FOREWORD

This manual was prepared to help you understand the operation and maintenance of your vehicle so that you may enjoy many kilometers (miles) of driving pleasure. Please read through this manual before operating your vehicle.

A separate warranty booklet explains details about the warranties covering your vehicle.

Your NISSAN dealer knows your vehicle best. When you require any service or have any questions, they will be glad to assist you with the extensive resources available to them.

READ FIRST — THEN DRIVE SAFELY

Before driving your vehicle, please read this Owner's Manual carefully. This will ensure familiarity with controls and maintenance requirements, assisting you in the safe operation of your vehicle.

⚠ WARNING

IMPORTANT SAFETY INFORMATION REMINDERS!

Follow these important driving rules to help ensure a safe and comfortable trip for you and your passengers!

- **NEVER drive under the influence of alcohol or drugs.**
- **ALWAYS observe posted speed limits and never drive too fast for conditions.**
- **ALWAYS give your full attention to driving and avoid using vehicle features or taking other actions that could distract you.**
- **ALWAYS use your seat belts and appropriate child restraint systems. Pre-teen children should be seated in the rear seat.**
- **ALWAYS provide information about the proper use of vehicle safety features to all occupants of the vehicle.**
- **ALWAYS review this Owner's Manual for important safety information.**

MODIFICATION OF YOUR VEHICLE

This vehicle should not be modified. Modification could affect its performance, safety or durability, and may even violate governmental regulations. In addition, damage or performance problems resulting from modifications may not be covered under NISSAN warranties.

WHEN READING THE MANUAL

This manual includes information for all options available on this model. Therefore, you may find some information that does not apply to your vehicle.

Throughout this manual, some illustrations may only show the layout for Left-Hand Drive (LHD) models. For Right-Hand Drive (RHD) models, the illustrated shape and location of some components may differ.

All information, specifications and illustrations in this manual are those in effect at the time of printing. NISSAN reserves the right to change specifications or design at any time without notice.

IMPORTANT INFORMATION ABOUT THIS MANUAL

You will see various symbols in this manual. They are used in the following ways:

⚠ WARNING

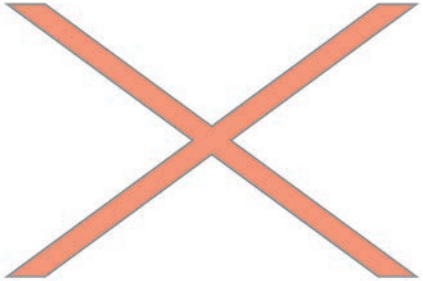
This is used to indicate a hazard that could cause death or serious personal injury. To avoid or reduce the risk, follow the information and instructions exactly.

⚠ CAUTION

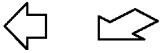
This is used to indicate a hazard that could cause minor or moderate personal injury. To avoid or reduce the risk, follow the information and instructions carefully.

NOTICE

This is used to indicate a hazard that could cause damage to property or your vehicle. To avoid or reduce the risk, follow the information and instructions.



If you see the symbol above, it means **"Do not do this"** or **"Do not let this happen"**.



If you see a symbol similar to those above in an illustration, it means the arrow points to the front of the vehicle.

Arrows in an illustration that are similar to those above indicate movement or action.

Arrows in an illustration that are similar to those above call attention to an item in the illustration.

☞

This indicates the title and reference page.

Air bag warning labels (if equipped)

Except for Taiwan

"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."

Be sure to read ☞ "Supplemental air bag warning labels" page 1-42.

For Taiwan

"DO NOT carry baby, infant and children on the front passenger seat."

Be sure to read ☞ "Supplemental air bag warning labels" page 1-42.

Table of Contents

GT-R Overview

GT-R SPECIFIC INFORMATION

The GT-R is NISSAN's first supercar category vehicle. The GT-R is equipped with special systems. These systems are different than those used on conventional vehicles to allow for the high performance driving characteristics of this vehicle. NISSAN recommends that you have your vehicle maintained by a NISSAN High Performance Center (NHPC). Special skills, knowledge and equipment are necessary to properly maintain your GT-R.

WARRANTY INFORMATION

Please read this Owner's Manual carefully, together with a separate warranty booklet which describes a number of express limitations, exclusions and ways to void your warranty for failing to follow the instructions contained in this Owner's Manual, including, but not limited to:

- Failure to use proper parts, fuel and fluids,
- Driving with the VDC/ESP off (except for emergency cases to help free a vehicle stuck in mud or snow, or driving within the legal limits),
- Racing,
- Driving on roads other than public roads
  (e.g., circuit, disused airport, examination road, dynamometer testing, etc.),
- Modifications, including reprogramming or replacing/adding chips in any on-board computer,
- Failure to have required NISSAN GT-R Special Maintenance performed,
- Modifications, including adding/replacing, reprogramming, attempting to reprogram, altering, disconnecting any computer, control unit or electronic modules,
- Deleting any or all stored information in any computer, control unit or electronic module including Vehicle Status Data Recorder (VSDR).

In addition, see your tire warranty for specific limitations or exclusions for operating summer tires below −20°C (−4°F).

The following table shows the warranty coverage depending on each case.

Case	Maintenance policy	Warranty Coverage
Vehicles with illegal and unauthorized modifications	Maintenance services cannot be performed	× Not covered
Vehicles with parts that are legal but not GT-R special specification parts.	Customers have to pay for the maintenance service at NHPC.	× Not covered*
Vehicles with parts that are legal but not genuine NISSAN Parts.	Customers have to pay for the maintenance service at NHPC.	△ Damage or failures resulting from use of the non-genuine parts are not covered
Driving on roads other than the public roads (e.g. driving on a circuit, a chassis dynamometer, etc.) (1) While driving After driving but before the maintenance is performed by NHPC. (2) After the maintenance is performed by NHPC. (with proper use of the GT-R special specification parts & genuine NISSAN Parts.) (3) After the maintenance is performed by NHPC. (without proper use of the GT-R special specification parts & genuine NISSAN Parts.)	Customers have to pay for the maintenance service at NHPC.	(1) × Not covered* (2) ○ Covered (3) × Not covered*
Others (1) Driving with the VDC/ESP OFF (except for emergency case to help free a vehicle stuck in mud or snow) (2) The additional maintenance is performed by NHPC after circuit driving or equivalent * with VDC/ESP OFF. (*Public road racing (rally), chassis dynamometer driving) (See ☞"Vehicle Dynamic Control (VDC)/Electronic Stability Program (ESP) off mode" page GTR-14.) (3) The electronic control system related to driving is modified (engine, transmission, chassis, etc.)	Customers have to pay for the maintenance service at NHPC.	(1) × Not covered* (2) ○ Covered (3) × Not covered*

Note 1: This information is current as of May 18th, 2020. For more details, contact a NHPC.

Note 2: The Vehicle Status Data Recorder (VSDR) system and the records in the Vehicle Status Data Recorder (VSDR) system are largely used to analyze malfunctions or to repair. If there is clear evidence indicating that any operations have been done intentionally to eliminate or modify the record in the VSDR system, the warranty will also be void.

*If the warranty was void due to any modifications of the GT-R special specification parts or genuine NISSAN parts, or the other factors listed here, the warranty will become effective again after all of the following actions are performed at the owner's cost:

- Restore all the modified parts with the GT-R special specification parts or genuine NISSAN parts to obtain the original specifications.
- Replace all the damaged or possibly damaged parts resulting from the modifications of the GT-R special specification parts or genuine NISSAN parts.

See "EXAMPLES OF PARTS REPLACEMENT AT THE OWNER'S COST" in the following section for more details.

The GT-R is a high performance vehicle. Use of any parts other than the GT-R special specification parts or genuine NISSAN parts, or failure to follow the instructions described in this Owner's Manual may cause damage to the major functional parts or electronic control unit and this will not be covered by warranty. However, except for the illegally modified vehicles, if it is clear that the damage is not caused by the parts that were replaced will be covered by warranty (e.g. seat fraying, interior parts detachment, etc.).

EXAMPLES OF PARTS REPLACEMENT AT THE OWNER'S COST

When the Vehicle Status Data Recorder (VSDR) in your GT-R has any records that the GT-R special specification parts or genuine NISSAN parts have been modified, all of the possibly damaged parts should be replaced at the owner's cost. The replacement of all of the parts that have a malfunction or potential and/or actual damage resulting from the modifications on the GT-R special specification parts or genuine NISSAN parts should be performed at the owner's cost.

The following section shows some examples of parts replacement at the owner's cost.

Modification on the engine control system

① If the boost pressure of the turbocharger has been modified:

NEVER modify the engine control system to change the boost pressure setting of turbocharger higher than original. The boost pressure and the ignition timing are more strictly controlled than that of the previous models in order to achieve higher engine power.

If the boost pressure of the turbocharger has been modified, the following action is required to assure warranty eligibility, depending on the modified conditions.

① If the boost pressure of the turbocharger has been modified		
The vehicles produced between March 2008 to November 2010	The vehicles produced from November 2010 or later	Required actions
highly by less than 10 kPa (0.1 kgf/cm^2)	highly by less than 5 kPa (0.05 kgf/cm^2)	The modified parts should be replaced with original/genuine parts. Other parts do not need to be replaced.
highly by between 10 kPa (0.1 kgf/cm^2) and 30 kPa (0.3 kgf/cm^2)	highly by between 5 kPa (0.05 kgf/cm^2) and 15 kPa (0.15 kgf/cm^2)	The modified parts and the engine assembly should be replaced.
highly by more than 30 kPa (0.3 kgf/cm^2)	highly by more than 15 kPa (0.15 kgf/cm^2)	In addition to the above replacements, the transmission and the drive shafts should be replaced.

② If the air-fuel ratio has been modified:

If the air-fuel ratio has been changed from the standard (original) ratio to:

- 12 or more (*1), the turbocharger should be replaced.
- 13 or more (*1), the engine assembly should be replaced.

If the air-fuel ratio has been lean beyond the above range, the engine assembly, muffler and the parts around the muffler should be replaced. This is because the exhaust gas temperature could rise extremely under the lean air-fuel ratio and it may cause the catalyst and the parts around the muffler to melt and/or burn.

*1: The air-fuel ratio should be measured when the engine speed is higher than 6,000 rpm and the boost pressure is more than 170 kPa (1.7 kgf/cm^2).

Modification to other parts

In addition to the specific examples of parts modifications described, there may be some cases requiring parts replacement at the owner's costs. If you have any questions, contact a NISSAN High Performance Center (NHPC).

NISSAN GT-R OPTION PARTS

The authorized NISSAN GT-R option parts to be released hereafter will be supplied with a continuing warranty mark as illustrated.

The authorized NISSAN GT-R option parts with the mark are checked and tested whether they can be used and replaced with the GT-R special specification parts or genuine NISSAN parts that NISSAN prohibits customers from modifying. Therefore, even after installing these authorized NISSAN GT-R parts to your GT-R, the NISSAN vehicle warranty still covers your GT-R.

MAINTENANCE INFORMATION

- Special skills, knowledge and equipment are necessary to properly inspect and adjust the GT-R engine, transmission, suspension and brakes to maintain performance. A NISSAN High Performance Center (NHPC) has the GT-R certified technical staff and the special equipment to properly maintain your GT-R.
- NISSAN recommends maintenance items that require the replacement of parts, engine oil, oil filters and air filters should be performed by a NISSAN High Performance Center (NHPC). Make sure the specified fluids and parts are used when the maintenance is performed. NISSAN also recommends the replacement of parts such as brakes should be performed by a NISSAN High Performance Center (NHPC).

GT-R SPECIAL SPECIFICATION PARTS

NOTICE

The GT-R offers unprecedented high performance, with its high quality and high performance parts that have always exceeded conventional engineering concepts and standards. All genuine parts and accessories, especially the GT-R special specification parts have been designed, tested and approved to meet/qualify for such high concepts and standards of safety, reliability and maximum performance. Therefore, NISSAN strongly recommends using only the following fluids and parts that have been tested and specifically approved for your GT-R. The use of non-approved parts that do not match the quality and performance of genuine parts may affect your GT-R's operating safety or maximum performance.

ENGINE OIL

Mobil 1 (0W-40) (100% synthetic oil)

Mobil 1 (0W-40) (100% synthetic) is the factory fill oil. The VR38 engine with its plasma-sprayed bores was developed using this oil.

Furthermore, replacement of the engine oil with MOTUL NISMO COMPETITION OIL type 2193E(5W40) is recommended for the frequent high performance driving

opportunities.

NISSAN cannot ensure proper engine operation and durability if other synthetic oil is used.

The use of additives or any chemical materials is prohibited.

- The engine of GT-R, VR38DETT, is provided with a newly developed linerless feature (plasma-sprayed bores), therefore if additives, abrasive compounds or other high performance engine oil are used, the internal part of the engine may be damaged due to sludge accumulation around the valves or metal particles abraded from the plasma coating.

Engine oil maintenance

- When the vehicle is delivered, the engine oil level is 10 mm (0.39 in) below the H mark on the engine oil dipstick for optimum high performance driving. The engine oil can be filled up to the H mark if not engaging in performance driving.
- The engine oil load increases with high power output. In order to maintain the vehicle's high level of performance, be sure to perform oil level inspections and fill up every 3,000 km (1,800 miles). For the information of the oil replacement interval, refer to the separate maintenance booklet.

  As a rough guide, the consumption rate of engine oil will usually be a maximum of 0.5 liters (1/2 qt) per 1,000 km (600 miles). Any rate of engine oil below this does not indicate a malfunction.
- For information about the oil replacement intervals for performance driving, refer to the interval for replacing oil after high performance driving. (☞ "Additional maintenance items" page GTR-16)

Make sure to replace the oil filter when the engine oil is changed.

TRANSMISSION OIL

Genuine NISSAN Transmission Oil R35 Special (100% synthetic oil)

The use of additives is prohibited.

- The transmission of GT-R, GR6, incorporates a newly developed dual clutch transmission that employs the multiple-disc wet clutch controlled using hydraulic pressure. Thus, the transmission uses the specially developed transmission oil for GT-R that can combine contradictory functions: friction characteristics of the clutch and lubrication of the gears and bearings.
- If using additives or other transmission oil, the gears and bearings may be damaged due to poor oil film retention and clutch slipping.

DIFFERENTIAL OIL (front and rear)

Differential Oil R35 COMPETITION type 2189E

Use only the Differential Oil R35 COMPETITION type 2189E that can keep the oil temperature low in order to protect all parts of the differential and maximize the performance of the Limited Slip Differential (LSD). Never use additives.

- The differential employs a 1.5-way mechanical LSD to achieve the appropriate distribution of driving power, depending on driving conditions. If using additives or other differential oil, the temperature of differential oil may increase and the final drive can be damaged.
- The friction characteristics of the LSD will vary, thus vibration may occur and the differential control may become unstable, causing vehicle behavior to be adversely affected.

The use of additives is prohibited.

BRAKE FLUID

Genuine NISSAN Brake Fluid R35 Special II

Genuine NISSAN Brake Fluid R35 Special II is the factory fill brake fluid. The Vehicle Dynamic Control (VDC)/Electronic Stability Program (ESP) unit and other related parts were specially designed for this brake fluid. NISSAN cannot ensure the best performance and proper operation

of the vehicle if other brake fluid is used.

GT-R SPECIAL PRECAUTIONS

TIRES AND ROAD WHEELS

Tires

The GT-R uses specially designed run-flat tires and matching road wheels. Use of these specially developed tires and wheels provides the greatest potential for maximum performance.

- Using non-genuine GT-R tires may cause powertrain system damage if the vehicle is driven in a flat tire situation, even if run-flat tires are used. This may also prevent the vehicle from being stopped safely.
- Using non-genuine GT-R tires may also cause tire failure due to excessive heat buildup caused by tire distortion while driving.
- Using non-genuine GT-R tires may affect the operation of the VDC/ESP system.

Tire replacement:

- When you replace the GT-R tires, it is recommended that you replace all the tires at the same time.
- The GT-R uses specially designed run-flat tires which feature an extremely rigid side wall. Special techniques and equipment are therefore required when replacing these tires. NISSAN recommends that tire replacement be performed at a NISSAN High Performance Center (NHPC).
- When tires are reinstalled after being uninstalled from the wheels, use equipment such as a leverless automatic tire changer. It is only possible to reuse the tires when they have no cracks and/or deformations on the bead portion. However, if you use a lever-type tire changer, cracks and deformation may occur on the bead portion of the tires meaning that the tires cannot be reused.

  Even if there is no visible damage, reusing these tires is not safe and may cause an accident.
- When reusing tires, contact a NISSAN High Performance Center (NHPC).

Road wheels

Using non-genuine GT-R wheels may cause the following:

- vehicle vibration
- the tire coming loose from the wheel during a flat tire
- reduced wheel lug nut tightness

BRAKE PAD AND DISC ROTOR

This vehicle is equipped with cross-drilled floating rotors and radial-mounted six-piston monoblock calipers.

GT-R brake pads and disc rotors are able to operate the following level of safety and performance.

- The GT-R is equipped with a high performance brake system. The casting material, floating structure and cooling performance are precisely developed and designed. This brake system provides a strong braking force that allows the vehicle to stop within a very short distance when driving at high speeds and operates normally in temperatures as high as approximately 700˚C (1,292˚F). Additionally, in order to efficiently radiate frictional heat from the brakes and prolong the life of the brake pads and disc rotors, the size of the brake discs has been increased, while at the same time, thickness has been reduced. This requires very sophisticated balance adjustment between the brake pads and disc rotors. Therefore, if non-genuine GT-R brake pads and disc rotors are used, this sophisticated balance is disrupted. This may not only cause an imbalance of the VDC/ESP operation that will result in deterioration of braking performance, but will also cause the brake pad to stick to the disc rotor. This could result in both of them being damaged and may cause a serious accident.

Replacement of brake pads and disc rotors

For models without NCCB (NISSAN Carbon Ceramic Brake) package:

NISSAN generally recommends to replace all four sets of brake pads and disc rotors at the same time to maintain maximum brake performance.

However, replacing only the brake pads may be allowed in some cases (four wheels or only front wheels depending on the conditions). A GT-R certified technician must inspect the vehicle and determine that only the brake pads need to be replaced. In this case, replacing all brake pads and disc rotors as a set is not necessary.

Note that the replacement of brake pads and the disc rotors as a set on all four wheels should be performed when a GT-R certified technician determines that this is the correct repair.

If the inside of the disc rotors are cold during the winter and the surface becomes hot due to a heavy force being applied repeatedly to the brakes, cracks may occur near the coolant hole on the surface of the disc rotor. Cracks may also occur due to a heavy force being repeatedly applied to the brakes during high performance driving. In these cases it may be necessary to replace the disc rotors or brake pads depending on the condition of the crack. We recommend contacting a NISSAN High Performance Center (NHPC) for replacement.

NCCB (NISSAN Carbon Ceramic Brake) (if equipped)

In order to enjoy the high performance braking sensation as well as the sporty driving and flexibility offered by the GT-R, NCCB (NISSAN Carbon Ceramic Brake) is available. NCCB (NISSAN Carbon Ceramic Brake) is specially designed brake system. Conventional carbon ceramic brakes have weaknesses in braking performance when driving in the rain, at a low temperature or at low speeds. However, NCCB (NISSAN Carbon Ceramic Brake) achieves both a stable brake force at high temperatures during high performance driving and braking performance under such driving conditions. NISSAN recommends that you have the NCCB (NISSAN Carbon Ceramic Brake) and the related parts maintained by a NISSAN High Performance Center (NHPC). Otherwise, the braking performance may not be delivered across all situations and the brake system may be damaged, which could result in a serious accident.

Replacement of brake pads and disc rotors

When replacing brake pads and brake disc rotors, NISSAN recommends replacing two sets of them at the same time. However, the brake pads can be separately replaced only when a GT-R certified technician judges that the brake disc rotors are reusable, based on a measured

weight and a check for scratches and cracks.

EXHAUST MUFFLER AND TRUNK CARPET

By using the genuine GT-R special exhaust muffler and trunk carpet, your safety and the vehicle performance are ensured, and the following engine and turbocharger damage is prevented.

- The engine of GT-R is optimized for the genuine GT-R muffler that accomplishes super low exhaust pressure, therefore, if installing an exhaust component with a different exhaust pressure coefficient from the original coefficient, mismatched setting of engine could occur and improper turbocharger rotation could cause turbo overshoot. Accordingly, the inner part of the engine, turbocharger or power train parts including the transmission may be damaged.
- The GT-R uses a heat-insulated and acoustic-absorbent muffler that provides thermal dispersion of exhaust gases of a high temperature using all the exhaust related components. Using non-genuine GT-R exhaust parts may disrupt the balance of heat dissipation, cause heat to be concentrated in the muffler and bend section, and could cause heat damage to surrounding components. In particular, because the main muffler is covered by the undercover, using a muffler that does not have heat insulation may affect the performance of the trunk room, bumper parts, undercover and rear combination light.

Do not remove the trunk carpet from the vehicle for any reason. The carpet insulates the vehicle interior from the heat of the muffler and from the noise of the transmission.

TITANIUM MUFFLER AND TRUNK CARPET

If a non-genuine titanium muffler is used, the muffler may become deformed and damage the underbody due to the high performance engine reaching high exhaust gas temperatures (1,000°C (1,832°F) or more). The highest-class titanium alloy is used for genuine parts to ensure the resistance strength and creeping characteristics against high exhaust gas temperature. In addition, further cooling effects are secured by taking in air through the duct on the undercover, to cool the area around the muffler, and by applying partial plate thickness reduction. Since genuine titanium mufflers are made of titanium alloy, the surface color will change depending on the driving conditions, which is not unusual. Prior to shipping from factory, all vehicles receive balance aligning for engine, transmission, and clutch, as well as quench driving of brake pads and rotors. As a result, the muffler surface color may differ depending on the vehicle.

Never remove the trunk carpet from the vehicle for any reason. The carpet insulates the vehicle interior from the heat of the muffler and from the noise of the transmission.

Never Allow Oil or Grease to Adhere to the Titanium Muffler.

If the muffler is heated when oil or grease adhere to the muffler surface, the color of this area will be different from that of the surrounding area. To remove the oil or grease, check that the surface temperature of the muffler has cooled, wash the area with a neutral detergent, wipe it with a brake cleaner-sprayed clean shop cloth and gently tap it with a dry shop cloth to dry. Be careful not to allow the brake cleaner to splatter on rubber parts, bumper, etc.

NOTICE

Never allow polishes with compounds, because there is a possibility that the titanium muffler finisher coloring will be changed.

CARBON PARTS (if equipped)

Because of the characteristics of the material, the carbon parts may turn yellow due to exposure to ultraviolet rays. The surfaces of carbon parts are coated with a special ultraviolet protection paint. To maintain the appearance of these parts, it is important to take proper care of them.

- Do not use compound agents on clear-coated carbon parts (such as the NISMO model's bumper, side sill protector, rear spoiler, roof, hood duct, front fender duct, etc.).
- Do not use any chemical agents (wax, coating agent, compound agent, etc.) on matte-painted carbon parts (such as the rear diffuser, a rear spoiler that is of specifications other than NISMO, etc.).
- When carbon parts become dirty, prepare a dilute cleaning solution by mixing one capful of mild detergent in a bucket of water, and use that mixture to clean the parts.

ENGINE START AND STOP

This vehicle includes spark plugs that are designed for high performance. For this reason, if the engine is repeatedly started and stopped over a short time, the spark plugs may become fouled, making the engine difficult to start. To prevent diminished starting performance, avoid starting and stopping the engine repeatedly during a short period of time.

NISSAN GT-R SPECIAL MAINTENANCE

In addition to the regular maintenance recommended by NISSAN, the GT-R requires the following special inspections:

- Wheel alignment inspection and adjustment (if necessary) (including tire pressure adjustment)
- Transmission settings

These inspections are required at the following intervals:

- 2,000 km
- 12 months
- 24 months
- 36 months

NOTE:

- **These inspections will be performed free of charge for labor at a NISSAN High Performance Center (NHPC) only. (All inspections and servicing outside the intervals above will be performed at the customer's expense.) Inspections thereafter are recommended every 12 months or 20,000 km (whichever comes first) at the customer's expense. See a separate maintenance booklet for details.**
- **Repairs and adjustments involving parts replacement, etc. determined to be necessary as a result of these inspections are performed at the customer's expense.**

- **See a separate warranty booklet for significant limitations, exclusions and possible voiding of your warranty resulting from failure to have these necessary inspections, repairs and/or adjustments performed.**
- **See a separate maintenance booklet for a detailed explanation of the NISSAN GT-R Special maintenance.**

WHEEL ALIGNMENT INSPECTION AND ADJUSTMENT (if necessary) (including tire pressure adjustment)

This vehicle is equipped with a high performance suspension. The vehicle's wheel alignment needs to be measured and adjusted (if necessary) by a NISSAN High Performance Center (NHPC) as necessary as the vehicle is driven and the suspension parts break-in.

From city driving to high performance driving, settings can be performed according to the customer's needs. Contact a NISSAN High Performance Center (NHPC) for further details.

Preventing toe-out:

Regarding the amount of toe-in, because toe-out causes lopsided wear on the tires or damage to localized areas inside the tires due to heat generation, be sure to adjust to toe-in.

Also, heat may be generated in localized areas if the toe-in amount is excessive. Particularly when engaging in high performance driving or driving at extremely high speed, be sure to adjust the front toe-in to 1.5 mm (0.059 in) or less, and rear toe-in to 2.0 mm (0.079 in) or less. Any damage caused by failing to adjust the toe-in within the specified range will not be covered by the warranty.

TRANSMISSION SETTINGS

The design of the clutch and transmission requires inspection and adjustment of the clutch and shift forks by a NISSAN High Performance Center (NHPC) at the recommended intervals. If the transmission setting is not complete, excessive loads may be applied to the transmission and power train system parts during starting and shifting, which may result in a malfunction or damage. Depending on the driving conditions, more frequent adjustments may be necessary to help maximize vehicle performance.

BREAK-IN SCHEDULE

NOTICE

Follow these recommendations to obtain maximum engine performance and ensure the future reliability and economy of your new vehicle. Failure to follow these recommendations may result in shortened engine life and reduced vehicle performance.

Please observe the following types of driving until the mileage shown below has been reached.

Until 500 km (300 miles):

- Do not depress the accelerator pedal more than halfway and avoid rapid acceleration.
- Drive with the engine speed kept at less than 3,500 RPM.
- Avoid unnecessary quick steering, abrupt braking and driving on poor roads.

500 to 1,000 km (300 to 600 miles):

- Avoid rapid acceleration in a low gear (1st to 3rd gears) with the accelerator pedal fully depressed. Depress the pedal slowly.
- Avoid unnecessary quick steering and abrupt braking.

- Drive with the suspension setup switch in the COMF mode to allow more suspension stroke.

1,000 to 2,000 km (600 to 1,200 miles):

- Drive with the engine speed kept relatively high with the shift lever in the M position. Shifting is recommended between 1st and 4th gears.
- Avoid unnecessary quick steering and abrupt braking.
- Drive with the suspension setup switch in the COMF mode to allow more suspension stroke.

Even though the mileage reaches over 2,000 km (1,200 miles), the clutch may take longer to properly engage if the vehicle is mainly driven at a normal or low speed. NISSAN recommends breaking in the clutch at a NISSAN High Performance Center (NHPC). Always perform the transmission setting after breaking in the clutch. If the transmission setting is not complete, excessive loads may be applied to the transmission and power train system parts during starting and shifting, which may result in a malfunction or damage.

WHEEL ALIGNMENT

Do not adjust the wheel alignment until the mileage reaches 2,000 km (1,200 miles). Until then, the suspension may not engage enough and the height may be higher.

However, make sure to adjust the alignment after 2,000 km (1,200 miles).

From city driving to high performance driving, settings can be performed according to the customer's needs. Contact a NISSAN High Performance Center (NHPC) for further details.

Preventing toe-out:

Regarding the amount of toe-in, because toe-out causes lopsided wear on the tires or damage to localized areas inside the tires due to heat generation, be sure to adjust to toe-in.

Also, heat may be generated in localized areas if the toe-in amount is excessive. Particularly when engaging in high performance driving or driving at extremely high speed, be sure to adjust the front toe-in to 1.5 mm (0.059 in) or less, and rear toe-in to 2.0 mm (0.079 in) or less.

VEHICLE DYNAMIC CONTROL (VDC)/ELECTRONIC STABILITY PROGRAM (ESP) OFF MODE

- NISSAN GT-R was developed to perform its dynamic stability and controllability in the VDC/ESP ON mode. We therefore cannot assure avoidance of any accident or incident when driving in the VDC/ESP OFF mode. It is NISSAN's social responsibility to strongly recommend driving in the VDC/ESP ON mode at all times, to maintain safety and a high level of dynamic stability.
- The VDC/ESP OFF mode should normally only be used to help free a vehicle stuck in mud or snow by temporarily stopping VDC/ESP operation and keeping torque applied to the wheels.
- Circuit driving or equivalent* in the VDC/ESP OFF mode is excluded from warranty coverage. Turning the VDC/ESP OFF in an emergency to escape from mud/snow would not invalidate the warranty.
- If the GT-R is used for circuit driving or equivalent* in the VDC/ESP OFF mode the warranty can be restored after additional maintenance is done at NISSAN High Performance Center (NHPC).

  * Public road racing (rally), chassis dynamometer driving

- Vehicles driven in the VDC/ESP OFF mode are confirmed by Vehicle Status Data Recorder (VSDR).

SUMMER TIRES

The GT-R summer tires are made from a specially formulated rubber to maximize the vehicle's performance capabilities. Performance of summer tires is substantially reduced when temperatures are less than 0°C (32°F) so you must drive carefully. NISSAN recommends the use of winter tires on all four wheels if you plan to operate your vehicle in snowy or icy conditions when temperatures are less than 0°C (32°F).

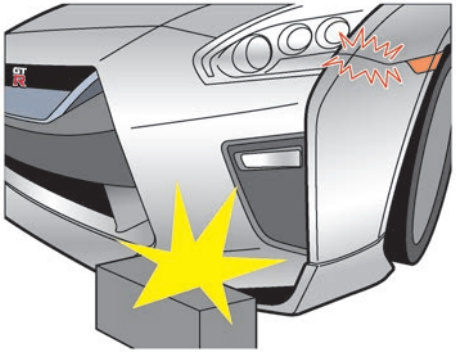
⚠ WARNING

Never use summer tires when the temperature is below −20°C (−4°F) to prevent permanent tread deformation which may cause tire damage or tire failure. This may cause a loss of vehicle control which can result in serious personal injury or death.

AVOIDING AN IMPACT TO THE VEHICLE

Drive carefully at a low speed when driving on the road which may cause an impact on the lower part of the vehicle or bumper.

Cracks and damaged paintwork in the front bumper side parts



Drive paying careful attention to wheel blocks and curbs. If the front bumper collides with a wheel block etc., the whole bumper may be bent out of shape and parts other than those that were hit (on the bumper side) may be damaged or cracked.

Damage to the front spoiler

Be careful to pay attention to damage to the front spoiler that is installed below the engine room.

FUEL

Never use fuel containing as much alcohol as non-premium gasoline.

Also, never add a water depleting solvent when enough fuel does not remain in the fuel tank.

The temperature may increase extremely to over 1,100°C (2,012°F) and it may cause a spark plug to melt or a cylinder and cylinder head to be damaged. (☞ "Capacities and recommended fluids/lubricants" page 9-2)

BODY REPAIR

The body of the GT-R has been manufactured on special fixtures utilizing a hybrid structure with aluminum die cast parts for the frame work. Special skills, information and equipment are required to correctly repair the body. Contact a NISSAN High Performance Center (NHPC) if the vehicle is damaged, such as in a collision, and they will recommend an appropriate body shop.

Only certified body shops using CELETTE® advanced collision repair equipment are approved by NISSAN for repairing structural body damage. Contact a NISSAN High Performance Center (NHPC) for a referral or list of certified body shops.

DRIVING AFTER REPLACING TIRES

Avoid driving at high speed or engaging in high performance driving immediately after fitting tires on the wheels. If sudden starting or braking is performed immediately after a tire change, because there will be insufficient balance between the wheels and the tires, a misalignment of the reference marks may occur. In the first 2 days after fitting tires, do not engage in high performance driving that will subject the tires to a significant load.

ADDITIONAL MAINTENANCE ITEMS

The information and specifications in this section apply only when engaging in performance driving.

The following information applies only if you engage in performance driving such as driving your GT-R for extended periods under the following conditions.

- Higher-RPM (approaching redline) operation
- Frequent high pedal force braking from moderate and higher speeds
- Frequent throttle activation
- Fast revving throughout the RPM range

In such cases, the following additional maintenance guidelines apply.

However, you should also carefully read your maintenance booklet for important information concerning warranty coverage, limitations and exclusions.

We recommend that all GT-R maintenance be performed at a NISSAN High Performance Center (NHPC). NISSAN will only pay for NISSAN GT-R Special maintenance performed at a NISSAN High Performance Center (NHPC).

PRECAUTIONS ON PERFORMANCE DRIVING

Checking the temperature of the coolant and oils on the touch screen display

When the temperatures of the engine coolant and oil, and the oil pressure exceed the normal range, the color of the multi function meter on the touch screen display changes to red to warn the driver. When engaging in high performance driving, switch the display to the function meter to display the temperature of the engine coolant and oil, and the oil pressure. When the color of the multi function meter changes to red, perform cool down driving. When the values of the temperature and pressure return to the normal range, the color of the multi function meter will turn back to white.

Warning temperature:

- Engine coolant temperature: 110°C (230°F) or higher *1
- Engine oil temperature: 135°C (275°F) or higher *2
- Transmission oil temperature: 140°C (284°F) or higher *3

*1: If the engine coolant temperature increases above 110°C (230°F), the color of the multi function meter on the touch screen display changes to red to warn of a possible overheat condition and engine output is reduced.

