood, remove any stickers, etc. to clear the obstruction in front of the front camera.

"System Stopped Front Camera Out of Temp. Range Wait until Normal Temperature"

Cause	Remedy
Indicates one of the following systems is disabled. ● PCS (Pre-Collision System) ● LDA (Lane Departure Alert) ● LTA (Lane Tracing Assist) ● AHB (Automatic High Beam) ● AHS (Adaptive High-beam System) ● Dynamic radar cruise control system ● RSA (Road Sign Assist)	● **Follow the following correction methods.** ● If the front camera is hot, such as after the vehicle is parked in the sun, use the air conditioning system to decrease the temperature around the front camera ● If a sunshade was used when the vehicle was parked, depending on its type, the sunlight reflected from the surface of the sunshade may cause the temperature of the front camera to become excessively high ● If the front camera is cold, such after the vehicle is parked in an extremely cold environment, use the air conditioning system to increase the temperature around the front camera

"System Stopped Front Radar Sensor Blocked Clean Radar Sensor"

Cause	Remedy
Indicates one of the following systems is disabled. ● PCS (Pre-Collision System) ● LTA (Lane Tracing Assist) ● Dynamic radar cruise control system	● **Follow the following correction methods.** ● Check if there is any foreign matter attached to the radar sensor or radar sensor cover and clean them if necessary.→P.313 ● This message may be displayed when driving in an open area with few nearby vehicles or structures, such as a desert, grasslands, suburbs, etc. The message may be cleared by driving the vehicle in an area with structures, vehicles, etc. nearby.

"System Stopped Front Radar Sensor Out of Temp. Range Wait until Normal Temperature"

Cause	Remedy
Indicates one of the following systems is disabled. ● PCS (Pre-Collision System) ● LTA (Lane Tracing Assist) ● Dynamic radar cruise control system	● The temperature of the radar sensor is outside of the operating range. Wait for the temperature to become appropriate.

"System Stopped Front Radar In Self Calibration See Owner's Manual"

Cause	Remedy
Indicates one of the following systems is disabled. ● PCS (Pre-Collision System) ● LTA (Lane Tracing Assist) ● Dynamic radar cruise control system	● Follow the following correction methods. ● Check if there is any foreign matter attached to the radar sensor or radar sensor cover and clean them if necessary.→P.313 ● The radar sensor may be misaligned and will be adjusted automatically while driving. Continue driving for a while.

"Cruise Control Unavailable See Owner's Manual"

Cause	Remedy
Indicates one of the following systems is disabled. ● Dynamic radar cruise control ● Cruise control A message is displayed when the driving assist switch is pushed repeatedly.	● Press the driving assist switch quickly and firmly.

"Parking Assist Unavailable Low Visibility See Owner's Manual"

Cause	Remedy
Indicates one of the following systems is disabled. ●  RCD (Rear camera detection)* ●  PKSB (Parking Support Brake)*	● **Remove any dirt or foreign matter from the rear cameras.**

"Parking Assist Unavailable Sensor Blocked"

Cause	Remedy
A sensor may be covered with water drops, ice, snow, dirt, etc.	● **Remove the water drops, ice, snow, dirt, etc., from the sensor to return the system to normal.** If a sensor is dirty, the position of the dirty sensor will be shown on the display.
Due to ice forming on a sensor at low temperatures, a warning message may be displayed or the sensor may not be able to detect an object.	● **Once the ice melts, the system will return to normal.**
If a warning message is displayed even if the sensor is clean, there may be a sensor malfunction.	● **Have the vehicle inspected by your Lexus dealer.**

"System Stopped Check Side Mirror Status Reopen Side Mirrors"

Cause	Remedy
PKSB is temporarily unavailable because the outside rear view mirrors are folded.	● **Extend the outside rear view mirrors. If the battery was discharged or has been removed and installed, fold and extend the outside rear view mirrors.**

*: If equipped

"Accelerator and Brake Pedals Pressed Simultaneously"

Cause	Remedy
The accelerator and brake pedal are being depressed simultaneously.	Release the accelerator pedal and depress the brake pedal.

What to do when the engine will not start

When the engine will not start even though the starter operates

Cause	Remedy
There may not be sufficient fuel in the vehicle's tank.	Refuel the vehicle.
The engine may be flooded.	Try to restart the engine again following correct starting procedures.
There may be a malfunction in the engine immobilizer system.	● If the key is touching or is covered by a metallic object, move the key away from the object. ● If the key is near to or touching a key to the security system (key with a built-in transponder chip) of another vehicle, move the key away from the other key.

Related Links

Refueling(P. 163)

Starting the engine(P. 122)

If a warning message is displayed(P. 550)

When a malfunction of the shift control system is suspected

If any of the following situations occurs, shift control system malfunctions are possible.

Immediately stop the vehicle in a safe place on level ground, apply the parking brake, and then contact your Lexus dealer.

- When the warning message indicating the shift control system appears on the multi-information display.
- The display indicates that no shift position is selected for more than a few seconds.

When the starter operates slowly and the engine cannot be started

Cause	Remedy
The battery may be discharged.	Restarting the engine using jumper (or booster) cables.
A battery terminal may be loose or corroded.	Check if a battery terminal is loose or corroded.

Related Links

If the vehicle battery is discharged(P. 567)
Restarting the engine when the battery is discharged(P. 589)

When the starter does not operate and the engine cannot be started

Cause	Remedy
The engine starting system may be malfunctioning due to an electrical problem such as electronic key battery depletion or a blown fuse.	A temporary measure is available to start the engine.
One or both of the battery terminals may be disconnected.	Check if a battery terminal is disconnected.
The battery may be discharged.	Restarting the engine using jumper (or booster) cables.

Related Links

Starting the engine in an emergency(P. 565)
Starting the engine when the electronic key is not operating normally (P. 566)
If the vehicle battery is discharged(P. 567)
Restarting the engine when the battery is discharged(P. 589)

Starting the engine in an emergency

When the engine cannot be started, the following steps can be used as an temporary measure to start the engine if the engine switch is functioning normally.

Do not use this starting procedure except in cases of emergency.

1 **Pull the parking brake switch to check that the parking brake is set.**

Parking brake indicator will come on.

2 **Check that the shift position is in P.**

3 **Turn the engine switch to ACC**[*1*2]

4 **Press and hold the engine switch for about 15 seconds while depressing the brake pedal firmly.**

Even if the engine can be started using the above steps, the system may be malfunctioning.

Have the vehicle checked by your Lexus dealer immediately.

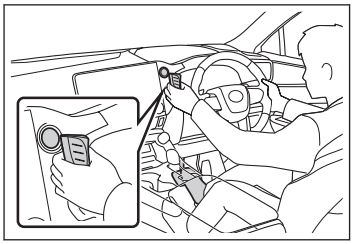
Starting the engine when the electronic key is not operating normally

1 **Ensure that the shift position is in P and depress the brake pedal.**

2 **Touch the Lexus emblem side of the electronic key to the engine switch.**

When the electronic key is detected, a buzzer will sound and the engine switch will change to ON.

If the smart entry & start system has been disabled by a customization setting, the engine switch will change to ACC.



3 **Firmly depress the brake pedal and check that a message is shown on the multi-information display.**

4 **Press the engine switch.**

In the event that the engine still cannot be started, contact your Lexus dealer.

INFORMATION

Stopping the engine

Shift the shift position to P, set the parking brake and press the engine switch as you normally do when stopping the engine.

*1: ACC mode can be enabled/disabled on a customize setting.

*2: When ACC is disabled, turn the engine switch to ON then OFF, and perform the following steps within 5 seconds.

■ **Electronic key battery**

As the above procedure is a temporary measure, it is recommended that the electronic key battery be replaced immediately when the battery is depleted.

■ **Changing engine switch modes**

Release the brake pedal and press the engine switch in step 4 above. The engine will not start and the mode will be changed each time the switch is pressed.

Related Links

Replace the electronic key battery(P. 593)

When the interior lights or headlights are dim and the engine cannot be started

Cause	Remedy
The battery may be discharged.	Restarting the engine using the jumper (or booster) cables.
The battery terminals may be loose or corroded.	Check if a battery terminal is loose or corroded.

Related Links

Restarting the engine when the battery is discharged(P. 589)
If the vehicle battery is discharged(P. 567)
Key types(P. 42)
Opening/closing the doors(P. 51)
Using the mechanical key(P. 596)
If a door cannot be opened using the door opener switch(P. 599)
When removing the battery terminals(P. 571)
Items to initialize(P. 667)

If the vehicle battery is discharged

⚠ WARNING

■ **When replacing the battery**

- When the vent plug and indicator are close to the hold down clamp, the battery fluid (sulfuric acid) may leak.

⚠ WARNING

- For information regarding battery replacement, contact your Lexus dealer.

If the battery discharges, it may not be possible to shift the shift position to other positions.

INFORMATION

When the battery is removed or discharged

- In some cases, it may not be possible to unlock the doors using the smart entry & start system after the battery has been replaced.

  Use the wireless remote control or the mechanical key to lock or unlock the doors.
- If the engine cannot be started the first time the engine switch is pressed after removing and installing the battery, touch the Lexus emblem side of the electronic key to the engine switch to start the engine.
- The engine switch mode is memorized by the vehicle.

  After the battery has been recharged or replaced, the engine switch will return to the mode it was in before it was discharged or removed.

  Before disconnecting the battery, turn the engine switch off.

  If you are unsure what mode the engine switch was in before the battery was discharged, be especially careful when reconnecting the battery.
- Some systems may require initialization.
- The Stop & Start system may not automatically stop the engine for up to an hour.

To prevent battery discharge

- Turn off the headlights and the audio system while the engine is 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.

If the vehicle battery is discharged

- The doors cannot be locked or unlocked using the smart entry & start system or wireless remote control, and the door opener switches will not operate. Use the mechanical key to enable/disable manual release handle operation. By enabling manual release handle operation, the door can be opened.
- Information recorded by various computers will be cleared.

  If the battery has become discharged, have the vehicle inspected by your Lexus dealer.
- Some systems may require initialization.

Charging the battery

The electricity stored in the battery will discharge gradually even when the vehicle is not in use, due to natural discharge and the draining effects of certain electrical appliances.

If the vehicle is left for a long time, the battery may discharge, and the engine may be unable to start.

(The battery recharges automatically during driving.)

When replacing the battery

- Use a genuine battery specifically designed for use with the Stop & Start system or a battery with equivalent specifications to a genuine battery. If an unsupported battery is used, Stop & Start system functions may be restricted to protect the battery. Also, battery performance may decrease and the engine may not be able to restart. Contact your Lexus dealer for details.
- Use a battery that the case size is same as the previous one (LN3), 20 hour rate capacity (20HR) is equivalent (65Ah) or greater, and performance rating (CCA) is equivalent (603A) or greater.
  - If the sizes differ, the battery cannot be properly secured.
  - If the 20 hour rate capacity of the replacement battery is low, even if the vehicle is used frequently, the battery may discharge and engine may not be able to start.

Contact your Lexus dealer for details.

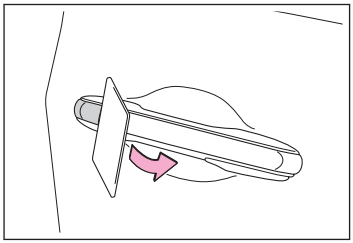
When the doors cannot be locked from outside the vehicle after the battery was discharged

The doors cannot be locked using the smart entry & start system or wireless remote control.

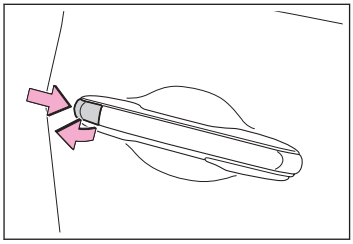
Disabling the operation of the driver's door

1 **Insert a plastic card, etc. into the gap in the door handle to pry up the cover.**

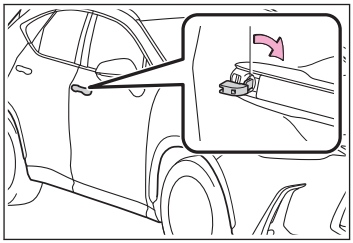
To avoid damage, do not apply excessive force to the cover.



2 Remove the cover by pressing it on the rear.



3 Using the mechanical key, turn the door lock to the lock side to disable the door.

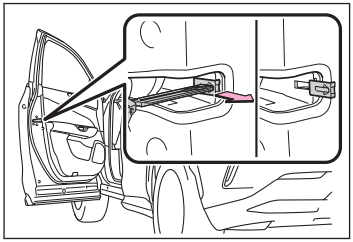


4 Check that the door cannot be opened.

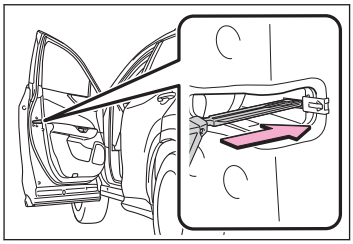
Disabling the operation of doors other than the driver's door

1 Open the door. Using the mechanical key, slide the cover as shown in the illustration.

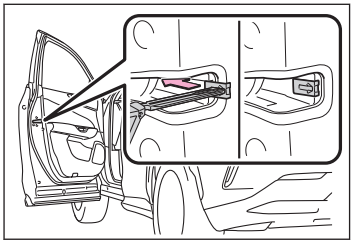
To avoid damage, do not apply excessive force to the cover.



2 Insert the mechanical key into the opening.



3 Remove the mechanical key and slide the emergency lock cover back to its original position.



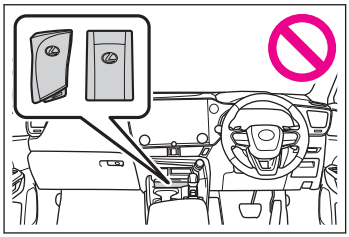
4 Check that all of the doors cannot be opened.

When removing the battery terminals

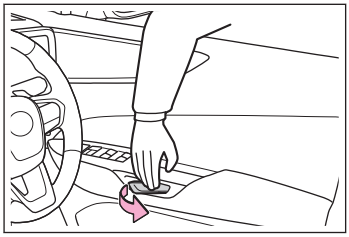
When disconnecting a battery terminal, contact your Lexus dealer.

If a battery terminal is disconnected, the doors will not be able to be opened using the door opener switches and the electronic key may become trapped in the vehicle.

To prevent the electronic key (mechanical key) from being locked inside the vehicle, make sure to remove it from the vehicle before disconnecting a battery terminal.



If the electronic key (mechanical key) is to be left in the vehicle, make sure to open a window so an inside manual release handle can be operated.



⚠ WARNING

When removing the battery terminals

Always remove the negative (-) terminal first. If the positive (+) terminal contacts any metal in the surrounding area when the positive (+) terminal is removed, a spark may occur, leading to a fire in addition to electrical shocks and death or serious injury.

Avoiding battery fires or explosions

Observe the following precautions to prevent accidentally igniting the flammable gas that may be emitted from the battery:

Do not smoke, use matches, cigarette lighters or allow open flame near the battery.

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.
- In the event that 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.