*2: When the engine oil temperature is higher than 135°C (275°F), the meter changes to red, maximum engine speed is automatically limited to 4,000 rpm, and the transmission automatically changes from the M position to the A position.

*3: When the transmission oil temperature increases to over 140°C (284°F), the color of the meter display changes to red. However, the vehicle can continue to be driven until the temperature reaches 146°C (295°F). If the oil temperature exceeds 140°C (284°F) while driving (the color of the meter displayed in red), change both the transmission oil and the differential oil after driving because these fluids have deteriorated because of the heat.

Cool down

Cool down the vehicle to help extend the life of the vehicle if coolant temperatures are extremely high. Drive the vehicle at 60 to 80 km/h (37 to 50 MPH), in 5th or 6th gear for 3 to 5 km (2 to 3 miles) and then stop the engine.

Refueling precautions

⚠ WARNING

Do not attempt to top off the fuel tank after the fuel pump nozzle shuts off automatically. Continued refueling may cause fuel overflow, resulting in fuel spray and possibly a fire. The fuel tank is full at the first automatic shutoff.

To maximize vehicle performance, the fuel tank is located as low as possible to lower the vehicle center of gravity. The tank is also divided into two parts. This fuel tank design causes higher pressures inside the tank than other vehicles so fuel spillage is possible by trying to top off the fuel tank after automatic shutoff.

- When more than half of the fuel remains in the tank, the pressure and temperature in the fuel tank may increase. This may cause evaporated fuel spray with a hissing sound when the fuel cap is opened, and it may be difficult to refuel the vehicle, but this does not indicate a malfunction.

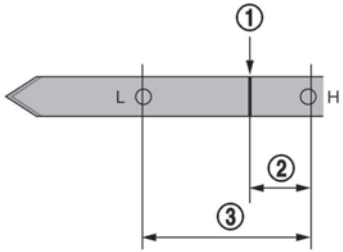
  This phenomenon may not occur after the temperature inside the fuel tank decreases.

  To avoid the above phenomenon, open the cap gently to gradually release the pressure from the tank, and then refuel slowly.

INSPECTION AND ADJUSTMENTS BEFORE DRIVING

Fluids

- Check the engine, transmission, differential and under the vehicle for oil and coolant leaks.
- Check the fluid levels and adjust as necessary using the specified fluid as described under the conditions listed in (☞ "Recommended fluids and maintenance interval" page GTR-22). If you do not drive under the conditions listed, refer to a separate maintenance booklet.

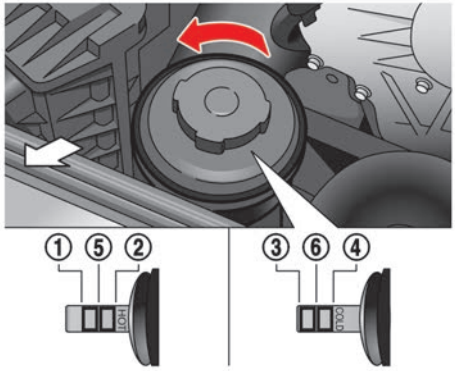


- NISSAN recommends to adjust the engine oil level ① to be 10 mm (0.39 in) (0.5 L) ② below the H mark on the engine oil dipstick. (③ range is 30 mm

(1.18 in).) Before checking the oil level, run the engine until it reaches operating temperature and wait at least 5 minutes after turning off the engine. Make sure the oil level always remains above the L mark. (☞ "Checking engine oil level" page 8-11)

When the vehicle is delivered, the engine oil is set to 10 mm (0.39 in) below the H mark for optimal high performance driving.

As a rough guide, the consumption rate of engine oil will usually be a maximum of 0.5 liters (1/2 qt) per 1,000 km (600 miles). Any rate of engine oil below this does not indicate a malfunction.



- Adjust the power steering fluid level to the R mark ⑤ on the power steering dipstick when the fluid temperature is hot or ⑥ when the fluid temperature is cold.

  Fluid temperature:

  Hot: 50 to 80°C (122 to 176°F): between ① and ⑤

  Cold: 0 to 30°C (32 to 86°F): between ③ and ⑥

Coolant level and mixture ratio

Check the coolant level in the pressurized coolant reservoir. Adjust the level so that the fluid is on the MAX marking. For the coolant, use Genuine NISSAN Engine Coolant.

NOTICE

Do not overfill the coolant. This may cause coolant leaks from the coolant reservoir.

To maximize vehicle performance, the coolant mixture ratio should be a combination of 30% antifreeze and 70% demineralized or distilled water for maximum cooling system performance regardless of ambient temperatures.

Engine and powertrain

- Check the engine, transmission, differential and under the vehicle for oil and coolant leaks.
- Inspect the surrounding of the catalyst converter for heat deterioration.
- Always perform the transmission setting. (☞ "Transmission settings" page GTR-13)

  After that, adjust the clutch clearance so that the clearance is smaller than the usual clearance. Large clutch clearance increases clutch heat generation and this leads to an increase in temperature of the transmission oil. In addition, a more direct shifting feel can be obtained by adjusting the clearance to be small. Perform the adjustment again after high performance driving. See your NISSAN High Performance Center (NHPC) for information.

NOTICE

Failure to have the clutch properly adjusted before performance driving may cause the transmission oil temperature to increase which may cause transmission damage.

- Inspect to see whether the clearance between the exhaust finisher and rear bumper is maintained at above 6 mm (0.24 in) (up/down) and above 5 mm (0.20 in) (left/right).
- Inspect the dust boot of the drive shaft universal joint for cracks or damage.

Suspension and wheel alignment

- Check the steering and suspension system and other links for loose and/or damaged parts.
- Measure and adjust the wheel alignment. Contact a NISSAN High Performance Center (NHPC), to adjust the wheel alignment to the recommended setting for high performance driving.

Preventing toe-out:

Regarding the amount of toe-in, because toe-out causes lopsided wear on the tires or damage to localized areas inside the tires due to heat generation, be sure to adjust to toe-in.

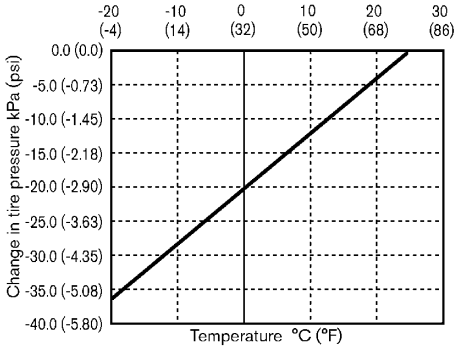
Also, heat may be generated in localized areas if the toe-in amount is excessive. Be sure to adjust the front toe-in to 1.5 mm (0.059 in) or less, and rear toe-in to 2.0 mm (0.079 in) or less when engaging in high performance driving or driving at extremely high speed. Any damage caused by failing to adjust the toe-in within the specified range will not be covered by the warranty.

Wheel and tires

- Check tire wear and cracking.
- Inspect the tire side wall for damage.
- Check the tire pressure and adjust the pressure as necessary when the tires are cold.

The tire pressure changes depending on the outside temperature or altitude. Check the tire pressure regularly and when the climate conditions change.

*The following chart indicates how the tire pressure will decrease as outside air temperature decreases.

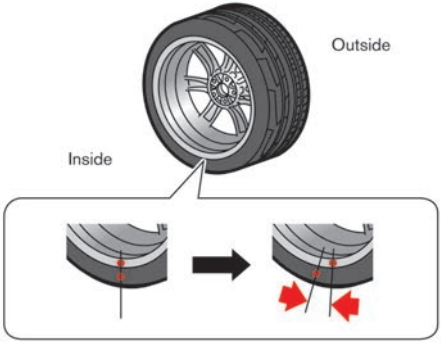


WARNING

Keep your tires inflated to the correct tire pressure. Driving with low tire pressure can damage some powertrain systems and affect the operation of the ABS and VDC/ESP systems. Low Tire pressure may also cause tire failure and result in serious personal injury or death.

- Make sure the tire valve stem cap is installed and that the valve stem is tight. When installing the cap, make sure to tighten the cap by hand. If a tool is used to tighten the cap, the cap may be damaged.
- Make sure the wheel nuts are tight. (☞ "Wheels and tires" page 8-34)
- Make sure the drive shaft nuts are tight.
- Make sure to replace the grommet seal, the valve core and the valve cap of the Tire Pressure Monitoring System (TPMS) sensor attached to the wheel every 3 years for performance driving use. Replace them every 5 years even when not engaging in performance driving. A dirty grommet seal will cause the air leak from the tire.
- Make sure that the TPMS sensor installation nuts and the sensor valve are tight and there is no nitrogen leak.
- Use only a NISSAN genuine valve cap or equivalent.

- Check wheel hub run out and that the wheel rotates smoothly without any friction. Check these with the tires removed whenever an inspection is performed with the vehicle jacked up.
- Secure road wheel balance weights with aluminum tape.
- Check that the wheel nuts are not stripped.



- Make sure the tire has not slipped on the wheel causing the assembly to be out of balance. The reference marks on the tire and wheel should be aligned. If the reference marks are not aligned, the tire has slipped on the wheel. Have the wheels/tires re-balanced. Make sure the old reference marks are erased and new reference marks are applied to the wheel and tire. When installing new tires on the wheels, make sure new reference marks are applied to the wheels and tires.
- Do not engage in high performance driving immediately after fitting tires on the wheels. If sudden starting or braking is performed immediately after a tire change, because there will be insufficient balance between the wheels and the tires, a misalignment of the reference marks may occur. In the first 2 days after fitting tires, do not engage in high performance driving that will subject the tires to a significant load.

Brakes

- Check for the heat deterioration of the brakes and parts around the brakes.
- When engaging in high performance driving for the first time after purchasing a new vehicle, after replacing the brake fluid, or when engaging in high performance driving for a sustained period of time, it is recommended that you remove air from the brake fluid. It is recommended that bleeding the brake be performed when the brake calipers are hot (about 100°C (212°F)).
- Remove the grease on the front brake pads completely.

Brake pad break-in procedure:

NISSAN recommends breaking in the brake pads until the surface of the pad becomes white with 1 to 2 mm (0.04 to 0.08 in) in thickness. The temperature of the brake pads increases to 600°C (1,112°F).

Drive the vehicle at the speed of 120 km/h (75 MPH) and slow down to 20 km/h (12 MPH) with 0.6G. Repeat this procedure about 15 times. Then, cool down the brake by driving at 60 to 80 km/h (37 to 50 MPH), in 5th or 6th gear for 3 to 5 km (2 to 3 miles) after breaking in.

Never break in the brake pads on a public road.

INSPECTION AND ADJUSTMENTS AFTER DRIVING

The information and specifications in this section apply only when engaging in performance driving.

NOTICE

At the completion of performance driving, all fluid and other adjustments should be returned to the normal fluid specifications as shown in the "Maintenance and do-it-yourself" section of this manual.

Fluids

- Check the engine, transmission, differential and under the vehicle for oil and coolant leaks.
- Check the fluid levels and adjust as necessary using the specified fluid as described under the conditions listed in "Recommended fluids and maintenance interval" . If you do not drive under the conditions listed, refer to a separate maintenance booklet.
- Be sure to change the fluids with the specified fluids after driving.
  (☞ "Recommended fluids and maintenance interval" page GTR-22)

Recommended fluids and maintenance interval

ITEMS	Engine Oil	
GT-R SPECIFIED FLUIDS	Mobil 1 (0W-40)*1	
MAINTENANCE INTERVAL	• When the oil temperature stays below 110°C (230°F) while driving	Change engine oil and engine oil filter every 15,000 km (9,000 miles).
	• When the oil temperature reaches between 110°C (230°F) and 130°C (266°F) while driving	Change engine oil and engine oil filter every 5,000 km (3,000 miles).
	• When the oil temperature exceeds 130°C (266°F) while driving	Change engine oil and engine oil filter immediately after stopping.

ITEMS	Transmission Oil	
GT-R SPECIFIED FLUIDS	Genuine NISSAN Transmission Oil R35 Special	
MAINTENANCE INTERVAL	• When the oil temperature stays below 120°C (248°F) while driving	Change transmission oil every 60,000 km (36,000 miles).
	• When the oil temperature reaches between 120°C (248°F) and 140°C (284°F) while driving	Change transmission oil every 5,000 km (3,000 miles).
	• When the oil temperature exceeds 140°C (284°F) while driving	Change transmission oil immediately after stopping.

ITEMS	Differential Oil (front and rear)	
GT-R SPECIFIED FLUIDS	Differential Oil R35 COMPETITION type 2189E*2	
MAINTENANCE INTERVAL	• When the oil temperature stays below 120°C (248°F) while driving	Change differential oil every 60,000 km (36,000 miles).
	• When the oil temperature reaches between 120°C (248°F) and 140°C (284°F) while driving	Change differential oil every 5,000 km (3,000 miles).
	• When the oil temperature exceeds 140°C (284°F) while driving	Change differential oil immediately after stopping.

ITEMS	Brake Fluid
GT-R SPECIFIED FLUIDS	Genuine NISSAN Brake Fluid R35 Special II*3
MAINTENANCE INTERVAL	Change brake fluid every 5,000 km (3,000 miles).

*1: Mobil 1 (0W-40) (100% synthetic) is the factory fill oil. The VR38 engine with its plasma-sprayed bores was developed using this oil. NISSAN cannot ensure proper engine operation and durability if other 0W-40 synthetic oil is used.

*2: The differential oil temperature cannot be displayed on the multi function meter on the touch screen display. The differential oil temperature can be checked with the transmission oil temperature since both usually increases or decrease concurrently.

*3: Genuine NISSAN Brake Fluid R35 Special II is the factory fill brake fluid. The Vehicle Dynamic Control (VDC)/Electronic Stability Program (ESP) unit and other related parts were specially designed for this brake fluid and NISSAN cannot ensure the best performance and proper operation of the vehicle if other brake fluid is used.

Suspension and wheel alignment

- Check the steering and suspension system and other links for loose and/or damaged parts.
- Measure and adjust the wheel alignment. Contact a NISSAN High Performance Center (NHPC) to adjust the wheel alignment to the recommended setting. Note that the inside of the tires may be unevenly worn when the camber angle is large, therefore it is recommended to adjust the wheel alignment to the city driving (driving in town) setting. The wheel alignment can be adjusted by a NISSAN High Performance Center (NHPC) in accordance with specifications for city driving to high performance driving.

Preventing toe-out:

Regarding the amount of toe-in, because toe-out causes lopsided wear on the tires or damage to localized areas inside the tires due to heat generation, be sure to adjust to toe-in.

Also, heat may be generated in localized areas if the toe-in amount is excessive. Be sure to adjust the front toe-in to 1.5 mm (0.059 in) or less, and rear toe-in to 2.0 mm (0.079 in) or less when engaging in high performance driving or driving at extremely high speed. Any damage caused by failing to adjust the toe-in within the specified range will not be covered by the warranty.

Wheel and tires

- Check tire wear and cracking.
- Inspect the tire side wall for damage.
- Check the tire pressure and adjust the pressure as necessary when the tires are cold. (☞ "Wheel and tires" page GTR-19) If you do not drive under the conditions listed in this section, see ☞ "Wheels and tires" page 8-34.
- Check that the wheel nuts are not stripped. Check there is no deformation on the contact surface of the wheel nuts.
- Make sure the wheel nuts are tight. (☞ "Wheels and tires" page 8-34)
- Make sure the drive shaft nuts are tight.
- Check wheel hub run out and that the wheel rotates smoothly without any friction. Check these with the tires removed whenever an inspection is performed with the vehicle jacked up.
- Make sure the tire has not slipped on the wheel causing the assembly to be out of balance. The reference marks on the tire and wheel should be aligned. If the reference marks are not aligned, the tire has slipped on the wheel. Have the wheels/tires rebalanced. Make sure the old reference marks are erased and new reference marks are applied to the wheel and tire. When installing new tires on the wheels, make sure new reference marks are applied to the wheels and tires. (☞ "Wheel and tires" page GTR-19)
- Make sure that the nut installing the TPMS sensor and the sensor valve are tight and there is no nitrogen leak.

Brakes

- Check for the heat deterioration of the brakes and parts around the brakes.
- Check the condition of the brake pads and disc rotors and replace them as necessary according to the standards.
- Apply MOLYKOTE® 7439 to the top and bottom of the front brake pads.

Engine and powertrain

- Check the engine, transmission, differential and under the vehicle for oil and coolant leaks.
- Inspect the surrounding of the catalyst converter for heat deterioration.
- Inspect to see whether the clearance between the exhaust finisher and rear bumper is maintained at above 6 mm (0.24 in) (up/down) and above 5 mm (0.20 in) (left/right).
- The clutch clearance and shift fork position may need to be adjusted.
- Inspect the dust boot of the drive shaft universal joint for cracks or damage.

- Check that there is no abnormal noise, vibrations or warning lights illuminated when making tight turns at slow speed (for tight corner braking phenomenon).

GASOLINE SMELL

The fuel temperature is higher when the vehicle is hot. This may cause a gasoline smell from the vehicle. This does not indicate that there is a malfunction. The smell will go away when the fuel temperature has cooled.

OUTSIDE TEMPERATURE DISPLAY INDICATES HIGHER TEMPERATURE

Heat from the engine compartment, radiator and intercoolers can affect the outside temperature display. The outside temperature display may indicate a higher than actual temperature while driving or stopped. This is normal.

IDLE SPEED IS NOT STEADY

The idle speed may not be steady when the engine compartment is extremely hot. This is normal. The engine speed will be steady when the engine cools down.

In this case, the Malfunction Indicator Light (MIL) may come on. After a few driving trips, the MIL should turn off. If the light remains on after a few driving trips, have the vehicle inspected by a NISSAN High Performance Center (NHPC).

ENGINE SPEED IS RESTRICTED

To help protect the engine, the maximum engine speed is automatically controlled in the following conditions:

- Revving the engine with the shift lever in the P or N position: The maximum engine speed is 4,300 RPM
- Revving the engine when the engine oil is at a low (below 0°C (32°F)) or extremely high (over 135°C (275°F)) temperature: The maximum engine speed is 4,000 RPM (The M position will automatically change to the A position.)

ENGINE OUTPUT

High altitude

To protect the engine, engine output is controlled so that it does not increase at altitude of approximately 1,000 m (3,281 ft) or higher.

Engine output according to the coolant temperature

The engine output is regulated at a low level when the engine coolant temperature is lower than approximately 70°C (158°F) or higher than 110°C (230°F). This is not a malfunction.

When the temperature of the engine coolant is lower than approximately 70°C (158°F) or higher than 110°C (230°F), the engine output is regulated to protect the engine. This is not a malfunction. If

the temperature is lower than approximately 70°C (158°F), perform warm up driving. If the temperature is higher than 110°C (230°F), perform cool-down driving. When the temperature of the engine coolant is between 70°C (158°F) and 110°C (230°F), the engine output will return to normal.

UNEVEN WEAR OF TIRES

The GT-R is equipped with high performance, low profile, run-flat tires that are optimized for performance and handling. The life of these tires will be less than those of tires installed on a typical vehicle, and you are likely to experience uneven tire wear and tire noise regardless of the type of tire used.

NOISES ARE HEARD WHILE DRIVING

- The GT-R brake pads use material that provides a high amount of braking power even in high temperatures. This material can cause an intermittent screeching noise just before the vehicle comes to a stop when the brakes are gently applied. The noise decreases as the brake pads wear. However, the additional brake pad break-in or replacing the cross spring may decrease the noise. Contact a NISSAN High Performance Center (NHPC).
- A screeching noise may be heard when the brake pedal is depressed:
  - When driving the vehicle for the first time in the morning,
  - After leaving the vehicle parked for extended periods of time, or
  - When the vehicle is damp following rain showers or washing the vehicle.

  These sounds are normal. The noise is caused when the brake pads absorb moisture, and the noise stops after the brake is applied several times.
- A screeching noise may also be heard when the brake pedal is depressed:
  - When repeatedly applying gentle braking, especially on a curve at a low speed, or
  - When the brake rotors have circular scores with the brake temperature high.
- To maintain steady braking performance in both extremely high and low temperatures, the gap between the brake pad and caliper is larger than normal and large-size brake pads are used. When driving over a bump, a light rattling sound may be heard from the brake pad. This does not indicate that there is a malfunction.
- When the brake disc rotor undergoes thermal expansion, a ticking noise may be heard from the engaging portion of the wheel and the brake disc rotor. This does not indicate that there is a malfunction. The noise will reduce when the temperature decreases.
- In addition to noise resulting from uneven tire wear discussed in the previous section, the GT-R tires are more rigid than a typical passenger car tire and are made from a specially formulated rubber to maximize the vehicle's performance capabilities. These characteristics cause the GT-R tires to have more road noise than a typical passenger car tire. This road noise is normal.
- Due to the performance capabilities and requirements of the GT-R, the sequential 6-speed dual clutch transmission is unlike a typical automatic transmission. You will likely hear mechanical sounds from the transmission, particularly at slow speeds and at idle. This condition is normal.

For models without NCCB (NISSAN Carbon Ceramic Brake) package:

⚠ WARNING

Follow the instructions below when parking the vehicle to help prevent the brake rotor and brake pads from rusting together. Failure to follow the instructions could cause the rotor and pads to rust together. If the rotor and pads rust together, there may be a popping noise and some vibration when the vehicle is

driven, a wheel may not roll correctly, or the brake pads could be damaged. If the pads are damaged, this may reduce the effectiveness of the brake system which could cause a collision, serious personal injury or death.

- The GT-R uses brake pad materials that have high metallic content. The brake pad material helps maintain braking performance in a wide range of weather and driving conditions.

  For the first 5,000-10,000 km (3,000-6,000 miles) of the vehicle's service life, and for the first 5,000-10,000 km (3,000-6,000 miles) after a brake replacement, the brake pad to brake rotor clearance is very small. When parking, apply the parking brake and move the shift lever to the P position. Idle the engine for more than 20 seconds without depressing the brake pedal. This allows the brake pads to move away from the rotor so the pad does not contact the rotor.

  Additionally, the brakes must be dry before parking the vehicle after driving on wet roads or after washing the vehicle. If the roads are wet, lightly apply the brakes for a short distance before parking the vehicle to dry the brakes. After washing the vehicle, dry the brakes by driving on a dry road for a few miles and apply the brakes normally based on traffic and road conditions.

  If the vehicle is driven on red clay that contains a lot of iron, the brake pads and disc rotor may rust together more easily. Make sure to follow the specified instructions for parking.

  If the hill start assist system is functioning, the system keeps the brake applied even though the brake pedal is not depressed. If the vehicle is parked with the brake system wet, the brake pads and disc rotors may rust together. Make sure to follow the specified instructions for parking.

  The metallic brake pads and brake disc rotor may rust together when the brakes are not applied:

  — If the vehicle is not idled for 20 seconds without the brakes applied, or if the brakes are applied when the vehicle is shut off, the rotor and pads can rust together, even when the brake pads are dry.

  — If the brakes are wet when the vehicle is parked and the parking brake is applied for a long time.

  Contact a NISSAN High Performance Center (NHPC) if the brake pads and brake rotor have rusted together.

⚠ CAUTION

- **Before parking the vehicle, drive the vehicle for 1 km (1 mile) or more to dry the brake system, especially if the brake is wet. (The brake system will be firmly fixed if the vehicle is washed and driven for only a few meters.)**
- **To reduce the possibility of the brake system needing to be repaired, it is useful to quench the brake pads and the brake rotors so that the surface of them can be covered with a film of oxidized iron. Also, apply the brake strongly at a regular basis to maintain the effectiveness.**

  For detailed information about quenching the brakes, contact a NISSAN High Performance Center (NHPC).

CRACKS ON BRAKE PAD

The friction material of the GT-R disc brake pad is bonded to the pad backing plate more strongly than conventional brake pads to withstand the high brake temperatures. The friction material and backing plate expand due to heat at different rates. Some cracks may be on the surface of the friction material due to the differences in expansion rates and the strong bond between the friction material and backing plate. The cracks help achieve sufficient adhesive strength between the friction material and the washer. This does not indicate that there is a malfunction. However, depending on

the condition of the cracks, it may need replacing. Contact a NISSAN High Performance Center (NHPC).

CRACKS ON BRAKE DISC ROTORS (models without NCCB (NISSAN Carbon Ceramic Brake) package)

When the brake is repeatedly applied at high loads on mountain roads during the cold season, small cracks of approximately 3 mm (0.12 in) long may appear around the coolant holes. This is due to the temperature differential that occurs because the surfaces of the disc rotors become heated while the interior is still in a cold state. However, this poses no problem in terms of brake performance, and does not indicate a malfunction. You can continue to use the brakes.

However, if the cracks extend to 4 mm (0.16 in) or longer after repeated application of the brakes at high loads during high performance driving, or through the continued use of the brakes, the disc rotors must be replaced.

BRAKE DUST

This vehicle is equipped with high performance brakes, and the characteristics of the brake pad material may cause more brake dust than other vehicles.

SOUND HEARD FROM BRAKE SYSTEM (models with NCCB (NISSAN Carbon Ceramic Brake) package)

Rattles from brake pads and creaks during braking

The high performance brake system of vehicles equipped with the NCCB (NISSAN Carbon Ceramic Brake) has more clearance between its brake pad and brake caliper than regular vehicles, and it uses a large brake pad to ensure stable braking performance under a wide range of driving conditions such as extremely high temperature areas or low temperature areas like snow-covered roads. Accordingly, you may hear light rattles from the brake pad area when driving over a step, which is not a malfunction. In addition, you will hear creaks because of the characteristics of the material for the disc rotor. These creaks reduce with time and wear.

Never park your vehicle for a long time with the brake system wet.

The materials used for the brake disc rotor and brake pads for specified NCCB (NISSAN Carbon Ceramic Brake) are different from those used for conventional GT-R. The rotor and pads will be protected from adhesion caused by rusting. However, never park your vehicle for a long time with the brake system wet. This helps maintain the brake disc rotor and brake pads for a long time and prevents an influence on the material composition of the carbon ceramic rotor and deterioration in the joint of brake disc rotor's full floating structure. Especially during winter, be sure to park your vehicle with the brake disc rotor and pads dry to prevent them from being frozen and damaged in below freezing temperature conditions. The carbon ceramic brake for GT-R includes air bubbles in the rotor and pads. Note that leaving them in the wet condition tends to cause adhesion due to freezing.

- A screeching noise may be heard when the brake pedal is depressed:
  - — When driving the vehicle for the first time in the morning,
  - — After leaving the vehicle parked for extended periods of time, or
  - — When the vehicle is damp following rain showers or washing the vehicle.

  These sounds are normal. The noise is caused when the brake pads absorb moisture, and the noise stops after the brake is applied several times.
- A screeching noise may also be heard when the brake pedal is depressed:
  - — When repeatedly applying gentle braking, especially on a curve at a low speed, or
  - — When the brake rotors have circular scores with the brake temperature high.

- The NCCB (NISSAN Carbon Ceramic Brake) causes more screeching noise in cold weather conditions than in normal weather conditions.

CHANGE OF SURFACE COLOR OF TITANIUM MUFFLER

Genuine titanium mufflers are made of titanium alloy. The surface color will change depending on the driving conditions, which is not unusual. Prior to shipping from factory, all vehicles receive balance aligning for engine, transmission, and clutch, as well as quench driving of brake pads and rotors. As a result, the muffler surface color may differ depending on the vehicle.

THE COLOR TONE OF THE TITANIUM MUFFLER FINISHER MIGHT BE DIFFERENT FROM OTHERS

The titanium muffler finisher color tone is hand-made, so it may differ depending on the finisher.

SOUND HEARD AROUND TITANIUM MUFFLER

When stopping the engine (rapid cooling), you may hear a metal-rubbing sound or unusual ticking sound because of the differential thermal expansion between the inner and outer pipes of the muffler. This is not a malfunction. The sound will decrease when the temperature lowers.

EXHAUST GAS IS NOT EMITTED FROM LEFT EXHAUST PIPE DURING IDLING/WHEN ENGINE SPEED IS LOW

The titanium muffler for vehicles with the exhaust sound control system is equipped with a control valve installed on the left-side exhaust pipe. When the exhaust sound control switch is ON or the engine speed is low, exhaust sound silencing is enhanced by closing the valve. Exhaust gas is not emitted from the left-side exhaust pipe when the control valve is closed. This is not a malfunction. (☞ "Exhaust sound control system" page 5-53)

CARBON PARTS (if equipped)

Roughness or uneven surfaces of carbon parts and fiber twists

The surfaces of the carbon parts are lightly coated like a race car so that you can feel the proper texture of real carbon, which may feel rough. This is normal.

DUAL CLUTCH TRANSMISSION

The GT-R dual clutch transmission is a newly-developed system that uses an electronically controlled multiple-disc wet clutch attached to the highly efficient manual transmission. This transmission has two driving modes.

- A position (Automatic gearshift): allows automatic shifting of the manual transmission.
- M position (Manual gearshift): allows quick shifting of the manual transmission.

NOTE:

When starting or driving on a steep uphill grade, shift to the M position and operate the paddle shifter to shift down to 1st gear similar to a manual transmission vehicle.

The GT-R dual clutch transmission was developed specifically to maximize vehicle performance and driving enjoyment. The GT-R transmission components were designed using different engineering standards than typical passenger car transmissions. Because of this, the GT-R has different operating characteristics, and various rattle noises may be heard during some driving conditions because of the following items:

- Gear clearances
- Ultralight flywheel

- Dry sump lubrication

These noises do not indicate that there is a malfunction.

TRANSMISSION OPERATION CHARACTERISTICS

Mechanism	Operation characteristics
Base Manual transmission	Like a manual transmission, the dual-clutch transmission employs a parallel axis gear that generates a gear crashing sound, therefore, the noise of the dual-clutch transmission is louder than that of a conventional torque converter type automatic transmission because of the following reasons. ● A larger amount of gear clearance is applied between gears for steady tooth surface lubrication during high-load driving. ● The dry sump lubrication system is provided to achieve steady oil supply during high-load driving. ● The ultralight flywheel is provided to improve engine response to the accelerator pedal operation. Especially after performing optimum driving performance, rattling, shaking or jarring noises may be heard. When the temperature of the transmission decreases, the noise will decrease. ● Clattering noises may be heard while shifting. ● Appropriate gaps are provided between gears to achieve smooth gear rotation and steady tooth surface lubrication under the high-load driving condition. However, this causes a rattling noise. ● If the shift lever is moved from R to A↔M position, or A↔M to R position before the vehicle stops, you may not be able to shift gear or it may take longer to shift gear. Make sure to depress the brake pedal and check that the vehicle has stopped before shifting.
Multiple-disc wet clutch	● When stopping the vehicle with the shift lever in the R or A↔M position, be sure to firmly depress the brake pedal. The vehicle may slowly move if the brake pedal is not depressed. ● Avoid depressing the brake and accelerator pedals at the same time. Depressing the brake and accelerator pedals at the same time could cause the clutch to overheat and accelerate deterioration. ● When the vehicle is stopped on a hill, do not hold the vehicle in place by depressing the accelerator pedal. Doing so may cause the clutch to overheat and result in transmission damage. Use the brakes to prevent the vehicle from moving.
Electronic oil pressure control	The following conditions are caused due to changes in fluid viscosity as a result of temperature changes. ● When the transmission oil is extremely cold or extremely hot, the transmission may feel like it is slipping during shifts or there may be hard shifts. This is normal. Transmission shifting should return to normal when the transmission oil returns to normal operating temperatures. ● When the transmission oil temperature is extremely cold, the time required to run a system check may increase. During the system check, the shift lever must stay in the P position. Move the shift lever after turning off the system check display. Also, it is normal to hear clicking noises during the transmission systems check.
Changing modes	● The higher shift speeds in the M position may result in shift shock and jerkiness when starting or shifting. ● The quickest shifting in the R mode with the transmission in the M position is available when the engine speed is high. However, the transmission may shift more slowly when the engine speed is low.

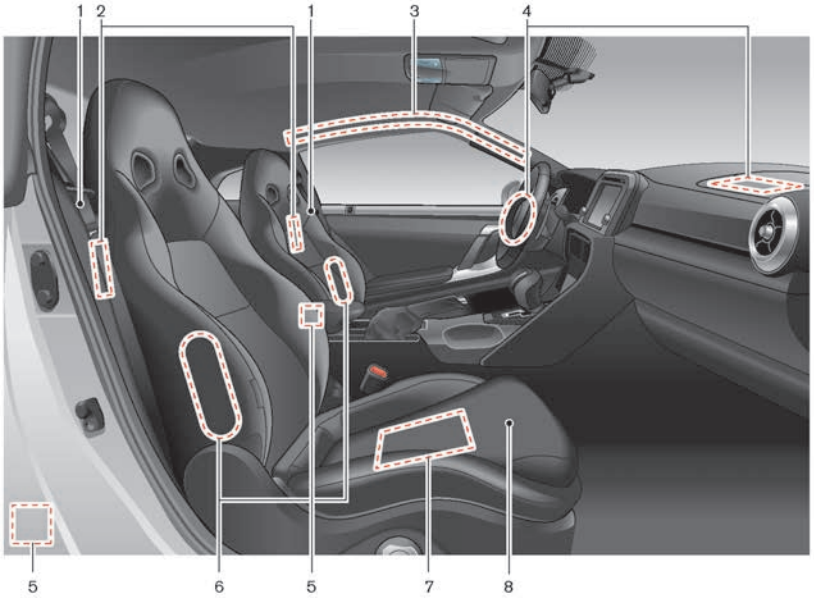
Mechanism	Operation characteristics
Mechanical Limited Slip Differential (LSD)	If the vehicle accelerates from a stop with the steering wheel widely turned in cold temperatures, the inner wheel tire may slip and some noise or vibration may be heard. This phenomenon occurs because the viscosity of the differential oil becomes thicker and the Limited Slip Differential (LSD) operates with increasing strength. When the steering wheel is returned to the straight a head position or the differential oil warms up, the noise and vibration decrease.
Electronically-controlled Four-Wheel Drive (4WD)/All-Wheel Drive (AWD)	If the vehicle accelerates from a stop with the steering wheel widely turned in cold temperatures, it may be hard to move the vehicle when the accelerator pedal is depressed. This phenomenon is unique to 4WD/AWD vehicles and is caused by the speed difference between the front and rear wheel. This is not a malfunction. The tight corner braking phenomenon can be corrected by returning the steering wheel to the straight ahead position. This phenomenon can be reduced if certain conditions are met. (☞ "Tight corner braking phenomenon" page 5-39)
Ultralight flywheel	● An ultralight flywheel is provided to achieve rapid engine response to the accelerator pedal operation. ● The engine rotation fluctuations become larger than conventional vehicles. Rattling, shaking or jarring noises may be heard when idling or driving at a low speed. ● Rattling noises may be heard when the engine is started or stopped.

MEMO

0 Illustrated table of contents

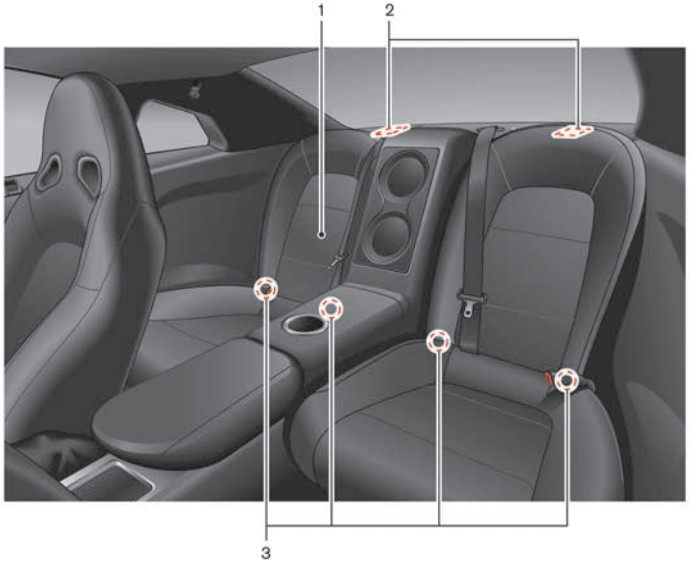
SEATS, SEAT BELTS AND SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

FRONT



1. Seat belt (Page 1-7)
2. Rear seat walk-in lever (P.1-5)
3. Roof-mounted curtain side-impact supplemental air bag system (if equipped) or Roof-mounted curtain side-impact and rollover supplemental air bag system (if equipped) (P.1-21)
4. Supplemental front-impact air bags (P.1-21)
5. Seat belt pretensioner (beneath the driver's and passenger's seat belt) (P.1-41)
6. Front seat-mounted side-impact supplemental air bag system (if equipped) (P.1-21)
7. Occupant classification sensor (pattern sensor) (for Mexico)
   — Advanced Air Bag System (P.1-29)
8. Front seats (P.1-3)

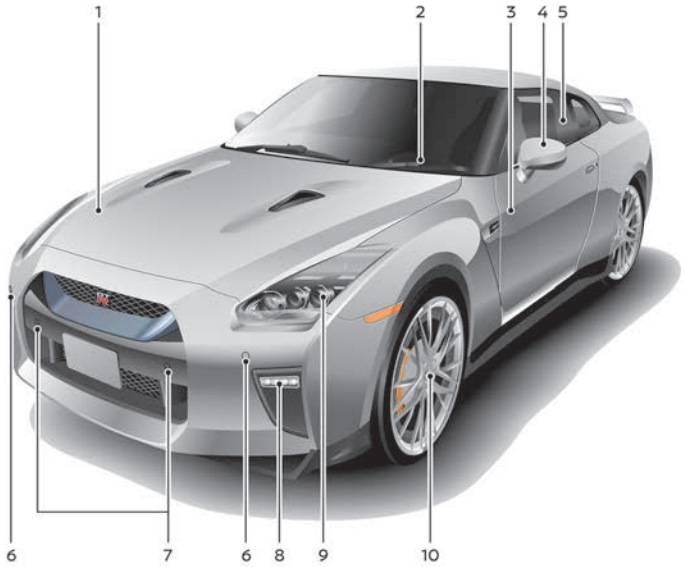
REAR



1. Rear seats
   — Child restraint installation (P.1-13)
2. Child restraint anchor points (for top tether strap child restraint) (P.1-18)
3. ISOFIX child restraint system (P.1-16)

EXTERIOR

FRONT



1. Hood (P.3-20)
2. Windshield wiper and washer (P.2-51, P.8-20)
3. Doors (P.3-2, P.3-4, P.3-8)
4. Outside mirrors (P.3-29)
5. Power windows (P.2-65)
6. Corner sensors (P.5-44)
7. Center sensors (P.5-44)
8. Daytime running light (P.2-58, P.8-29)
9. Headlight and turn signal (P.2-55, P.8-29)
10. Tires and wheels (P.5-4, P.6-2, P.8-34, P.9-8)

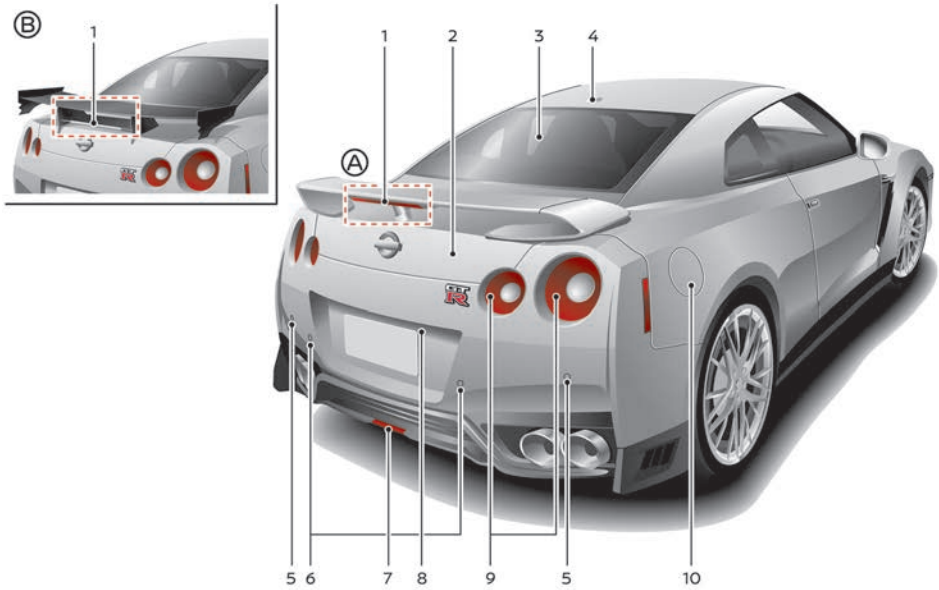
ITEMS	GENUINE PARTS
Road wheel	Genuine road wheel specific to GT-R
Tire*1	Genuine tire specific to GT-R
Brake pad*2	Genuine brake pad specific to GT-R
Brake disc rotor*2	Genuine brake disc rotor specific to GT-R

*1: When tire replacement is required, replacing tires as a set of four with new tires is recommended. However, if a tire is punctured or damaged, it may be possible to replace only the damaged tire. Determining whether one tire or a complete set of tires should be replaced is based on a number of factors including tire wear and condition. Contact your NISSAN High Performance Center (NHPC). They can recommend if an individual tire or a complete set should be replaced. ("Wheels and tires" page 8-34)

*2: For replacing the brake pad and disc rotors, follow the instructions shown in the GT-R Overview section. ("Brake pad and disc rotor" page GTR-9) For models with NCCB (NISSAN Carbon Ceramic Brake) package, see the specific information. ("NCCB (NISSAN Carbon Ceramic Brake)" page GTR-10) Genuine NISSAN Brake Fluid R35 Special II is the factory fill brake fluid. The Vehicle Dynamic Control (VDC)/Electronic Stability Program (ESP) unit and other related parts were specially designed for this brake fluid. NISSAN cannot ensure the best performance and proper operation of the vehicle if other brake fluid is used.

REAR

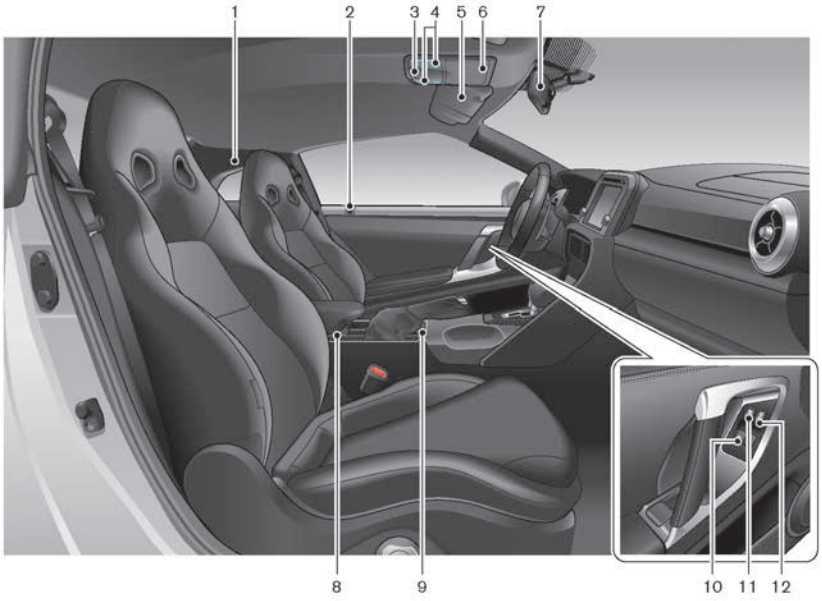
ITEMS	GT-R SPECIFIED FUEL
Fuel	☞ “Fuel information” page 9-3



1. High-mounted stop light (P.8-29)
2. Trunk (P.3-8, P.3-21)
3. Rear window defroster (P.2-55)
4. DAB antenna (P.4-12)
5. Corner sensors (P.5-44)
6. Center sensors (P.5-44)
7. Rear fog light (except for Mexico) (P.2-58)
8. Rear view camera (P.4-2)
9. Rear combination light (P.8-29)
10. Fuel-filler door (P.3-25, P.9-3)

Ⓐ: Except for NISMO models
Ⓑ: NISMO models

PASSENGER COMPARTMENT

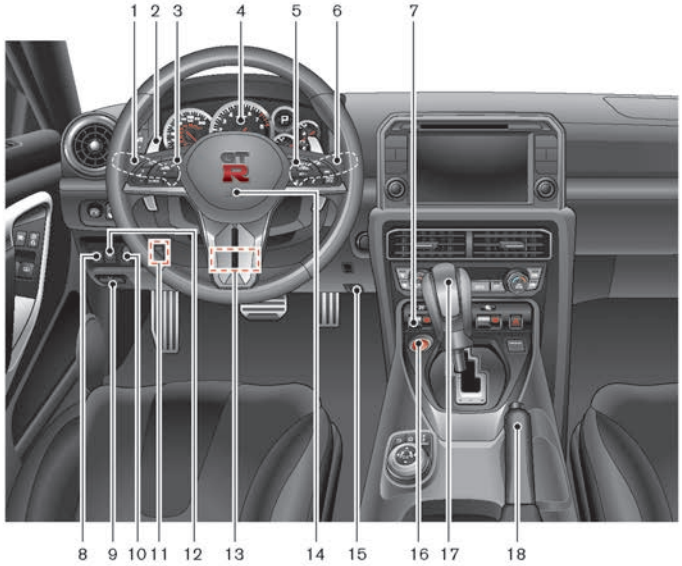


1. Coat hooks (P.2-64)
2. Inside lock knob (P.3-4)
3. Interior light control switch (P.2-67)
4. Map lights (P.2-67)
5. Sun visors (P.3-28)
6. Sunglasses holder (P.2-63) or cancel switch for ultrasonic and tilt sensors (theft warning system) (except for Taiwan, Mexico and Israel) (P.2-47)
7. Inside rearview mirror (P.3-28)
   — HomeLink® universal transceiver (for Mexico) (P.2-68)
8. Center console box (P.2-64)
   — Power outlet (P.2-61)
   — USB memory operation*
   — iPod player operation*
   — Auxiliary input jack*
9. Cup holders (P.2-62)
10. Power window switches (P.2-65)
11. Window lock button (P.2-65)
12. Power door lock switch (P.3-5)

*: Refer to the separate Multi Function Display Owner's Manual.

COCKPIT

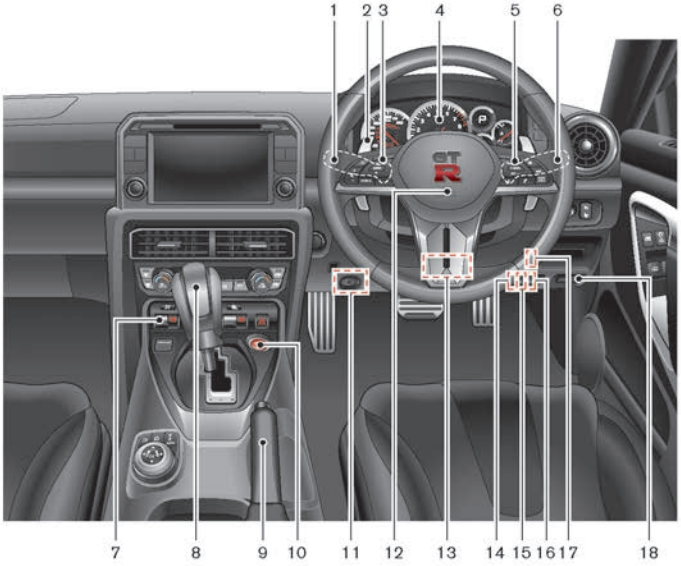
LEFT-HAND DRIVE (LHD) MODEL



1. Headlight and turn signal switch (P.2-55)/ Rear fog light switch (except for Mexico) (P.2-58)
2. Paddle shifters (P.5-14)
3. Steering-wheel-mounted controls (left side)*
4. Meters and gauges (P.2-8)
5. Steering-wheel-mounted controls (right side)
   - MRK (Mark) switch*
   - Cruise control (P.5-32)
6. Windshield wiper and washer switch (P.2-51)
7. VDC/ESP, transmission and suspension set up switches (P.5-23)
8. Trunk lid release switch (P.3-22)
9. Hood release handle (P.3-20)
10. Intelligent Key port (P.5-11)
11. Adaptive Front lighting System (AFS) switch (except for Mexico) (P.2-58)
12. Parking sensor (sonar) system OFF switch (P.5-46)
13. Tilting/telescopic steering wheel lever (P.3-27)
14. Horn (P.2-59)
15. Exhaust sound control switch (P.5-53)
16. Push-button ignition switch (P.5-10)
17. Shift lever (P.5-14)
18. Parking brake (P.5-31, P.5-41)

*: Refer to the separate Multi Function Display Owner's Manual.

RIGHT-HAND DRIVE (RHD) MODEL

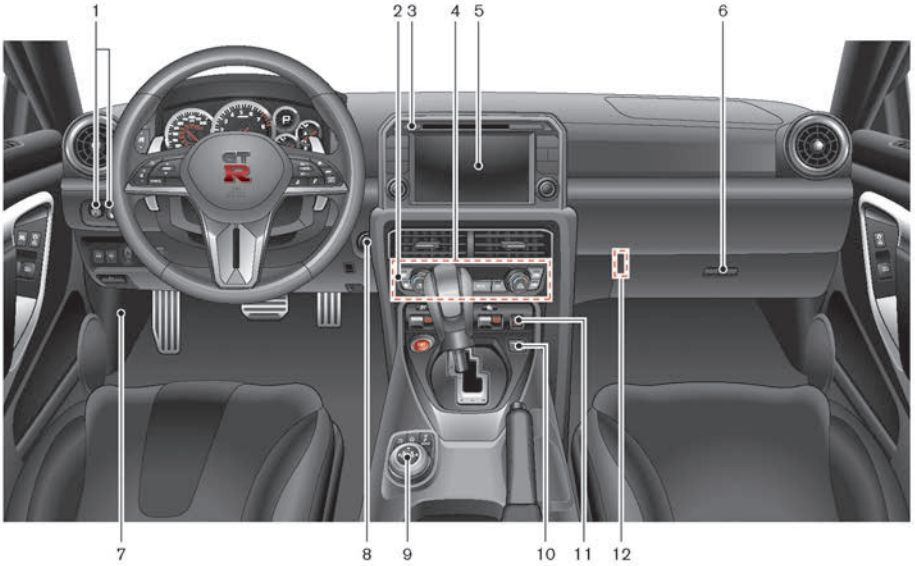


1. Headlight and turn signal switch (P.2-55)/ Rear fog light switch (P.2-58) or Windshield wiper and washer switch (P.2-51)
2. Paddle shifters (P.5-14)
3. Steering-wheel-mounted controls (left side)*
4. Meters and gauges (P.2-8)
5. Steering-wheel-mounted controls (right side)
   - — MRK (Mark) switch*
   - — Cruise control (P.5-32)
6. Windshield wiper and washer switch (P.2-51) or Headlight and turn signal switch (P.2-55)/ Rear fog light switch (P.2-58)
7. VDC/ESP, transmission and suspension set up switches (P.5-23)
8. Shift lever (P.5-14)
9. Parking brake (P.5-31, P.5-41)
10. Push-button ignition switch (P.5-10)
11. Intelligent Key port (P.5-11)
12. Horn (P.2-59)
13. Tilting/telescopic steering wheel lever (P.3-27)
14. Exhaust sound control switch (P.5-53)
15. Adaptive Front lighting System (AFS) switch (P.2-58)
16. Parking sensor (sonar) system OFF switch (P.5-46)
17. Trunk lid release switch (P.3-22)
18. Hood release handle (P.3-20)

*: Refer to the separate Multi Function Display Owner's Manual.

INSTRUMENT PANEL

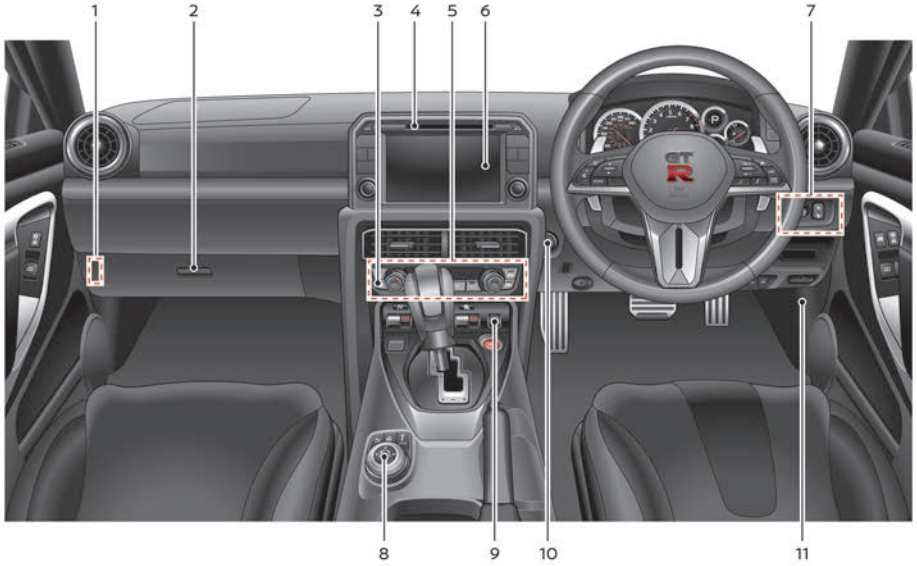
LEFT-HAND DRIVE (LHD) MODEL



1. Outside mirror control switch (P.3-29)
2. Rear window defroster switch (P.2-55)
3. CD slot*
4. Heater and air conditioner (P.4-8)
5. Touch screen display*
6. Glove box (P.2-63)
7. Fuse box cover (P.8-25)
8. Power outlet (P.2-61)
9. Display Commander*
10. Front passenger air bag status light (for Mexico) (P.1-29)
11. Hazard warning flasher switch (P.6-2)
12. Trunk release power cancel switch (P.3-22)

*: Refer to the separate Multi Function Display Owner's Manual.

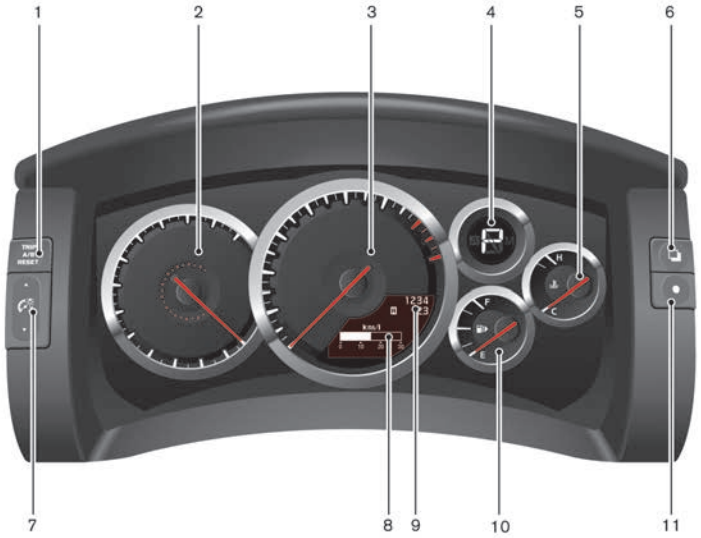
RIGHT-HAND DRIVE (RHD) MODEL



1. Trunk release power cancel switch (P.3-22)
2. Glove box (P.2-63)
3. Rear window defroster switch (P.2-55)
4. CD slot*
5. Heater and air conditioner (P.4-8)
6. Touch screen display*
7. Outside mirror control switch (P.3-29)
8. Display Commander*
9. Hazard warning flasher switch (P.6-2)
10. Power outlet (P.2-61)
11. Fuse box cover (P.8-25)

*: Refer to the separate Multi Function Display Owner's Manual.

METERS AND GAUGES

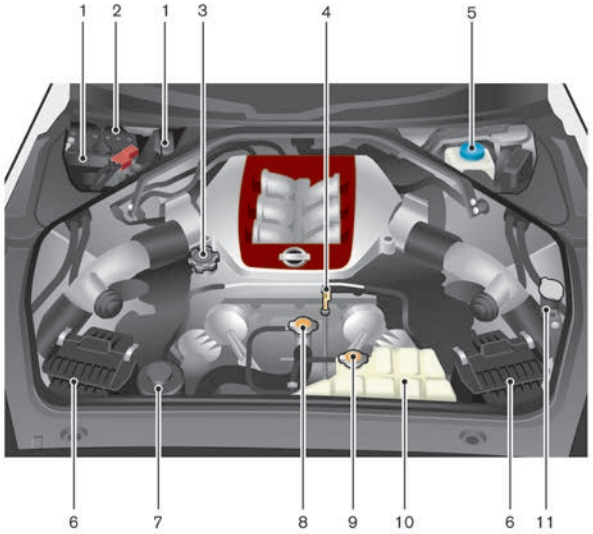


1. TRIP A/B RESET switch (P.2-9)
2. Speedometer (P.2-8)
3. Tachometer (P.2-9)/Upshift indicator (P.2-11)
4. Transmission position indicator (P.2-11)/ Gear shift indicator (if equipped) (P.5-19)
5. Engine coolant temperature gauge (P.2-9)
6. ENTER switch (P.2-16)
7. Instrument brightness control switch (P.2-13)
8. Vehicle information display (P.2-14)
9. Odometer/twin trip odometer (P.2-9)
10. Fuel gauge (P.2-10)
11. NEXT switch (P.2-16)

NOTE:

- **Meters and gauges will illuminate when the ignition switch is pushed to the ON position.**
- **The needle indicators may move slightly after the ignition switch is pushed to the OFF position. This does not indicate that there is a malfunction.**

ENGINE COMPARTMENT



1. Fuse/fusible link holder* (P.8-25, P.8-26)
2. Battery* (P.8-15)
3. Engine oil filler cap (P.8-11)
4. Engine oil dipstick (P.8-11)
5. Brake fluid reservoir* (P.8-13)
6. Air cleaner (P.8-19)
7. Power steering fluid reservoir (P.8-12)
8. Radiator filler cap (P.8-8)
9. Coolant reservoir cap (pressure type) (P.8-8)
10. Coolant reservoir (P.8-8)
11. Window washer fluid reservoir (P.8-14)

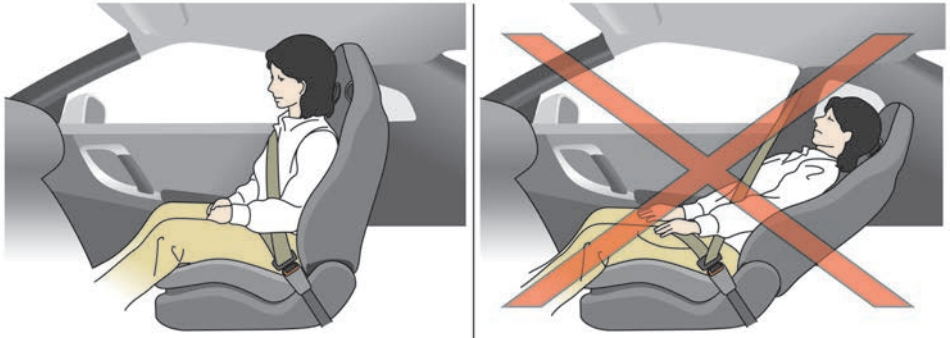
*: The layout illustrated is for the Left-Hand Drive (LHD) model. On the Right-Hand Drive (RHD) model, these components are located on the opposite side.

ITEMS	GT-R SPECIFIED FLUIDS
Engine oil	Mobil 1 (0W-40)*1
Transmission oil	Genuine NISSAN Transmission Oil R35 Special
Differential oil (front and rear)	Differential Oil R35 COMPETITION type 2189E
Brake fluid	Genuine NISSAN Brake Fluid R35 Special II*2

*1: Mobil 1 (0W-40) (100% synthetic) is the factory fill oil. The VR38 engine with its plasma-sprayed bores was developed using this oil. NISSAN cannot ensure proper engine operation and durability if other 0W-40 synthetic oil is used.

*2: Genuine NISSAN Brake Fluid R35 Special II is the factory fill brake fluid. The Vehicle Dynamic Control (VDC)/Electronic Stability Program (ESP) unit and other related parts were specially designed for this brake fluid and NISSAN cannot ensure the best performance and proper operation of the vehicle if other brake fluid is used.

1 Safety — Seats, seat belts and supplemental restraint system



Sit upright and well back.

⚠ WARNING

- **Do not ride in a moving vehicle when the seatback is reclined. This can be dangerous. The shoulder belt will not be against your body. In an accident, you could be thrown into it and receive neck or other serious injuries. You could also slide under the lap belt and receive serious internal injuries.**
- **For the most effective protection when the vehicle is in motion, the seat should be upright. Always sit well back and upright in the seat with both feet on the floor and adjust the seat properly. (☞ "Precautions on seat belt usage" page 1-7)**
- **After adjustment, gently rock in the seat to make sure it is securely locked.**
- **Do not leave children unattended inside the vehicle. They could unknowingly activate switches or controls. Unattended children could become involved in serious accidents.**
- **To help avoid risk of injury or death through unintended operation of the vehicle and/or its systems, do not leave children, people who require the assistance of others or pets unattended in your vehicle. Additionally, the temperature inside a closed vehicle on a warm day can quickly become high enough to cause a significant risk of injury or death to people and pets.**
- **The seatback should not be reclined any more than needed for comfort. Seat belts are most effective when the passenger sits well back and straight up in the seat. If the seatback is reclined, the risk of sliding under the lap belt and being injured is increased.**

⚠ CAUTION

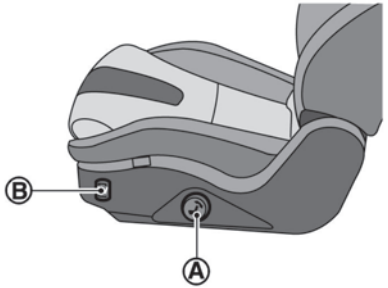
When adjusting the seat positions, be sure not to contact any moving parts to avoid possible injuries and/or damage.

NOTICE

Make sure the front seatback does not contact the rear seat when reclining the seat. When the front seat is reclined to the rearmost position, it may contact the rear seat. This may cause an indentation in the seatback.

FRONT SEATS

Front seat adjustment (type A)



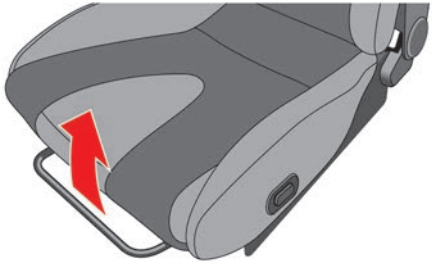
Operating tips

- The power seat motor has an auto-reset overload protection circuit. If the motor stops during operation, wait 30 seconds, then reactivate the switch.
- Do not operate the power seat switch for a long period of time when the engine is off. This will discharge the battery.

Seat adjustment	Switch	Operation	Location
Forward and backward	Ⓐ 	Move the switch Ⓐ forward or backward until the desired seat position is obtained.	Driver's and front passenger's seats
Reclining	Ⓐ 	Turn the switch Ⓐ forward and backward until the desired seatback angle is obtained. The reclining feature allows adjustment of the seatback for occupants of different sizes for added comfort and to help obtain proper seat belt fit. (☞ "Precautions on seat belt usage" page 1-7) Also, the seatback can be reclined to allow occupants to rest when the vehicle is stopped and the transmission is in the **P** position with the parking brake fully applied.	
Seat lifter (front)	Ⓑ 	Push the switch up or down Ⓑ to raise or lower the front portion of the seat.	Driver's seat
Seat lifter (rear)	Ⓐ 	Move the switch Ⓐ up or down to raise or lower the rear portion of the seat.	

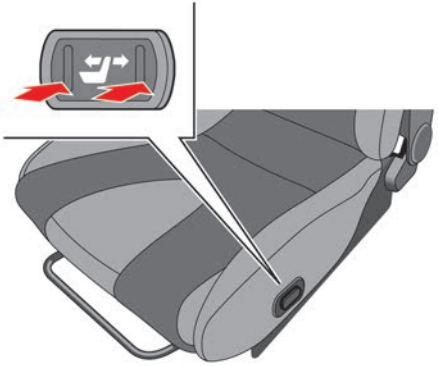
Front seat adjustment (type B)

Forward and backward:



1. Pull up the adjusting lever.
2. Slide the seat to the desired position.
3. Release the adjusting lever to lock the seat in position.

Reclining:

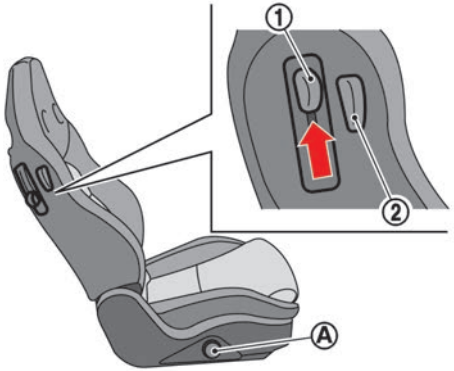


Push each side of the adjustment switch until the desired seatback angle is obtained.

Rear seat walk-in (if equipped)

This feature makes it easier to get in and out of the rear seat. Use the following procedure when getting in and out of the rear seat.

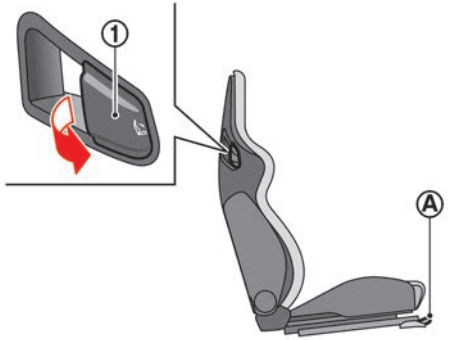
Type A:



1. Pull up the lever ①, hold the knob ② (if equipped), and tilt the seatback forward.
2. Use the seat adjustment switch Ⓐ to slide the seat forward to a position where it will be easier to enter or exit the rear seats. Fold the shoulder belt guide for easier access to the rear seat.

To return the seat to its original position, hold the knob ② (if equipped), raise the seatback, and use the seat adjustment switch Ⓐ to return the seat to its original position.

Type B:



1. Pull the lever ① and tilt the seatback forward.
2. Pull the seat adjustment lever Ⓐ to slide the seat forward to a position where it will be easier to enter or exit the rear seats.

To return the seat to its original position, raise the seatback and pull the adjustment lever Ⓐ to slide the seat backward.