INFORMATION

If a battery terminal has been disconnected

- If a battery terminal has been disconnected, the doors cannot be locked or unlocked using the smart entry & start system or wireless remote control, and the door opener switches will not operate.

  Make sure to remove the electronic key (mechanical key) from the vehicle before disconnecting a battery terminal.

  If the electronic key (mechanical key) is to be left in the vehicle, open a window so an inside manual release handle can be operated.
- The doors may not be able to be unlocked using the smart entry & start system immediately after a battery terminal is disconnected and reconnected.

If the doors cannot be unlocked, use the wireless remote control or mechanical key to lock and unlock the doors.

- When a battery terminal is disconnected, information recorded by various computers will be cleared.
- Some systems may require initialization.

When the interior lights or headlights do not illuminate and the engine cannot be started

Cause	Remedy
The battery may be discharged.	Restarting the engine using the jumper (or booster) cables. Contact your Lexus dealer if the problem cannot be repaired, or if repair procedures are unknown.
One or both of the battery terminals may be disconnected.	Check if a battery terminal is disconnected. Contact your Lexus dealer if the problem cannot be repaired, or if repair procedures are unknown.

Related Links

Restarting the engine when the battery is discharged(P. 589)
If the vehicle battery is discharged(P. 567)
Key types(P. 42)
Locking/unlocking the doors(P. 54)
Opening/closing the doors(P. 51)
Using the mechanical key(P. 596)
If a door cannot be opened using the door opener switch(P. 599)
When removing the battery terminals(P. 571)
Items to initialize(P. 667)

When the horn sounds at a low volume and the engine cannot be started

Cause	Remedy
The battery may be discharged.	Restarting the engine using the jumper (or booster) cables.

Cause	Remedy
The battery terminal connections may be loose or corroded.	The battery terminals may be loose or corroded.

Related Links

Restarting the engine when the battery is discharged(P. 589)

If the vehicle battery is discharged(P. 567)

When the horn does not sound and the engine cannot be started

Cause	Remedy
The battery may be discharged.	Restarting the engine using the jumper (or booster) cables. Contact your Lexus dealer if the problem cannot be repaired, or if repair procedures are unknown.
One or both of the battery terminals may be disconnected.	Check if a battery terminal is loose. Contact your Lexus dealer if the problem cannot be repaired, or if repair procedures are unknown.

Related Links

If the vehicle battery is discharged(P. 567)

Restarting the engine when the battery is discharged(P. 589)

Repairing a tire with the emergency tire puncture repair kit (vehicles with an emergency tire puncture repair kit)

Your vehicle is not equipped with a spare tire, but instead is equipped with an emergency tire puncture repair kit.

A puncture caused by a nail or screw passing through the tire tread can be repaired temporarily with the emergency tire puncture repair kit. (The kit contains a bottle of sealant. The sealant can be used only once to temporarily repair one tire without removing the nail or screw from the tire.)

After temporarily repairing the tire with the kit, have the tire repaired or replaced by your Lexus dealer.

⚠ WARNING

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.

Driving with a flat tire may cause a circumferential groove on the side wall. In such a case, the tire may explode when using the emergency tire puncture repair kit, resulting in death or serious injury.

INFORMATION

■ A flat tire that cannot be repaired with the emergency tire puncture repair kit

In the following cases, the tire cannot be repaired with the emergency tire puncture repair kit.

Contact your Lexus dealer.

- When the tire is damaged due to driving without sufficient air pressure
- When the tire lost air pressure due to a crack or damage in the tire sidewall
- When the tire is visibly separated from the wheel
- When the cut or damage to the tread is 4 mm (0.16 in.) long or more
- When the wheel is damaged
- When two or more tires have been punctured
- When there is more than one hole or cut in the damaged tire
- When the sealant has expired

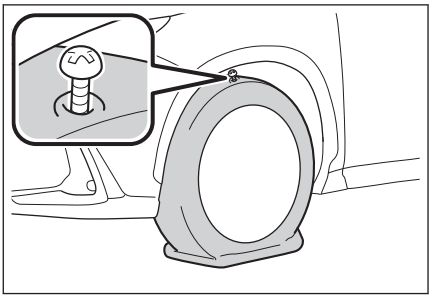
Preparing to use the emergency tire puncture repair kit

Before using the emergency tire puncture repair kit, perform the following.

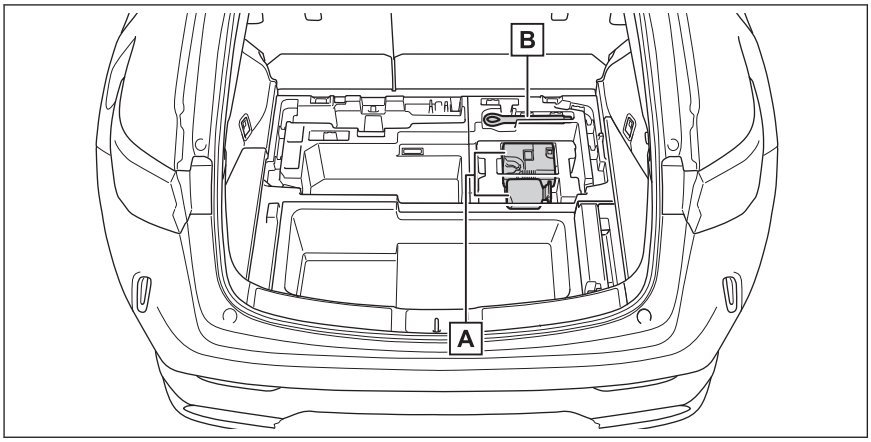
- **Stop the vehicle in a safe place on a hard, flat surface.**
- **Set the parking brake.**
- **Change the shift position to P.**
- **Stop the engine.**
- **Turn on the emergency flashers.**
- **Check the degree of the tire damage.**

  A tire should only be repaired with the emergency tire puncture repair kit if the damage is caused by a nail or screw passing through the tire tread.

  - Do not remove the nail or screw from the tire. Removing the object may widen the opening and disenable emergency repair with the kit.
  - To avoid sealant leakage, move the vehicle until the area of the puncture, if known, is positioned at the top of the tire.



Storage position of the emergency tire puncture repair kit and tool



A Emergency tire puncture repair kit

B Towing eyelet

Emergency tire puncture repair kit details/name of each part

⚠ WARNING

■ Precautions for handling the emergency tire puncture repair kit

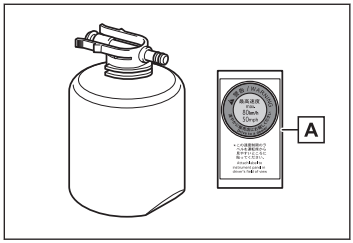
- The emergency tire puncture repair kit is made exclusively for your vehicle. Do not use it on other vehicles.
- Do not use the emergency tire puncture repair kit for tires that are a different size than the specified ones or for any other purpose.

  Doing so may cause the tires to not be repaired properly.

■ Precautions for use of the sealant

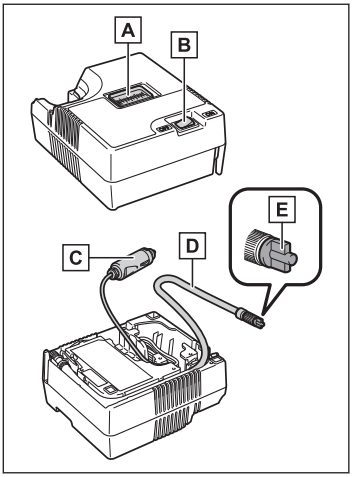
- Ingesting the sealant is hazardous to your health. If you ingest sealant, consume as much water as possible, then immediately consult a doctor.
- If sealant gets in eyes or adheres to skin, immediately wash it off with water. If discomfort persists, consult a doctor.

▶ Bottle



A Sticker

▶ Compressor



A Air pressure gauge
B Compressor switch
C Power plug
D Hose
E Air release cap

INFORMATION

■ Handling the emergency tire puncture repair kit/sealant

- The emergency tire puncture repair kit is designed to inflate vehicle tires.
- Do not use to check or to adjust the tire pressure.
- The kit is exclusively designed for size and type of tires originally installed on your vehicle. Do not use it for tires that a different size than the original ones, or for any other purposes.
- The sealant stored in the emergency tire puncture repair kit can be used only once to temporarily repair a single tire.

  If the sealant in the bottle and other parts of the kit have been used and need to be replaced, contact your Lexus dealer.
- The sealant can be used when the outside temperature is from -30°C (-22°F) to 60°C (140°F).
- If the sealant gets on your clothes, it may stain.
- If the sealant adheres to a wheel or the surface of the vehicle body, the stain may not be removable if it is not cleaned at once. Immediately wipe away the sealant with a wet cloth.
- The compressor can be used repeatedly.
- During operation of the kit, a loud operation noise is produced. This does not indicate a malfunction.

Checking the sealant

The sealant has a limited lifespan. Check the sealant expiration date occasionally.

The expiration date is printed on the bottle.

The sealant should be replaced before the expiry date. Contact your Lexus dealer.

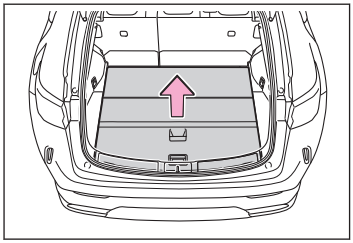
Do not use sealant whose expiry date has already passed. Otherwise, repairs conducted using the emergency tire puncture repair kit may not be performed properly.

When disposing of the liquid sealant

The liquid sealant contains materials which are harmful to the environment. When disposing of liquid sealant or a liquid sealant bottle, contact your Lexus dealer or contact your local government for information on the appropriate authorized waste disposal method.

Taking out the emergency tire puncture repair kit

1 Remove the deck board.



2 Take out the emergency tire puncture repair kit.

Repairing a flat tire

⚠ WARNING

Observe the following when repairing a flat tire.

- Stop your vehicle in a safe and flat area.
- Do not touch the wheels or the area around the brakes immediately after the vehicle has been driven.

  After the vehicle has been driven, the wheels and the area around the brakes may be extremely hot. Touching these areas with hands, feet or other body parts may result in burns.
- Perform repairs according to the specified procedure.

  If the procedure is not followed, the tire sealant may spray.

⚠ NOTICE

■ Precautions for repairing a flat tire

- Perform the emergency repair without removing the nail or screw that has punctured the tread of the tire. If the object that has punctured the tire is removed, repair by the emergency tire puncture repair kit may not be possible.
- The kit is not waterproof. Make sure that the kit is not exposed to water, such as when it is being used in the rain.
- Do not put the kit directly onto dusty ground such as sand at the side of the road. If the kit vacuums up dust, etc., a malfunction may occur.
- Make sure to stand the kit with the bottle vertical. The kit cannot work properly if it is laid on its side.

■ Handling the emergency tire puncture repair kit

- The compressor power source should be 12 V DC suitable for vehicle use. Do not connect the compressor to any other source.
- Take care not to allow gasoline to contact the emergency tire puncture repair kit. If gasoline splatters on the kit, it may deteriorate.
- Place the repair kit in a storage to prevent it from being exposed to dirt or water.
- Store the kit in its assigned place out of reach of children.
- Do not disassemble or modify the kit. Do not subject parts such as the air pressure indicator to impacts. This may cause a malfunction.

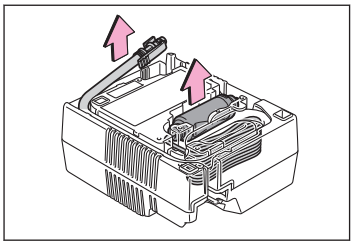
■ To avoid damage to the tire pressure warning valves and transmitters

When a tire is repaired with liquid sealants, the tire pressure warning valve and transmitter may not operate properly. If a liquid sealant is used, contact your Lexus dealer as soon as possible. After use of liquid sealant, make sure to replace the tire pressure warning valve and transmitter when repairing or replacing the tire.

1 **Take out the emergency tire puncture repair kit.**

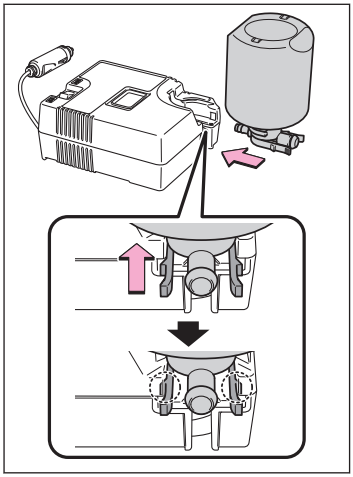
The sticker enclosed with the bottle will be attached at a specified location. (See step 10.)

2 **Pull out the hose and power plug from the compressor.**



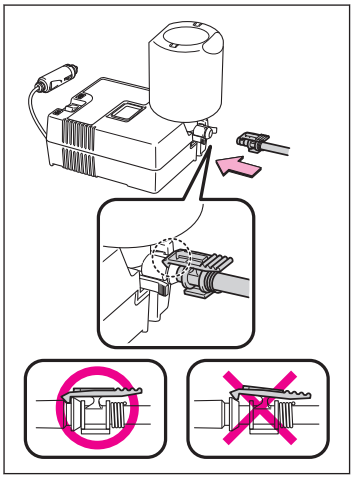
3 **Connect the bottle to the compressor.**

Insert the bottle straight into the compressor to connect it, and make sure that the claws are securely engaged to the compressor as shown in the illustration.

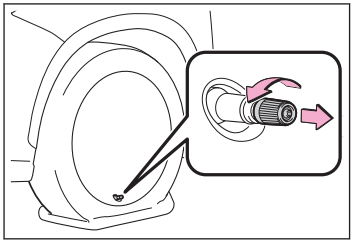


4 **Connect the hose to the bottle.**

Make sure that the hose is securely connected to the bottle, as shown in the illustration.

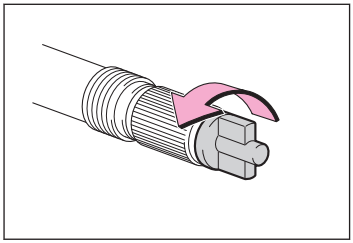


5 **Remove the valve cap from the valve of the flat tire.**



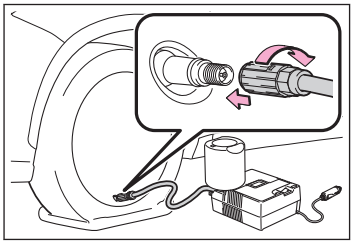
6 **Extend the hose. Remove the air release cap from the hose.**

The air release cap may be used later. Therefore keep it in a safe place.



7 **Connect the hose to the valve of the flat tire.**

Screw the end of hose clockwise as far as possible.

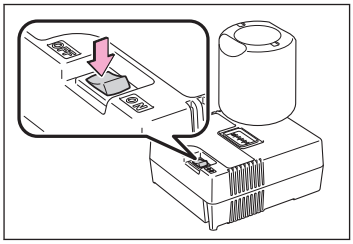


⚠ WARNING

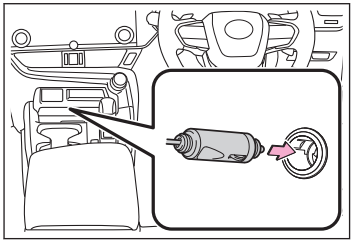
Check the following.