⚠ CAUTION

- **When returning the seat to its original position, confirm that the seat and seatback are locked properly.**
- **Be careful not to pinch your hand or foot or bump your head when operating the walk-in seat.**

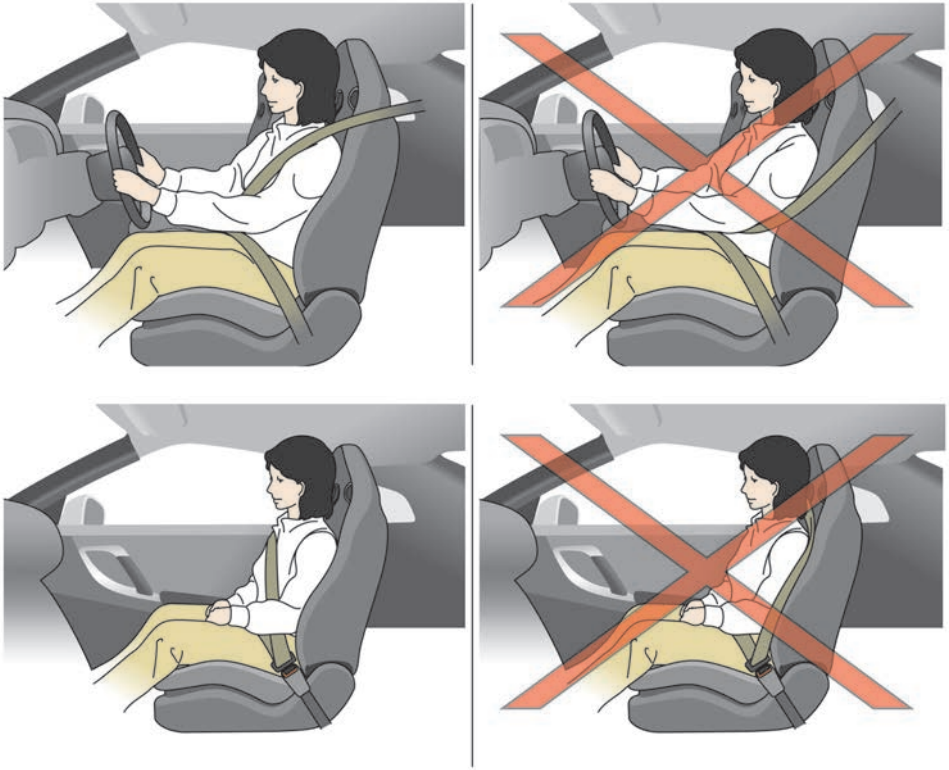
NOTICE

Do not place any objects near the seatback of the front seats. They may be pinched and damaged.

SEAT BELTS

PRECAUTIONS ON SEAT BELT USAGE

If you are wearing your seat belt properly adjusted, and you are sitting upright and well back in your seat with both feet on the floor, your chances of being injured or killed in an accident and/or the severity of injury may be greatly reduced. NISSAN strongly encourages you and all of your passengers to buckle up every time you drive, even if your seating position includes a supplemental air bag.



⚠ WARNING

- Every person who drives or rides in this vehicle should use a seat belt at all times. Children should be properly restrained in the rear seat and, if appropriate, in a child restraint.
- Seatbelts should be adjusted as firmly as possible, consistent with comfort, to provide the protection for which they have been designed. A slack belt will greatly reduce the protection afforded to the wearer. Serious injury or death can occur if the seat belt is not worn properly.
- Always route the shoulder belt over your shoulder and across your chest. Never put the belt behind your back, under your arm or across your neck. The belt should be away from your face and neck, but not falling off your shoulder.
- Position the lap belt as low and snug as possible AROUND THE HIPS, NOT THE WAIST. A lap belt worn too high could increase the risk of internal injuries in an accident.
- Be sure the seat belt tongue is securely fastened to the proper buckle.
- Never carry more people in the vehicle than there are seat belts.
- If the seat belt warning light glows continuously while the ignition is turned ON with all doors closed and all seat belts fastened, it may indicate a malfunction in the system. Have the system checked by a NISSAN High Performance Center (NHPC).
- No modifications or additions should be made by the user that will either prevent the seat belt adjusting devices from operating to remove slack, or prevent the seat belt assembly from being adjusted to remove slack. For example, do not modify the seat belt, add material, or install devices that may change the seat belt routing or tension. Doing so may affect the operation of the seat belt system. Modifying or tampering with the seat belt system may result in serious personal injury.
- Once a seat belt pretensioner has activated, it cannot be reused and must be replaced together with the retractor. See a NISSAN High Performance Center (NHPC).
- Removal and installation of the pretensioner system components should be done by a NISSAN High Performance Center (NHPC).

- **It is essential to replace the entire assembly after it has been worn in a severe impact even if damage to the assembly is not obvious. All seat belt assemblies, including retractors and attaching hardware, should be inspected after any collision by a NISSAN High Performance Center (NHPC). NISSAN recommends that all seat belt assemblies in use during a collision be replaced unless the collision was minor and the belts show no damage and continue to operate properly.**

  Seat belt assemblies not in use during a collision should also be inspected and replaced if either damage or improper operation is noted.
- **All child restraints and attaching hardware should be inspected after any collision. Always follow the restraint manufacturer's inspection instructions and replacement recommendations. The child restraints should be replaced if they are damaged.**
- **Seatbelts are designed to bear upon the bony structure of the body, and should be worn low across the front of the pelvis or the pelvis, chest and shoulders, as applicable; wearing the lap section of the belt across the abdominal area must be avoided. Serious injury may occur if a seat belt is not worn properly.**
- **Do not allow more than one person to use the same seat belt. Each belt assembly must only be used by one occupant; it is dangerous to put a belt around a child being carried on the occupant's lap.**
- **Never wear seat belts inside out. Belts should not be worn with straps twisted. Doing so may reduce their effectiveness.**
- **Care should be taken to avoid contamination of the webbing with polishes, oils and chemicals, and particularly battery acid. Cleaning may safely be carried out using mild soap and water. The belt should be replaced if webbing becomes frayed, contaminated or damaged.**

CHILD SAFETY

Children need adults to help protect them. They need to be properly restrained.

In addition to the general information in this manual, child safety information is available from many other sources, including doctors, teachers, government traffic safety offices, and community organizations. Every child is different, so be sure to learn the best way to transport your child.

There are three basic types of child restraint systems:

- Rear facing child restraint
- Front facing child restraint
- Booster seat

The proper restraint depends on the child's size. Generally, infants (up to about 1 year and less than 9 kg (20 lb)) should be placed in rear facing child restraints. Front facing child restraints are available for children who outgrow rear facing child restraints and are at least 1 year old. Booster seats are used to help position a vehicle lap/shoulder belt on a child who can no longer use a front facing child restraint.

⚠ WARNING

Infants and children need special protection. The vehicle's seat belts may not fit them properly. The shoulder belt may come too close to the face or neck. The lap belt may not fit over their small hip bones. In an accident, an improperly fitting seat belt could cause serious or fatal injury. Always use appropriate child restraints.

Also, there are other types of child restraints available for larger children for

additional protection.

NISSAN recommends that all pre-teens and children be restrained in the rear seat. According to accident statistics, children are safer when properly restrained in the rear seat than in the front seat.

This is especially important because your vehicle has a supplemental restraint system (air bag system) for the front passenger. (☞ "Supplemental restraint system" page 1-21)

Infants

Infants up to at least one year old should be placed in a rear facing child restraint. You should choose a child restraint which fits your vehicle and always follow the manufacturer's instructions for installation and use.

Small children

Children that are over one year old and weigh at least 9 kg (20 lb) can be placed in a forward facing child restraint. Refer to the manufacturer's instructions for minimum and maximum weight and height recommendations. You should choose a child restraint that fits your vehicle and always follow the manufacturer's instructions for installation and use.

Larger children

Children who are too large for child restraints should be seated and restrained by the seat belts which are provided. The seat belt may not fit properly if the child is less than 142.5 cm (4 ft 9 in) tall and weighs between 18 kg (40 lb) and 36 kg (80 lb). A booster seat should be used to obtain proper seat belt fit.

NISSAN recommends that a child be placed in a commercially available booster seat if the shoulder belt in the child's seating position fits close to the face or neck or if the lap portion of the seat belt goes across the abdomen. The booster seat should raise the child so that the shoulder belt is properly positioned across the top, middle portion of the shoulder and the lap belt is low on the hips. A booster seat can only be used in seating positions that have a three-point type seat belt. Once the child has grown so the shoulder belt is no longer on or near the face and neck, use the shoulder belt without the booster seat.

⚠ WARNING

Never let a child stand or kneel on any seat and do not allow a child in the cargo areas while the vehicle is moving. The child could be seriously injured or killed in an accident or sudden stop.

PREGNANT WOMEN

NISSAN recommends that pregnant women use seat belts. The seat belt should be worn snug, and always position the lap belt as low as possible around the hips, not the waist, and place the shoulder belt over your shoulder and across your chest. Never run the lap/shoulder belt over your abdominal area. Contact your doctor for specific recommendations.

INJURED PERSONS

NISSAN recommends that injured persons use seat belts, depending on the injury. Check with your doctor for specific recommendations.

THREE-POINT TYPE SEAT BELT WITH RETRACTOR

⚠ WARNING

- **Every person who drives or rides in this vehicle should use a seat belt at all times.**
- **Do not ride in a moving vehicle when the seatback is reclined. This can be dangerous. The shoulder belt will not be against your body. In an accident, you could be thrown into it and receive neck or other serious injuries. You could also slide under the lap belt and receive serious internal injuries.**

- **For the most effective protection when the vehicle is in motion, the seat should be upright. Always sit well back and upright in the seat with both feet on the floor and adjust the seat belt properly.**

Fastening the seat belts

1. Adjust the seat. (☞ "Seats" page 1-2)
2. Slowly pull the seat belt out of the retractor and insert the tongue into the buckle until you hear and feel the latch engage.
   - **The retractor is designed to lock during a sudden stop or on impact. A slow pulling motion permits the belt to move, and allows you some freedom of movement in the seat.**
   - **If the seat belt cannot be pulled from its fully retracted position, firmly pull the belt and release it. Then smoothly pull the belt out of the retractor.**

3. Position the lap belt portion **low and snug on the hips** as shown.
4. Pull the shoulder belt portion toward the retractor to take up extra slack. Be sure the shoulder belt is routed over your shoulder and across your chest.

Automatic locking mode (if equipped)

The front passenger's and rear three-point seat belts have an automatic lock mechanism to use when installing a child restraint system. This mechanism is referred to as the automatic locking mode.

If the seat belt is fully extended, the automatic lock mechanism will be activated and the seat belt can only retract. The seat belt will not be able to extend unless the seat belt is fully retracted once.

To deactivate the automatic locking mode, detach the seat belt tongue from the buckle and fully retract the belt to its storing position.

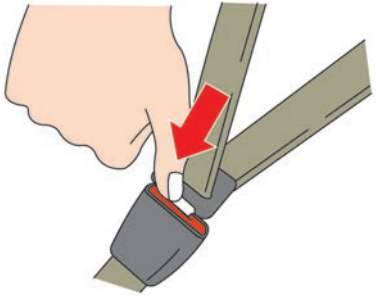
⚠ WARNING

When fastening the seat belts, be certain that seatbacks are completely secured in the latched position. If they are not completely secured, passengers may be injured in an accident or sudden stop.

⚠ CAUTION

The automatic locking mode should be used only for installation of a child restraint system. During normal seat belt use by a passenger, the automatic locking mode should not be activated. The use of the automatic locking mode by a passenger may cause uncomfortable seat belt tension. It can also change the operation of the front passenger air bag. (☞ "Supplemental front-impact air bag system" page 1-28)

Unfastening the seat belts



To unfasten the seat belt, push the button on the buckle. The seat belt automatically retracts.

Checking seat belt operation

Seat belt retractors are designed to lock seat belt movement by two separate methods:

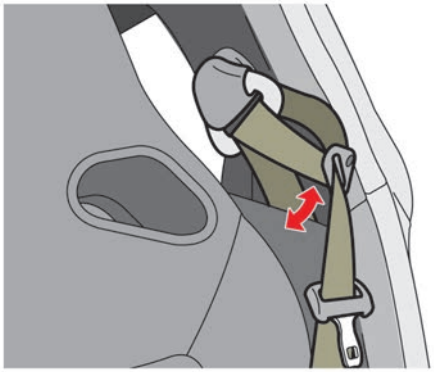
- When the belt is pulled quickly from the retractor.
- When the vehicle slows down rapidly.

To increase your confidence in the seat belts, check the operation as follows:

- Grasp the shoulder belt and pull forward quickly. The retractor should lock and restrict further belt movement.

If the retractor does not lock during this check or if you have any question about seat belt operation, see a NISSAN High Performance Center (NHPC).

Shoulder belt arm (for front seats)



Before fastening the seat belt, adjust the shoulder belt arm to the lock position where the belt fits snugly on the shoulder. The arm can also be folded down to allow rear seat passengers easier access.

Pulling the arm forward will allow an easy access to the belt.

SEAT BELT MAINTENANCE

- **To clean the seat belt webbing,** apply a mild soap solution or any solution recommended for cleaning upholstery or carpets. Then, wipe with a cloth and allow the seat belts to dry in the shade. Do not allow the seat belts to retract until they are completely dry.
- **If dirt builds up in the shoulder belt guide** of the seat belt anchors, the seat belts may retract slowly. Wipe the shoulder belt guide with a clean, dry cloth.
- **Periodically check to see that the seat belt and the metal components** such as buckles, tongues, retractors, flexible wires and anchors work properly. If loose parts, deterioration, cuts or other damage on the webbing is found, the entire seat belt assembly should be replaced.

CHILD RESTRAINTS

PRECAUTIONS ON CHILD RESTRAINT USAGE

⚠ WARNING

- Infants and small children should never be carried on your lap. It is not possible for even the strongest adult to resist the forces of a severe accident. The child could be crushed between the adult and parts of the vehicle. Also, it is dangerous to put a seat belt around a child being carried on the occupant's lap.
- Infants and children need special protection. The vehicle's seat belts may not fit them properly. The shoulder belt may come too close to the face or neck. The lap belt may not fit over their small hip bones. In an accident, an improperly fitting seat belt could cause serious or fatal injury.
- Infants and small children should always be placed in an appropriate child restraint system while riding in the vehicle. Failure to use a child restraint system can result in serious injury or death.
- Child restraint systems specially designed for infants and small children are available from several manufacturers. When selecting any child restraint systems, place your child in the child restraint system and check the various adjustments to be sure that the child restraint system is compatible with your child. Always follow the manufacturer's instructions for installation and use.
- NISSAN recommends that the child restraint system be installed in the rear seat. According to accident statistics, children are safer when properly restrained in the rear seat rather than in the front seat.
- Follow all of the child restraint system manufacturer's instructions for installation and use. When purchasing a child restraint system, be sure to select one which will fit your child and vehicle. It may not be possible to properly install some types of child restraint systems in your vehicle.
- Never install a rear-facing child restraint system in the front seat. An inflating supplemental front-impact air bag could seriously injure or kill your child. A rear-facing child restraint system must only be used in the rear seat (except for Taiwan).
- Never install a child restraint system in the front seat (for Taiwan).
- Adjustable seatbacks should be positioned to fit a child restraint

system, but as upright as possible.

- **After attaching a child restraint system, test it before you place the child in it. Tilt it from side to side. Try to tug it forward and check if it is held securely in place. The child restraint system should not move more than 25 mm (1 in). If the restraint is not secure, tighten the belt as necessary, or install the restraint in another seat and test it again.**
- **Check the child restraint system in your vehicle to be sure that it is compatible with the vehicle's seat belt system.**
- **If a child restraint system is not anchored properly, the risk of a child being injured in a collision or a sudden stop greatly increases.**
- **Improper use of a child restraint system can increase the risk or severity of injury for both the child and other occupants in the vehicle.**
- **Always use an appropriate child restraint system. An improperly installed child restraint system could lead to serious injury or death in an accident.**
- **When the child restraint system is not in use, keep it secured with the ISOFIX child restraint or a seat belt to prevent it from being thrown around in case of a sudden stop or accident.**

NISSAN recommends that infants and small children be seated in a child restraint system. You should choose a child restraint system that fits your vehicle and always follow the manufacturer's instructions for installation and use. In addition, there are many types of child restraint systems available for larger children that should be used for maximum protection.

⚠ CAUTION

Remember that a child restraint system left in a closed vehicle can become very hot. Check the seating surface and buckles before placing your child in a child restraint system.

CHILD RESTRAINTS FOR FRONT SEAT AND REAR SEATS

⚠ WARNING

In vehicles equipped with a side air bag system, do not let any infants or small children sit in the front passenger's seat as the air bag may cause serious injury in case of deployment during a collision.

When selecting any child restraint, keep the following points in mind:

- Choose a child restraint that complies with the UN R44 or UN R129.
- Place your child in the child restraint and check the various adjustments to be sure the child restraint is compatible with your child. Always follow all of the recommended procedures.
- Check the child restraint in your vehicle to be sure it is compatible with vehicle's seat belt system.
- Refer to the tables later in this section for a list of the recommended fitment positions and the approved child restraints for your vehicle.

Approved child restraint positions

Approved child restraint positions (without ISOFIX):

Weight group	Seating position	
	Front passenger	Rear outer
0 (< 10 kg)	X	X
0 + (< 13 kg)	X	X
I (9 — 18 kg)	X	X
II (15 — 25 kg)	X	X
III (22 — 36 kg)	X	X

X: Seat position not suitable for restraints in this weight group.

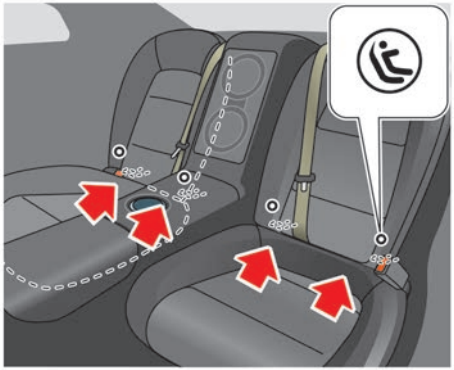
Approved child restraint positions (with ISOFIX):

Weight group			Seating position
			Rear outer
Carry-cot	F	ISO/L1	X
	G	ISO/L2	X
0 (< 10 kg)	E	ISO/R1	X
0 + (< 13 kg)	E	ISO/R1	X
	D	ISO/R2	X
	C	ISO/R3	X
I (9 — 18 kg)	D	ISO/R2	X
	C	ISO/R3	X
	B	ISO/F2	IUF
	B1	ISO/F2X	IUF
	A	ISO/F3	X
II (15 — 25 kg)		—	X
III (22 — 36 kg)		—	X

IUF: Suitable for "Universal" category - forward facing child restraints - approved for use in this weight group.

X: Seat position not suitable for restraints in this weight group.

ISOFIX CHILD RESTRAINT SYSTEM



Your vehicle is designed to accommodate a child restraint system on the rear outer seats. Two ISOFIX anchoring points (located between the seat cushion and the seatback) are mounted directly on the body of the vehicle ensuring secure and stable attachment of the child restraint system.

Be sure to correctly install ISOFIX system compatible child restraints in your vehicle. Otherwise, your child restraints may not meet the Safety Standard and may not supply proper restraint.

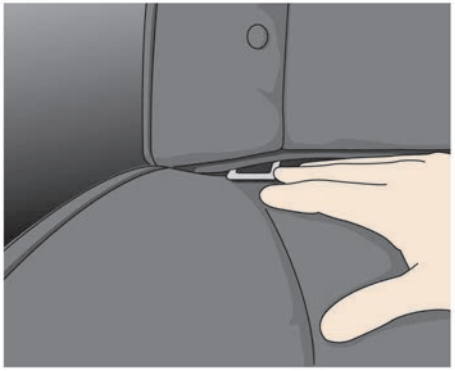
When installing the child restraint system, carefully read and follow the manufacturer's instructions supplied with the child restraint system.

⚠ WARNING

- **An improperly installed child restraint system could lead to serious injury or death in a collision or a sudden stop.**
- **Inspect the anchors by inserting your fingers into the anchor area and feeling to make sure there are no obstructions over the ISOFIX system anchors, such as seat belt webbing or seat cushion material. The child restraint system will not be secured properly if the ISOFIX system anchors are obstructed.**
- **Make sure that the child restraint system is properly secured prior to each use.**

ISOFIX lower anchor point locations

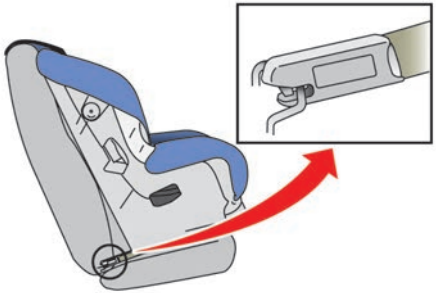
Two ISOFIX anchoring points (located between the seat cushion and the seatback) are mounted directly on the body of the vehicle ensuring secure and stable attachment of the child restraint system.



ISOFIX lower anchor location

The ISOFIX lower anchors are located at the rear of the seat cushion near the seatback. A label is attached to the seatback to help you locate the ISOFIX anchors.

ISOFIX child restraint anchor attachments



Anchor attachment

ISOFIX child restraints include two rigid attachments that can be connected to two anchors located in the seat. With this system, you do not have to use a vehicle seat belt to secure the child restraint. Check your child restraint for a label stating that it is compatible with the ISOFIX child restraints. This information may also be in the instructions provided by the child restraint manufacturer.

ISOFIX child restraints generally require the use of a top tether strap or other anti-rotation devices such as support legs. When installing ISOFIX child restraints, carefully read and follow the instructions in this manual and those supplied with the child restraints. (See "Child re-

straint installation using ISOFIX" page 1-18.)

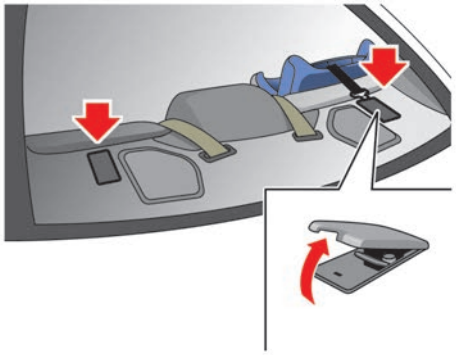
CHILD RESTRAINT ANCHORAGE

Your vehicle is designed to accommodate a child restraint system on the rear seat. When installing a child restraint system, carefully read and follow the instructions in this manual and those supplied with the child restraint system.

⚠ 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 seat belts, harnesses or for attaching other items or equipment to the vehicle. Doing so could damage the child restraint anchorages. The child restraint will not be properly installed using the damaged anchorage, and a child could be seriously injured or killed in a collision.

Anchorage location



The anchor points are located under the anchorage cover on the rear parcel shelf finisher for the right and left seating positions of the rear seat.

Position the top tether strap over the top of the seatback and secure it to the tether anchorage that provides the straightest installation. Tighten the tether strap according to the manufacturer's instruction to remove any slack.

CHILD RESTRAINT INSTALLATION USING ISOFIX

⚠ WARNING

- **Attach ISOFIX child restraints only at the specified locations. For the ISOFIX lower anchor locations, see ☞"ISOFIX child restraint system" page 1-16. If a child restraint is not secured properly, your child could be seriously injured or killed in an accident.**
- **Do not install child restraints that require the use of a top tether strap to seating positions that do not have a top tether anchor.**
- **Do not secure a child restraint in the rear center position using the ISOFIX lower anchors. The child restraint will not be secured properly.**
- **Inspect the lower anchors by inserting your fingers into the lower anchor area and feeling to make sure there are no obstructions over the ISOFIX anchors, such as seat belt webbing or seat cushion material. The child restraint will not be secured properly if the ISOFIX anchors are obstructed.**

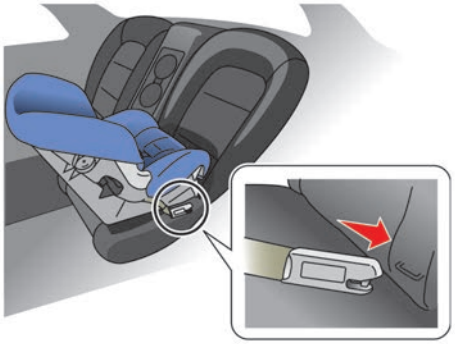
- **Child restraint anchorages are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts, harnesses or for attaching other items or equipment to the vehicle. Doing so could damage the child restraint anchorages. The child restraint will not be properly installed using the damaged anchorage, and a child could be seriously injured or killed in a collision.**

Installation on rear seats

Rear-facing:

Follow these steps to install a rear-facing child restraint using ISOFIX:

1. Position the child restraint on the seat. Always follow the child restraint manufacturer's instructions.
2. Secure the child restraint anchor attachments to the ISOFIX lower anchors. Check to make sure the ISOFIX attachment is properly attached to the lower anchors.



Rear-facing — step 2

Rear-facing — step 3

3. Shorten the rigid attachment to have the child restraint firmly tightened; press downward and rearward firmly in the center of the child restraint with your hand to compress the vehicle seat cushion and seatback.

Rear-facing — step 4

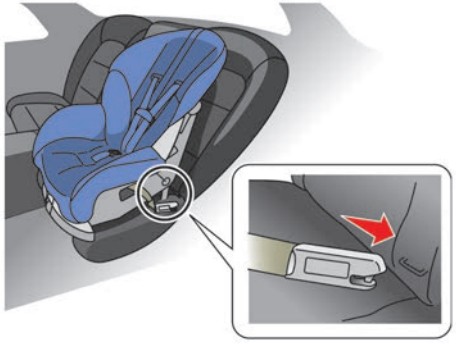
4. After attaching the child restraint, test it before you place the child in it. Push it from side to side while holding the child restraint near the ISOFIX attachment path. The child restraint should not move more than 25 mm (1 inch), from side to side. Try to tug it forward and check to see if the ISOFIX attachment holds the restraint in place. If the restraint is not secure, tighten the ISOFIX attachment as necessary, or put the restraint in another seat and test it again. You may need to try a different child restraint or try installing by using the vehicle seat belt (if applicable). Not all child restraints fit in all types of vehicles.

5. Check to make sure the child restraint is properly secured prior to each use. If the child restraint is loose, repeat steps 3 through 4.

Front-facing:

Follow these steps to install a front-facing child restraint using ISOFIX:

1. Position the child restraint on the seat. Always follow the child restraint manufacturer's instructions.
2. Secure the child restraint anchor attachments to the ISOFIX lower anchors. Check to make sure the ISOFIX attachment is properly attached to the lower anchors.



Front-facing — step 2

3. The back of the child restraint should be secured against the vehicle seatback.

If the seating position is interfering with the proper child restraint fit, try another seating position or a different child restraint.

Front-facing — step 4

4. Shorten the rigid attachment to have the child restraint firmly tightened; press downward and rearward firmly in the center of the child restraint with your knee to compress the vehicle seat cushion and seatback.
5. If the child restraint is equipped with a top tether strap, route the top tether strap and secure the tether strap to the tether anchor point. (☞"Child restraint anchorage" page 1-18)
6. If the child restraint is equipped with other anti-rotation devices such as support legs, use them instead of the top tether strap following the child restraint manufacturer's instructions.

Front-facing — step 7

7. After attaching the child restraint, test it before you place the child in it. Push it from side to side while holding the child restraint near the ISOFIX attachment path. The child restraint should not move more than 25 mm (1 inch), from side to side. Try to tug it forward and check to see if the ISOFIX attachment holds the restraint in place. If the restraint is not secure, tighten the ISOFIX attachment as necessary, or put the restraint in another seat and test it again. You may need to try a different child restraint. Not all child restraints fit in all types of vehicles.
8. Check to make sure the child restraint is properly secured prior to each use. If the child restraint is loose, repeat

steps 3 through 7.

PRECAUTIONS ON SUPPLEMENTAL RESTRAINT SYSTEM

This Supplemental Restraint System (SRS) section contains important information concerning the following systems:

- Driver and passenger supplemental front-impact air bag
- Front seat-mounted side-impact supplemental air bag (if equipped)
- Roof-mounted curtain side-impact supplemental air bag (if equipped except for Mexico)
- Roof-mounted curtain side-impact and rollover supplemental air bag (for Mexico)
- Seat belt pretensioner

Supplemental front-impact air bag system: This system can help cushion the impact force to the head and chest of the driver and front passenger in certain frontal collisions.

Front seat-mounted side-impact supplemental air bag system (if equipped): This system can help cushion the impact force to the chest area of the driver and front passenger in certain side impact collisions. The side air bags are designed to inflate on the side where the vehicle is impacted.

Roof-mounted curtain side-impact supplemental air bag system (if equipped except for Mexico): This system can help cushion the impact force to the head of occupants in the front seating position in certain side impact collisions. The curtain air bags are designed to inflate on the side where the vehicle is impacted.

Roof-mounted curtain side-impact and rollover supplemental air bag system (for Mexico): This system can help cushion the impact force to the head of occupants in the front seating position in certain side impact or rollover collisions. In a side impact, the curtain air bags are designed to inflate on the side where the vehicle is impacted. In a rollover, curtain air bags on both sides are designed to inflate and remain inflated for a short time.

Curtain air bags are also designed to inflate in certain types of rollover collisions or near rollovers. As a result, certain vehicle movements may cause the curtain air bags to inflate.

These supplemental restraint systems are designed to **supplement** the crash protection provided by the driver and passenger seat belts and are **not a substitute** for them. Seat belts should always be correctly worn and the occupant seated a suitable distance away from the steering wheel, instrument panel and door finishers. (☞ "Seat belts" page 1-7)

The supplemental air bags operate only when the ignition switch is in the ON position.

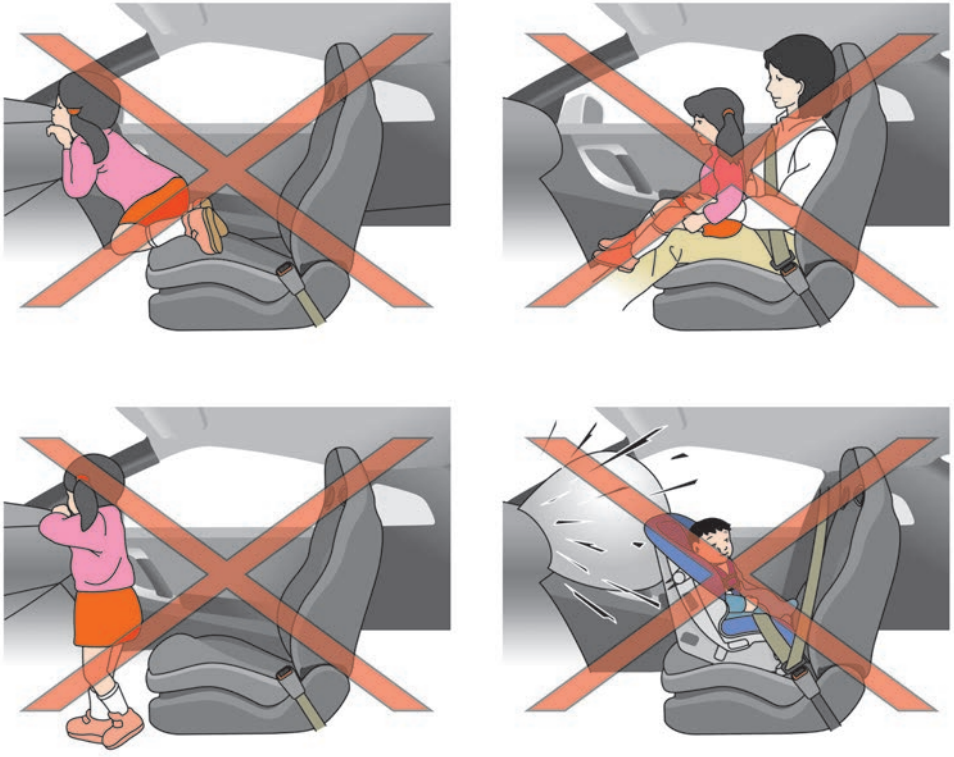
After pushing the ignition switch to the ON position, the supplemental air bag warning light illuminates. The supplemental air bag warning light will turn off after about 7 seconds if the systems are operational.

Sit upright and well back.

Sit upright and well back.

⚠ WARNING

- The front air bags ordinarily will not inflate in the event of a side impact, rear impact, rollover, or lower severity frontal collision. Always wear your seat belts to help reduce the risk or severity of injury in various kinds of accidents.
- The front passenger air bag will not inflate if the passenger air bag status light is lit or if the front passenger seat is unoccupied (if equipped). (☞ "Front passenger air bag status light (for Mexico)" page 2-31)
- The seat belts and the front air bags are most effective when you are sitting well back and upright in the seat. The front air bags inflate with great force. Even with the NISSAN Advanced Air Bag System (for Mexico), if you are unrestrained, leaning forward, sitting sideways or out of position in any way, you are at greater risk of injury or death in a crash. You may also receive serious or fatal injuries from the front air bag if you are up against it when it inflates. Always sit back against the seatback and as far-away as practical from the steering wheel or instrument panel. Always use the seat belts.
- The driver and front passenger seat belt buckles are equipped with sensors that detect if the seat belts are fastened. The Advanced Air Bag System monitors the severity of a collision and seat belt usage then inflates the air bags. Failure to properly wear seat belts can increase the risk or severity of injury in an accident (for Mexico).
- The front passenger seat is equipped with an occupant classification sensor (pattern sensor) that turns the front passenger air bag OFF under some conditions. This sensor is only used in this seat. Failure to be properly seated and wearing the seat belt can increase the risk or severity of injury in an accident (for Mexico). (☞ "Front passenger air bag status light (for Mexico)" page 2-31)
- Keep hands on the outside of the steering wheel. Placing them inside the steering wheel rim could increase the risk of injury if the supplemental front air bag inflates.



⚠ WARNING

- **Never let children ride unrestrained or extend their hands or face out of the window. Do not attempt to hold them in your lap or arms. Some examples of dangerous riding positions are shown in the illustrations.**
- **Children may be severely injured or killed when the front air bags, side air bags or curtain air bags inflate if they are not properly restrained. Pre-teens and children should be properly restrained in the rear seat, if possible.**
- **Even with the NISSAN Advanced Air Bag System (for Mexico), never install a rear-facing child restraint in the front seat. An inflating supplemental front air bag could seriously injure or kill your child. (☞ "Child restraints" page 1-13)**

Do not lean against doors or windows.

Do not lean against rear side panels.

Do not lean against doors or windows.

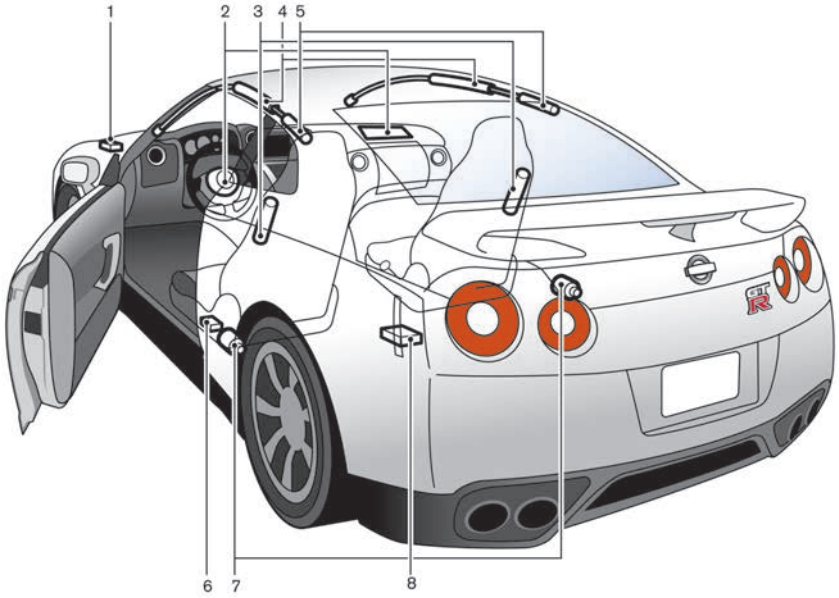
⚠ WARNING

Front seat-mounted side-impact supplemental air bag and roof-mounted curtain side-impact supplemental air bag (if equipped):

- **The side air bags (if equipped) ordinarily will not inflate in the event of a front impact, rear impact, rollover, or lower severity side collision. Always wear your seat belts to help reduce the risk or severity of injury in various kinds of accidents.**
- **The curtain air bags (if equipped) ordinarily will not inflate in the event of a front impact, rear impact, rollover, or lower severity**

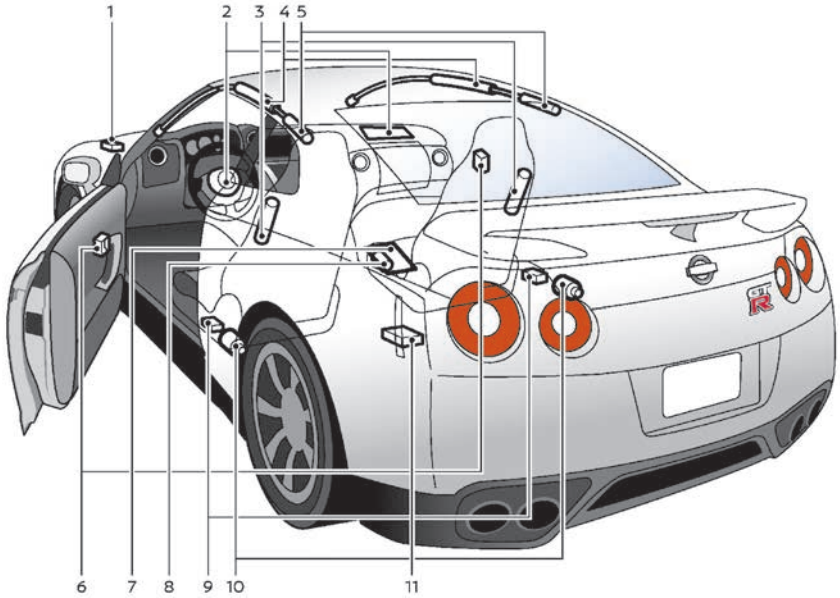
side collision. Always wear the seat belts to help reduce the risk or severity of injury in accidents (except for Mexico).

- The curtain and rollover air bags ordinarily will not inflate in the event of a front impact, rear impact, or lower severity side collision. Always wear your seat belts to help reduce the risk or severity of injury in various kinds of accidents (for Mexico).
- The seat belts, side air bags and curtain air bags are most effective when you are sitting well back and upright in the seat. The side air bags and curtain air bags inflate with great force. Do not allow anyone to place their hand, leg or face near the side air bag on the side of the seatback of the front seat or near the side roof rails. Do not allow anyone sitting in the front seats or rear outboard seats to extend their hand out of the window or lean against the door. Some examples of dangerous riding positions are shown in the previous illustrations.
- When sitting in the rear seat, do not hold onto the seatback of the front seat. If the supplemental side air bag inflates, you may be seriously injured. Be especially careful with children, who should always be properly restrained. Some examples of dangerous riding positions are shown in the illustrations.
- Do not use seat covers on the front seatbacks. They may interfere with side air bag inflation.



Without Advanced Air Bag System

1. Crash zone sensor
2. Supplemental front-impact air bag modules
3. Front seat-mounted side-impact supplemental air bags (if equipped)
4. Roof-mounted curtain side-impact supplemental air bags (if equipped)
5. Roof-mounted curtain side-impact supplemental air bag inflators (if equipped)
6. Satellite sensors (if equipped)
7. Seat belt pretensioners
8. Air bag Control Unit (ACU)



With Advanced Air Bag System

1. Crash zone sensor
2. Supplemental front-impact air bag modules (NISSAN Advanced Air Bag System)
3. Front seat-mounted side-impact supplemental air bags
4. Roof-mounted curtain side-impact and rollover supplemental air bags
5. Roof-mounted curtain side-impact and rollover supplemental air bag inflators
6. Pressure sensors in door
7. Occupant classification sensor (pattern sensor)
8. Occupant classification system control unit
9. Satellite sensors
10. Seat belt pretensioners
11. Air bag Control Unit (ACU)

SUPPLEMENTAL FRONT-IMPACT AIR BAG SYSTEM

⚠ WARNING

- **Do not place any objects on the steering wheel pad or on the instrument panel. Also, do not place any objects between any occupant and the steering wheel or instrument panel. Such objects may become dangerous projectiles and cause injury if the front air bag inflates.**
- **Immediately after inflation, several front air bag system components will be hot. Do not touch them; you may severely burn yourself.**
- **No unauthorized changes should be made to any components or wiring of the supplemental air bag system. This is to prevent accidental inflation of the supplemental air bag or damage to the supplemental air bag system.**
- **Do not make unauthorized changes to your vehicle's electrical system, suspension system or front end structure. This could affect proper operation of the front air bag system.**

- **Tampering with the supplemental air bag system may result in serious personal injury. Tampering includes changes to the steering wheel and the instrument panel assembly by placing material over the steering wheel pad and above the instrument panel or by installing additional trim material around the air bag system.**
- **No unauthorized changes should be made to any components or wiring of the seat belt system. This may affect the front air bag system. Tampering with the seat belt system may result in serious personal injury.**
- **Work on and around the front air bag system should be done by a NISSAN High Performance Center (NHPC). Installation of electrical equipment should also be done by a NISSAN High Performance Center (NHPC). The Supplemental Restraint System (SRS) wiring harnesses* should not be modified or disconnected. Unauthorized electrical test equipment and probing devices should not be used on the air bag system.**
- **A cracked windshield should be replaced immediately by a qualified repair facility. A cracked windshield could affect the function of the supplemental air bag system.**

* **The SRS wiring harness connectors are yellow and orange for easy identification.**

When selling your vehicle, we request that you inform the buyer about the front air bag system and guide the buyer to the appropriate sections in this Owner's Manual.

Supplemental front-impact air bag system (NISSAN Advanced Air Bag System) (for Mexico)

This vehicle is equipped with the NISSAN Advanced Air Bag System for the driver and front passenger seats.

The driver supplemental front-impact air bag is located in the center of the steering wheel. The front passenger supplemental front-impact air bag is mounted in the instrument panel above the glove box. The front air bags are designed to inflate in higher severity frontal collisions, although they may inflate if the forces in another type of collision are similar to those of a higher severity frontal impact. They may not inflate in certain frontal collisions. Vehicle damage (or lack of it) is not always an indication of proper front air bag operation.

The NISSAN Advanced Air Bag System has dual stage air bag inflators. The system monitors information from the Air bag Control Unit (ACU), seat belt buckle sensors and the occupant classification sensor (pattern sensor). Inflator operation is based on the severity of a collision and seat belt usage for the driver. For the front passenger, the occupant classification sensor is also monitored. Based on information from the sensors, only one front air bag may inflate in a crash, depending on the crash severity and whether the front occupants are belted or unbelted. Additionally, the front passenger air bag may be automatically turned OFF under some conditions, depending on the information provided by the occupant classification sensor. If the front passenger air bag is OFF, the passenger air bag status light will be illuminated (if the seat is unoccupied, the light will not be illuminated, but the air bag will be off). One front air bag inflating does not indicate improper performance of the system. (☞ "Front passenger air bag status light (for Mexico)" page 2-31)

If you have any questions about your air bag system, contact NISSAN or a NISSAN High Performance Center (NHPC). If you are considering modification of your vehicle due to a disability, you may also contact NISSAN.

When a front air bag inflates, a fairly loud noise may be heard, followed by release of smoke. This smoke is not harmful and does not indicate a fire. Care should be taken not to inhale it, as it may cause

irritation and choking. Those with a history of a breathing condition should get fresh air promptly.

Front air bags, along with the use of seat belts, help to cushion the impact force on the head and chest of the front occupants. They can help save lives and reduce serious injuries. However, an inflating front air bag may cause facial abrasions or other injuries. Front air bags do not provide restraint to the lower body.

Even with NISSAN advanced air bags, seat belts should be correctly worn and the driver and passenger seated upright as far as practical away from the steering wheel or instrument panel. The front air bags inflate quickly in order to help protect the front occupants. Because of this, the force of the front air bag inflating can increase the risk of injury if the occupant is too close to, or is against, the air bag module during inflation.

The front air bags deflate quickly after a collision.

The front air bags operate only when the ignition switch is in the ON position.

After pushing the ignition switch to the ON position, the supplemental air bag warning light illuminates. The supplemental air bag warning light will turn off after about 7 seconds if the system is operational.

Front passenger air bag and status light:

Front passenger air bag status light

⚠ WARNING

- **The front passenger air bag is designed to automatically turn OFF under some conditions. Read this section carefully to learn how it operates. Proper use of the seat, seat belt and child restraints is necessary for most effective protection. Failure to follow all instructions in this manual concerning the use of seats, seat belts and child restraints can increase the risk or severity of injury in an accident.**
- **Do not place objects with sharp edges on the seat. Also, do not place heavy objects on the seat that will leave permanent impressions in the seat. Such objects can damage the seat or occupant classification sensor (pattern sensor). This can affect the operation of the air bag system and result in serious personal injury.**
- **Do not use water or acidic cleaners (hot steam cleaners) on the seat. This can damage the seat or occupant classification sensor. This can also affect the operation of the air bag system and result in serious personal injury.**
- **Modifying or tampering with the front passenger seat may result in serious personal injury. For example, do not change the front seats by placing material on the seat cushion or by installing additional trim material, such as seat covers, on the seat that is not specifically designed to assure proper air bag operation. Additionally, do not stow any objects under the front passenger seat or the seat cushion and seatback. Such objects may interfere with the proper operation of the occupant classification sensor.**

Status light:

The front passenger air bag status light is located on the center instrument panel. After the ignition switch is placed in the ON position, the front passenger air bag status light illuminates for about 7 seconds and then turns off or illuminates depending on the front passenger seat occupied status. The light operates as follows:

- Unoccupied passenger seat: The light is OFF and the front passenger air bag is OFF and will not inflate in a crash.
- Passenger seat occupied by a small adult, child or child restraint as outlined in this section: The light illuminates to indicate that the front passenger air bag is OFF and will not inflate in a crash.
- Occupied passenger seat and the passenger meets the conditions outlined in this section: The light is OFF to indicate that the front passenger air bag is operational.

Front passenger air bag:

The front passenger air bag is designed to automatically turn OFF when the vehicle is operated under some conditions as described below. If the front passenger air bag is OFF, it will not inflate in a crash. The driver's air bag and other air bags in your vehicle are not part of this system.

The purpose of this system is to help reduce the risk of injury or death from an inflating air bag to certain front passenger seat occupants, such as children, by requiring the air bag to be automatically turned OFF.

The occupant classification sensor (pattern sensor) is in the front passenger seat cushion and is designed to detect an occupant and objects on the seat. For example, if a child is in the front passenger seat, the Advanced Air Bag System is designed to turn the passenger air bag OFF in accordance with the regulations. Also, if a child restraint of the type specified in the regulations is on the seat, the occupant classification sensor can detect it and cause the air bag to turn OFF.

Front passenger seat adult occupants who are properly seated and using the seat belt as outlined in this manual should not cause the passenger air bag to be automatically turned OFF. For small adults it may be turned OFF, however, if the occupant does not sit in the seat properly (for example, by not sitting upright, by sitting on an edge of the seat, or by otherwise being out of position), this could cause the sensor to turn the air bag OFF. Always be sure to be seated and wearing the seat belt properly for the most effective protection by the seat belt and supplemental air bag.

NISSAN recommends that pre-teens and children be properly restrained in a rear seat. NISSAN also recommends that appropriate child restraints and booster seats be properly installed in a rear seat. If this is not possible, the occupant classification sensor is designed to operate as described above to turn the front passenger air bag OFF for specified child restraints. Failing to properly secure child restraints and to use the automatic locking mode (child restraint mode) may allow the restraint to tip or move in an accident or sudden stop. This can also result in the passenger air bag inflating in a crash instead of being OFF. ("Child restraints" page 1-13)

If the front passenger seat is not occupied, the passenger air bag is designed not to inflate in a crash. However, heavy objects placed on the seat could result in air bag inflation, because of the object being detected by the occupant classification sensor. Other conditions could also result in air bag inflation, such as if a child is standing on the seat, or if two children are on the seat, contrary to the instructions in this manual. Always be sure that you and all vehicle occupants are seated and restrained properly.

Using the passenger air bag status light, you can monitor when the front passenger air bag is automatically turned OFF with the seat occupied. The light will not illuminate when the front passenger seat is unoccupied.

If an adult occupant is in the seat but the passenger air bag status light is illuminated (indicating that the air bag is OFF), it could be that the person is a small adult, or is not sitting on the seat properly.

If a child restraint must be used in the front seat, the passenger air bag status light may or may not be illuminated, depending on the size of the child and the type of child restraint being used. If the passenger air bag status light is not illuminated (indicating that the air bag might inflate in a crash), it could be that the child restraint or seat belt is not being used properly. Make sure that the child restraint is installed properly, the seat belt is used properly and the occupant is positioned properly. If the passenger air bag status light is still not illuminated, reposition the occupant or child restraint in a rear seat.

If the passenger air bag status light will not illuminate even though you believe that the child restraint, the seat belts and the occupant are properly positioned, the system may be sensing an unoccupied seat (in which case the air bag is OFF). NISSAN High Performance Center (NHPC) can check that the system is OFF by using a special tool. However, until you have confirmed with your dealer that your air bag is working properly, reposition the occupant or child restraint in a rear seat.

The NISSAN Advanced Air Bag System and passenger air bag status light will take a few seconds to register a change in the passenger seat status. However, if the seat becomes unoccupied, the air bag status light will remain off.

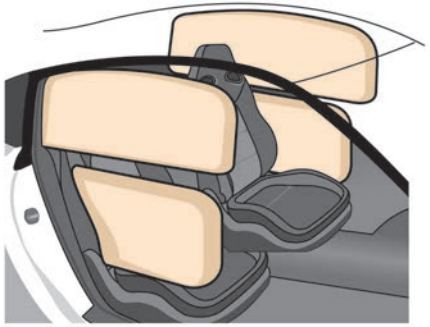
If a malfunction occurs in the front passenger air bag system, the supplemental air bag warning light , located in the meter and gauges area will blink. Have the system checked by a NISSAN High Performance Center (NHPC).

Supplemental front-impact air bag system (except for Mexico)

The driver's supplemental front-impact air bag is located at the center of the steering wheel. The passenger's supplemental front-impact air bag is located at the instrument panel above the glove box.

The supplemental front-impact air bag system is designed to inflate in higher severity frontal collisions, although it may inflate if the forces in another type of collision are similar to those of a higher severity frontal impact. It may not inflate in certain frontal collisions. Vehicle damage (or lack of it) is not always an indication of proper supplemental front-impact air bag system operation.

FRONT SEAT-MOUNTED SIDE-IMPACT SUPPLEMENTAL AIR BAG AND ROOF-MOUNTED CURTAIN SIDE-IMPACT SUPPLEMENTAL AIR BAG SYSTEM (if equipped except for Mexico)



The front side air bags are located in the outside of the seatback of the front seats. The curtain air bags are located in the side roof rails. **All of the information, cautions and warnings in this manual apply and must be followed.** The side air bags and curtain air bags are designed to inflate in higher severity side collisions, although they may inflate if the forces in another type of collision are similar to those of a higher severity side impact. They are designed to inflate on the side

where the vehicle is impacted. They may not inflate in certain side collisions.

Vehicle damage (or lack of it) is not always an indication of proper side air bag and curtain air bag operation.

When the side air bags and curtain air bags inflate, a fairly loud noise may be heard, followed by release of smoke. This smoke is not harmful and does not indicate a fire. Care should be taken not to inhale it, as it may cause irritation and choking. Those with a history of a breathing condition should get fresh air promptly.

Front side air bags, along with the use of seat belts, help to cushion the impact force on the chest of the front occupants. Curtain air bags help to cushion the impact force to the head of occupants in the front seating position. They can help save lives and reduce serious injuries. However, an inflating side air bags and curtain air bags may cause abrasions or other injuries. Side air bags and curtain air bags do not provide restraint to the lower body.

The seat belts should be correctly worn and the driver and passenger seated upright as far as practical away from the side air bags. The side air bags and curtain air bags inflate quickly in order to help protect the occupants. Because of this, the force of the side air bags and curtain air bags inflating can increase the risk of injury if the occupant is too close to, or is against, these air bag modules during inflation. The side air bags and curtain air bags will deflate quickly after the collision is over.

The side air bags and curtain air bags operate only when the ignition switch is in the ON position.

After placing the ignition switch in the ON position, the supplemental air bag warning light illuminates. The air bag warning light will turn off after about 7 seconds if the systems are operational.

⚠ WARNING

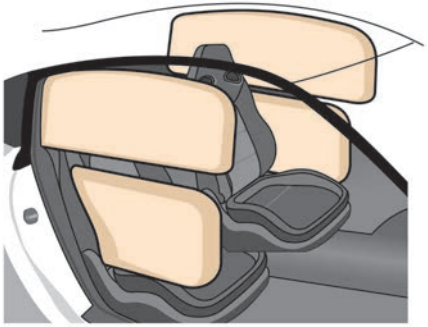
- **Do not place any objects near the seatback of the front seats. Also, do not place any objects (an umbrella, bag, etc.) between the front door finisher and the front seat. Such objects may become dangerous projectiles and cause injury if a side air bag inflates.**
- **Right after inflation, several side air bag and curtain air bag system components will be hot. Do not touch them; you may severely burn yourself.**
- **No unauthorized changes should be made to any components or wiring of the side air bags and curtain air bags. This is to prevent accidental inflation of the side air bags and curtain air bags or damage to the side air bag and curtain air bag systems.**
- **Do not make unauthorized changes to your vehicle's electrical system, suspension system or side panel. This could affect proper operation of the side air bag and curtain air bag systems.**
- **Tampering with the side air bag system may result in serious personal injury. For example, do not change the front seat by placing material near the seatback or by installing additional trim material, such as seat covers, around the side air bags.**
- **Work around and on the side air bag and curtain air bag systems should be done by a NISSAN High Performance Center (NHPC). Installation of electrical equipment should also be done by a NISSAN High Performance Center (NHPC). The SRS wiring harnesses* should not be modified or disconnected. Unauthorized electrical test equipment and probing devices should not be used on the side air bag and curtain air bag systems.**

* **The SRS wiring harnesses connectors are yellow and orange for easy identification.**

When selling your vehicle, we request that you inform the buyer about the side air bag and curtain air bag systems and

guide the buyer to the appropriate sections in this Owner's Manual.

FRONT SEAT-MOUNTED SIDE-IMPACT SUPPLEMENTAL AIR BAG AND ROOF-MOUNTED CURTAIN SIDE-IMPACT AND ROLLOVER SUPPLEMENTAL AIR BAG SYSTEM (for Mexico)



The front side air bags are located in the outside of the seatback of the front seats. The curtain air bags are located in the side roof rails. **All of the information, cautions and warnings in this manual apply and must be followed.** The side air bags and curtain air bags are designed to inflate in higher severity side collisions, although they may inflate if the forces in another type of collision are similar to those of a higher severity side impact. They are designed to inflate on the side where the vehicle is impacted. They may not inflate in certain side collisions.

Curtain air bags are also designed to inflate in certain types of rollover collisions or near rollovers. As a result, certain vehicle movements may cause the curtain air bags to inflate.

Vehicle damage (or lack of it) is not always an indication of proper side air bag and curtain air bag operation.

When the side air bags and curtain air bags inflate, a fairly loud noise may be heard, followed by release of smoke. This smoke is not harmful and does not indicate a fire. Care should be taken not to inhale it, as it may cause irritation and choking. Those with a history of a breathing condition should get fresh air promptly.

Front side air bags, along with the use of seat belts, help to cushion the impact force on the chest of the front occupants. Curtain air bags help to cushion the impact force to the head of occupants in the front seating position. They can help save lives and reduce serious injuries. However, an inflating side air bags and curtain air bags may cause abrasions or other injuries. Side air bags and curtain air bags do not provide restraint to the lower body.

The seat belts should be correctly worn and the driver and passenger seated upright as far as practical away from the side air bags. The side air bags and curtain air bags inflate quickly in order to help protect the occupants. Because of this, the force of the side air bags and curtain air bags inflating can increase the risk of injury if the occupant is too close to, or is against, these air bag modules during inflation. In a rollover, the curtain air bags on both sides are designed to inflate. Under both side-impact situations, the curtain air bags will remain inflated for a short period of time.

The side air bags and curtain air bags operate only when the ignition switch is in the ON position.

After placing the ignition switch in the ON position, the supplemental air bag warning light illuminates. The air bag warning light will turn off after about 7 seconds if the systems are operational.

⚠ WARNING

- **Do not place any objects near the seatback of the front seats. Also, do not place any objects (an umbrella, bag, etc.) between the front door finisher and the front seat. Such objects may become dangerous projectiles and cause injury if a side air bag inflates.**
- **Right after inflation, several side air bag and curtain air bag system components will be hot. Do**

not touch them; you may severely burn yourself.

- **No unauthorized changes should be made to any components or wiring of the side air bags and curtain air bags. This is to prevent accidental inflation of the side air bags and curtain air bags or damage to the side air bag and curtain air bag systems.**
- **Do not make unauthorized changes to your vehicle's electrical system, suspension system or side panel. This could affect proper operation of the side air bag and curtain air bag systems.**
- **Tampering with the side air bag system may result in serious personal injury. For example, do not change the front seat by placing material near the seatback or by installing additional trim material, such as seat covers, around the side air bags.**
- **Work around and on the side air bag and curtain air bag systems should be done by a NISSAN High Performance Center (NHPC). Installation of electrical equipment should also be done by a NISSAN High Performance Center (NHPC). The SRS wiring harnesses* should not be modified or disconnected. Unauthorized electrical test equipment and probing devices should not be used on the side air bag and curtain air bag systems.**

* **The SRS wiring harnesses connectors are yellow and orange for easy identification.**

When selling your vehicle, we request that you inform the buyer about the side air bag and curtain air bag systems and guide the buyer to the appropriate sections in this Owner's Manual.

SRS AIR BAG DEPLOYMENT CONDITIONS

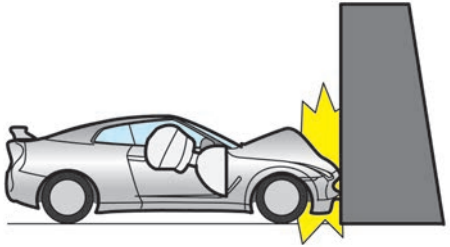
The SRS air bags activate in the event of a front or side impact in which the vehicle occupants may be severely injured even if they are wearing the seat belts properly.

They may not activate when the crash energy is absorbed and/or distributed by the vehicle body. Vehicle damage (or lack of it) is not always an indication of proper SRS air bag system operation.

When the SRS air bag will deploy

Supplemental front-impact air bags:

The supplemental front-impact air bag system is designed to inflate in higher severity frontal collisions. Some examples are shown in the following illustrations.



The supplemental front-impact air bag system will deploy in the event of an impact which exceeds a 25 km/h (16 MPH) frontal collision with a solid wall that does not move or deform.

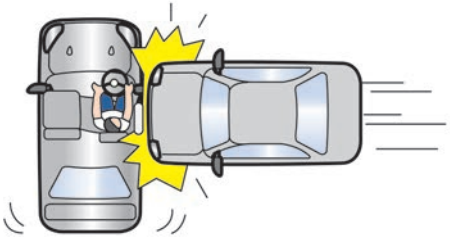
The supplemental front-impact air bag system may also deploy when the vehicle receives severe damage to the undercarriage.

- Hitting a curb, pavement edge or hard surface at high speed
- Falling into a deep hole or ditch
- Landing hard on the ground after jumping

Front seat-mounted side-impact supplemental air bags (if equipped):

The front seat-mounted side-impact supplemental air bag systems are designed to inflate in higher severity side collisions.

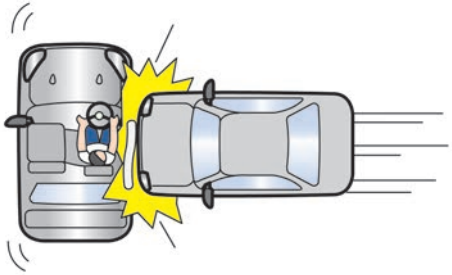
Some examples are shown in the following illustrations.



- The front seat-mounted side-impact supplemental air bag will deploy in the event of a side impact with a normal passenger vehicle that exceeds at a speed of 25 km/h (16 MPH).

Roof-mounted curtain side-impact supplemental air bags (if equipped except for Mexico):

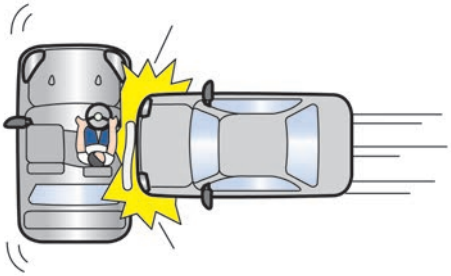
The roof-mounted curtain side-impact supplemental air bag systems are designed to inflate in higher severity side collisions. Some examples are shown in the following illustrations.



- The roof-mounted curtain side-impact supplemental air bag will deploy in the event of a side impact with a normal passenger vehicle that exceeds at a speed of 25 km/h (16 MPH).

Roof-mounted curtain side-impact and rollover supplemental air bags (for Mexico):

The roof-mounted curtain side-impact and rollover supplemental air bag systems are designed to inflate in higher severity side collisions. Some examples are shown in the following illustrations.



- The roof-mounted curtain side-impact and rollover supplemental air bags will deploy in the event of a side impact with a normal passenger vehicle that exceeds at a speed of 25 km/h (16 MPH).

- The roof-mounted curtain side-impact and rollover supplemental air bags will also deploy when the vehicle tips up at a certain degree.

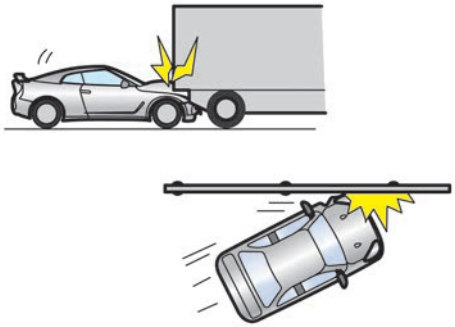
When the SRS air bag is unlikely to deploy

The SRS air bags may not deploy in cases where the impact is not forceful enough to inflate the SRS air bags.

For example, if the vehicle strikes an object, such as a parked vehicle or sign pole, which can move or deform on impact, the SRS air bags are unlikely to deploy.

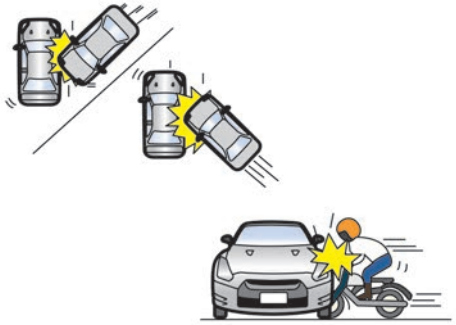
Supplemental front-impact air bags:

- Striking a vehicle of the same class that is parked
- Crashing into a solid utility pole

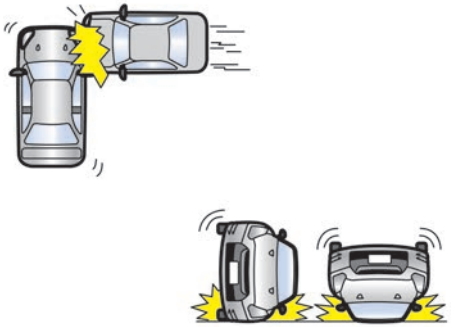


- Running under the tail gate of a truck
- A frontal offset impact to the guard rails

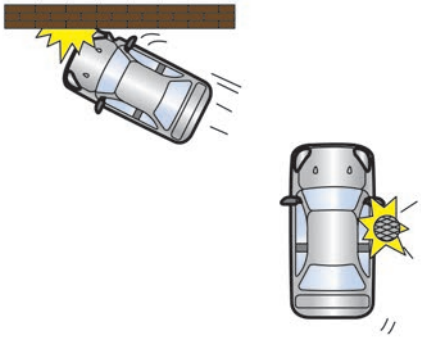
Front seat-mounted side-impact supplemental air bags (if equipped):



- A collision from the side at an angle
- A side impact with a two-wheeled vehicle

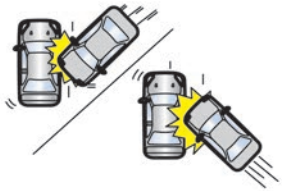


- A collision from the side impacting the vehicle engine room (trunk)
- Vehicle rollover

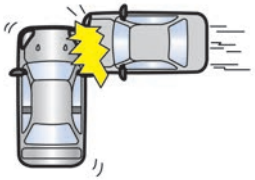


- A frontal offset impact to the guard rails
- A collision with a pole

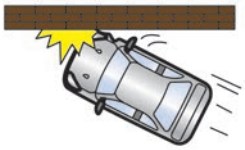
Roof-mounted curtain side-impact supplemental air bags (if equipped except for Mexico):

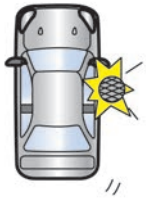


- A collision from the side at an angle
- A side impact with a two-wheeled vehicle



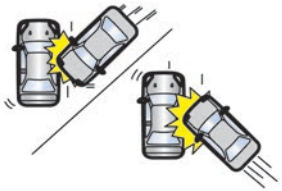
- A collision from the side impacting the vehicle engine room (trunk)
- Vehicle rollover



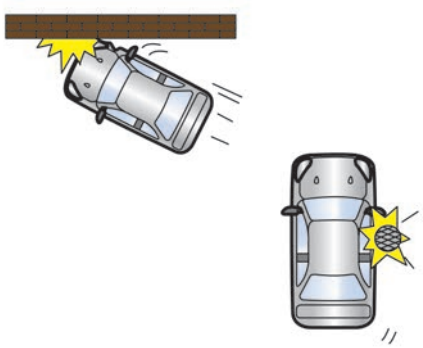


- A frontal offset impact to the guard rails
- A collision with a pole

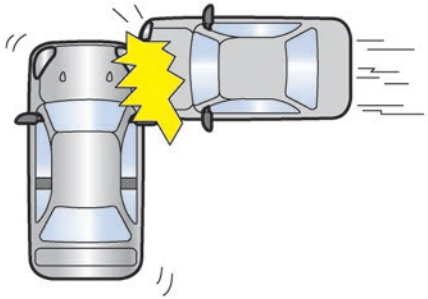
Roof-mounted curtain side-impact and rollover supplemental air bags (for Mexico):



- A collision from the side at an angle
- A side impact with a two-wheeled vehicle



- A frontal offset impact to the guard rails
- A collision with a pole



- A collision from the side impacting the vehicle engine room

When the SRS air bag will not deploy

Once the SRS air bag has inflated, the air bag module will not function again if your vehicle collides with another vehicle or an object.

Other examples where the SRS air bag will not deploy are shown in the following illustrations.

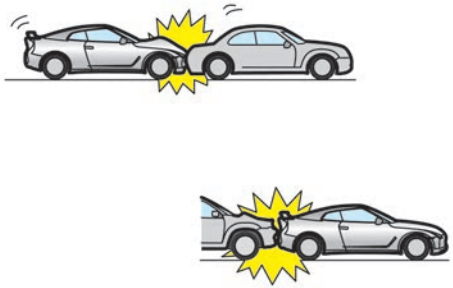
Supplemental front-impact air bags:

- A collision from the side or rear
- Vehicle rollover

Front seat-mounted side-impact supplemental air bags (if equipped):

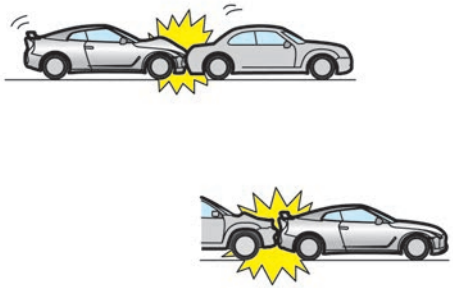
- A frontal collision with a parked or moving vehicle
- A rear collision

Roof-mounted curtain side-impact supplemental air bags (if equipped except for Mexico):



- A frontal collision with a parked or moving vehicle
- A rear collision

Roof-mounted curtain side-impact and rollover supplemental air bags (for Mexico):



- A frontal collision with a parked or moving vehicle
- A rear collision

SEAT BELTS WITH PRETENSIONERS (front seats)

⚠ WARNING

- **The pretensioners cannot be reused after activation. They must be replaced together with the retractor and buckle as a unit.**
- **If the vehicle becomes involved in a collision but the pretensioner is not activated, be sure to have the pretensioner system checked and, if necessary, replaced by a NISSAN High Performance Center (NHPC).**
- **No unauthorized changes should be made to any components or wiring of the pretensioners. This is to prevent damage to or accidental activation of the pretensioners. Tampering with the pretensioner system may result in serious personal injury.**
- **Work around and on the pretensioners should be done by a NISSAN High Performance Center (NHPC). Installation of electrical equipment should also be done by a NISSAN High Performance Center (NHPC). Unauthorized electrical test equipment and probing devices should not be used on the pretensioners.**
- **If you need to dispose of a pretensioner or scrap the vehicle, contact a NISSAN High Performance Center (NHPC). Correct pretensioner disposal procedures are set forth in the appropriate NISSAN Service Manual. Incorrect disposal procedures could cause personal injury.**

The pretensioner system may activate with the supplemental air bag system in certain types of collisions. Working with

the seat belt retractor, it helps tighten the seat belt when the vehicle becomes involved in certain types of collisions, helping to restrain front seat occupants.