- Make sure that the valve and hose are securely connected, with the tire installed on the vehicle.
- If the hose is not properly connected to the valve, air leakage may occur or sealant may be sprayed out.
- If the hose comes off the valve while inflating the tire, there is a risk that the hose will move abruptly due to air pressure.

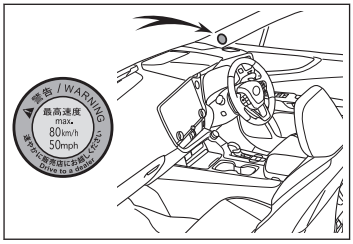
8 **Make sure that the compressor switch is off.**



9 **Connect the power plug to the power outlet socket.**



10 **Attach the sticker provided with the tire puncture repair kit to a position easily seen from the driver's seat.**

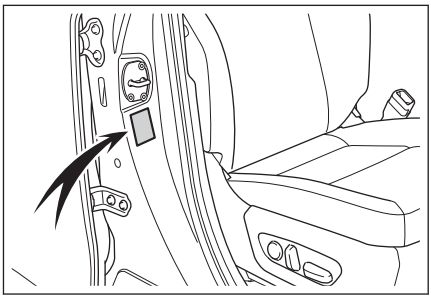


⚠ WARNING

Do not attach the vehicle speed warning sticker to an area other than the one indicated. If the sticker is attached to an area where an SRS airbag is located, such as the pad of the steering wheel, it may prevent the SRS airbag from operating properly.

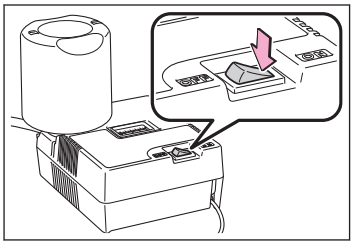
11 **Check the specified tire inflation pressure.**

Tire inflation pressure is specified on the label as shown.



12 **Start the engine.**

13 **To inject the sealant and inflate the tire, turn the compressor switch on.**



⚠ WARNING

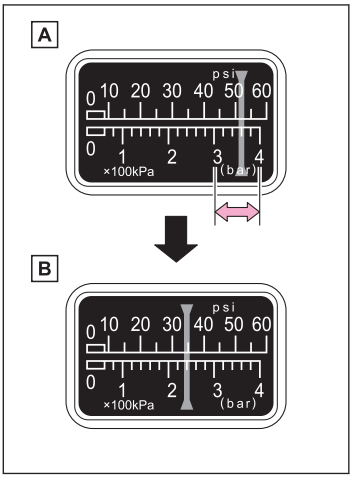
Observe the following precautions.

- Keep back from the tire while it is being repaired, as there is a chance of it bursting while the repair operation is being performed. If you notice any cracks or deformation in the tire, turn off the compressor switch and stop the repair operation immediately.

⚠ WARNING

- Do not operate the compressor continuously for more than 40 minutes. The kit may overheat if operated for a long period of time.
- Parts of the emergency tire puncture repair kit become hot during operation. Be careful when handling it during and after operation.
- Do not touch the metal connecting parts of the bottle and compressor while being used or immediately after, as they will be extremely hot.

14 **Inflate the tire until the specified pressure is reached.**



A The sealant will be injected and the pressure will spike to between 300 kPa (3.0 kgf/cm^2 or bar, 44 psi) and 400 kPa (4.0 kgf/cm^2 or bar, 58 psi), then gradually decrease.

B The air pressure gauge will display the actual tire inflation pressure about 1 to 5 minutes after the switch is turned on.

- Turn the compressor switch off and then check the tire inflation pressure. Being careful not to over inflate, check and repeat the inflation procedure until the specified tire inflation pressure is reached.
- The tire can be inflated for about 5 to 20 minutes (depending on the outside temperature). If the tire inflation pressure is still lower than the specified point after inflation for 25 minutes, the tire is too damaged to be repaired. Turn the compressor switch off and contact your Lexus dealer.
  If the tire inflation pressure exceeds the specified level, let out some air to adjust the tire inflation pressure.(→P.586)

15 **Make sure that the compressor switch is off and then disconnect the power plug from the power outlet and the hose from the valve of the tire.**

Some sealant may leak when the hose is removed.

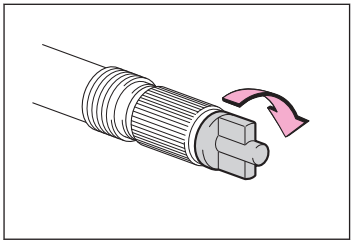
⚠ WARNING

After inflation of the tire has completed, the sealant may splatter when the hose is disconnected or some air is let out of the tire.

16 **Install the valve cap onto the valve of the emergency repaired tire.**

17 **Attach the air release cap to the end of the hose.**

If the air release cap is not attached, the sealant may leak and dirty the interior of the vehicle or ones clothes.



18 **Temporarily store the bottle in the luggage compartment while it is connected to the compressor.**

19 **To spread the liquid sealant evenly within the tire, immediately drive safety for about 5 km (3 miles) below 80 km/h (50 mph).**

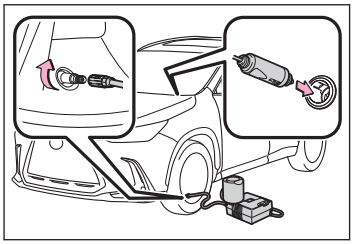
⚠ WARNING

Observe the following precautions when driving to spread the sealant evenly.

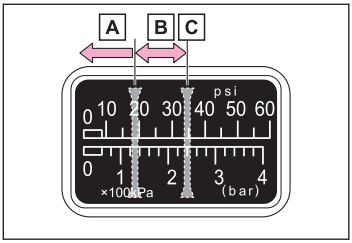
- Drive the vehicle carefully at a low speed. Be especially careful when turning and cornering.
- If the vehicle does not drive straight or you feel a pull through the steering wheel, stop the vehicle and check the following:
  - Tire condition. The tire may have separated from the wheel.
  - Tire inflation pressure. If the tire inflation pressure is 130 kPa (1.3 kgf/cm^2 or bar, 19 psi) or below, this may indicate severe tire damage.

20 **After driving, stop your vehicle in a safe place on a hard, flat surface and reconnect the emergency tire puncture repair kit.**

Remove the air release cap from the hose before reconnecting the hose.



21 **Turn the compressor switch on and wait for several seconds, then turn it off. Check the tire inflation pressure.**



A If the tire inflation pressure is below 130 kPa (1.3 kgf/cm^2 or bar, 19 psi): The puncture cannot be repaired. Contact your Lexus dealer.

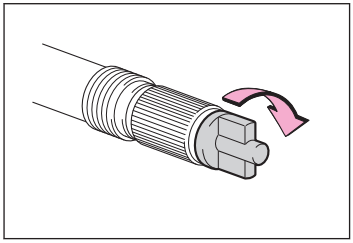
B If the tire inflation pressure is between 130 kPa (1.3 kgf/cm^2 or bar, 19 psi) and a point below the specified level: The tire can be repaired. Proceed to step 22.

C If the tire inflation pressure is at the specified level: Proceed to step 23.
Even if the tire inflation pressure is at the recommended level, the tire pressure warning light may come on/flash.

22 **Turn the compressor switch on to inflate the tire until the specified tire inflation pressure is reached. Drive for about 5 km (3 miles) and then perform step 20.**

23 **Attach the air release cap to the end of the hose.**

If the air release cap is not attached, the sealant may leak and dirty the interior of the vehicle or ones clothes.



24 **Store the bottle in the luggage compartment while it is connected to the compressor.**

25 **Taking precautions to avoid sudden braking, sudden acceleration and sharp turns, drive carefully at under 80 km/h (50 mph) to your Lexus dealer that is less than 100 km (62 miles) away for tire repair or replacement.**

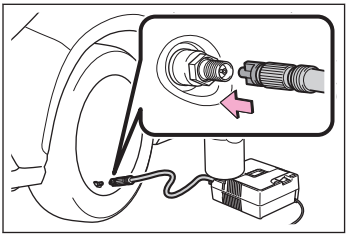
When having the tire repaired or replaced, make sure to tell the Lexus dealer that the sealant is injected.

After using the emergency tire puncture repair kit, have the vehicle inspected and the tire pressure warning valve and transmitter replaced by your Lexus dealer. Otherwise the tire inflation pressure may not be able to be measured correctly.

Decreasing the tire inflation pressure when a tire is overinflated

1 **Disconnect the hose from the valve.**

2 Install the air release cap to the end of the hose and push the protrusion on the air release cap into the valve to let some air out.



3 Disconnect the hose from the valve, remove the air release cap from the hose and then reconnect the hose.

4 Turn the compressor switch on for a few seconds and then turn it off and check the tire inflation pressure.

If the air pressure is lower than the specified level, turn the compressor switch on again and repeat the inflation procedure until the specified pressure is reached.

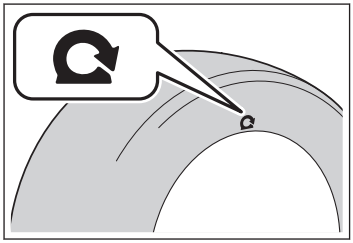
Precautions for when you have a flat tire

Your vehicle is not equipped with a spare tire, but instead you can continue driving the vehicle with run-flat tires even if any tire goes flat. In this case, slow down and drive with extra caution.

Take your vehicle to the nearest Lexus dealer or authorized tire dealer as soon as possible if any tire goes flat.

The vehicle can be driven for a maximum of 80 km (50 miles) at a speed below 80 km/h (50 mph) after the tire pressure warning light comes on.

A run-flat tire has a mark on the side wall.



INFORMATION

In some conditions (such as at high temperatures)

You cannot continue driving for up to 80 km (50 miles).

NOTICE

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.

When driving over bumps

If a vehicle has a flat tire, the vehicle height will be lower than usual. Ensure that nothing strikes the bottom of the vehicle.

To avoid damage to the tire pressure warning valves and transmitters

When a tire is repaired with liquid sealants, the tire pressure warning valve and transmitter may not operate properly. If a liquid sealant is used, contact your Lexus dealer or other qualified service shop as soon as possible. Make sure to replace the tire pressure warning valve and transmitter when replacing the tire.

Restarting the engine when the battery is discharged

If you have a set of jumper (or booster) cables and a second vehicle with a battery, you can jump start your vehicle by following the steps below.

INFORMATION

The engine cannot be started by push-starting.

WARNING

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 each jumper cable is connected to the correct terminal and that it is not unintentionally in contact with any other than the intended terminal.
- Do not allow the + and - clamps of the jumper cables to come into contact with each other.
- Do not allow the other end of the jumper cable connected to the "+" terminal to come into contact with any other parts or metal surfaces in the area, such as brackets or unpainted metal.
- Do not smoke, use matches, cigarette lighters or allow open flame near the battery.

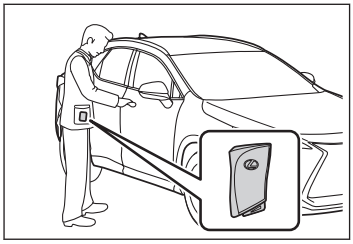
Battery precautions

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.
- In the event that 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.

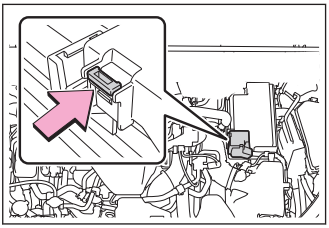
1 **Confirm that the electronic key is being carried.**

When connecting the jumper (or booster) cables, depending on the situation, the alarm may activate and the doors may lock.



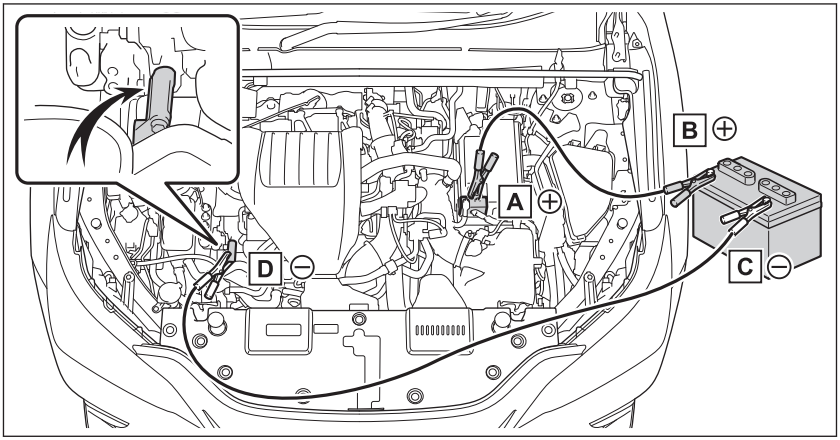
2 **Open the hood.**

3 **Remove the positive (+) battery terminal cover.**



4 **Connect a positive jumper cable clamp to A on your vehicle and connect the clamp on the other end of the positive cable to B on the second vehicle. Then, connect a negative cable clamp to C on the second vehicle and connect the clamp at the other end of the negative cable to D.**

Use jumper cables that can reach the specified terminals and connecting point.



A Exclusive jump starting terminal (your vehicle)
B Positive (+) battery terminal (second vehicle)
C Negative (-) battery terminal (second vehicle)
D Metallic point shown in the illustration

⚠ NOTICE

■ When handling jumper cables

When connecting the jumper cables, ensure that they do not become entangled in the cooling fan or belt.

■ When connecting jumper cables

Make sure to connect jumper cables to the specified terminals and connecting point. Failure to do so may adversely affect the electronic devices or damage to them.

5 **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.**

6 **Open and close any of the doors of your vehicle with the engine switch off.**

7 **Maintain the engine speed of the second vehicle and start the engine of your vehicle by turning the engine switch to ON.**

8 **Once the vehicle's engine has started, remove the jumper cables in the exact reverse order from which they were connected.**

Once the engine starts, have the vehicle inspected at your Lexus dealer as soon as possible.

If a key has been lost

New genuine mechanical keys can be made by your Lexus dealer using another mechanical key and the key number stamped on your key number plate.

Keep the plate in a safe place such as your wallet, not in the vehicle.

⚠ NOTICE

If the electronic key remains lost, the risk of vehicle theft increases significantly. Visit your Lexus dealer immediately with all remaining electronic keys and the card key* that were provided with your vehicle.

*: If equipped

When the doors/windows/moon roof cannot be operated using an electronic key

If communication between the electronic key and vehicle is interrupted or the electronic key cannot be used because the battery is depleted, the smart entry & start system and wireless remote control cannot be used.

The smart entry & start system may have been disabled by a customize setting.

In this case, change the customize setting to enable the smart entry & start system.

⚠ NOTICE

When taking the vehicle to your Lexus dealer due to a malfunction of the smart entry & start system, make sure to bring all registered electronic keys (including the card key).

The electronic key may have been set to battery saving mode.

battery saving mode has been set, cancel it.

The battery of the electronic key may be discharged.

- **Replace the battery.**
- **Using the mechanical key.**

The battery may be discharged.

Restarting the engine using the jumper (or booster) cables.