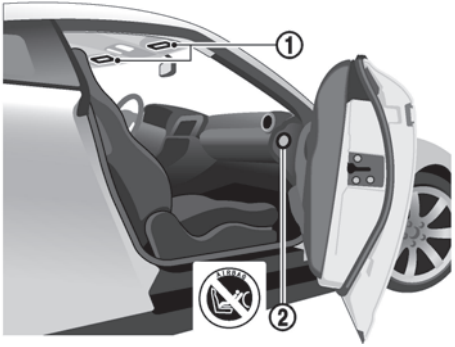
The pretensioner is encased with the seat belt retractor. These seat belts are used the same way as conventional seat belts. When a pretensioner activates, smoke is released and a loud noise may be heard. The smoke is not harmful, and it does not indicate a fire. Care should be taken not to inhale it as it may cause irritation and choking. Those with a history of a breathing condition should get fresh air promptly.

After pretensioner activation, load limiters allow the seat belt to release webbing (if necessary) to reduce forces against the chest.

If any malfunction occurs in the pretensioner system, the supplemental air bag warning light will not come on, will flash intermittently or will turn on for 7 seconds and remain on after the ignition switch has been pushed to the ON position. In this case, the pretensioner may not function properly. They must be checked and repaired. Take your vehicle to the nearest NISSAN High Performance Center (NHPC).

When selling your vehicle, we request that you inform the buyer about the pretensioner system and guide the buyer to the appropriate sections in this Owner's Manual.

SUPPLEMENTAL AIR BAG WARNING LABELS



Warning labels about the supplemental front-impact air bag are placed in the vehicle as shown in the illustration.

The warning label ① is located on the surface of the driver's and/or passenger's sun visor.

The warning label ② (if equipped) is located on the side of the passenger's instrument panel.

The label(s) warn you not to fit a rear-facing child restraint system on the front passenger seat as such a restraint system used in this position could cause serious injury to the infant in case of air bag deployment during a collision.

Type A

① **Air bag warning label (sample)**

The label ① design varies depending on the model.

The label warns:

"Extreme Hazard! Do not use a rearward facing child restraint on a seat protected by an airbag in front of it!"

Type B

① **Air bag warning label**

The label ① warns:

"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."

In vehicles equipped with a front-impact passenger air bag system, use a rear-facing child restraint system only on the rear seats.

When installing a child restraint system in your vehicle, always follow the child restraint system manufacturer's instructions for installation. For additional information, see ☞ "Child restraints" page 1-13.

Type C

① **Air bag warning label**

The label ① warns:

"DO NOT carry baby, infant and children on the front passenger seat."

In vehicles equipped with a front-impact passenger air bag system, use a rear-facing child restraint system only on the rear seats.

When installing a child restraint system in your vehicle, always follow the child restraint system manufacturer's instructions for installation. For additional information, see ☞ "Child restraints" page 1-13.

SUPPLEMENTAL AIR BAG WARNING LIGHT

The supplemental air bag warning light, displaying in the meter, monitors the circuits for the air bag systems, pretensioner seat belt systems and all related wirings.

When the ignition switch is in the ON position, the supplemental air bag warning light illuminates for about 7 seconds and then turns off. This means the SRS air bag systems are operational.

If any of the following conditions occur, the air bag and/or pretensioner seat belt systems need servicing:

- The supplemental air bag warning light remains on after approximately 7 seconds.

- The supplemental air bag warning light flashes intermittently.
- The supplemental air bag warning light does not come on at all.

Under these conditions, the air bag and/or pretensioner seat belt systems may not operate properly. They must be checked and repaired. Take your vehicle to the nearest NISSAN High Performance Center (NHPC).

⚠ WARNING

If the supplemental air bag warning light is on, it could mean that the front air bag, side air bag, curtain air bag and/or pretensioners will not operate in an accident. To help avoid injury to yourself or others, have your vehicle checked by NISSAN High Performance Center (NHPC) as soon as possible.

REPAIR AND REPLACEMENT PROCEDURE

The front air bags, side air bags, curtain air bags and pretensioners are designed to activate on a one-time-only basis. As a reminder, unless it is damaged, the supplemental air bag warning light will remain illuminated after inflation has occurred. Repair and replacement of these systems should be done only by a NISSAN High Performance Center (NHPC).

When maintenance work is required on the vehicle, the front air bags, side air bags, curtain air bags, pretensioners and related parts should be pointed out to the person conducting the maintenance. The ignition switch should always be in the LOCK position when working under the hood or inside the vehicle.

⚠ WARNING

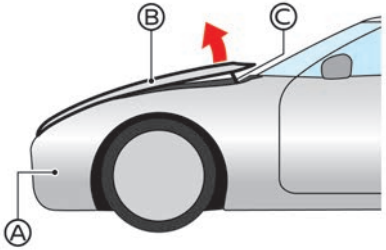
- **Once a front air bag, side air bag, or curtain air bag has inflated, the air bag module will not function again and must be replaced. Additionally, the activated pretensioners must also be replaced. The air bag module and pretensioners should be replaced by a NISSAN High Performance Center (NHPC). The air bag module and pretensioners cannot be repaired.**
- **The front air bag, side air bag, curtain air bag and the pretensioner should be inspected by a NISSAN High Performance Center (NHPC) if there is any damage to the front end or side portion of the vehicle.**
- **If you need to dispose of a supplemental air bag or a pretensioner or scrap the vehicle, contact a NISSAN High Performance Center (NHPC). Correct air bag and pretensioner disposal procedures are set forth in the appropriate NISSAN Service Manual. Incorrect disposal procedures could cause personal injury.**

POP-UP ENGINE HOOD (if equipped)

In certain frontal collisions with a pedestrian, the pop-up engine hood system can help reduce impact to the head of a pedestrian. This system is designed to pop up the rear end of the hood in certain frontal collisions to provide specified clearance between the hood and the engine compartment to reduce impact to a pedestrian.

The pop-up engine hood activates in certain frontal collisions with pedestrians or objects when the vehicle is driven at speeds between approximately 20 and 60 km/h (12 and 37 MPH). While driving, the pop-up engine hood may activate in the event of an impact collision involving the bottom of the vehicle or bumper. The system activates when the collision impact reaches a certain level even though the collision does not cause damage to the bumper.

The pop-up engine hood system operates only when the ignition switch is in the "ON" position. When the ignition switch is in the "ON" position, the pop-up engine hood warning light illuminates for about 7 seconds and then turns off. This indicates that the pop-up engine hood system is operational. (☞ "Warning lights, indicator lights and audible reminders" page 2-24)



When the sensors Ⓐ (located behind the front bumper) detect an impact above a certain level in frontal collisions, the pop-up engine hood system will operate and the rear end of the hood Ⓑ is lifted by the lifters Ⓒ instantly.

⚠ WARNING

- **The pop-up engine hood will not activate in the event of a side impact, rear impact or rollover collision.**
- **The pop-up engine hood may not activate in the event of a corner impact collision of the front bumper.**
- **No unauthorized changes should be made to any components, including the hood and the front bumper, or the wiring of the pop-up engine hood system. This is to prevent accidental or improper activation, or damage to the pop-up engine hood system.**
- **Work around or on the pop-up engine hood system should be done by a NISSAN High Performance Center (NHPC). The wiring of the pop-up engine hood system should not be modified or disconnected. Unauthorized electrical test equipment and probing devices should not be used on the pop-up engine hood system. This could affect proper operation of the pop-up engine hood system and cause accidental or improper activation.**
- **Do not pull the hood lock release handle or push the hood down after the pop-up engine hood activates. Doing so could cause injury or damage to the hood because the hood cannot be closed manually after the system is activated. When the pop-up engine hood activates, contact a NISSAN High Performance Center (NHPC).**
- **If you need to dispose of the pop-up engine hood system or scrap the vehicle, contact a NISSAN High Performance Center (NHPC).**

Correct pop-up engine hood system disposal procedures are set forth in the appropriate NISSAN Service Manual. Incorrect disposal procedures could cause personal injury.

- **The pop-up engine hood system cannot be reused after activation. Contact a NISSAN High Performance Center (NHPC) for replacement. If the vehicle becomes involved in a frontal collision but the pop-up engine hood is not activated, be sure to have the pop-up engine hood system checked and replaced by a NISSAN High Performance Center (NHPC) if necessary.**
- **Immediately after the pop-up engine hood has been activated, do not touch the components because the lifters will be hot. You may severely burn yourself.**

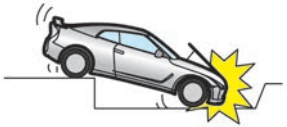
POP-UP ENGINE HOOD ACTIVATION CONDITIONS

When the pop-up engine hood will activate

The pop-up engine hood activates in certain frontal collisions with pedestrians or objects when the vehicle is driven at speeds between approximately 20 and 60 km/h (12 and 37 MPH).

The pop-up engine hood activates when the collision impact reaches a certain level even though the collision does not cause damage to the front bumper. In addition, it may activate when the vehicle collides with small animals, lumps of snow or any other objects, depending on the condition and speed of collisions.

When the vehicle receives an impact to the undercarriage or a lower part of the front bumper, the pop-up engine hood may also activate. Reduce speed and be careful when driving on a road surface that seems likely to impact the undercarriage or a lower part of the front bumper. Some examples are shown in the following illustrations.

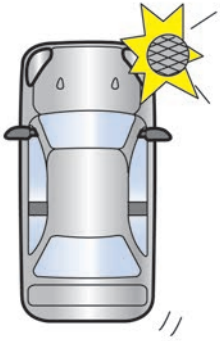


- Hitting a curb, pavement edge or hard surface
- Falling into a deep hole or ditch

- Landing hard on the ground after jumping
- Hitting the front bumper on a slope
- Hitting the front bumper on an uneven road surface, such as a railroad crossing

When the pop-up engine hood is unlikely to activate

The pop-up engine hood may not activate in cases when the sensors of the system are less likely to detect an impact, as in the following examples.



- If a pedestrian hits the corner or side of the front bumper while the vehicle is moving
- When the vehicle speed cannot be detected accurately due to a sideslip

When the pop-up engine hood will not activate

Once the pop-up engine hood has activated, it will not activate again even if your vehicle has a collision.

The pop-up engine hood will not activate when the front bumper is impacted while the vehicle is driven beyond the speed range that the system can activate.

Other examples when the pop-up engine hood will not activate are shown in the following illustrations.

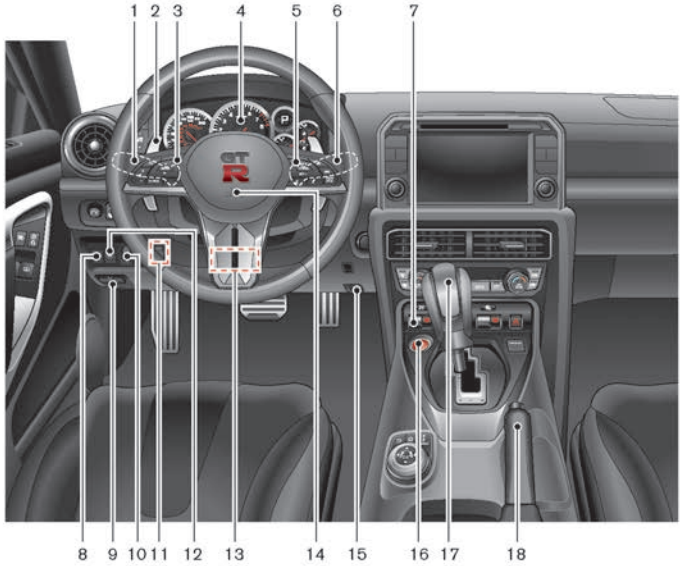
- A collision from the side or rear
- Vehicle rollover

MEMO

2 Instruments and controls

COCKPIT

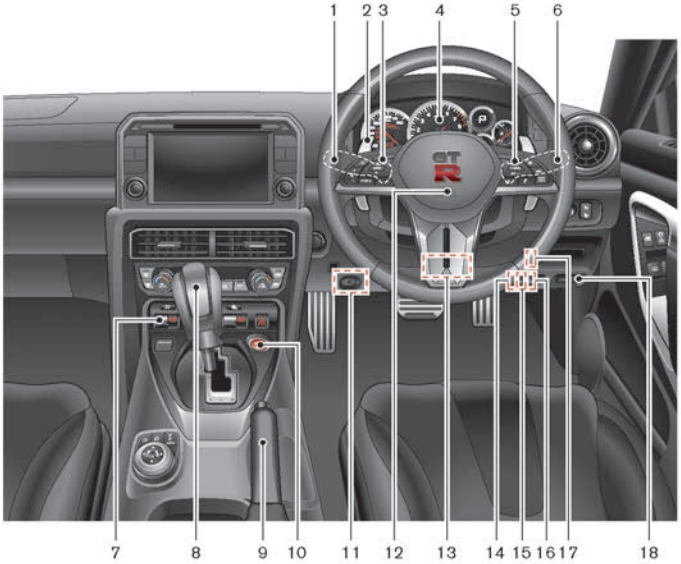
LEFT-HAND DRIVE (LHD) MODEL



1. Headlight and turn signal switch (P.2-55)/ Rear fog light switch (except for Mexico) (P.2-58)
2. Paddle shifters (P.5-14)
3. Steering-wheel-mounted controls (left side)*
4. Meters and gauges (P.2-8)
5. Steering-wheel-mounted controls (right side)
   - — MRK (Mark) switch*
   - — Cruise control (P.5-32)
6. Windshield wiper and washer switch (P.2-51)
7. VDC/ESP, transmission and suspension set up switches (P.5-23)
8. Trunk lid release switch (P.3-22)
9. Hood release handle (P.3-20)
10. Intelligent Key port (P.5-11)
11. Adaptive Front lighting System (AFS) switch (except for Mexico) (P.2-58)
12. Parking sensor (sonar) system OFF switch (P.5-46)
13. Tilting/telescopic steering wheel lever (P.3-27)
14. Horn (P.2-59)
15. Exhaust sound control switch (P.5-53)
16. Push-button ignition switch (P.5-10)
17. Shift lever (P.5-14)
18. Parking brake (P.5-31, P.5-41)

*: Refer to the separate Multi Function Display Owner's Manual.

RIGHT-HAND DRIVE (RHD) MODEL

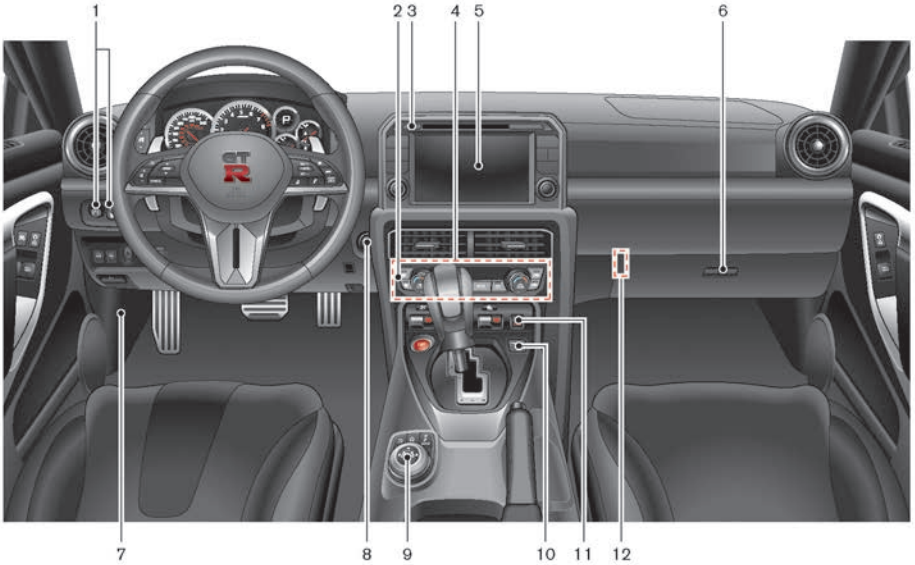


1. Headlight and turn signal switch (P.2-55)/ Rear fog light switch (P.2-58) or Windshield wiper and washer switch (P.2-51)
2. Paddle shifters (P.5-14)
3. Steering-wheel-mounted controls (left side)*
4. Meters and gauges (P.2-8)
5. Steering-wheel-mounted controls (right side)
   - — MRK (Mark) switch*
   - — Cruise control (P.5-32)
6. Windshield wiper and washer switch (P.2-51) or Headlight and turn signal switch (P.2-55)/ Rear fog light switch (P.2-58)
7. VDC/ESP, transmission and suspension set up switches (P.5-23)
8. Shift lever (P.5-14)
9. Parking brake (P.5-31, P.5-41)
10. Push-button ignition switch (P.5-10)
11. Intelligent Key port (P.5-11)
12. Horn (P.2-59)
13. Tilting/telescopic steering wheel lever (P.3-27)
14. Exhaust sound control switch (P.5-53)
15. Adaptive Front lighting System (AFS) switch (P.2-58)
16. Parking sensor (sonar) system OFF switch (P.5-46)
17. Trunk lid release switch (P.3-22)
18. Hood release handle (P.3-20)

*: Refer to the separate Multi Function Display Owner's Manual.

INSTRUMENT PANEL

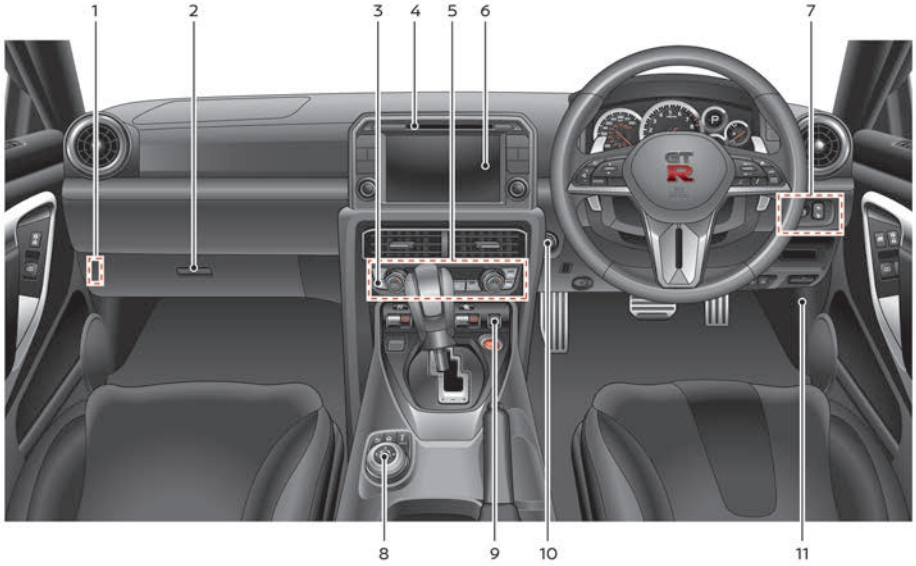
LEFT-HAND DRIVE (LHD) MODEL



1. Outside mirror control switch (P.3-29)
2. Rear window defroster switch (P.2-55)
3. CD slot*
4. Heater and air conditioner (P.4-8)
5. Touch screen display*
6. Glove box (P.2-63)
7. Fuse box cover (P.8-25)
8. Power outlet (P.2-61)
9. Display Commander*
10. Front passenger air bag status light (for Mexico) (P.1-29)
11. Hazard warning flasher switch (P.6-2)
12. Trunk release power cancel switch (P.3-22)

*: Refer to the separate Multi Function Display Owner's Manual.

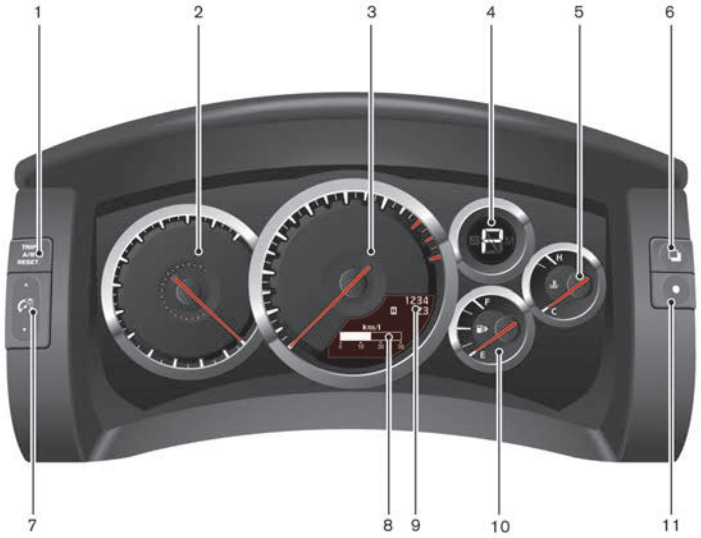
RIGHT-HAND DRIVE (RHD) MODEL



1. Trunk release power cancel switch (P.3-22)
2. Glove box (P.2-63)
3. Rear window defroster switch (P.2-55)
4. CD slot*
5. Heater and air conditioner (P.4-8)
6. Touch screen display*
7. Outside mirror control switch (P.3-29)
8. Display Commander*
9. Hazard warning flasher switch (P.6-2)
10. Power outlet (P.2-61)
11. Fuse box cover (P.8-25)

*: Refer to the separate Multi Function Display Owner's Manual.

METERS AND GAUGES

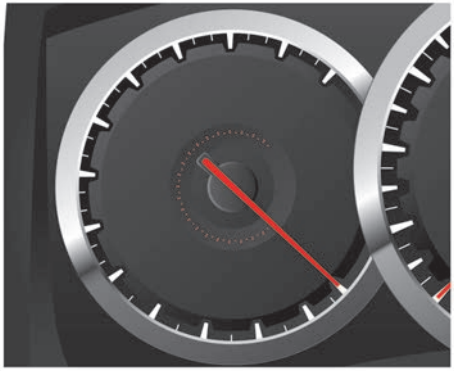


1. TRIP A/B RESET switch (P.2-9)
2. Speedometer (P.2-8)
3. Tachometer (P.2-9)/Upshift indicator (P.2-11)
4. Transmission position indicator (P.2-11)/ Gear shift indicator (if equipped) (P.5-19)
5. Engine coolant temperature gauge (P.2-9)
6. ENTER switch (P.2-16)
7. Instrument brightness control switch (P.2-13)
8. Vehicle information display (P.2-14)
9. Odometer/twin trip odometer (P.2-9)
10. Fuel gauge (P.2-10)
11. NEXT switch (P.2-16)

NOTE:

- **Meters and gauges will illuminate when the ignition switch is pushed to the ON position.**
- **The needle indicators may move slightly after the ignition switch is pushed to the OFF position. This does not indicate that there is a malfunction.**

SPEEDOMETER



The speedometer indicates the vehicle speed.

ODOMETER/TWIN TRIP ODOMETER

The odometer ① indicates the total distance that the vehicle has been driven.

The twin trip odometer ② indicates the distance of individual trips.

Changing the display

Press the TRIP A/B RESET switch to change between trips A and B.

Resetting the trip odometer

To reset a trip, display the trip that you want to reset to zero, then press and hold the TRIP A/B RESET switch for more than 1 second.

NOTE:

When the battery is disconnected, the memory for trips A and B is erased, and both return to zero.

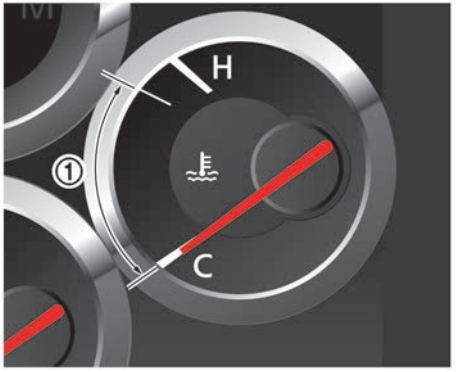
TACHOMETER

The tachometer indicates the engine speed in revolutions per minute (rpm). Do not rev the engine into the red zone ①.

NOTICE

When engine speed approaches the red zone, shift to a higher gear or reduce engine speed. Operating the engine in the red zone may cause serious engine damage.

ENGINE COOLANT TEMPERATURE GAUGE



Type A

Type B

The gauge indicates the engine coolant temperature.

The engine coolant temperature is within the normal range when the gauge needle points within the zone ① shown in the illustration.

The engine coolant temperature varies with the outside air temperature and driving conditions.

NOTICE

If the gauge indicates engine coolant temperature near the hot (H) end of the normal range, reduce vehicle speed to decrease temperature. If gauge is over the normal range, stop the vehicle as soon as safely possible. If the engine is overheated, continued operation of the vehicle may seriously damage the engine. ("If your vehicle overheats" page 6-6)

FUEL GAUGE

Type A

Type B

The gauge indicates the **approximate** fuel level in the tank.

The gauge may move slightly during braking, turning, acceleration, or going up or down hills.

The gauge needle returns to E (Empty) after the ignition switch is pushed to the LOCK position.

Refill the fuel tank before the gauge registers "E" (Empty).

The low fuel warning will be indicated on the vehicle information display when the fuel tank is getting low. Refuel as soon as it is convenient, preferably before the gauge reaches "E". There will be a small reserve of fuel in the tank when the fuel gauge needle reaches "E". ("Low fuel warning (km or MILES)" page 2-42)

The indicates that the fuel-filler door is located on the right side of the vehicle. ("Fuel-filler door" page 3-25)

NOTE:

Except for the Middle East: If the vehicle runs out of fuel, the or Malfunction Indicator Light (MIL or MI) may come on. Refuel as soon as possible. After a few driving trips, the or light should turn off. If the light remains on after a few driving trips, have the vehicle inspected by a NISSAN High Performance Center (NHPC). ("or Malfunction Indicator Light (MIL or MI)" page 2-31)

TRANSMISSION POSITION INDICATOR

The transmission position indicator indicates the gear positions.

The indicator blinks if it is not possible to shift the gear when in the M position.

UPSHIFT INDICATOR

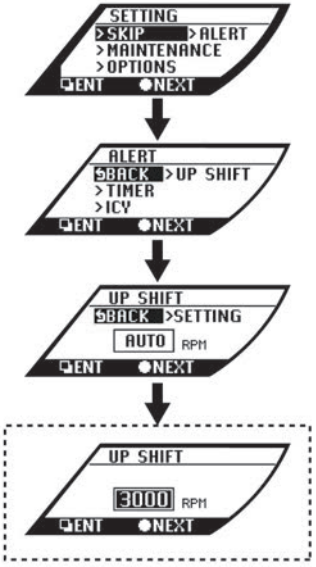
1. Upshift indicator (green)
2. Upshift indicator (yellow)
3. Upshift indicator (red)

When the upshift indicator is set to on, the indicators on the tachometer will illuminate to help upshift at a constant engine speed from any gear or to warn the driver of over-revving.

The upshift indicator operates only when the shift lever is in the M position. This function consists of two modes that can be selected on the vehicle information display: AUTO setting and MANUAL setting.

MODE	INDICATOR	COLOR	CONDITIONS
AUTO setting		No color	Light is off at all times.
		Yellow	Light comes on about 700 RPM before the red zone.
		Red	Light comes on immediately before the red zone.
MANUAL setting		Green	Light blinks about 500 RPM before the set RPM and comes on at the set RPM.
		Yellow	Light comes on about 700 RPM before the red zone.
		Red	Light comes on immediately before the red zone.

Setting



Push the ignition switch to the ON position. Use the ENTER switch ❑ and toggle the vehicle information display to show the SETTING screen.

Use the NEXT switch ● and ENTER switch ❑ to go to ALERT > UPSHIFT. The current status of the upshift indicator will be shown on the UPSHIFT screen. Note that the function is set to AUTO as the factory default setting.

To change the upshift indicator mode, choose SETTING on the UPSHIFT screen. Set one of the following modes by pushing the NEXT switch ⬤, and then push ENTER ⧉ to complete.

- AUTO
- 3,000 to 6,300 RPM (MANUAL)
- OFF

The number will increase by 100 RPM. To increase the number by 500 RPM, push and hold the NEXT switch ⬤.

Example

When the maximum engine speed is desired:

Set the upshift indicator to AUTO. The yellow indicator illuminates approximately 700 RPM before the red zone, and the red indicator illuminates just before the red zone.

When the maximum engine torque is desired:

Set the figure at 6,000 RPM. The green indicator starts flashing from approximately 5,500 RPM and illuminates at 6,000 RPM.

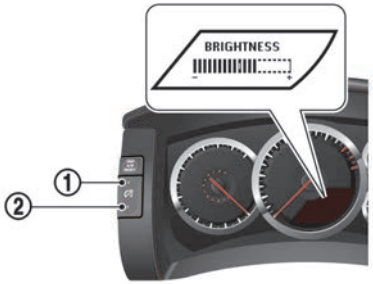
When breaking-in the vehicle:

To help avoid high engine speeds during break-in, set the upshift indicator to less than 3,500 RPM. The green indicator starts flashing approximately 500 RPM before the set figure and illuminates from the set figure. (☞ "Break-in schedule" page 5-36)

NOTE:

- **There may be a slight difference between the timing of the upshift indicator illumination and the tachometer indication.**
- **When the battery terminal is disconnected, the set memory will be erased and the mode returns to the default.**

INSTRUMENT BRIGHTNESS CONTROL



The instrument brightness can be adjusted when the ignition switch is in the ON position. Press the switch to adjust the brightness up ① or down ②. The brightness level is shown on the vehicle information display.

When the headlights are on, the brightness of the interior switches is also adjusted at the same time.

NOTE:

- **The instrument brightness can be adjusted separately for daytime and nighttime conditions. The adjusted settings are automatically stored.**
- **When the battery terminal is disconnected, the set memory will be erased and the setting returns to the default.**

VEHICLE INFORMATION DISPLAY

The vehicle information display can display the following information.

- Engine oil level display
- Transmission system check display
- Instrument brightness control level display (☞ "Instrument brightness control" page 2-13)
- Drive computer (☞ "Drive computer" page 2-16)
- Warning display (☞ "Warning display" page 2-34)
- Operation display (☞ "Operation displays" page 2-44)
- Cruise control display (☞ "Cruise control" page 5-32)

ENGINE OIL LEVEL DISPLAY

When the ignition switch is pushed to the ON position, the engine oil status before starting the engine is indicated as illustrated.

When the oil level is normal

"OIL LEVEL OK" is displayed. Press the displayed LEVEL switch ● to check the oil level.

NOTE:

The engine oil level can be displayed after the "OIL LEVEL OK" display turns off or while the engine is started and running. (☞ "Maintenance" page 2-20)

When the oil level is low

If the message shown above is displayed, the engine oil level is low.

Warm up the engine in a level location. After at least 5 minutes have passed since engine stop, use the engine oil level gauge to check the oil level. (☞ "Engine oil" page 8-11)

If the oil level is low, have additional engine oil added, or the oil changed, at a NISSAN High Performance Center (NHPC).

NOTICE

If the vehicle is in a location that is not level, accurate measurement of the oil level may not be possible. If "OIL LEVEL LOW" is displayed, but the level shown by the oil level gauge is normal, move the vehicle to a level location and stop the engine. After at least 5 minutes have passed, open the driver's door and push the ignition switch back to ON. If the "OIL LEVEL LOW" message appears again, have engine oil added or the oil changed.

When the oil level sensor malfunction occurs

If the message shown above is displayed, the engine oil level sensor may be malfunctioning.

Contact a NISSAN High Performance Center (NHPC) immediately.

TRANSMISSION SYSTEM CHECK DISPLAY

This is displayed after the engine is started while the transmission system is being checked. It turns off after a few seconds.

NOTE:

- **During the system check, the shift lever cannot be moved out of the P position. Operate the shift lever after the system check indicator turns off.**
- **When the system check is being performed, if the button on the shift lever is pushed in, the shift lever cannot be moved even after the system check has been completed. Release the button and push it again to operate the shift lever.**

- **During winter or at other times when the temperature is extremely low, changes in the hydraulic response characteristics may increase the amount of time that is required for the system check. During the system check, a thudding operating noise may occur or the engine speed may decrease, however this does not indicate that there is a malfunction.**

DRIVE COMPUTER

1. ENTER switch
2. NEXT switch
3. Vehicle information display

The drive computer displays the following information:

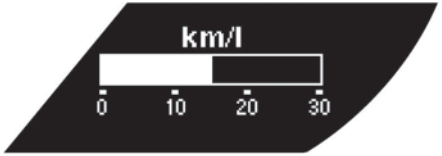
- Current fuel consumption
- Vehicle speed
- Cruise control
- Average fuel consumption and speed
- Elapsed time and trip computer
- Distance to empty
- Outside air temperature
- Setting
- Warning

The vehicle information display ③ can be changed when the ignition switch is in the ON position. Press the ENTER switch ① to change the display.

NOTE:

- **The cruise control display is shown if cruise control is set. ("Cruise control" page 5-32)**
- **The warning display is not shown if there are no conditions to warn the driver.**
- **Depending on the driving conditions and other factors, the displayed values may differ from the actual values.**
- **The position of the speedometer needle and the speed shown in the vehicle information display may slightly differ.**

CURRENT FUEL CONSUMPTION (km/l, l/100 km or MPG)



The current fuel economy is displayed when driving.