Replace the electronic key battery

Replace the battery with a new one if it is depleted.

The battery for the card key is available only at Lexus dealers. Your Lexus dealer can replace the battery for you.

Prepare the following before replacing the battery:

- Flathead screwdriver
- Small flathead screwdriver
- Lithium battery CR2032

INFORMATION

Use a CR2032 lithium battery

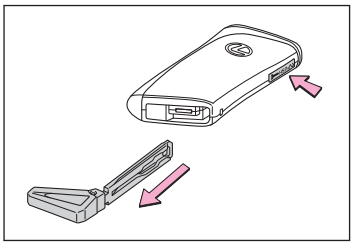
- Batteries can be purchased at your Lexus dealer, local electrical appliance shops or camera stores.
- Replace only with the same or equivalent type recommended by the manufacturer.
- Dispose of used batteries according to the local laws.

If the electronic key battery is depleted

The following symptoms may occur:

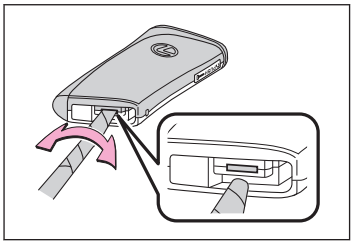
- The smart entry & start system and wireless remote control will not function properly.
- The operational range will be reduced.

1 Take out the mechanical key.



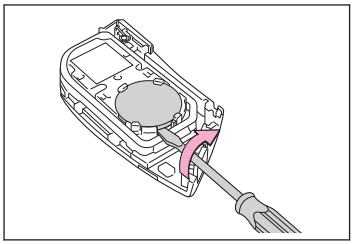
2 Remove the cover.

To prevent damage to the key, cover the tip of the flathead screwdriver with a tape.



3 Remove the depleted battery.

Insert a new battery with the "+" terminal facing up.



⚠ WARNING

■ Battery precautions

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

- Do not swallow the battery. Doing so may cause chemical burns.
- A coin battery or button battery is used in the electronic key. If a battery is swallowed, it may cause severe chemical burns in as little as 2 hours and may result in death or serious injury.
- Keep away new and removed batteries from children.
- If the cover cannot be firmly closed, stop using the electronic key and stow the key in the place where children cannot reach, and then contact your Lexus dealer.
- If you accidentally swallow a battery or put a battery into a part of your body, get emergency medical attention immediately.

■ To prevent battery explosion or leakage of flammable liquid or gas

- Replace the battery with a new battery of the same type. If a wrong type of battery is used, it may explode.
- Do not expose batteries to extremely low pressure due to high altitude or extremely high temperatures.
- Do not burn, break or cut a battery.

⚠ NOTICE

■ When replacing the battery

Use a flathead screwdriver of appropriate size. Applying excessive force may deform or damage the cover.

■ For normal operation after replacing the battery

Observe the following precautions to prevent accidents:

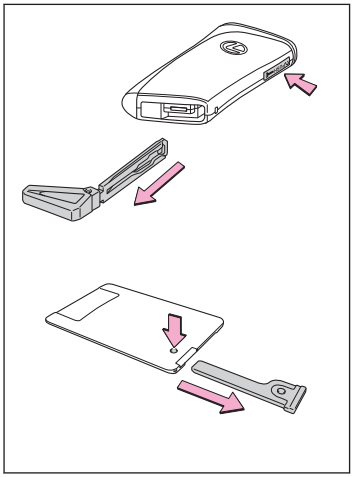
- Always work with dry hands.

  Moisture may cause the battery to rust.
- Do not touch or move any other component inside the remote control.
- Do not bend either of the battery terminals.

Using the mechanical key

To take out the mechanical key, push the release button and take the key out.

The mechanical key can only be inserted in one direction, as the key only has a groove on one side. If the key cannot be inserted in a lock cylinder, turn it over and attempt to insert it again. After using the mechanical key, return it to its original position and carry it with the electronic key. If the electronic key battery is depleted, the entry function is not operating properly, or the vehicle battery is discharged, you will need the mechanical key.



NOTICE

Do not apply excess force when inserting the mechanical key into the card key. Doing so may damage the card key.

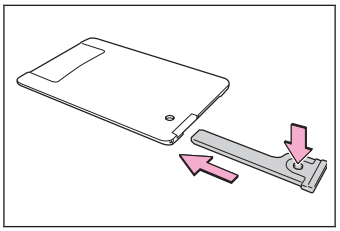
INFORMATION

If the incorrect key is used

The key cylinder rotates freely to isolate inside mechanism.

Card key*

- If it is difficult to take out the mechanical key, push down the release button using a pen tip, etc. If it is still difficult to pull it out, use a coin, etc.
- To store the mechanical key in the card key, insert it while pressing the release button.



*: If equipped

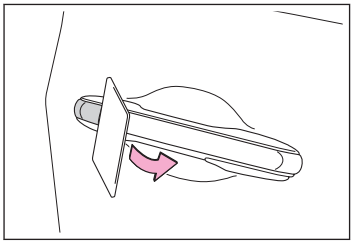
Alarm

Using the mechanical key to lock the doors will not set the alarm system. If a door is unlocked using the mechanical key when the alarm system is set, the alarm may be triggered.

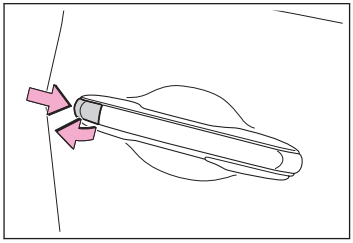
Locking/unlocking the doors

1 **Insert a plastic card, etc. into the gap in the door handle to pry up the cover.**

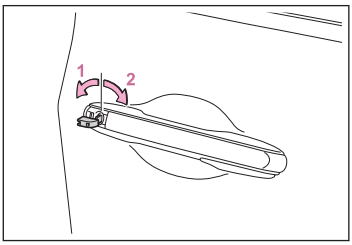
To avoid damage, do not apply excessive force to the cover.



2 **Remove the cover by pressing it on the rear.**



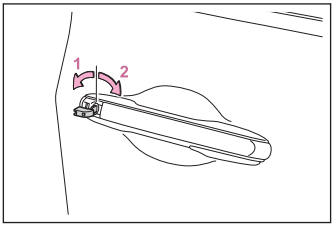
3 **Use the mechanical key in order to perform the following operations:**



1 Unlocks all the doors
2 Locks all the doors

INFORMATION

Key linked functions



1 Opens the windows and the moon roof* or panoramic moon roof* (turn and hold)*1

2 Closes the windows and the moon roof* or panoramic moon roof* (turn and hold)*1

WARNING

Operate the power window and moon roof or panoramic moon roof after checking to make sure that there is no possibility of any passenger having any of their body parts caught in the window or moon roof or panoramic moon roof. Also, do not allow children to operate the mechanical key. It is possible for children and other passengers to get caught in the power window or moon roof or panoramic moon roof.

*: If equipped

*1: These settings must be customized at your Lexus dealer.

If a door cannot be opened using the door opener switch

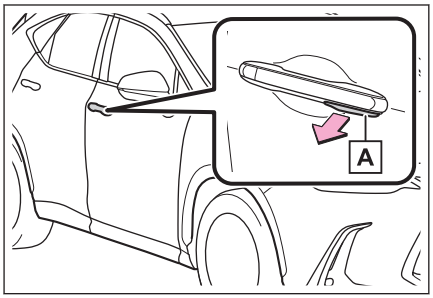
If a door cannot be opened using the door opener switch, it can be opened using a manual release handle.

Operating a manual release handle

⚠ NOTICE

Normally, the manual release handles cannot be used to open the doors. To enable manual release handle operation, perform the following. If the following is not performed and/or a manual release handle is operated with force, it may deform or be damaged.

▶ Outside the vehicle

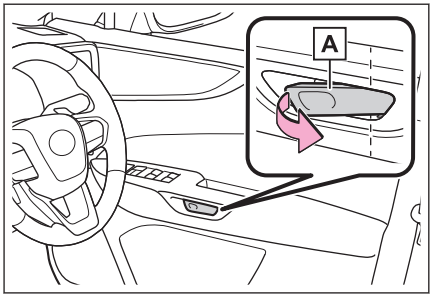


Pull the manual release handle A to open the door.

Normally, the manual release handles cannot be used to open the doors.

To open a door, enable manual release handle operation.→P.601

▶ Inside the vehicle



Pull the manual release handle A twice to open the door.

Pulling the handle once will enable operation. Pulling the handle again will open the door.

INFORMATION

Manual release handle operating conditions

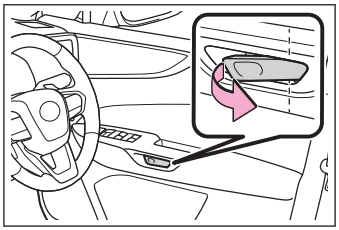
- If the vehicle is involved in a severe frontal or rear collision, manual release handle operation will be enabled for all of the doors.

  However, the manual release handle may not become operable depending on the force of the impact and conditions of the collision.

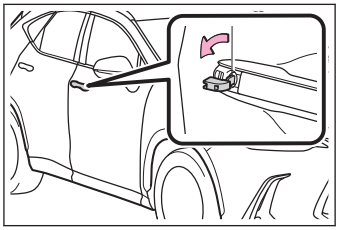
- When the battery voltage drops slowly while a door was unlocked

  It may not work depending on how it is lowered.

- When manual release handle operation is enabled from inside the vehicle



- When manual release handle operation is enabled from outside the vehicle using a mechanical key



Conditions which manual release handle operation is disabled

- Normally, operation of the outside manual release handles is disabled, and they cannot be used to open the doors.

  When operation is enabled by operating a manual release handle or using a mechanical key, operation will be disabled automatically if the door is opened using the door opener switch or locked.

- Operation of the inside manual release handles is disabled when the engine switch is in ON, and they cannot be used to open the doors.

  When operation is enabled by operating a manual release handle or using a mechanical key, operation will be disabled automatically if the door is opened using the door opener switch or locked.

- To prevent a door from being opened accidentally, when the engine switch is in ON, after an inside manual release handle is operated once, operation will automatically be disabled after approximately 1 second.

Related Links

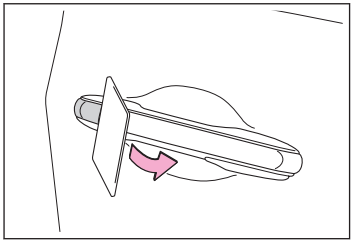
Using the mechanical key(P. 596)

Enabling outside manual release handle operation using a mechanical key

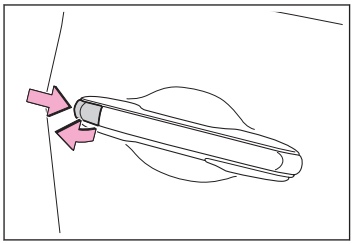
Operation of a manual release handle can be enabled by unlocking a door with the mechanical key.

1 **Insert a plastic card, etc. into the gap in the door handle to pry up the cover.**

To avoid damage, do not apply excessive force to the cover.



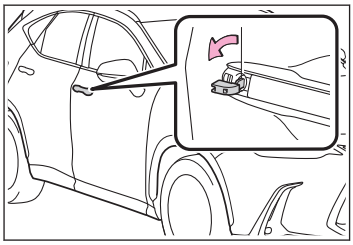
2 **Remove the cover by pressing it on the rear.**



3 **Using the mechanical key, turn the lock cylinder to the unlock side to enable the manual release handle operation.**

The mechanical key can only be inserted in one direction, as the key only has a groove on one side.

If the key cannot be inserted in a lock cylinder, turn it over and re-attempt to insert it.



If the rear doors cannot be opened from the inside

The child-protector lock may be engaged.

Open the door from outside the vehicle and disengage the child-protector lock.

Related Links

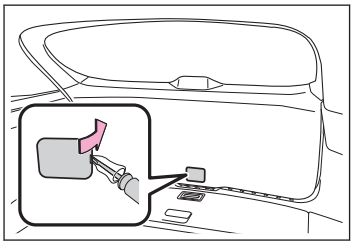
Preventing the rear doors from being opened from the inside of the vehicle (child-protector lock)(P. 28)

If the back door cannot be opened

The back door can be unlocked from the inside.

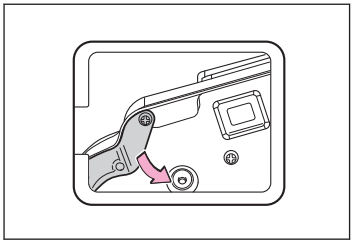
1 **Using a flathead screwdriver, remove the cover.**

To protect the cover, place a rag between the flathead screwdriver and the cover as shown in the illustration.

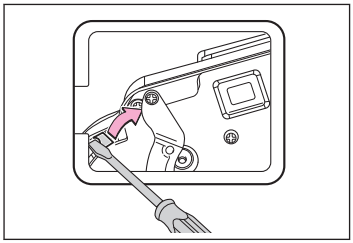


Vehicles without a power back door:

2 **Turn the cover.**

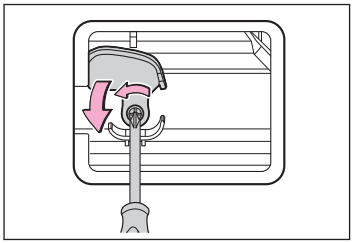


3 **Using a screwdriver, push the lever.**

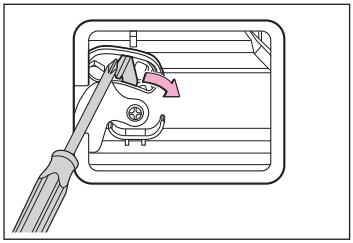


Vehicles with a power back door:

4 **Loosen the screw and turn back the cover.**



5 Using a screwdriver, push the lever.



If the moon roof* does not operate correctly

If the moon roof closes but then re-opens slightly

1 Stop the vehicle.

2 Press and hold the switch.*1

The moon roof will close, reopen and pause for approximately 10 seconds.*2

Then it will close again, tilt up and pause for approximately 1 second. Finally, it will tilt down, open and close.

3 Check to make sure that the moon roof completely stops and then release the switch.

If the moon roof does not fully close even after performing the above procedure correctly, have the vehicle inspected by your Lexus dealer.

If the moon roof tilts down but then tilts back up

1 Stop the vehicle.

2 Press and hold the switch until the moon roof moves into the tilt up position and stops.*1

3 Release the switch once and then press and hold the switch again.*1

The moon roof will pause for approximately 10 seconds in the tilt up position.*3

4 Check to make sure that the moon roof is completely closed and then release the switch.

If the moon roof does not fully close even after performing the above procedure correctly, have the vehicle inspected by your Lexus dealer.

*: If equipped

*1: If the switch is released at the incorrect time, the procedure will have to be performed again from the beginning.

*2: If the switch is released after the above mentioned 10 second pause, automatic operation will be disabled. In that case, press and hold the or switch, and the moon roof will tilt up and pause for approximately 1 second. It will tilt down, open and close. Check to make sure that the moon roof is completely closed and then release the switch.