VEHICLE SPEED (km/h or MPH)

This displays the vehicle speed while driving.

CRUISE CONTROL (km/h or MPH)

This displays the set cruise control status.

NOTE:

The cruise control display is shown if cruise control is set. (☞ "Cruise control" page 5-32)

AVERAGE FUEL CONSUMPTION AND SPEED (km/l, l/100 km or MPG, km/h or MPH)

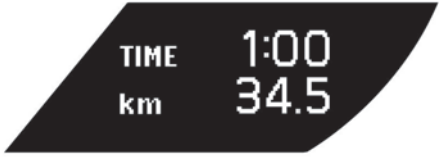
This displays the average fuel economy and average vehicle speed beginning from the time when the display was last reset.

To reset the display, press and hold the NEXT switch ● for more than 1 second. (The average fuel economy and average vehicle speed are reset at the same time.)

NOTE:

- **"----" is displayed during the first 500 m (1/3 mile) or the first 30 seconds after a reset.**
- **The values are updated approximately every 30 seconds.**

ELAPSED TIME AND TRIP ODOMETER (km or MILES)



This displays the elapsed time and trip odometer beginning from the time when the display was last reset.

To reset the display, press and hold the NEXT switch ● for more than 1 second. (The elapsed time and trip odometer are reset at the same time.)

DISTANCE TO EMPTY (km or MILES)

This displays the approximate distance that the vehicle can be driven based on the amount of fuel remaining in the fuel tank and the actual fuel consumption.

NOTE:

- **If the fuel level is low, the low fuel warning will be displayed. (☞ "Low fuel warning (km or MILES)" page 2-42)**
- **If the vehicle is not refueled after the low fuel warning appears, the display will change to "----". This change timing may become earlier depending on the driving conditions. This does not indicate that there is a malfunction.**

- **The values are updated approximately every 30 seconds.**

OUTSIDE AIR TEMPERATURE

This displays the outside air temperature.

NOTE:

- **The outside air temperature may not be displayed correctly in the following cases.**
  - **— The outside air temperature is lower than −30°C (−22°F) or is higher than 55°C (131°F).**
  - **— The vehicle is stopped or is driving at a low speed (less than approximately 20 km/h (12 MPH)).**
  - **— The temperature in the engine compartment is high.**
- **When the outside air temperature is lower than 3°C (37°F), the low outside temperature warning will be displayed and "ICY" is indicated on the outside air temperature display. (☞ "Alert" page 2-19)**

SETTING (drive computer)

This is used to set the alert, maintenance and optional settings.

Use the NEXT switch ● to select an item, then confirm with the ENTER switch ❑ to change to the corresponding setting screen.

To return to the initial setting screen, press and hold the ENTER switch ❑ for more than 1 second.

NOTE:

- **When the battery terminal is disconnected, the set memory will be erased and the settings return to the default.**
- **Setting is not possible in the following cases.**
  - **— The vehicle is being driven.**
  - **— A warning display is active.**
  - **— The instrument brightness control level display is active.**
  - **— The cruise control status is displayed.**

Alert

This function can be used to make settings for the upshift indicator, "timer" indicator and low outside temperature warning.

Upshift indicator:

For details concerning the upshift indicator, refer to the following section. (☞ "Upshift indicator" page 2-11)

"Timer" indicator:

This alert informs the driver that the set driving time has elapsed.

On the TIMER screen, push the NEXT switch ● to change the time. Push and hold the switch to increase the number every 1 hour. A maximum of 6 hours can be set.

NOTE:

The default setting is OFF.

Low outside temperature warning:

This alert informs the driver when the outside air temperature is lower than 3°C (37°F).

On the ICY screen, push the NEXT switch ● to turn this warning ON/OFF.

NOTE:

The default setting is ON.

Maintenance

This function can be used to set the various maintenance intervals and to check the engine oil level. The reminders shown below are used to notify the driver of the maintenance intervals.

NOTE:

Because these are displayed based on the mileage driven, they do not indicate the actual conditions of the vehicle. Use these functions only as a reference.

Input the maintenance distance using the following items:

- On each setting screen, push the NEXT switch ● to change the mileage. Push and hold the switch to increase the number every 1,000 km (600 miles).

- Set to "—" to set no reminders.
- To reset the accumulated mileage to zero, go to the RESET screen, then push the NEXT switch ● and confirm with the ENTER switch ❑.

NOTE:

- **To restore the mileage to the original figure after resetting, press the NEXT switch ● again.**
- **When the battery terminal is disconnected, the set mileage will be erased and the settings will return to their default settings.**

Engine oil level:

This can be used to check the pre-start oil level while the engine is running. Select SETTING > MAINTENANCE > OIL > ENGINE OIL > LEVEL.

If the low level reminder appears, check the level using the engine oil dipstick. (☞ "Checking engine oil level" page 8-11)

Engine oil:

When the set mileage approaches, the reminder will appear on the display and the remaining distance is displayed at regular intervals. Select SETTING > MAINTENANCE > OIL > ENGINE OIL to set or reset the mileage for the engine oil change.

NOTE:

The default setting is 15,000 km (9,500 miles). The maximum mileage that can be set is 15,000 km (9,500 miles).

Engine oil filter:

The reminder is displayed when the set mileage is exceeded. Select SETTING > MAINTENANCE > FILTER to set or reset the mileage for the engine oil filter change.

NOTE:

The default setting is 15,000 km (9,500 miles). The maximum mileage that can be set is 15,000 km (9,500 miles).

Transmission oil:

The reminder is displayed when the set mileage is exceeded. Select SETTING > MAINTENANCE > OIL > T/M OIL to set or reset the mileage for the transmission oil change.

NOTE:

The default setting is 60,000 km (37,000 miles). The maximum mileage that can be set is 90,000 km (55,500 miles).

Tires:

Type A

Type B

The reminder is displayed when the set mileage is exceeded. Select SETTING > MAINTENANCE > TYRE or TIRE to set or reset the mileage for the tire change.

NOTE:

The default setting is OFF.

Options

This function can be used to make settings for language and unit.

Language (if equipped):

Select this submenu to choose the language for the display.

Unit:

Select this submenu to choose the unit (km/l, l/100 km, etc.) for the display.

WARNING (drive computer)

Warning information is displayed on the vehicle information display.

Press the ENTER switch ❑ while a warning display is active to return to the original display.

It is also possible to check any warnings that have not been corrected. (☞ "Warning display" page 2-34)

Checking the warnings

Use the NEXT switch ● to select "DETAIL", then confirm with the ENTER switch ❑.

When there are multiple warnings, press the ENTER switch ❑ to change the display among them.

To return to the initial warning, press and hold the ENTER switch ❑ for more than 1 second.

NOTE:

If there are no warnings to display, only "SKIP" can be selected.

WARNING LIGHTS, INDICATOR LIGHTS AND AUDIBLE REMINDERS

ABS	Anti-lock Braking System (ABS) warning light		Master warning light		High beam indicator light
			Seat belt warning light	SERVICE ENGINE SOON	Malfunction Indicator Light (MIL or MI)
	Brake warning light		Speed [120 km/h (75 MPH)] warning light (for the Middle East)		Pop-up engine hood warning light (if equipped)
	Brake wear warning light (if equipped)		Supplemental air bag warning light		Rear fog light indicator light (except for Mexico)
	Charge warning light		Transmission warning light		Small light indicator light
	Engine oil pressure warning light		Vehicle Dynamic Control (VDC) warning light/Electronic Stability Program (ESP) warning light		Turn signal/hazard indicator lights
4WD AWD	Four-Wheel Drive (4WD)/All-Wheel Drive (AWD) warning light	CRUISE	Cruise main switch indicator light	OFF	Vehicle Dynamic Control (VDC) off indicator light /Electronic Stability Program (ESP) off indicator light
KEY	Intelligent Key warning light	SET	Cruise set switch indicator light		
	Low tire pressure warning light	OFF	Front passenger air bag status light (for Mexico)		

CHECKING LIGHTS

With all doors closed, apply the parking brake, fasten the seat belts and place the ignition switch in the ON position without starting the engine. The following lights (if equipped) will come on:

, , , or SERVICE ENGINE SOON, 4WD or AWD

The following lights (if equipped) will come on briefly and then go off:

, ABS or , , , , , , ,

If any light does not come on or operates in a way other than described, it may indicate a burned-out bulb and/or a system malfunction. Have the system checked by a NISSAN High Performance Center (NHPC).

WARNING LIGHTS

ABS or Anti-lock Braking System (ABS) warning light

When the ignition switch is in the ON position, the Anti-lock Braking System (ABS) warning light illuminates and then turns off. This indicates the ABS is operational.

If the ABS warning light illuminates while the engine is running, or while driving, it may indicate the ABS is not functioning properly. Have the system checked by a NISSAN High Performance Center (NHPC).

If an ABS malfunction occurs, the anti-lock function is turned off. The brake system then operates normally, but without anti-lock assistance. (☞ "Brake system" page 5-47)

Brake warning light

This light functions for both the parking brake and the foot brake systems.

Parking brake indicator:

When the ignition switch is in the ON position, the light comes on when the parking brake is applied.

Low brake fluid warning light:

When the ignition switch is in the ON position, the light warns of a low brake fluid level. If the light comes on while the engine is running with the parking brake not applied, stop the vehicle and perform the following:

1. Check the brake fluid level. Add brake fluid as necessary. (☞ "Brake fluid" page 8-13)
2. If the brake fluid level is correct, have the warning system checked by a NISSAN High Performance Center (NHPC).

Anti-lock Braking System (ABS) warning indicator:

When the parking brake is released and the brake fluid level is sufficient, if both the brake warning light and the Anti-lock Braking System (ABS) warning light illuminate, it may indicate the ABS is not functioning properly. Have the brake system checked, and if necessary repaired, by a NISSAN High Performance Center (NHPC) promptly. (☞ "Anti-lock Braking System (ABS) warning light" page 2-24)

Brake wear warning indicator (models with NCCB (NISSAN Carbon Ceramic Brake) package for the Middle East and Mexico):

When the brake warning light illuminates, it may indicate that there is brake pad wear. Have the brake system checked and brake pads replaced as soon as possible at a NISSAN High Performance Center (NHPC).

⚠ CAUTION

Never drive for a long period of time when the brake wear warning indicator is illuminated. Otherwise, the brake may not function properly due to brake pad wear.

⚠ WARNING

- **Your brake system may not be working properly if the warning light is on. Driving could be dangerous. If you judge it to be safe, drive carefully to the nearest service station for repairs. Otherwise, have your vehicle towed because driving it could be dangerous.**
- **Pressing the brake pedal with the engine stopped and/or low brake fluid level may increase your stopping distance and braking will require greater pedal effort as well as pedal travel.**
- **If the brake fluid level is below the minimum or MIN mark on the brake fluid reservoir, do not drive until the brake system has been checked at a NISSAN High Performance Center (NHPC).**

Brake wear warning light (if equipped)

The brake wear warning light illuminates when there is brake pad wear. Have the brake system checked and brake pads replaced as soon as possible at a NISSAN High Performance Center (NHPC).

⚠ CAUTION

Never drive for a long period of time when the brake wear warning light is illuminated. Otherwise, the brake may not function properly due to brake pad wear.

Charge warning light

If the light comes on while the engine is running, it may indicate the charging system is not functioning properly. Turn the engine off and check the alternator belt. If the belt is loose, broken, missing or if the light remains on, see a NISSAN High Performance Center (NHPC) immediately.

NOTICE

Do not continue driving if the alternator belt is loose, broken or missing.

Engine oil pressure warning light

This light warns of low engine oil pressure. If the light flickers or comes on during normal driving, pull off the road in a safe area, stop the engine **immediately** and call a NISSAN High Performance Center (NHPC).

The engine oil pressure warning light is not designed to indicate a low oil level. Check the vehicle information display or use the dipstick to check the oil level. (☞ "Engine oil level display" page 2-14) (☞ "Checking engine oil level" page 8-11)

NOTICE

Running the engine with the engine oil pressure warning light on could cause serious damage to the engine almost immediately. Turn off the engine as soon as it is safe to do so.

4WD or AWD Four-Wheel Drive (4WD)/All-Wheel Drive (AWD) warning light

The 4WD/AWD warning light comes on when the ignition switch is pushed to ON. It turns off soon after the engine is started.

If the 4WD/AWD system malfunctions, the warning light will either remain illuminated or blink. (☞ "Four-Wheel Drive (4WD)/All-Wheel Drive (AWD)" page 5-38)

⚠ CAUTION

- **If the warning light comes on while driving there may be a malfunction in the 4WD/AWD system. Reduce the vehicle speed and have your vehicle checked by a NISSAN High Performance Center (NHPC) as soon as possible.**
- **If the 4WD/AWD warning light blinks on when you are driving:**
  - **— blinks rapidly (about twice a second):**
    Pull off the road in a safe area, and idle the engine. The driving mode will change to RWD to prevent the 4WD/AWD system from malfunctioning. If the warning light turns off, you can drive again. This does not indicate that there is a malfunction.
  - **— blinks slowly (about once every 2 seconds):**
    Pull off the road in a safe area, and idle the engine. Check that all tire sizes are the same as that specified on the Tire Placard label located in the driver's door opening, tire pressure is correct and tires are not worn. (☞ "Tire placard" page 9-11)
    If the tire pressure is insufficient, fill with nitrogen gas. Contact a NISSAN High Performance Center (NHPC) about filling with nitrogen gas. If nitrogen gas is not available, compressed air may be safely used under normal driving conditions. However, NISSAN

recommends refilling with nitrogen gas for maximum tire performance.

- **If the warning light is still on after the above operations, have your vehicle checked by a NISSAN High Performance Center (NHPC) as soon as possible.**

Intelligent Key warning light

After the ignition switch is pushed to the ON position, this light comes on for about 2 seconds and then turns off.

This light warns of a malfunction with the electrical steering lock system or the Intelligent Key system.

If the light comes on while the engine is stopped, it may be impossible to free the steering lock or to start the engine. If the light comes on while the engine is running, you can drive the vehicle. However in these cases, contact a NISSAN High Performance Center (NHPC) for repair as soon as possible.

Low tire pressure warning light

Your vehicle is equipped with a Tire Pressure Monitoring System (TPMS) that monitors the tire pressure of all tires.

The low tire pressure warning light warns of low tire pressure and flat tire, or indicates that the TPMS is not functioning properly.

After the ignition switch is pushed to the ON position, the warning light illuminates for about 1 second and turns off.

Low tire pressure warning:

If the vehicle is being driven with low tire pressure, the warning light will illuminate.

When the low tire pressure warning light illuminates, you should stop and adjust the tire pressure of all 4 wheels to the recommended COLD tire pressure shown on the Tire Placard label located in the driver's door opening. Use a tire pressure gauge to check the tire pressure.

The low tire pressure warning light may not automatically turn off when the tire pressure is adjusted. After the tire is inflated to the recommended pressure, reset the tire pressures registered in your vehicle (model with TPMS reset function) and then drive the vehicle at speeds above 25 km/h (16 MPH).

These operations are required to activate the TPMS and turn off the low tire pressure warning light.

Model with TPMS reset function:

TPMS resetting must be also performed after a tire or a wheel is replaced.

Depending on a change in the outside temperature, the low tire pressure warning light may illuminate even if the tire pressure has been adjusted properly. Adjust the tire pressure to the recommended COLD tire pressure again when the tires are cold, and reset the TPMS.

If the low tire pressure warning light still continues to illuminate after the resetting operation, it may indicate that the TPMS is not functioning properly. Have the system checked by a NISSAN High Performance Center (NHPC).

(☞ "Tire Pressure Monitoring System (TPMS)" page 5-4)

Run-flat tire warning:

The run-flat tire warning warns of a flat tire.

If the vehicle is being driven with one or more flat tires, the warning light will illuminate continuously and a chime will sound for 10 seconds.

The chime will only sound at the first indication of a flat tire and the warning light will illuminate continuously. When the flat tire warning is activated, have the system reset and the tire checked and replaced if necessary by a NISSAN High Performance Center (NHPC). Even if the tire is inflated to the specified COLD tire pressure, the warning light will continue to illuminate until the system is reset by a NISSAN High Performance Center (NHPC).

If you select the tire pressure information in the touch screen display, the warning message will be displayed. The tire pressure for each tire will also be displayed. Refer to the separate Multi Function Display Owner's Manual.

Your vehicle can be driven for a limited time on a flat tire. (☞ "Run-flat tires" page 6-3) (☞ "Run-flat tires" page 8-42)

TPMS malfunction:

If the TPMS is not functioning properly, the low tire pressure warning light will flash for approximately 1 minute when the ignition switch is pushed to the ON position. The light will remain on after the 1 minute. Have the system checked by a NISSAN High Performance Center (NHPC). (☞ "Tire Pressure Monitoring System (TPMS)" page 5-4) (☞ "Tire pressure" page 8-35)

⚠ WARNING

- **If the light does not illuminate with the ignition switch pushed to the ON position, have the vehicle checked by a NISSAN High Performance Center (NHPC) as soon as possible.**
- **If the light illuminates while driving, avoid sudden steering maneuvers or abrupt braking, reduce vehicle speed, pull off the road to a safe location and stop the vehicle as soon as possible. Driving with under-inflated tires may permanently damage the tires and increase the likelihood of tire failure. Serious vehicle damage could occur and may lead to an accident and could result in serious personal injury. Check the tire pressure for all four tires. Adjust the tire pressure to the recommended COLD tire pressure shown on the Tire Placard label located in the driver's door opening to turn the low tire pressure warning light off. If the light still illuminates while driving after adjusting the tire pressure, a tire may be flat (☞ "Run-flat tires" page 6-3) or the TPMS may be malfunctioning. If no tire is flat and all tires are properly inflated, have the vehicle checked by a NISSAN High Performance Center (NHPC).**
- **Although you can continue driving with a punctured run-flat tire, remember that vehicle handling stability is reduced, which could lead to an accident and personal injury. Also, driving a long distance at high speeds may damage the tires.**
- **Do not drive at speeds above 80 km/h (50 MPH) and do not drive more than 80 km (50 miles) with a punctured run-flat tire. The actual distance the vehicle can be driven on a flat tire depends on outside temperature, vehicle load, road conditions and other factors.**
- **If you detect any unusual sounds or vibrations while driving with a punctured run-flat tire, pull off the road to a safe location and stop the vehicle as soon as possible. The tire may be seriously damaged and need to be replaced.**
- **After adjusting the tire pressure, be sure to reset the TPMS (model with TPMS reset function). Unless the resetting is performed, the TPMS will not warn of the low tire pressure.**
- **When a wheel is replaced, the TPMS will not function and the low tire pressure warning light will flash for approximately 1 minute. The light will remain on after the 1 minute. Contact a NISSAN High Performance Center (NHPC) as soon as possible for tire replacement and/or system resetting.**
- **Replacing tires with those not originally specified by NISSAN could affect the proper operation of the TPMS.**

⚠ CAUTION

- **The TPMS is not a substitute for the regular tire pressure check. Be sure to check the tire pressure regularly.**
- **Be sure to install the specified size of tires on the four wheels.**

NOTE:

- **If the vehicle is being driven at speeds of less than 25 km/h (16 MPH), the TPMS may not operate correctly.**
- **The tires of this vehicle are filled with nitrogen gas. When the tire pressure is low, fill the tires with nitrogen gas. Contact a NISSAN High Performance Center (NHPC) for information on filling the tires with nitrogen gas.**

Master warning light

When the ignition switch is in the ON position, the master warning light illuminates if any of the warning displays appear on the vehicle information display. (☞ "Warning display" page 2-34)

Seat belt warning light

For Mexico:

The light and chime remind you to fasten seat belts. The light illuminates whenever the ignition switch is placed in the "ON" position, and will remain illuminated until the driver's seat belt is fastened. At the same time, the chime will sound for about 6 seconds unless the driver's seat belt is securely fastened.

The seat belt warning light for the front passenger will illuminate if the seat belt is not fastened when the front passenger's seat is occupied. For approximately 5 seconds after the ignition switch is placed in the ON position, the system does not activate the warning light for the front passenger. (☞ "Seat belts" page 1-7)

Except for Mexico:

When the ignition switch is in the "ON" position, the driver's seat belt warning light illuminates. The light will continue to illuminate until the driver's seat belt is fastened.

Speed [120 km/h (75 MPH)] warning light (for the Middle East)

This light blinks when the vehicle speed goes over approximately 120 km/h (75 MPH). Be sure to observe the speed limit in the area where you are driving.

Supplemental air bag warning light

After pushing the ignition switch to the ON position, the supplemental air bag warning light will illuminate for about 7 seconds and then turn off. This means the system is operational.

If any of the following conditions occur, the supplemental air bag and pretensioner systems need servicing and your vehicle must be taken to a NISSAN High Performance Center (NHPC).

- The supplemental air bag warning light remains on after approximately 7 seconds.
- The supplemental air bag warning light flashes intermittently.
- The supplemental air bag warning light does not come on at all.

Unless checked and repaired, the supplemental restraint system (air bag system) and/or the pretensioners may not function properly. (☞ "Supplemental restraint system" page 1-21)

⚠ WARNING

If the supplemental air bag warning light is on, it could mean that the front air bag, side air bag, curtain air bag and/or pretensioner systems will not operate in an accident. To help avoid injury to yourself or others, have your vehicle checked by a NISSAN High Performance Center (NHPC) as soon as possible.

Transmission warning light

This light warns of the following malfunctions.

Transmission system malfunction:

The light blinks if a malfunction in the transmission system occurs. If the light blinks, certain gear positions may become unusable, so that the vehicle may become undriveable. Have the system inspected promptly by a NISSAN High Performance Center (NHPC).

Transmission oil temperature high:

The light illuminates if the transmission oil temperature becomes unusually high. If the light illuminates, avoid driving at high speed or at high engine speed until the light turns off. The light will turn off after a short period of time and the vehicle can then be driven normally. If the light illuminates frequently, contact a NISSAN High Performance Center (NHPC).

NOTICE

If the light continues to illuminate, the engine output may be regulated at a low level to prevent transmission damage.

Transmission clutch temperature high:

The light illuminates if clutch temperature becomes unusually high. If the light illuminates, pull off the road in a safe area and idle the engine. When the light turns off, driving can be resumed. If the light illuminates frequently, contact a NISSAN High Performance Center (NHPC).

NOTICE

- **Continuing to drive with the light on could cause serious damage to the transmission.**
- **If the light continues to illuminate, the vehicle cannot be driven because the engine output may be regulated at a low level and the clutch may be controlled to keep the clutch disengaged.**

R mode start function:

If the R mode start function is used 4 times continuously, the function may be disabled and cannot be turned on for protection. While the function is disabled, the warning light illuminates. When the warning light goes off, the function can be used again.

When the warning light illuminates, perform cool down driving (driving 2 km (1.3mile) in 5th or 6th gear at a speed of approximately 60 - 80 km/h (37 - 50 MPH)) while checking the temperature of the transmission oil until the warning light goes off.

NOTICE

While the warning light is illuminated, the engine output is regulated at a low level.

Vehicle Dynamic Control (VDC) warning light (except for Europe and India)/Electronic Stability Program (ESP) warning light (for Europe and India)

The warning light blinks when the VDC/ESP system is operating.

When the warning light blinks while driving, the driving condition is slippery and the vehicle's traction limit is about to be exceeded.

If the warning light illuminates when the ignition switch placed in the "ON" position, it may indicate that the VDC/ESP or hill start assist system is not functioning properly and may need servicing. Have the system checked, and if necessary repaired, by a NISSAN High Performance Center (NHPC) promptly.

If a malfunction occurs in the system, the VDC/ESP system function will be canceled but the vehicle is still driveable.

Cruise main switch indicator light

The light comes on when the cruise control is pushed. The light turns off when the main switch is pushed again. While the cruise control system main switch indicator light is on, the cruise control system is operational.

Cruise set switch indicator light

The light comes on while the vehicle speed is controlled by the cruise control system. If the light blinks while the engine is running, it may indicate the cruise control system is not functioning properly. Have the system checked by a

NISSAN High Performance Center (NHPC).

INDICATOR LIGHTS

Front passenger air bag status light (for Mexico)

The front passenger air bag status light ( ) will be lit and the passenger front air bag will be OFF depending on how the front passenger seat is being used. ("Supplemental front-impact air bag system (NISSAN Advanced Air Bag System) (for Mexico)" page 1-29)

High beam indicator light

This light comes on when the headlight high beam is on and goes out when the low beam is selected.

or Malfunction Indicator Light (MIL or MI)

NOTICE

- **Continued vehicle operation without having the emission control system checked and repaired as necessary could lead to poor driveability, reduced fuel economy, and possible damage to the emission control system.**
- **Incorrect setting of the engine control system may lead to noncompliance of local and national emission laws and regulations.**

When the ignition switch is in the ON position, the Malfunction Indicator Light (MIL) illuminates. After starting the engine, the MIL turns off. This indicates that the engine control system is operational.

Except for Taiwan and Mexico:

If the MIL illuminates while the engine is running, it may indicate that the engine control system or the muffler with electronic control valve (if equipped) is not functioning properly and may need servicing. Have the vehicle checked, and if necessary repaired, by a NISSAN High Performance Center (NHPC).

If the MIL blinks while the engine is running, it may indicate a potential malfunction in the emission control system. In this case, the emission control system may not function properly and may need servicing. Have the vehicle checked, and if necessary repaired, by a NISSAN High Performance Center (NHPC).

To reduce or avoid possible damage to the engine control system when the MIL blinks:

- Avoid driving at speeds above 70 km/h (43 MPH).
- Avoid sudden acceleration or deceleration.
- Avoid going up steep uphill grades.
- Avoid carrying or towing unnecessary loads.

For Taiwan and Mexico:

If the malfunction indicator light comes on steady or blinks while the engine is running, it may indicate a potential emission control or the muffler with electronic control valve (if equipped) malfunction.

The malfunction indicator light may also come on steady if the fuel-filler cap is loose or missing, or if the vehicle runs out of fuel. Check to make sure the fuel-filler cap is installed and closed tightly, and that the vehicle has at least 14 liters (3-1/8 Imp gallons) of fuel in the fuel tank.

After a few driving trips, the or SERVICE ENGINE SOON light should turn off if no other potential emission control system malfunction exists.

When the ignition switch is in the ON position, sometimes the MIL may illuminate for 20 seconds and then blink for 10 seconds, without the engine running. This is due to a function of checking the engine control system, and it is not a malfunction. After a few normal drives, this function will not occur and the MIL stays illuminated with the ignition switch in the ON position.

Operation:

The malfunction indicator light will come on in one of two ways:

- Malfunction indicator light on steady — An emission control system malfunction has been detected. Check the fuel-filler cap. If the fuel-filler cap is loose or missing, tighten or install

the cap and continue to drive the vehicle. The or SERVICE ENGINE SOON light should turn off after a few driving trips. If the or SERVICE ENGINE SOON light does not turn off after a few driving trips, have the vehicle inspected by a NISSAN High Performance Center (NHPC). You do not need to have your vehicle towed to a NISSAN High Performance Center (NHPC).

- Malfunction indicator light blinking — An engine misfire has been detected which may damage the emission control system.

  To reduce or avoid emission control system damage:

  a. Do not drive at speeds above 72 km/h (45 MPH).
  b. Avoid hard acceleration or deceleration.
  c. Avoid steep uphill grades.
  d. If possible, reduce the amount of cargo being hauled or towed.

  The malfunction indicator light may stop blinking and remain on.

  Have the vehicle inspected by a NISSAN High Performance Center (NHPC). You do not need to have your vehicle towed to a NISSAN High Performance Center (NHPC).

Pop-up engine hood warning light (if equipped)

When the ignition switch is in the ON position, the pop-up engine hood warning light illuminates for about 7 seconds and then turns off. This indicates that the pop-up engine hood system is operational.

If any of the following conditions occur, the pop-up engine hood system need servicing. Have the system checked, and if necessary repaired, by a NISSAN High Performance Center (NHPC) promptly.

- The pop-up engine hood warning light remains illuminated after about 7 seconds.
- The pop-up engine hood warning light flashes intermittently.
- The pop-up engine hood warning light does not come on at all.

Unless checked and repaired, the pop-up engine hood system may not function properly. ("Pop-up engine hood" page 1-45)

Rear fog light indicator light (except for Mexico)

The rear fog light indicator light illuminates when the rear fog light turns on. ("Rear fog light switch (except for Mexico)" page 2-58)

Small light indicator light

The small light indicator light illuminates when the front clearance lights, instrument panel lights, rear combination lights and license plate lights are on. The indicator light turns off when the is turned off.

Turn signal/hazard indicator lights

The light flashes when the turn signal switch lever or hazard switch is turned on.

Vehicle Dynamic Control (VDC) off indicator light (except for Europe and India)/Electronic Stability Program (ESP) off indicator light (for Europe and India)

When the ignition switch is in the "ON" position, the Vehicle Dynamic Control (VDC)/Electronic Stability Program (ESP) off indicator light illuminates and then turns off.

The VDC/ESP off indicator light illuminates when the VDC/ESP set up switch is pushed to OFF for more than 1 second.

This indicates the VDC/ESP system is not operating. ("Vehicle Dynamic Control (VDC)/Electronic Stability Program (ESP) system" page 5-49)

AUDIBLE REMINDERS

Key reminder chime

A chime will sound if the driver side door is opened while the ignition switch is pushed to the ACC position or pushed to the OFF or LOCK position with the Intelligent Key left in the Intelligent Key port. Make sure the ignition switch is pushed to the OFF position, and take the Intelligent Key with you when leaving the vehicle.

Light reminder chime

The light reminder chime will sound if the driver's side door is opened and the following operations are detected:

- The headlight switch is in either the or position, and the ignition switch is in the ACC, OFF or LOCK position.

The chime will also sound for 2 seconds when the ignition switch is placed in the ACC, OFF or LOCK position while the rear fog light (except for Mexico) is on with the headlight switch in the AUTO position.

Be sure to turn the headlight switch to the OFF (if equipped) or AUTO position and the rear fog light switch (except for Mexico) to the OFF position when you leave the vehicle.

Parking brake reminder chime

A chime will sound if the vehicle speed is above 7 km/h (4 MPH) with the parking brake applied. Stop the vehicle and release the parking brake.

Reverse warning chime

The chime will sound inside the vehicle if any of the following conditions occurs.

- The driver's door is opened while the shift lever is in the **R** position and the ignition switch is in the ON position.
- The shift lever is in the **R** position and 5 minutes have passed while the ignition switch is in the ON position.

Be sure to move the shift lever out of the **R** position after driving in reverse.

Seat belt warning chime (if equipped)

For Europe, India, Thailand, Singapore, Brunei, Hong Kong and South Africa:

When the vehicle speed exceeds 15 km/h (10 MPH), the chime will sound unless the driver's seat belt is securely fastened. The chime will continue to sound for about 90 seconds until the seat belt is fastened. ("Seat belts" page 1-7)

For Mexico:

The chime will sound for about 6 seconds unless the driver's seat belt is securely fastened. ("Seat belts" page 1-7)

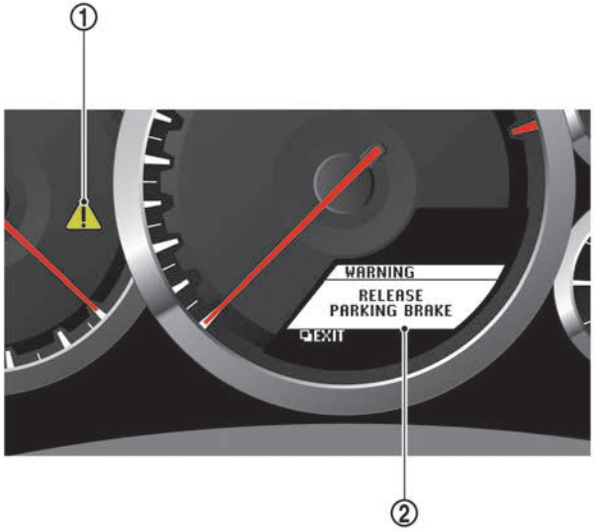
Except for Europe, India, Thailand, Singapore, Brunei, Hong Kong, South Africa and Mexico:

When the vehicle speed exceeds 20 km/h (12 MPH), the chime will sound unless the driver's seat belt is securely fastened. The chime will continue to sound until the seat belt is fastened. ("Seat belts" page 1-7)

Brake pad wear warning (models without NCCB (NISSAN Carbon Ceramic Brake) package)

The disc brake pads have audible wear warnings. When a brake pad requires replacement, it will make a high pitched scraping sound when the vehicle is in motion. This scraping sound will first occur only when the brake pedal is depressed. After the wear of the brake pad is increased, the sound will be heard all the time even if the brake pedal is not depressed. Have the brakes checked as soon as possible if the warning sound is heard.

WARNING DISPLAY



⚠ WARNING

When the warning light illuminates or blinks and a warning is displayed, promptly take the appropriate action. Ignoring the warning may result in malfunctions and accidents.

When the items mentioned below are detected the master warning light ① illuminates and the warning is displayed on the vehicle information display ②. A chime also sounds.

If there are multiple warnings, the warning lights remain lit or continue to blink and the warnings displayed in the vehicle information display are switched at regular intervals. The warnings displayed in the vehicle information display can be switched voluntarily by pushing the ENTER switch .

ENGINE OIL LOW PRESSURE WARNING

This will appear if the engine oil pressure is low. ("Engine oil pressure warning light" page 2-26)

ENGINE SYSTEM WARNING

Type A

Type B

For Taiwan and Mexico

This will appear if a potential emission control or the muffler with electronic control valve (if equipped) malfunction is detected, the fuel-filler cap is loose or missing, or the vehicle runs out of fuel. (☞ "or Malfunction Indicator Light (MIL or MI)" page 2-31)

Except for Taiwan and Mexico

This will appear if the engine control or the muffler with electronic control valve (if equipped) is not functioning properly while the engine is running. Have the system checked by a NISSAN High Performance Center (NHPC).