*3: If the switch is released after the above mentioned 10 second pause, automatic operation will be disabled. In that case, press and hold the or switch, and the moon roof will tilt up and pause for approximately 1 second. Then it will tilt down, open and close. Check to make sure that the moon roof is completely closed and then release the switch.

If the panoramic moon roof/electronic sunshade does not operate correctly

Initializing panoramic moon roof / electronic sunshade

1 Stop the vehicle.

2 Turn the engine switch to ON.

3 Slide and hold the switch or switch forward. Continue pressing the switch for approximately 10 seconds after the panoramic moon roof or electronic sunshade closes and reopens. The panoramic moon roof and electronic sunshade will start to close.*1

4 Check that the panoramic moon roof and electronic sunshade are fully closed and release the switch.

If the moon roof does not fully close even after performing the above procedure correctly, have the vehicle inspected by your Lexus dealer.

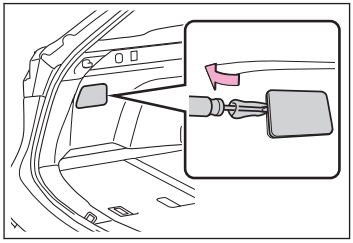
*1: If the switch is released at the incorrect time, the procedure will have to be performed again from the beginning.

If the fuel filler door cannot be opened

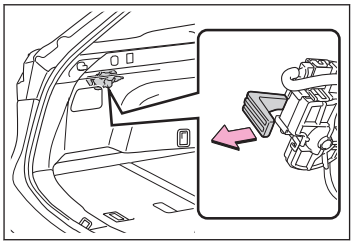
If the fuel filler door opener switch cannot be operated, contact your Lexus dealer to service the vehicle. In case where refueling is urgently necessary, the following procedure can be used to open the fuel filler door.

1 **Remove the cover inside the luggage compartment by inserting a screwdriver.**

When removing the cover, to prevent damage, cover the tip of the screwdriver with a rag.



2 **Pull the lever.**



When the wireless charger indicator light illuminates/flashes*

When the wireless charger indicator light on the charging tray continuously flashes once per second (green)

When the wireless charger operation indicator light on the center display does not illuminate

Cause	Remedy
Wireless charger and multimedia system communication failure	If the engine is running, stop and then restart the engine. If the engine switch is in ACC, start the engine.

When the wireless charger indicator light on the charging tray continuously flashes once per second (orange)

When the wireless charger operation indicator light on the center display illuminates in gray

Cause	Remedy
Vehicle to wireless charger communication failure	If the engine is running, stop and then restart the engine. If the engine switch is in ACC, start the engine.

When the wireless charger operation indicator light on the charging tray illuminates (green)

When the wireless charger operation indicator light on the center display illuminates in blue

Cause	Remedy
AM radio stations are being automatically selected	Wait until the system has completed the automatic selection of AM radio stations. In the case that automatic selection cannot be completed, stop automatic selection.

*: If equipped

Cause	Remedy
The smart entry & start system is detecting the key.	Wait until electronic key detection has completed.

When the wireless charger operation indicator light on the center display illuminates in gray

Cause	Remedy
Foreign substance detection: A metallic foreign substance is in the charge area, and so the abnormal heating prevention function of the metallic foreign object operated	Remove the foreign substance from the charge area.
Portable device misaligned/distanced from charging surface: The charging coil in the portable device moved outside of the charging area, or lens convex is large, or case is thick so the abnormal heating prevention function operated	Remove the portable device from the wireless charger, after 5 seconds, then place the portable device so that it is near the center of the wireless charger. Also, if a case or cover is installed to the portable device, remove it.
Battery protection function of portable device: Before full charging, battery protection function of portable device operated	Confirm the setting of portable device.
Continued detection of an electronic key: When a Multimedia function is used through vehicle customization, the electronic key is continually detected without being confirmed.	In this case, turn the engine switch ACC or ON to confirm the key.

When the wireless charger indicator light on the center display continuously flashes 4 times quickly (orange)

When the wireless charger operation indicator light on the center display illuminates in gray

Cause	Remedy
Safety shutdown resulting when the temperature within the wireless charger exceeded the set value	Stop charging, remove the portable device from the wireless charger, wait for the temperature to drop, and then start charging again.

What to do when the vehicle cannot move

When the engine can be started but the vehicle does not move

There may be a problem with the drivetrain.

Contact your Lexus dealer or commercial towing service before towing.

If the transmission makes abnormal sounds

There may be a problem with the drivetrain.

Contact your Lexus dealer or commercial towing service before towing.

Towing with a tow truck

⚠ NOTICE

■ To prevent damage to the vehicle when towing using a wheel-lift type truck

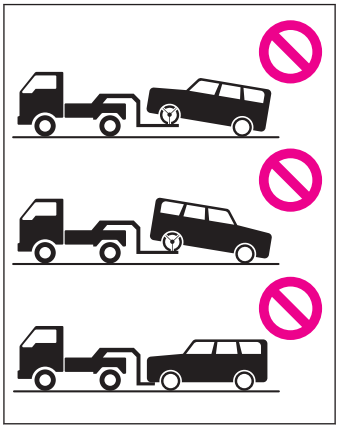
When raising the vehicle, ensure adequate ground clearance for towing at the opposite end of the raised vehicle. Without adequate clearance, the vehicle could be damaged while being towed.

Towing with a tow truck

If towing is necessary, we recommend having your vehicle towed by your Lexus dealer or a commercial towing service, using a wheel-lift type truck or flatbed truck.Use a safety chain system for all towing, and abide by all state/provincial and local laws.

⚠ WARNING

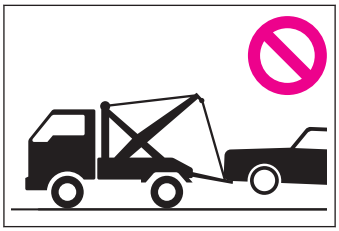
Be sure to transport the vehicle with all four wheels raised off the ground. If the vehicle is towed with the tires contacting the ground, the drivetrain or related parts may be damaged, the vehicle may fly off the truck.



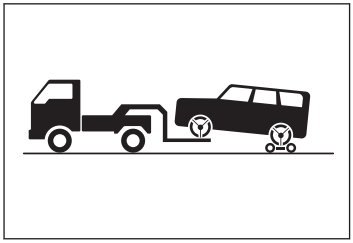
⚠ NOTICE

■ Towing with a sling-type truck

Do not tow with a sling-type truck to prevent body damage.

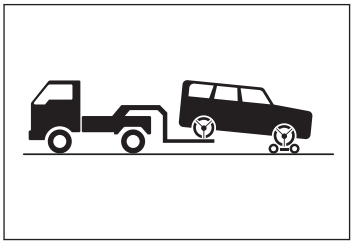


▶ From the front



Use a towing dolly under the rear wheels.

▶ From the rear



Use a towing dolly under the front wheels.

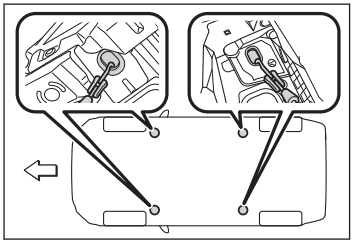
Using a flatbed truck

⚠ NOTICE

When securing the vehicle to a flatbed truck, do not overly tighten the tie downs, otherwise the vehicle may be damaged.

If your vehicle is transported by a flatbed truck

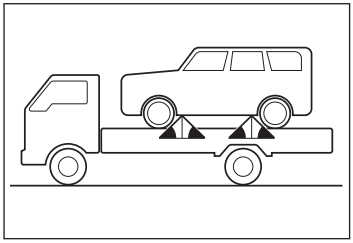
If your vehicle is transported by a flatbed truck, it should be tied down at the locations shown in the illustration.



If you use chains or cables to tie down your vehicle

If you use chains or cables to tie down your vehicle, the angles shaded in black must be 45°.

If you cannot tie down the vehicle using the method above, use tire strapping belts.



Towing with another vehicle

If towing is necessary, we recommend having your vehicle towed by your Lexus dealer or a commercial towing service, using a wheel-lift type truck or flatbed truck.Use a safety chain system for all towing, and abide by all state/provincial and local laws.

⚠ NOTICE

■ When towing a vehicle equipped with a Stop & Start system

If it is necessary to tow the vehicle with all 4 wheels on the ground, perform the following procedure before towing the vehicle, in order to protect the system. Turn the engine switch off and then start the engine or turn the engine switch to ON.

Emergency towing

If a tow truck is not available in an emergency, your vehicle may be temporarily towed using cables or chains secured to the emergency towing eyelets. This should only be attempted on hard surfaced roads for short distances at under 30 km/h (18 mph).

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.

Situations when it is not possible to be towed by another vehicle

In the following situations, it is not possible to be towed by another vehicle using cables or chains, as the front wheels may be locked due to the parking lock.

Contact your Lexus dealer or commercial towing service.

- There is a malfunction in the shift control system.
- There is a malfunction in the engine immobilizer system.
- There is a malfunction in the smart entry & start system.(→P.566)
- The battery is discharged.

Related Links

Changing the engine switch mode(P. 123)
If a warning message is displayed(P. 550)
Enable the engine immobilizer system(P. 61)
If the vehicle battery is discharged(P. 567)

Emergency towing procedure

To have your vehicle towed by another vehicle, the towing eyelet must be installed to your vehicle. Install the towing eyelet using the following procedure.

⚠ WARNING

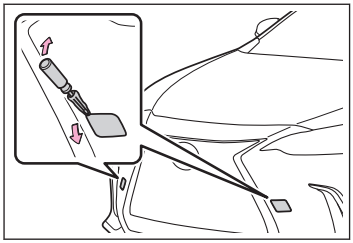
Do not perform any of the following as doing so may cause the parking lock mechanism to engage, locking the front wheels and possibly leading to an accident resulting in death or serious injury:

- Unfasten the driver's seat belt and open the driver's door.
- Turn the engine switch off.

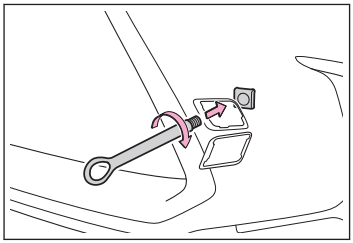
1 **Take out the towing eyelet.**

2 **Remove the eyelet cover using a flathead screwdriver.**

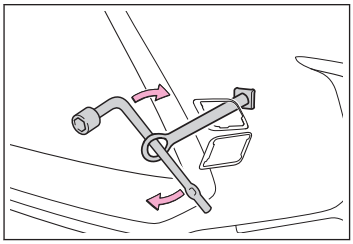
To protect the bodywork, place a rag between the screwdriver and the vehicle body as shown in the illustration.



3 **Insert the towing eyelet into the hole and tighten partially by hand.**



4 **Tighten down the towing eyelet securely using a wheel bolt wrench or hard metal bar.**



INFORMATION

■ Wheel bolt wrench

Wheel bolt wrench can be purchased at your Lexus dealer.

⚠ WARNING

When installing towing eyelets to the vehicle, make sure to securely install them to the specified positions.

If not securely installed, towing eyelets may come loose during towing.

5 **Securely attach cables or chains to the towing eyelet.**

Take care not to damage the vehicle body.

⚠ NOTICE

To prevent damage to the vehicle during emergency towing, do not secure cables or chains to the suspension components.

6 **Enter the vehicle being towed and start the engine.**

If the engine does not start, turn the engine switch to ON.

INFORMATION

■ While towing

If the engine is not running, the power assist for the brakes and steering will not function, making steering and braking more difficult.

⚠ WARNING

Do not turn the engine switch off while towing the vehicle with another vehicle. This may lead to an accident as the front wheels will be locked by the parking lock.

7 **Shift the shift position to N and release the parking brake.**

Turn auto mode of the parking brake off.

⚠ WARNING

When towing, avoid sudden starts, etc., which place excessive stress on the towing eyelets, cables or chains. The towing eyelets, cables or chains may become damaged, broken debris may hit people, and cause serious damage.

Getting unstuck from mud, sand, or snow

1 Stop the engine. Set the parking brake and shift the shift position to P.

2 Remove the mud, snow or sand from around the front wheels.

3 Place wood, stones or some other material under the front wheels to help provide traction.

4 Restart the engine.

5 Shift the shift position to D or R and release the parking brake. Then, while exercising caution, depress the accelerator pedal.

⚠ WARNING

- When shifting the shift lever, do not shift it with the accelerator pedal depressed.

  Doing so may lead to unexpected rapid acceleration of the vehicle that may cause an accident.
- If you choose to push the vehicle back and forth to free it, make sure the surrounding area is clear to avoid striking other vehicles, objects or people.

  The vehicle may also lunge forward or lunge back suddenly as it becomes free. Use extreme caution.

⚠ NOTICE

Avoid spinning the front wheels and depressing the accelerator pedal more than necessary.

Doing so may damage the transmission and other components.

6 If it is difficult to free the vehicle, press the OFF switch and turn the TRC off.

If the vehicle remains stuck even after these procedures are performed, the vehicle may require towing to be freed.

If a vehicle abnormality is found

The following symptoms are abnormal.

- 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 continually points higher than normal.

  Contact your Lexus dealer as soon as possible. Your vehicle probably needs adjustment or repair.

If abnormal sounds are emitted from the vehicle

Condition	Remedy
The following sounds are abnormal sounds. ● Changes in exhaust sound ● Excessive tire squeal when cornering ● Strange noises related to the suspension system ● Pinging or other noises related to the engine	Contact your Lexus dealer as soon as possible. Your vehicle probably needs adjustment or repair.

If the vehicle behaves abnormally

The following symptoms are abnormal.

- Engine misfiring or misses, stumbling or running roughly
- 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

Contact your Lexus dealer as soon as possible. Your vehicle probably needs adjustment or repair.

If the windows do not open or close by operating the power window switches

Check if the window lock switch is on.

If the window lock switch is on, the power windows other than that for the driver's seat cannot be operated.

Turn the window lock switch off.

- **When the jam protection function or catch protection function operates unusually and the side window cannot be opened or closed, perform the following operations with the power window switch of that door.**
  - Stop the vehicle. With the engine switch in ON, within 4 seconds of the jam protection function or catch protection function activating, continuously operate the power window switch in the one-touch closing direction or one-touch opening direction so that the door window can be opened and closed.
  - If the door window cannot be opened and closed even when performing the above operations, perform the procedure for function initialization.

Related Links

Functions which aid in safe opening and closing of the windows(P. 66)

Operations using the power window switches(P. 67)

Prevent accidental operation of the windows(P. 69)

Initializing power window

1. Turn the engine switch to ON.
2. Pull and hold the power window switch in the one-touch closing direction and completely close the side window.
3. Release the power window switch for a moment, resume pulling the switch in the one-touch closing direction, and hold it there for approximately 6 seconds or more.
4. Press and hold the power window switch in the one-touch opening direction. After the side window is completely opened, continue holding the switch for an additional 1 second or more.
5. Release the power window switch for a moment, resume pushing the switch in the one-touch opening direction, and hold it there for approximately 4 seconds or more.

6 **Pull and hold the power window switch in the one-touch closing direction again. After the side window is completely closed, continue holding the switch for a further 1 second or more.**

If you release the switch while the window is moving, start again from the beginning.

If the window reverses and cannot be fully closed or opened, have the vehicle inspected by your Lexus dealer.

Related Links

Functions which aid in safe opening and closing of the windows(P. 66)

Operations using the power window switches(P. 67)

The engine switch is turned off automatically

In the following situations, power will be turned off due to the automatic power off function.

- The vehicle is left in ACC or ON (the engine is not running) for more than 20 minutes with the shift position in P.
- The battery is low with the shift position is in P and the engine switch is in ACC or ON (the engine is not running).

Next time when starting the engine, increase the engine speed slightly and maintain that level for approximately 5 minutes to recharge the battery.

Do not leave the vehicle with the engine switch in ACC or ON for long periods of time when the engine is not running.

If your vehicle overheats

The following may indicate that your vehicle is overheating.

- The engine coolant temperature gauge is in the red zone.
- A loss of engine power is experienced. (For example, the vehicle speed does not increase.)
- "Engine Coolant Temp High Stop in a Safe Place See Owner's Manual" is displayed on the multi-information display.
- Steam comes out from under the hood.

If the engine coolant temperature gauge is in the red zone or "Engine Coolant Temp High Stop in a Safe Place See Owner's Manual" is displayed on the multi-information display

1 **Stop the vehicle in a safe place, turn off the air conditioning system, and stop the engine.**

> **⚠ WARNING**
>
> Do not touch or approach parts in the engine compartment while the cooling fan is operating.
>
> Do not touch or approach rotating parts such as the fan, which may lead to fingers or clothing (especially a tie, a scarf or a muffler) getting caught, resulting in serious injury.
>
> The cooling fan operates automatically when the air conditioning system is operating and when the coolant temperature is high.
>
> Also, it may operate for several minutes even after the engine switch is turned off.

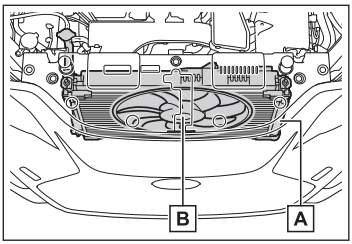
2 **If you do not see steam, carefully lift the hood.**

If you see steam, carefully lift the hood after the steam subsides.

> **⚠ WARNING**
>
> When opening the hood, observe the following precautions.
>
> - If steam is seen coming from under the hood, do not open the hood until the steam has subsided. The engine compartment may be very hot.
> - Do not loosen the radiator cap and the coolant reservoir caps while the engine and radiator are hot. High temperature steam or coolant could spray out.

3 **After the engine has cooled down sufficiently, inspect the hoses and radiator core (radiator) for any leaks.**

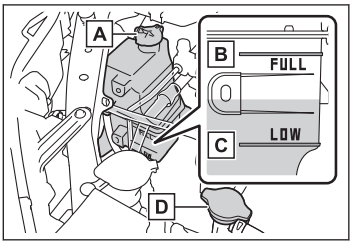
If a large amount of coolant has leaked, immediately contact your Lexus dealer.



A Radiator
B Cooling fan

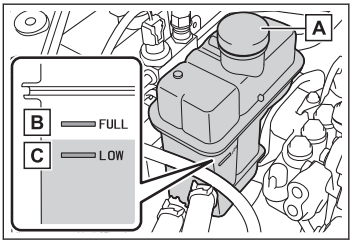
4 Check that the coolant level is between the [FULL] and [LOW] lines on the reservoir.

▶ **Engine**



A Reservoir
B [FULL] line
C [LOW] line
D Radiator cap

▶ **Intercooler**

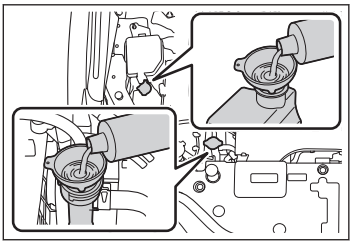


A Reservoir
B [FULL] line
C [LOW] line

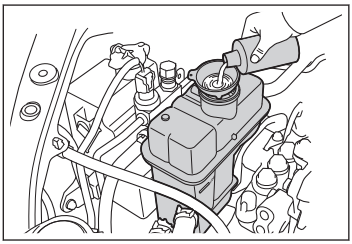
5 Add coolant if necessary.

Water can be used in an emergency if coolant is unavailable.

▶ **Engine**



▶ **Intercooler**



⚠ NOTICE

■ When adding engine coolant

Add coolant slowly after the engine has cooled down sufficiently.

Adding cool coolant to a hot engine too quickly can cause damage to the engine.

■ To prevent damage to the cooling system

Observe the following precautions:

- Avoid contaminating the coolant with foreign matter (such as sand, dust, etc.).
- Do not use coolant additives.

6 **Start the engine and turn the air conditioning system on to check that the radiator cooling fan operate and to check for coolant leaks from the radiator or hoses.**

The fan operates when the air conditioning system is turned on immediately after a cold start.

Confirm that the fan is operating by checking the fan sound and air flow. If it is difficult to check these, turn the air conditioning system on and off repeatedly. (The fan may not operate in freezing temperatures.)

7 **If the fan is not operating: Stop the engine immediately and contact your Lexus dealer.**

If the fan is operating: Have the vehicle inspected at the nearest Lexus dealer.

8 **Check if "Engine Coolant Temp High Stop in a Safe Place See Owner's Manual" is displayed on the multi-information display.**

If the message does not disappear: Stop the engine and contact your Lexus dealer.

If the message is not displayed: Have the vehicle inspected at the nearest Lexus dealer.

If electrical components cannot be used or do not operate when a switch is operated

If any of the electrical components do not operate, a fuse may have blown.

If this happens, check and replace the fuses as necessary.

Related Links

Checking and replacing fuses(P. 629)

Checking and replacing fuses

⚠ WARNING

Observe the following precautions. Failure to do so may cause damage to the vehicle, possibly leading to a fire or injury.

- Never use a fuse of a higher amperage rating than specified, 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.
- Do not modify the fuses or fuse boxes.

⚠ NOTICE

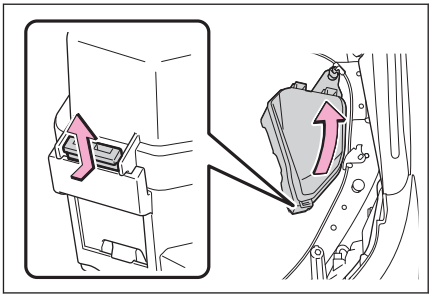
Have the cause of electrical overload determined and repaired by your Lexus dealer as soon as possible.

1 **Turn the engine switch off.**

2 **Open the fuse box cover.**

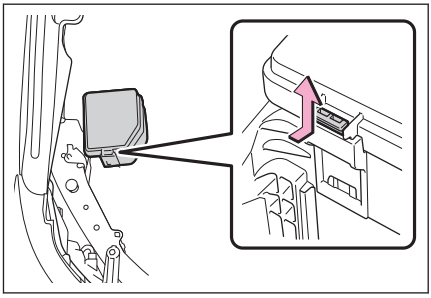
▶ **Engine compartment (Type A)**

Push in the claw and remove the lid.



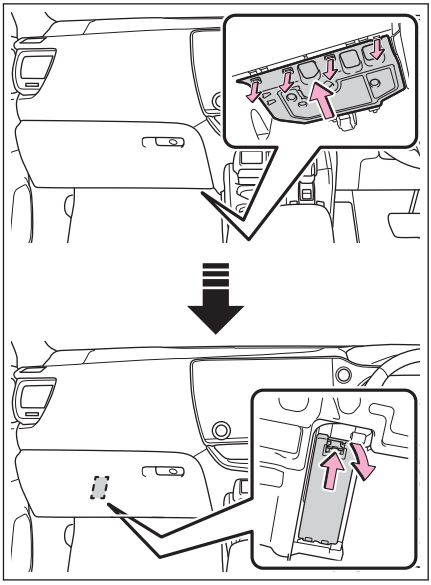
▶ Engine compartment (Type B)

Push in the claw and remove the lid.



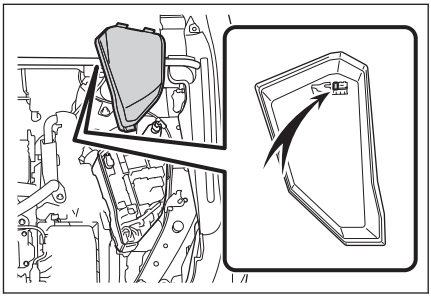
▶ Left side instrument panel

Remove the foot cover and remove the fuse box cover



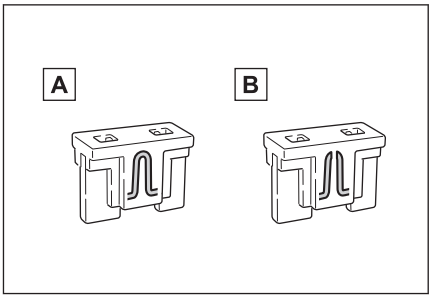
3 Remove the fuse.

Only some fuses can be removed using the pullout tool.



4 Check if the fuse is blown.

Replace the blown fuse with a new fuse of an appropriate amperage rating. The amperage rating can be found on the fuse box lid.



A Normal fuse

B Blown fuse

INFORMATION

■ After a fuse is replaced

- When installing the lid, make sure to engage the claw securely.
- If the lights do not turn on even after the fuse has been replaced, a bulb may need replacement.
- If the replaced fuse blows again, have the vehicle inspected by your Lexus dealer.

■ If a circuit is overloaded

The fuses are designed to blow, protecting the wiring harness from damage.

■ When replacing light bulbs

Lexus recommends that you use genuine Lexus products designed for this vehicle.

Because certain bulbs are connected to circuits designed to prevent overload, non-genuine parts or parts not designed for this vehicle may be unusable.

If a light does not illuminate

The following may be the cause:

- The battery may be discharged.
- One or both of the battery terminals may be disconnected.
- A fuse may have blown. Check the fuses.

Contact your Lexus dealer if the problem cannot be repaired, or if repair procedures are unknown.

INFORMATION

Condensation build-up on the inside of a lens

Temporary condensation build-up on the inside of the headlight lens does not indicate a malfunction. Contact your Lexus dealer for more information in the following situations:

- Large drops of water have built up on the inside of the lens.
- Water has built up inside the headlight.

Light bulbs

The difficulty level of replacement varies depending on the bulb. If necessary bulb replacement seems difficult to perform, contact your Lexus dealer.

Replacing the following bulbs

If any of the lights listed below has burnt out, have it replaced by your Lexus dealer.

- Headlight
- Front position lights and daytime running lights
- Front turn signal lights (LED type)
- Side turn signal lights
- Front fog lights
- Cornering lights
- Rear fog lights
- Stop/tail lights
- Back-up light
- Rear turn signal light
- High mounted stoplight

● License plate lights

INFORMATION

LED Lights

The lights other than the front turn signal lights (bulb type) each consist of a number of LEDs. If any of the LEDs burn out, take your vehicle to your Lexus dealer to have the light replaced.

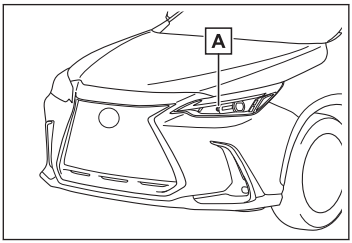
⚠ WARNING

Observe the following precautions related to replacing the bulbs.

- Turn off the lights. Do not attempt to replace the bulb immediately after turning off the lights.The bulbs become very hot and may cause burns.
- Do not touch the glass portion of the light bulb with bare hands. When it is unavoidable to hold the glass portion, use and hold with a clean dry cloth to avoid getting moisture and oils on the bulb.Also, if the bulb is scratched or dropped, it may blow out or crack.
- Fully install light bulbs and any parts used to secure them. Failure 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.
- Do not attempt to repair or disassemble the light bulbs, connectors, electric circuits or related parts.

  Doing so may result in electric shock leading to death or serious injury.
- To prevent damage or fire, make sure the bulbs are fully installed and securely locked into each light unit.
- Check the wattage of the bulb before installing it to prevent heat damage.

Bulb locations

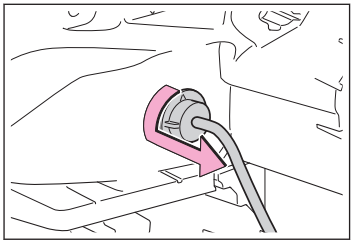


A Front turn signal light (bulb type)

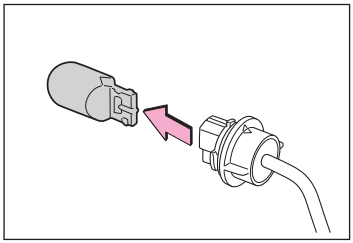
Replacing the front turn signal lights (bulb type)

Before replacing, check the wattage of the light bulb to be replaced.

1 **Turn the bulb base counterclockwise.**

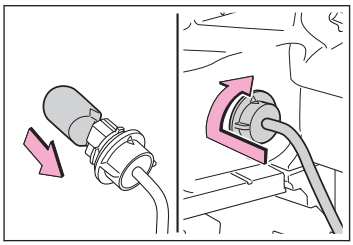


2 **Remove the light bulb.**



3 **Install a new light bulb then install the bulb base to the light unit by inserting it and turning the bulb base clockwise.**

After installing the light bulb, turn on the front turn signal light to visually check that there is no light leaking from the bulb base.



10 Vehicle specifications

10-1. Specifications

Maintenance data (fuel, oil level, etc.) 636

Fuel information 643

10-2. Customizable features

User customization function outline..... 644

Method to change settings 645

Customizable features..... 646

10-3. Initialization

Items to initialize 667

Maintenance data (fuel, oil level, etc.)

Dimensions and weight

Overall length		4660 mm (183.5 in.)
Overall width		1865 mm (73.4 in.)
Overall height(1)		1670 mm (65.7 in.)
Wheelbase		2690 mm (105.9 in.)
Tread	Front	1605 mm (63.2 in.)
	Rear	1625 mm (64.0 in.)
Gross vehicle mass		2370 kg (5225 lb.)
Maximum permissible axle capacity	Front	1270 kg (2800 lb.)
	Rear	1270 kg (2800 lb.)

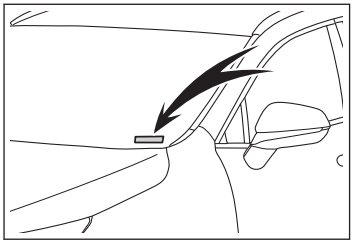
(1) Unladen vehicle

Vehicle identification

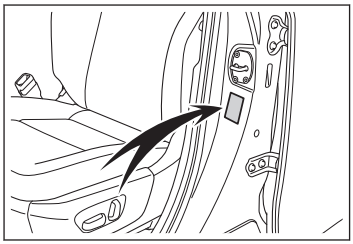
Vehicle identification number

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.

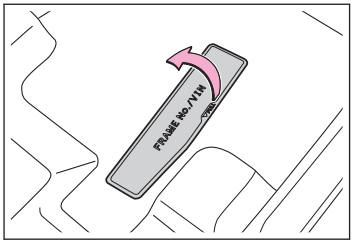
- This number is stamped on the top left of the instrument panel.



● This number is also on the manufacturer's label.

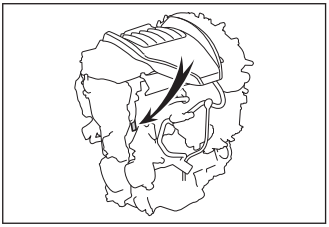


● This number is also stamped under the right-hand front seat.



Engine number

The engine number is stamped on the engine block as shown.



Engine

Model	T24A-FTS
Type	4-cylinder in line, 4-cycle, gasoline (with turbocharger)
Bore and stroke	87.5 × 99.5 mm (3.44 × 3.91 in.)
Displacement	2393 cm^3 (146.0 cu. in.)
Valve clearance (engine cold)	Automatic adjustment
Drive belt tension	Automatic adjustment

Fuel

Fuel type	Unleaded gasoline only
Research Octane Number	95 or higher
Fuel tank capacity (Reference)	55.0 L (14.5 gal., 12.1 Imp. gal.)

Lubrication system

Oil capacity (Drain and refill) (Reference)*1

With filter	5.3 L (5.6 qt., 4.7 Imp. qt.)
Without filter	5.0 L (5.3 qt., 4.4 Imp. qt.)

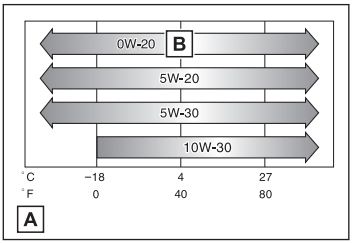
Engine oil selection

"Toyota Genuine Motor Oil" is used in your Lexus vehicle. Use Lexus approved "Toyota Genuine Motor Oil" or equivalent to satisfy the following grade and viscosity.

- Oil grade:

  0W-20, 5W-20, 5W-30 and 10W-30: API grade SL "Energy-Conserving", SM "Energy-Conserving", SN "Resource-Conserving", SN PLUS "Resource -Conserving" or SP "Resource-Conserving"; or ILSAC GF-6A multigrade engine oil

- Recommended viscosity (SAE):



A Temperature range anticipated before next oil change

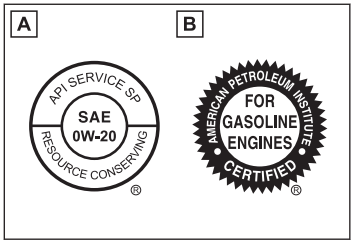
B Preferred

SAE 0W-20 is filled into your Lexus vehicle at manufacturing, and the best choice for good fuel economy and good starting in cold weather. If you use SAE 10W-30 or a higher viscosity engine oil in extremely low tmperatures, the engine may become difficult to start, so SAE 0W-20, 5W-20 or 5W-30 engine oil is recommended.

How to read oil container label

Either or both API registered marks are added to some oil containers to help you select the ol you should use.

*1: The engine oil capacity is a reference quantity to be used when changing the engine oil. When actually adding the engine oil, make sure that the oil level is between the low level mark and refill upper limit mark→ P.491. Warm up and turn off the engine, wait about 5 minutes, and check the oil level on the dipstick.



A API Service Symbol:

Top portion: "API SERVICE SP" means the oil quality designation by American Petroleum Institute (API).
Center portion: "SAE 0W-20" means the SAE viscosity grade.
Lower portion: "Resource-Conserving" means that the oil has fuel-saving and environmental protection capabilities.

B ILSAC Certification Mark

The International Lubricant Specification Advisory Committee (ILSAC) Certification Mark is displayed on the front of the container.

Oil viscosity (0W-20 is explained here as an example):

- The 0W in 0W-20 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 20 in 0W-20 indicates the viscosity characteristic of the oil when the oil is at high temperature.

Cooling system

Capacity(1)	Gasoline engine: 8.6 L (9.1 qt., 7.6 Imp. qt.)(2) 7.7 L (8.1 qt., 6.8 Imp. qt.)(3) Intercooler: 2.7L (2.9 qt., 2.4 Imp. qt.)

Coolant type	Use either of the following: ● "Toyota Super Long Life Coolant" ● Similar high-quality ethylene glycol-based nonsilicate, non-amine, non-nitrite, and non-borate coolant with long-life hybrid organic acid technology Do not use plain water alone.

(1) The coolant capacity is a reference quantity. If replacement is necessary, contact your Lexus dealer.

(2) Vehicles with towing package

(3) Vehicles without towing package

Ignition system (spark plug)

Make	NGK DILZKAR8E7H
Gap	0.7 mm (0.03 in.)

⚠ NOTICE

■ Iridium-tipped spark plugs

Use only iridium-tipped spark plugs. Do not adjust the spark plug gap.

Electrical system

■ Battery

Open voltage at 20°C (68°F):	12.3 V or higher (Turn the engine switch off and turn on the high beam headlights for 30 seconds.)
Specific gravity reading at 20°C (68°F):	1.25 or more If the specific gravity is lower than the standard value, charge the battery.
Charging rates	5 A max.

Automatic transmission

Fluid capacity(1)	7.3 L (7.7 qt., 6.4 Imp. qt.)
Fluid type	"Toyota Genuine ATF WS"

(1) The fluid capacity is a reference quantity. If replacement is necessary, contact your Lexus dealer.

NOTICE

Transmission fluid type

Using transmission fluid other than the above type may cause abnormal noise or vibration, or damage the transmission of your vehicle.

Transfer

Oil capacity(1)	0.45 L (0.48 qt., 0.40 Imp. qt.)
Oil type and viscosity	"Toyota Genuine Differential gear oil LT 75W-85" or equivalent

(1) The oil capacity is a reference quantity.
If replacement is necessary, contact your Lexus dealer.

Your Lexus vehicle is filled with "Toyota Genuine Differential Gear Oil" at the factory.

Use Lexus approved "Toyota Genuine Differential Gear Oil" or an equivalent of matching quality to satisfy the above specification. Please contact your Lexus dealer for further details.

Rear differential

Oil capacity(1)	0.50 L (0.53 qt., 0.44 Imp. qt.)
Oil type and viscosity	"Toyota Genuine Differential gear oil LT 75W-85" or equivalent

(1) The oil capacity is a reference quantity.
If replacement is necessary, contact your Lexus dealer.

Your Lexus vehicle is filled with "Toyota Genuine Differential Gear Oil" at the factory.

Use Lexus approved "Toyota Genuine Differential Gear Oil" or an equivalent of matching quality to satisfy the above specification. Please contact your Lexus dealer for further details.

Brakes

Pedal clearance (1)	96 mm (3.8 in.)
Brake pad wear limit	1.0 mm (0.04 in.)
Pedal free play	1 - 6 mm (0.04 - 0.25 in.)
Fluid type	● SAE J1703 or FMVSS No. 116 DOT 3 ● SAE J1704 or FMVSS No. 116 DOT 4

(1) Minimum pedal clearance when depressed with a force of 300 N (30.6 kgf, 67.5 lbf) while the engine is running.

Steering

Free play	Less than 30 mm (1.2 in.)

Tires and wheels

Tire size		235/50R20 100V	
Tire inflation pressure (Recommended cold tire inflation pressure)	Vehicle speed	Front wheel kPa (kgf/cm^2 or bar, psi)	Rear wheel kPa (kgf/cm^2 or bar, psi)
	More than 160 km/h (100 mph)	250 (2.5, 36)	250 (2.5, 36)
	160 km/h (100 mph) or less	230 (2.3, 33)	230 (2.3, 33)
Wheel size		20 × 7 1/2 J	
Wheel bolt torque		140 N•m (14.3 kgf•m, 103 ft•lbf)	

Fuel information

You must only use unleaded gasoline in your vehicle.

Select unleaded gasoline with a Research Octane Number of 95 or higher for optimum engine performance.

If this premium type cannot be obtained, you may temporarily use unleaded gasoline with a Research Octane Number as low as 91.

INFORMATION

Use of ethanol blended gasoline in a gasoline engine

Lexus allows the use of ethanol blended gasoline where the ethanol content is up to 10%. Make sure that the ethanol blended gasoline to be used has a Research Octane Number that follows the above.

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.

NOTICE

Notice on fuel quality

- Do not use improper fuels. If improper fuels are used, the engine will be damaged.
- Do not use gasoline with metallic additives, for example manganese, iron or lead, otherwise it may cause damage on your engine or emission control system
- Do not add aftermarket fuel additives which contain metallic additives.
- Do not use the methanol blended gasoline such as M15, M85, M100.

  The use of gasoline containing methanol may cause engine damage or failure.

User customization function outline

Your vehicle includes a variety of electronic features that can be personalized to suit your preferences. The settings of these features can be changed using the center display or at your Lexus dealer.

⚠ WARNING

As the engine needs to be running during customization, ensure that the vehicle is parked in a place with adequate ventilation. In a closed area such as a garage, exhaust gases, including harmful carbon monoxide (CO), may collect and enter the vehicle. Possibly leading to death or a serious health hazard.

⚠ NOTICE

While performing customization, make sure that the engine is running, in order to prevent the battery from becoming discharged.

Method to change settings

Setting on the center display

Set by selecting

Stop the vehicle in a place where operations can be performed safely, engage the parking brake, and change the shift position to P.

1 Select on the center display.

2 Select [Vehicle customise] or [Driving assist].

3 Select the item to change the settings of from the list.

The setting of each items can be changed. For details, see the customizable items list.

For functions that can be turned on/off, select (ON) / (OFF)

Set by selecting

1 Select on the center display.

2 Select [Vehicle customise] or [Driving assist].

3 Select the item to change the settings of from the list.

Each time the switch is selected, the setting will be enabled/disabled.

When enabling is selected, the item display will be emphasized.

Customizable features

Some function settings are changed simultaneously with other functions being customized. Contact your Lexus dealer for further details.

A Settings that can be changed using the center display

B Settings that can be changed by your Lexus dealer

Definition of symbols: O = Available, – = Not available

Gauges, meters and multi-information display

The language, units of measure, etc. of some items displayed on the meter or multi-information display will be changed according to settings on the center display. Refer to "Multimedia Owner's Manual".

Function	Customized setting	A	B
Meter display type(1)	● Type 1 ● Type 2 ● Type 3	O	–
Eco Driving Indicator Light(1)	● On ● Off	O	–
Rev indicator	● 2000 - 6200 r/min ● Off	O	–
Rev peak	● On ● Off	O	–
Suggestion function(1)	● On ● On (when the vehicle is stopped) ● Off	O	O
Rear seat reminder function(1)	● On ● Off	O	–

(1) This setting changes in accordance with My Settings*.

*: If equipped

Head-up Display

Function	Customized setting	A	B
Display(1)	● On ● Off	○	–
Display mode(1)	● Normal ● Maximum ● Minimum	○	–

(1) This setting changes in accordance with My Settings*.

Steering wheel switches

Function	Customized setting	A	B
Right steering wheel switch favorite functions(1)	● Display control ● Audio ● Climate ● Custom	○	–
Left steering wheel switch favorite functions(1)	● Display control ● Audio ● Climate ● Custom	○	–
Switch sensor high sensitivity mode (winter glove mode) (1)	● On ● Off	○	–

(1) This setting changes in accordance with My Settings*.

*: If equipped

Door lock

Function	Customized setting	A	B
Door lock switch indicator illumination time	● 30 seconds ● 60 seconds ● 600 seconds ● 1200 seconds	–	○
Inside door opener switch operation adjustment (door opening function adjustment)	● Short ● Mid ● Long	–	○
Multi-information display/buzzer operation when a door opener switch inside the vehicle is operated	● On ● Off	–	○
Inside/outside door opener switch operating method	● Unlatch while pushing switch ● 0.6 Seconds ● Operating from inside the cabin: 0.6 Seconds Operating from outside: Unlatch while pushing switch ● Operating from inside the cabin: Unlatch while pushing switch Operating from outside: 0.6 Seconds	–	○

Function	Customized setting	A	B
Unlocking using a mechanical key	● All doors unlocked in one step ● Driver's door unlocked in one step, all doors unlocked in two step	–	○
Shift position linked door locking function(1)	● On ● Off	○	○
Shift position linked door unlocking function(1)	● On ● Off	○	○
Driver's door linked door unlocking function(1)(2)	● On ● Off	○	○

(1) This setting changes in accordance with My Settings*.

(2) All doors are automatically unlocked when driver's door is opened within approximately 45 seconds after turning the engine switch off.

Power back door*

Function	Customized setting	A	B
Back door automatic open and stop position	● Stop at the desired position (height)(1) ● 1 to 5	○	–
Power back door operations	● On ● Off	○	–
Operation buzzer volume	● 1 to 3	○	–
Kick Sensor *(2)	● On ● Off	○	–

*: If equipped

Function	Customized setting	A	B
Kick operation buzzer *(2)	● On ● Off	–	○
The function that validates the  switch of the wireless remote control when locking the door	● On ● Off	–	○
Close & lock (walk away) function	● On ● Off	–	○
Hands free close & lock (walk away) function *	● On ● Off	–	○

(1) Configured by operating the  switch of the lower back door.

(2) When the towing hitch is installed, the kick sensor does not work

Smart entry & start system and wireless remote control

Function	Customized setting	A	B
Operation buzzer volume(1)	● Off ● 1 to 7	○	○
Operation signal (Emergency flashers)(1)	● On ● Off	○	○
Time elapsed before automatic door lock function is activated if door is not opened after being unlocked(1)	● 30 seconds ● 60 seconds ● 120 seconds	–	○

*: If equipped

Function	Customized setting	A	B
Open door warning buzzer	● On ● Off	–	○

(1) This setting changes in accordance with My Settings*.

Smart entry & start system

Function	Customized setting	A	B
Smart entry & start system	● On ● Off	○	○
Smart door unlocking(1)	● All the doors ● Driver's door	○	○
Number of consecutive door lock operations	● 2 times ● As many as desired	–	○
Time elapsed before unlocking all the door when gripping and holding the driver's door handle	● Off ● 1.5 seconds ● 2 seconds ● 2.5 seconds	–	○

(1) This setting changes in accordance with My Settings*.

Wireless remote control

Function	Customized setting	A	B
Unlocking operation(1)	● All doors unlocked in one step ● Driver's door unlocked in one step, all doors unlocked in two step	○	○

*: If equipped

Function	Customized setting	A	B
Panic function	● On ● Off	–	○
Power back door unlocking operation	● One short press ● Push twice ● Press and hold (short) ● Press and hold (long) ● Off	–	○

(1) This setting changes in accordance with My Settings*.

Security

Function	Customized setting	A	B
Intrusion sensor and tilt sensor	● ON ● OFF	○	–

Power easy access system

Function	Customized setting	A	B
Driver's seat movement when exiting the vehicle(1)	● Off ● Standard ● Partial	○	○

(1) This setting changes in accordance with My Settings*.

*: If equipped

Steering wheel

Function	Customized setting	A	B
Automatic tilt-away*(1)	● Tilt only ● Telescopic only ● Tilt and telescopic ● Off	○	–

(1) This setting changes in accordance with My Settings*.

Outside rear view mirrors

Function	Customized setting	A	B
Automatic mirror folding and extending operation	● Linked to the locking/unlocking of the doors ● Linked to operation of the engine switch ● Off	–	○

Power windows and moon roof* or panoramic moon roof*

Function	Customized setting	A	B
Mechanical key linked operation	● On ● Off	–	○
Wireless remote control linked operation	● On ● Off	–	○

*: If equipped

Moon roof*

Function	Customized setting	A	B
Linked operation of components when mechanical key is used (open only)	● Slide only ● Tilt only	–	○
Linked operation of components when wireless remote control is used (open only)	● Slide only ● Tilt only	–	○

Automatic light control system

Function	Customized setting	A	B
Light sensor sensitivity(1)	● Normal ● Brighter ● Bright ● Dark ● Darker	○	○
Time elapsed before headlights automatically turn off after doors are closed(1)	● Off ● 30 seconds ● 60 seconds ● 90 seconds	○	○

(1) This setting changes in accordance with My Settings*

Lights

Function	Customized setting	A	B
Welcome lighting	● On ● Off	–	○

*: If equipped

Adaptive High-beam System

Function	Customized settings	A	B
Adaptive Highbeam System	● ON ● OFF (1)	–	○
Brightness and illuminated area adjustment of the high beams according to the vehicle speed	● 15 km/h (9 mph) ● 30 km/h (19 mph) ● 80 km/h (50 mph)	–	○
Intensity adjustment of the high beams when driving around a curve (illuminates the area in the direction vehicle is turning more brightly)	● ON ● OFF	–	○
Projection distance adjustment of the low beams according to the distance to a preceding vehicle	● ON ● OFF	–	○
High beam light distribution control for rain	● ON ● OFF	–	○
Light distribution control for urban areas	● ON ● OFF	–	○

(1) Operating as the Automatic High Beam

Pre-Collision System

Function	Customized setting	A	B
Pre-Collision System	● ON ● OFF	○	–
Warning timing(1)	● Later ● Default ● Earlier	○	–

(1) This setting changes in accordance with My Settings*.

Lane Departure Alert system （LDA）

Function	Customized settings	A	B
Lane Departure Alert system （LDA）(1)	● ON ● OFF	○	–
Alert timing(1)	● Default ● Earlier	○	–
Alert options(1)	● Vibration ● Audible	○	–

(1) This setting changes in accordance with My Settings*.

Driver break suggestion

Function	Customized setting	A	B
Driver break suggestion	● ON ● OFF	○	–

*: If equipped

Dynamic Radar Cruise Control

Function	Customized setting	A	B
Acceleration setting(1)	● Low ● Mid ● High	○	–
Speed setting (short press)(1)	● 1 km/h(2) ● 5 km/h(2) ● 10 km/h(2) ● 1 mph(3) ● 5 mph(3) ● 10 mph(3)	○	–
Speed setting (long press)(1)	● 1 km/h(2) ● 5 km/h(2) ● 10 km/h(2) ● 1 mph(3) ● 5 mph(3) ● 10 mph(3)	○	–
DRCC (RSA)(1)	● ON ● OFF	○	–
Speed limit offset(1)	● -5 to +5	○	–
Guide message(1)	● ON ● OFF	○	–
Curve speed reduction(1)	● OFF ● Low ● Mid ● High	○	–

(1) This setting changes in accordance with My Settings*.

(2) When the set speed is shown in "km/h"

(3) When the set speed is shown in "MPH"

Road Sign Assist

Function	Customized setting	A	B
Road Sign Assist (1)	● ON ● OFF	○	–
Excess speed notification method(1)	● None ● Visual ● Visual&Audible	○	–
Excess speed notification level(1)	● 5 km/h (3mph) ● 3 km/h (2 mph) ● 1 km/h (1 mph)	○	–

(1) This setting changes in accordance with My Settings*

Lexus parking assist-sensor*

Function	Customized setting	A	B
Lexus parking assist-sensor(1)	● On ● Off	○	–
Buzzer volume of Lexus parking assist-sensor when operating(1)(2)	● Soft ● Normal ● Loud	○	–
Distance from which the front center sensor starts detection	● Near ● Standard	○	–
Distance from which the rear center sensor starts detection	● Near ● Standard	○	–

(1) This setting changes in accordance with My Settings*.

*: If equipped

(2) The sound volume is linked among the Lexus parking assist-sensor, RCTA and RCD.

Parking assist volume*

Function	Customized setting	A	B
Parking assist volume (1)	● Low ● Mid ● High	○	–

(1) This setting changes in accordance with My Settings*.

BSM (Blind Spot Monitor)*

Function	Customized setting	A	B
Blind spot monitor	● On ● Off	○	–
Outside rear view mirror indicator brightness (1)	● Dim ● Bright	○	–
Alert timing for presence of approaching vehicle (sensitivity) (1)	● Later ● Default ● Earlier	○	–

(1) This setting changes in accordance with My Settings*.

Safe Exit Assist*

Function	Customized setting	A	B
Safe Exit Assist	● On ● Off	○	–
Outside rear view mirrors display(1)	● On ● Off	○	–

*: If equipped

Function	Customized setting	A	B
Detection sensitivity(1)	● Low ● Mid ● High	○	–

(1) This setting changes in accordance with My Settings*.

RCTA (Rear Cross Traffic Alert)*

Function	Customized setting	A (1)	B
RCTA (Rear Cross Traffic Alert)	● On ● Off	○	–
Buzzer volume of RCTA when operating (1)(2)	● Soft ● Normal ● Loud	○	–

(1) This setting changes in accordance with My Settings*.

(2) The sound volume is linked among the Lexus parking assist-sensor, RCTA, and RCD.

RCD (Rear camera detection)*

Function	Customized setting	A	B
RCD (Rear camera detection)	● ON ● OFF	○	–

PKSB (Parking Support Brake)*

Function	Customized setting	A	B
PKSB (Parking Support Brake) function (1)	● ON ● OFF	○	–

(1) This setting changes in accordance with My Settings*.

*: If equipped

Lexus Teammate Advanced Park*1

Function	Customized setting	A	B
Vehicle speed during operation	● Slow ● Standard ● Fast	○	–
Distance to objects	● Standard ● Far	○	–
Preferred parking method	● Parallel ● Perpendicular	○	–
Preferred parking direction	● Forward ● Reverse	○	–
Preferred exit direction (perpendicular)	● Right ● Left	○	–
Preferred exit direction (parallel)	● Right ● Left	○	–
Camera view when parking	● Standard ● Wide	○	–
Camera view when exiting	● Standard ● Wide	○	–
Parking path adjustment	● -3 (Inward) to +3 (Outward)	○	–

*: If equipped

*1: This settings can be changed on the Advanced Park guidance screen.

Function	Customized setting	A	B
Road width adjustment	● Standard ● Slightly narrow ● Narrow	○	–
Park position adjustment (forward)	● -3 (Rearward) to +3 (Frontward)	○	–
Park position adjustment (reverse)	● -3 (Rearward) to +3 (Frontward)	○	–
Rear accessory setting	● Off ● 10 cm (3.9 in.) ● 20 cm (7.9 in.) ● 30 cm (11.8 in.) ● 40 cm (15.7 in.)	○	–
Clear registered parking space	–	○	–

Stop & Start system

Function	Customized setting	A	B
Change the Stop & Start system duration when the A/C is on	● Standard ● Extended	○	–

Driving mode select switch

Function	Customized setting	A	B
Powertrain control in custom mode	● Normal ● Power ● Eco	○	–
Suspention in custom mode	● Normal ● Sport	○	–
Steering in custom mode	● Normal ● Sport	○	–
Air conditioning operation in customized mode	● Normal ● Eco	○	–

Automatic air conditioning system

Function	Customized setting	A	B
Automatic switching between outside air mode and recirculated air mode when the [AUTO] switch is on (AUTO switch linked air mode changing)(1)	● On ● Off	○	○
Automatic turning on of the A/C switch when the AUTO switch is turned on (AUTO switch linked A/C switch)(1)	● On ● Off	○	○
Steering wheel heater temperature adjustment in AUTO mode(1) (2)	● -2 (cooler) to 2 (warmer)	○	○

Function	Customized setting	A	B
Temperature/Fan speed adjustment when the driver's side automatic seat heater/ventilator is in AUTO mode(1)	● -2 (cooler) to 2 (warmer)	○	○
Temperature/Fan speed adjustment when the front passenger's side automatic seat heater/ventilator is in AUTO mode(1)	● -2 (cooler) to 2 (warmer)	○	○

(1) This setting changes in accordance with My Settings*.

(2) The center display may display an item operation time, which is for adjusting the temperature setting.

Illumination

Function	Customized setting	A	B
Time elapsed before the lights turn off(1)	● Off ● 7.5 seconds ● 15 seconds ● 30 seconds	○	○
Operation after the engine switch is turned off	● On ● Off	–	○
Operation when you approach the vehicle with the electronic key on your person	● On ● Off	–	○
Operation when the doors are unlocked	● On ● Off	–	○

*: If equipped

Function	Customized setting	A	B
Footwell lights	● On ● Off	–	○
Door-trim ornament lights*, inside handle lights and center console light	● On ● Off	–	○
Time elapsed before the outer foot lights turn off(1)	● Off ● 7.5 seconds ● 15 seconds ● 30 seconds	○	○
Operation of the outer foot lights when you approach the vehicle with the electronic key on your person	● On ● Off	–	○
Operation of the outer foot lights when the doors are unlocked	● On ● Off	–	○
Operation of the outer foot lights when a door is opened	● On ● Off	–	○
Fading out of the outer foot lights when they turn off	● Short ● Long	–	○
Operation of interior lights and outer foot lights after the doors are locked	● On ● Off	–	○
Color selection(1)	● Set color ● Custom	○	–

*: If equipped

Function	Customized setting	A	B
Brightness control(1)	● Maximum ● Desired brightness	○	–

(1) This setting changes in accordance with My Settings*.

Engine switch

Function	Customized setting	A	B
ACC customization Enabling/Disabling ACC mode	● On ● Off	○	○

*: If equipped

Items to initialize

Must be initialized for normal system operation after such cases as the battery being reconnected, or maintenance being performed on the vehicle:

Item	When to initialize	Reference
Power back door*	● After reconnecting or changing the battery	→P.72
Lexus parking assist-monitor	● After reconnecting or changing the battery	Refer to "Multimedia Owner's Manual".
Panoramic view monitor*	● After reconnecting or changing the battery	Refer to "Multimedia Owner's Manual".
Oil maintenance	● After maintenance is performed	→P.482
Tire pressure warning system	● When the specified tire inflation pressure has changed, such as due to carried load, etc. ● When the tire inflation pressure is changed such as when the tire size is changed.	→P.505
Lexus parking assist-sensor*	If the battery was discharged or has been removed and installed	→P.378
Parking Support Brake function (static objects around the vehicle)*	If the battery was discharged or has been removed and installed	→P.403

*: If equipped

Supplement

Supplementary information about unauthorized modifications, recorded vehicle data, etc.

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. Using these spare parts and accessories which are not genuine Lexus products may adversely affect the safety of your vehicle, even though these parts may be approved by certain authorities in your country. Toyota Motor Corporation therefore cannot accept any liability or guarantee spare parts and accessories which are not genuine Lexus products, nor for replacement or installation involving such parts.

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.

Cyber Attack Risk

Installing electronic devices and radios increases the risk of cyber attacks through the installed parts, which may lead to unexpected accidents and leakage of personal information.

Lexus does not make any guarantees for problems caused by installing non-genuine Lexus products.

Vehicle data recording

This vehicle is equipped with sophisticated computers that record certain data regarding vehicle controls and operations.

Data recorded by the computers

Certain data, such as the following, is recorded depending on the operation timing and status of each function.

- Engine speed/Electric motor speed (traction motor speed)
- Accelerator status
- Brake status
- Vehicle speed
- Operation status of the driving assist systems

- Images from the cameras

  Your vehicle is equipped with cameras. Contact your Lexus dealer for the location of recording cameras.

The recorded data varies according to the vehicle grade level and options with which it is equipped.

These computers do not record conversations or sounds, and only record images outside of the vehicle in certain situations.

Data usage

Lexus may use the data recorded in this computer to diagnose malfunctions, conduct research and development, and improve quality.

Lexus will not disclose the recorded data to a third party except:

- With the consent of the vehicle owner or with the consent of the lessee if the vehicle is leased
- In response to an official request by the police, a court of law or a government agency
- For use by Lexus in a lawsuit
- For research purposes where the data is not tied to a specific vehicle or vehicle owner

INFORMATION

Image information recorded by the vehicle can be erased by your Lexus dealer.

The image recording function can be disabled. However, if the function is disabled, data from when the systems operate will not be available.

If you wish to stop the collection of Lexus Safety System + data by the Toyota servers for the purpose of research and development and provision to individual services, contact your Lexus dealer.

Event data recorder

This vehicle is equipped with an event data recorder (EDR). The main purpose of an EDR is to record, in certain crash or near crash-like situations, such as an airbag deployment or hitting a road obstacle, data that will assist in understanding how a vehicle's systems performed. The EDR is designed to record data related to vehicle dynamics and safety systems for a short period of time, typically 30 seconds or less.However, data may not be recorded depending on the severity and type of a crash.

The EDR in this vehicle is designed to record such data as:

- How various systems in your vehicle were operating;
- How far (if at all) the driver was depressing the accelerator and/or brake pedal; and,
- How fast the vehicle was traveling.

These data can help provide a better understanding of the circumstances in which crashes and injuries occur.

NOTE: EDR data are recorded by your vehicle only if a non-trivial crash situation occurs; no data are recorded by the EDR under normal driving conditions and no personal data (e.g., name, gender, age, and crash location) are recorded. However, other parties, such as law enforcement, could combine the EDR data with the type of personally identifying data routinely acquired during a crash investigation.

To read data recorded by an EDR, special equipment is required, and access to the vehicle or the EDR is needed. In addition to the vehicle manufacturer, other parties, such as law enforcement, that have the special equipment, can read the information if they have access to the vehicle or the EDR.

Disclosure of the EDR 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 lessee for a leased vehicle) is obtained
- In response to an official request by the police, a court of law or a government agency
- For use by Lexus in a lawsuit

However, if necessary, Lexus may:

- Use the data for research on vehicle safety performance
- Disclose the data to a third party for research purposes without disclosing information about the specific vehicle or vehicle owner

Precautions for installation of an RF-transmitter system

The installation of an RF-transmitter system in your vehicle could affect electronic systems such as:

- Multiport fuel injection system/sequential multiport fuel injection system
- Lexus Safety System +
- Anti-lock brake system

- SRS airbag system
- Seat belt pretensioner system

Be sure to check with your Lexus dealer for precautionary measures or special instructions regarding installation of an RF-transmitter system.

Further information regarding frequency bands, power levels, antenna positions and installation provisions for the installation of RF-transmitters, is available on request at your Lexus dealer.

Precautions for scrapping 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.

"QR code"

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BSM (Blind Spot Monitor)



C3-801-1

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Publication No. OM78763E
Part No. 01999-78763
Printed in Japan 01-2507 C
NX350 (豪州E)