SHIFT LEVER POSITION WARNING

This will appear if the system cannot detect the shift lever position.

Stop the vehicle and move the shift lever back in place after moving it forward and backward while the brake pedal is depressed. If the warning is still displayed after the above operation is performed, have the system checked by a NISSAN High Performance Center (NHPC). (☞ "Driving the vehicle" page 5-14)

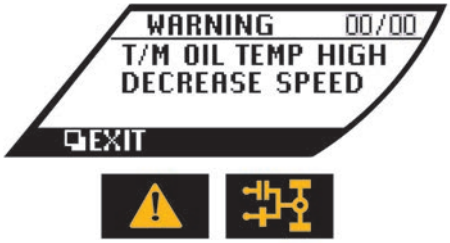
REVERSE WARNING

This will appear (and a chime will sound) if the shift lever is in the R position for more than 5 minutes, or when the driver's door is opened while the shift lever is in the R position.

TRANSMISSION SYSTEM WARNING

This will appear if a transmission system malfunction occurs. (☞ "Transmission warning light" page 2-29)

TRANSMISSION OIL HIGH TEMPERATURE WARNING



This will appear if the transmission oil temperature becomes unusually high. (☞ "Transmission warning light" page 2-29)

TRANSMISSION CLUTCH HIGH TEMPERATURE WARNING

This will appear if the transmission clutch temperature becomes unusually high. (☞ "Transmission warning light" page 2-29)

PARKING BRAKE RELEASE WARNING

This will appear if the vehicle speed is above 7 km/h (4 MPH) with the parking brake applied. ("Brake warning light" page 2-25) ("Parking brake reminder chime" page 2-33)

LOW BRAKE FLUID WARNING

This will appear if the brake fluid level becomes low. ("Brake warning light" page 2-25)

ANTI-LOCK BRAKING SYSTEM (ABS) WARNING

This will appear if the Anti-lock Braking System (ABS) is not functioning properly. ("Anti-lock Braking System (ABS) warning light" page 2-24) ("Brake warning light" page 2-25)

VEHICLE DYNAMIC CONTROL (VDC) SYSTEM WARNING (if equipped)

This will appear if the Vehicle Dynamic Control (VDC) system or the hill start assist system is not functioning properly. (☞ "Vehicle Dynamic Control (VDC) off indicator light (except for Europe and India)/Electronic Stability Program (ESP) off indicator light (for Europe and India)" page 2-32)

ELECTRONIC STABILITY PROGRAM (ESP) SYSTEM WARNING (if equipped)

This will appear if the Electronic Stability Program (ESP) system or the hill start assist system is not functioning properly. (☞ "Vehicle Dynamic Control (VDC) warning light (except for Europe and India)/Electronic Stability Program (ESP) warning light (for Europe and India)" page 2-30)

4WD/AWD CLUTCH HIGH TEMPERATURE WARNING

Type A

Type B

This will appear if the temperature of the 4WD/AWD clutch becomes unusually high. (☞ "Four-Wheel Drive (4WD)/All-Wheel Drive (AWD) warning light" page 2-26)

NOTE:

If the vehicle is driven in a way which causes the rear wheels to slip, the 4WD/AWD clutch temperature will increase and the warning indicator may flash. Continuing to drive in way that causes the warning light to flash may cause the clutch to reach excessive temperatures that could result in damage to the vehicle.

FRONT/REAR TIRE SIZE DISCREPANCY WARNING

Type A

Type B

This will appear if the diameter of the front and the rear wheels are different. (☞ "Four-Wheel Drive (4WD)/All-Wheel Drive (AWD) warning light" page 2-26)

4WD/AWD SYSTEM WARNING

Type A

Type B

This will appear if the 4WD/AWD system is not functioning properly while the engine is running. (☞ "Four-Wheel Drive (4WD)/ All-Wheel Drive (AWD) warning light" page 2-26)

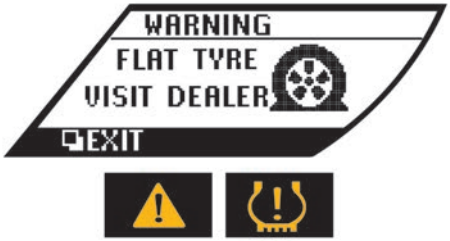
LOW TIRE PRESSURE WARNING

Type A

Type B

This will appear if the vehicle is being driven with low tire pressure. (☞ "Low tire pressure warning light" page 2-27)

RUN-FLAT TIRE WARNING



Type A

Type B

This will appear and a chime will sound if the vehicle is being driven with one or more flat tires. (☞ "Low tire pressure warning light" page 2-27)

TIRE PRESSURE MONITORING SYSTEM (TPMS) WARNING

This will appear if the Tire Pressure Monitoring System (TPMS) is not functioning properly. (☞ "Low tire pressure warning light" page 2-27)

CRUISE CONTROL SYSTEM WARNING

This will appear if the cruise control system is not functioning properly. (☞ "Cruise set switch indicator light" page 2-30)

ADAPTIVE FRONT LIGHTING SYSTEM (AFS) WARNING (except for Mexico)

This will appear if the Adaptive Front lighting System (AFS) is not functioning properly. Have the system checked by a NISSAN High Performance Center (NHPC). (☞ "Adaptive Front Lighting System (AFS) (except for Mexico)" page 2-58)

LOW FUEL WARNING (km or MILES)

This will appear when the fuel level in the tank is getting low. Refuel as soon as it is convenient, preferably before the fuel gauge reaches the empty (E) position.

This displays the approximate distance that the vehicle can be driven based on the amount of fuel remaining in the fuel tank and the actual fuel consumption.

NOTE:

- **The low fuel warning will appear when the amount of fuel remaining in the tank decreases to approximately 12 liters (2-5/8 Imp gallons).**
- **The timing of the low fuel warning display may change depending on braking, turning, acceleration, or going up or down hills.**
- **If the vehicle is not refueled after the low fuel warning appears, the display will change to "----". This change timing may become earlier depending on the driving conditions. This does not indicate that there is a malfunction.**

DOOR/TRUNK OPEN WARNING

Type A

Type B

This will appear if any of the doors and/or trunk lid are open or not closed securely. The vehicle icon indicates which door or the trunk lid is open.

HEADLIGHT SYSTEM WARNING

This will appear if the LED headlight system is not functioning properly. Have the system checked by a NISSAN High Performance Center (NHPC).

LOW WASHER FLUID WARNING

This will appear when the washer tank fluid is at a low level. Add washer fluid as necessary. (☞ "Window washer fluid" page 8-14)

NO KEY WARNING

This will appear in either of the following conditions.

No key inside the vehicle

The warning appears when the door is closed with the Intelligent Key left outside the vehicle and the ignition switch in the ACC or ON position. Make sure that the Intelligent Key is inside the vehicle.

Unregistered Intelligent Key

The warning appears when the ignition switch is pushed from the LOCK position and the Intelligent Key cannot be recognized by the system. You cannot start the engine with an unregistered Intelligent Key. (☞ "Intelligent Key system" page 3-8)

OPERATION DISPLAYS

These displays appear when an appropriate operation is required in starting or stopping the engine.

ENGINE START OPERATION INDICATOR

This indicator appears when the shift lever is in the P position.

This indicator means that the engine will start by pushing the ignition switch with the brake pedal depressed.

SHIFT "P" WARNING

This warning appears and an inside warning chime sounds when the ignition switch is pushed to stop the engine with the shift lever in any position except the P position.

If this warning appears, move the shift lever to the P position. This warning will also turn off when pushing the ignition switch to the ON position.

"PUSH" WARNING

This warning appears when the shift lever is moved to the P position with the ignition switch in the ACC position after the SHIFT P warning appears.

If this warning appears, push the ignition switch to the OFF position.

STEERING LOCK RELEASE MALFUNCTION INDICATOR

This indicator appears when the steering wheel lock cannot be released from the LOCK position. If this indicator appears, push the ignition switch while lightly turning the steering wheel right and left.

INTELLIGENT KEY INSERTION INDICATOR

This indicator appears when the Intelligent Key needs to be inserted into the Intelligent Key port (for example, the Intelligent Key battery is discharged).

If this indicator appears, insert the Intelligent Key into the Intelligent Key port in the correct direction. (☞ "Intelligent Key battery discharge" page 5-11)

INTELLIGENT KEY REMOVAL INDICATOR

This indicator appears when the driver's door is opened with the ignition switch in the OFF or LOCK position and the Intelligent Key placed in the Intelligent Key port. A key reminder chime also sounds.

If this indicator appears, remove the Intelligent Key from the Intelligent Key port and take it with you when leaving the vehicle.

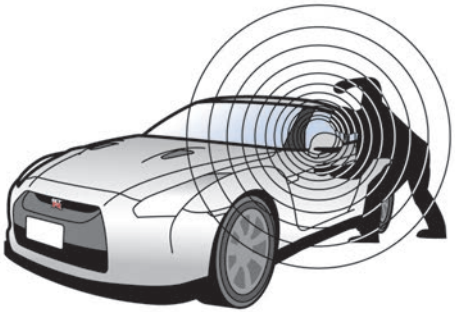
INTELLIGENT KEY BATTERY DISCHARGE INDICATOR

This indicator appears when the Intelligent Key battery is running out of power. If this indicator appears, replace the battery with a new one. (☞ "Intelligent Key battery replacement" page 8-28)

SECURITY SYSTEMS

⚠ WARNING

- **Do not change or modify the security system. Doing so could affect the proper operation of the system.**
- **Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.**



Your vehicle has two types of security systems, as follows:

- Vehicle security system (for Taiwan, Mexico and Israel)

  Theft warning system (except for Taiwan, Mexico and Israel)
- NISSAN Vehicle Immobilizer System

The security condition will be shown by the security indicator light.

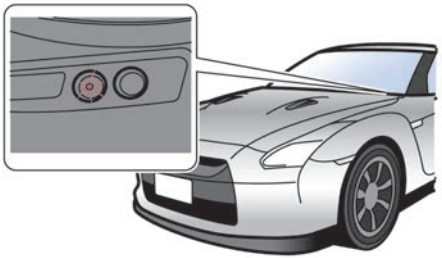
VEHICLE SECURITY SYSTEM (for Taiwan, Mexico and Israel)

The vehicle security system provides visual and audio alarm signals if someone opens the doors, hood, or trunk lid when the system is armed. It is not, however, a motion detection type system that activates when a vehicle is moved or when a vibration occurs.

The system helps deter vehicle theft but cannot prevent it, nor can it prevent the theft of interior or exterior vehicle components in all situations. Always secure your vehicle even if parking for a brief period. Never leave your Intelligent Key(s) in the vehicle, and always lock it when unattended. Be aware of your surroundings, and park in secure, well-lit areas whenever possible.

Many devices offering additional protection, such as component locks, identification markers, and tracking systems, are available at auto supply stores and specialty shops. Your NISSAN High Performance Center (NHPC) may also offer such equipment. Check with your insurance company to see if you may be eligible for discounts for various theft protection features.

How to arm the vehicle security system



1. Close all windows.
   The system can be armed even if the windows are open.
2. Push the ignition switch to the OFF or LOCK position.
3. Remove the Intelligent Key from the vehicle.
4. Close all doors, hood and trunk. Lock all doors. The doors can be locked with the Intelligent Key, door handle request switch or power door lock switch. The power door lock switch should be operated while the door is open, and then closed.
5. Confirm that the security indicator light comes on. The security indicator light stays on for about 30 seconds. The vehicle security system is now pre-armed. After about 30 seconds the vehicle security system automatically shifts into the armed phase. The security light begins to flash once every approximately 3 seconds. If, during this 30-second pre-arm time period, the door is unlocked, or the ignition switch is pushed to ACC or ON, the system will not arm.

Even when the driver and/or passengers are in the vehicle, the system will activate with all doors, hood, and trunk lid locked with the ignition switch in the LOCK position. When pushing the ignition switch to the ACC or ON position, the system will be released.

Vehicle security system activation

The vehicle security system will give the following alarm:

- The headlights blink and the horn sounds intermittently.
- The alarm automatically turns off after approximately 1 minute. However, the alarm reactivates if the vehicle is tampered with again.

The alarm is activated by:

- Opening the door or the trunk lid without using the button on the Intelligent Key, the door handle request switch or the mechanical key. (Even if the door is opened by releasing the door inside lock knob, the alarm will activate.)
- Opening the hood.

How to stop an activated alarm

The alarm will stop by:

- Unlocking a door by pushing the UNLOCK button on the Intelligent Key.
- Unlocking a door by pushing the door handle request switch.
- Pushing the ignition switch to the ACC or ON position.

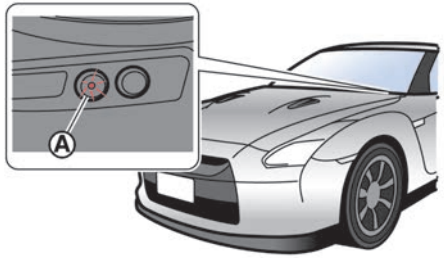
If the system does not operate as described above, have it checked by a NISSAN High Performance Center (NHPC).

THEFT WARNING SYSTEM (except for Taiwan, Mexico and Israel)

The theft warning system provides visual and audio alarm signals if parts of the vehicle are disturbed.

The ultrasonic sensors (volumetric sensing) detect movement in the passenger's compartment. The tilt sensors detect the vehicle inclination. When the theft warning system is set to the armed position, it will automatically switch on the ultrasonic and tilt sensors.

Security indicator light



The security indicator light Ⓐ is located in the instrument panel near the windshield. This light operates whenever the ignition switch is in the ACC, OFF or LOCK position. This is normal.

How to activate system:

1. Close all windows.
2. Push the ignition switch to the OFF position.
3. Carry the Intelligent Key with you and get out of the vehicle.
4. Make sure the hood and the trunk are closed. Close and lock all doors with the Intelligent Key system.
5. Confirm that the security indicator light comes on. The security indicator light blinks rapidly for approximately 20 seconds and then blinks slowly. The system is now activated. If, during this standby mode period, the door is unlocked by the Intelligent Key system, the hood is opened, or the ignition switch is pushed to the ACC or ON position, the system will not activate.

Even when the driver and/or passengers are in the vehicle, or windows are opened the system will activate with all doors locked and the ignition switch off. Push the ignition switch to the ACC or ON position to turn the system off.

- When opening the trunk using the Intelligent Key system during the standby mode, the indicator light will slightly decrease its rapid blinking speed (to 3 blinks per second). After closing the trunk, the alarm will be set.
- If the trunk or the engine hood is open when locking the vehicle using the Intelligent Key system, the security indicator light will start blinking quickly (3 blinks per second). After closing the trunk or hood, the alarm will be set.
- If the standby mode is cancelled by opening the trunk or engine hood, the standby mode will go into effect after the trunk or engine hood is closed.
- The warning system will be cancelled by performing the following steps.
  - Unlock the door using the Intelligent Key system.
  - Push the ignition switch to the ACC or ON position.
- If you unlock the trunk using the Intelligent Key system, the warning system will be cancelled. When you close the trunk, the warning system will be activated again.

If the system malfunctions, the short beep sounds 5 times when the system is activated. Have the system checked by a NISSAN High Performance Center (NHPC).

Theft warning system operation:

The warning system will give the following alarm:

- The hazard indicator blinks and the alarm sounds intermittently for approximately 30 seconds. (The alarm will repeat 8 times.)
- The alarm automatically turns off after approximately 30 seconds. However, the alarm reactivates if the vehicle is tampered with again.

The alarm is activated when:

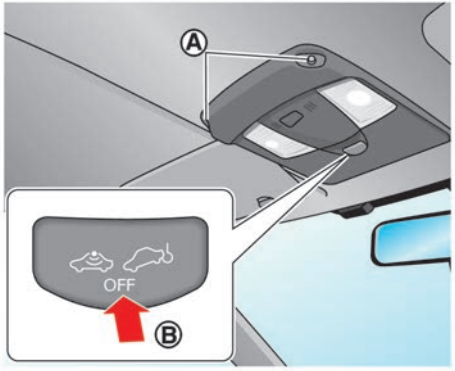
- operating the door or the trunk without using the Intelligent Key system.
- operating the hood.
- removed the battery.
- the volumetric sensing system (ultrasonic sensors) is triggered (when it is activated).

- the vehicle inclination is detected by the tilt sensors (when they are activated).

How to stop alarm:

- The alarm will stop by unlocking a door with the door handle request switch or the UNLOCK button on the Intelligent Key.
- The alarm will stop if the ignition switch is pushed to the ACC or ON position.
- If the battery of the Intelligent Key is discharged, insert the Intelligent Key into the key port to operate the ignition switch.

Ultrasonic and tilt sensors:



⚠ CAUTION

- **Do not touch the ultrasonic sensors Ⓐ. This could damage the sensors.**
- **Do not allow any object to cover the sensors Ⓐ. This could affect the functioning of the system.**

NOTICE

For models with the ultrasonic and tilt sensors, when people or animals are in the vehicle and the doors are locked using the Intelligent Key or remote keyless entry system, the sensors will detect movement and the theft warning system sounds the alarm.

When people or animals are in the vehicle and you try to lock the doors, cancel the ultrasonic and tilt sensors.

It is possible to exclude the ultrasonic and tilt sensors (e.g. when leaving pets inside the car, transporting the vehicle on a ferry or using a mechanical auto parking lift).

To exclude the ultrasonic and tilt sensors:

1. Close all the windows.
2. Push the ignition switch to the OFF position.
3. Push the cancel switch Ⓑ. The security indicator light will start flashing rapidly (3 times a second).
4. Close the doors, hood and trunk. Lock them using the Intelligent Key system. The security indicator light will start flashing faster and a buzzer will sound once.

After a lapse of 20 seconds, the warning system will be automatically set.

- The security indicator light will change its rapid blinking speed to the slowest speed.
- If you do not complete steps 1 to 4 within 5 minutes, you cannot exclude the sensors.
- If the warning system is cancelled, the cancellation setting for the function of the ultrasonic and tilt sensors will also be cancelled.
- You can always individually cancel your settings for the function of the ultrasonic and tilt sensors. For more information, please contact a NISSAN High Performance Center (NHPC) or NISSAN.

NISSAN VEHICLE IMMOBILIZER SYSTEM

The NISSAN Vehicle Immobilizer System will not allow the engine to start without the use of the registered Intelligent Key. **Never leave these keys in the vehicle.**

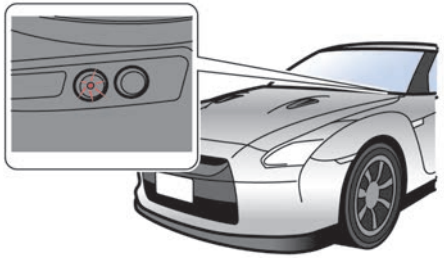
Statement related to section 15 of FCC rules for NISSAN Vehicle Immobilizer System (CONT ASSY - CARD SLOT)

This device complies with part 15 of the FCC Rules and RSS-210 of Industry Canada. Operation is subject to the following two conditions;

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.

CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

Security indicator light



The security indicator light is located on the instrument panel. It indicates the status of the NISSAN Vehicle Immobilizer System.

The light blinks whenever the ignition switch is in the ACC, OFF or LOCK position. This function indicates the security systems equipped on the vehicle are operational.

If the NISSAN Vehicle Immobilizer System is malfunctioning, this light will remain on while the ignition switch is in the ON position.

If the light still remains on and/or the engine will not start, see a NISSAN High Performance Center (NHPC) for NISSAN Vehicle Immobilizer System service as soon as possible. Please bring all Intelligent Keys that you have when visiting a NISSAN High Performance Center (NHPC) for service.

WIPER AND WASHER SWITCH

⚠ WARNING

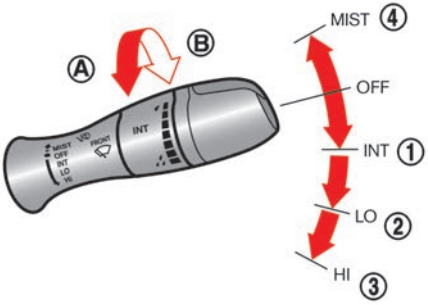
In freezing temperatures the washer solution may freeze on the windshield and obscure your vision which may lead to an accident. Warm windshield with the defroster before you wash the windshield.

NOTICE

- **Do not operate the washer continuously for more than 30 seconds.**
- **Do not operate the washer if the reservoir tank is empty.**
- **Do not fill the window washer reservoir tank with washer fluid concentrates at full strength. Some methyl alcohol based washer fluid concentrates may permanently stain the grille if spilled while filling the window washer reservoir tank.**
- **Pre-mix washer fluid concentrates with water to the manufacturer's recommended levels before pouring the fluid into the window washer reservoir tank. Do not use the window washer reservoir tank to mix the washer fluid concentrate and water.**

The windshield wiper and washer operates when the ignition switch is in the ON position.

USING THE WIPERS



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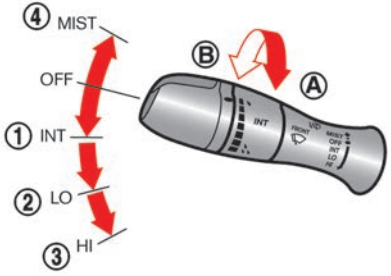
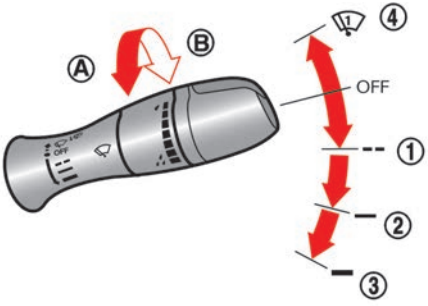
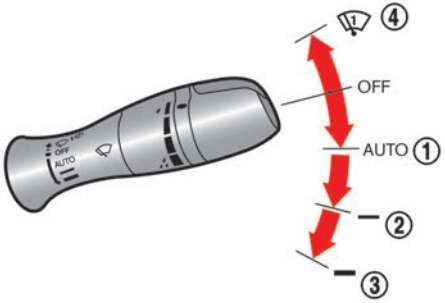


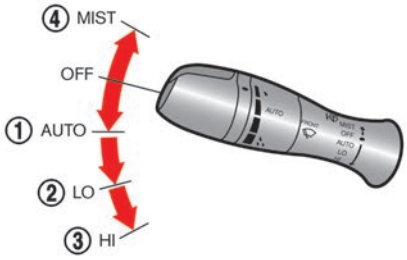
Type B



Type C



Type D



Type E

The lever position INT or ▬▬ ① operates the wiper intermittently.

- The intermittent operation can be adjusted by turning the adjustment control knob, (longer) Ⓐ or (shorter) Ⓑ.
- The speed of the intermittent operation varies depending on the vehicle speed. You can switch this function on and off manually (if equipped). Refer to the separate Multi Function Display Owner's Manual.

The lever position AUTO ① operates the rain-sensing auto wiper system. (☞ "Rain-sensing auto wiper system" page 2-52)

The lever position LO or ▬ ② operates the wiper at low speed.

The lever position HI or ▬ ③ operates the wiper at high speed.

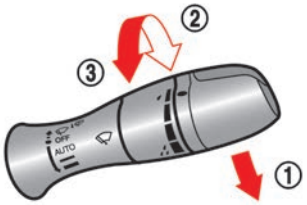
To stop the wiper operation, move the lever up to the OFF position.

The lever position MIST or ④ operates the wiper one sweep. The lever automatically returns to its original position.

NOTE:

- **In the MIST or position, the wipers operate while the lever is lifted up. When the lever is released, it automatically returns to the OFF position and the wipers stop.**
- **If the wiper operation is interrupted by snow or ice, the wiper may stop moving to protect its motor. If this occurs, turn the wiper switch to the OFF position and remove the snow or ice on and around the wiper arms. In approximately 1 minute, turn the switch on again to operate the wiper.**

RAIN-SENSING AUTO WIPER SYSTEM (if equipped)



Type A

Type B

The rain-sensing auto wiper system can automatically turn on the wipers and adjust the wiper speed depending on the rainfall and the vehicle speed by using the rain sensor located on the upper part of the windshield.

To set the rain-sensing auto wiper system, push the lever down to the AUTO position ①. The wiper will sweep once while the ignition switch is in the ON position.

The rain sensor sensitivity level can be adjusted by turning the knob toward the front ② (High) or toward the rear ③ (Low).

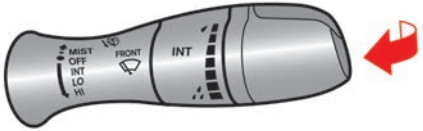
- High — High sensitive operation
- Low — Low sensitive operation

To turn the rain-sensing auto wiper system off, push up the lever to the OFF position, or pull down the lever to the ▬ (LO) or ▬ (HI) position.

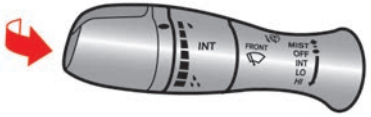
⚠ CAUTION

- **Do not touch the rain sensor and around it when the wiper switch is in the AUTO position and the ignition switch is in the ON position. The wipers may operate unexpectedly and cause to an injury or may damage a wiper.**
- **The rain-sensing auto wipers are intended for use during rain. If the switch is left in the AUTO position, the wipers may operate unexpectedly when dirt, fingerprints, oil film or insects are stuck on or around the sensor. The wipers may also operate when exhaust gas or moisture affect the rain sensor.**
- **When the windshield glass is coated with water repellent, the speed of the rain-sensing auto wipers may be higher even though the amount of the rainfall is small.**
- **Be sure to turn off the rain-sensing auto wiper system when you use a car wash.**
- **The rain-sensing auto wipers may not operate if rain does not hit the rain sensor even if it is raining.**

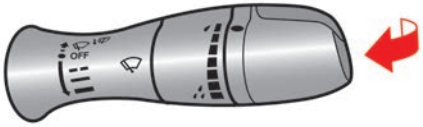
USING THE WASHER



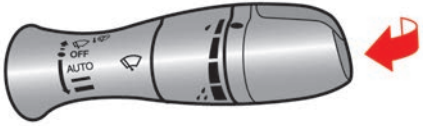
Type A



Type B



Type C



Type D

Type E

Pull the lever toward you to operate the washer. Then the wiper will also operate several times.

NOTE:

When the level of washer fluid is low, a warning display appears on the vehicle information display. (☞ "Low washer fluid warning" page 2-43)

Headlight cleaner (if equipped)

Pull the lever toward the rear of the vehicle.

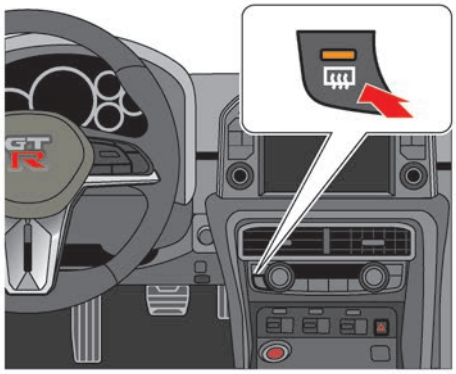
The headlight cleaner will operate with operation of the windshield washer.

- The headlight cleaner operates with the windshield washer operation. This operation activates once each time either of the following operations is performed:
  - the ignition switch is turned off and on.
  - the headlights are turned off and on.
- After the first operation, the headlight cleaner operates once at every fifth operation of the windshield washer.

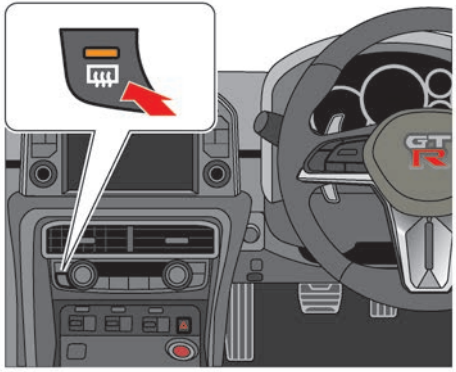
⚠ CAUTION

Do not operate the headlight cleaner if the window washer fluid reservoir is empty.

REAR WINDOW DEFROSTER SWITCH



Left-Hand Drive (LHD) model



Right-Hand Drive (RHD) model

To defog/defrost the rear window, start the engine and push the switch on. The indicator light on the switch will come on.

Push the switch again to turn the defroster off.

It will automatically turn off in approximately 15 minutes.

NOTE:

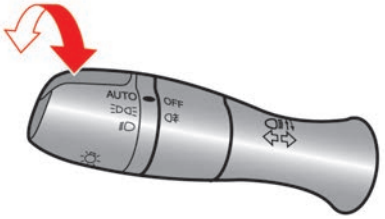
When the rear window defroster switch is pressed, the heated outside mirrors also operate at the same time. (☞ "Outside mirrors" page 3-29)

NOTICE

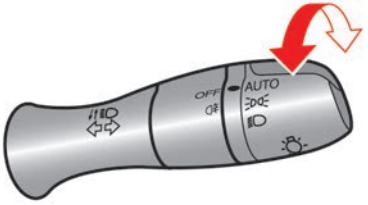
When cleaning the inner side of the rear window, be careful not to scratch or damage the rear window defroster.

HEADLIGHT AND TURN SIGNAL SWITCH

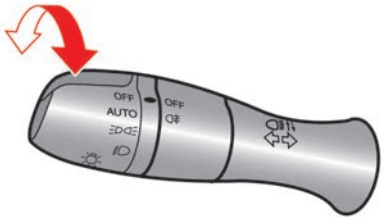
HEADLIGHT SWITCH



Type A



Type B



Type C

NISSAN recommends that you consult the local regulations concerning the use of lights.

Lighting

The front position, tail and license plate lights will turn on after the engine is started regardless of the position of the headlight switch. The lights will turn off when the engine is turned off.

The daytime running lights will also turn on when the engine is started.

Turning the switch to the position:

The front position, tail, license plate and instrument lights will come on.

The daytime running lights will remain on.

Turning the switch to the position:

Headlights will come on and all the other lights remain on.

The daytime running lights will dim and illuminate as position lights. (except for Mexico)

The daytime running lights will turn off. (for Mexico)

AUTO position

When the ignition switch is in the ON position and the headlight switch is in the AUTO position, the headlights, instrument panel lights and other lights turn on automatically depending on the brightness of the surroundings.

When the ignition switch is pushed to the OFF position, the lights will turn off automatically.

Daytime running light:

The daytime running lights illuminate after the engine is started.

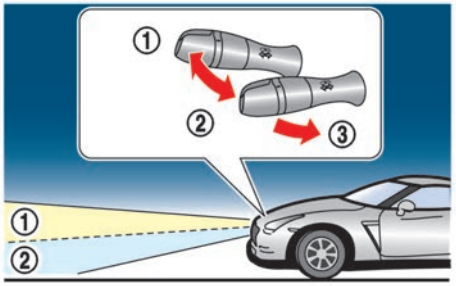
When the surroundings are bright and headlights are off:

- the daytime running lights will illuminate

When the surroundings get dark and headlights are on:

- the daytime running lights will dim and illuminate as position lights (except for Mexico)
- the daytime running lights will turn off (for Mexico)

Headlight beam select



When the headlights are on, push the lever to the front of the vehicle ① to switch to the high beams. The high-beam indicator light illuminates. ("High beam indicator light" page 2-31)

Pull the lever to the neutral position ② to switch to the low beams.

Pulling the lever toward you ③ will flash the headlight high beam even when the headlight is off. When the lever is pulled, the daytime running lights are off.

If equipped, when the lever is pulled towards the rearmost position ③ after the ignition switch is pushed to the OFF or LOCK position, the headlight will turn on and stay on for 30 seconds.

The lever can be pulled 4 times for up to 2 minutes.

⚠ CAUTION

Use low beams when there are cars approaching from the opposite direction, during city driving and at similar times.

Battery saver system

The light reminder chime will sound if the driver's door is opened while the following operations occur:

- The headlight switch is in either the ≡D◐≡ or 🚗 position, and the ignition switch in the ACC, OFF or LOCK position.
- The headlight switch is in the AUTO position and the rear fog light is turned on while the ignition switch is in the ACC, OFF or LOCK position (except for Mexico).

Be sure to turn the headlight switch to the OFF (if equipped) or AUTO position and the rear fog light switch (except for Mexico) to the OFF position when you leave the vehicle.

Type A (for Taiwan and Mexico):

When the headlight switch is in either the ≡D◐≡ or 🚗 position while the ignition switch is in the ON position, the lights will automatically turn off after a period of time when the ignition switch has been pushed to the OFF position.

When the headlight switch remains in either the ≡D◐≡ or 🚗 position after the lights automatically turn off, the lights will turn on when the ignition switch is pushed to the ON position.

Type B (except for Taiwan and Mexico):

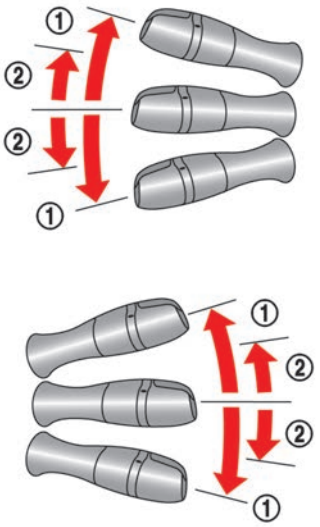
When the headlight switch is in the ≡D◐≡ or 🚗 position while the engine is running, the lights will automatically turn off after pushing the ignition switch to the ACC, OFF or LOCK position and opening the driver's side door.

When the headlight switch remains in either the ≡D◐≡ or 🚗 position after the lights automatically turn off, the lights will turn on when the engine is started.

NOTICE

- **When you turn on the headlight switch again after the lights automatically turn off, the lights will not turn off automatically (except for Taiwan and Mexico). Be sure to turn the light switch to the OFF (if equipped) or AUTO position when you leave the vehicle for extended periods of time, otherwise the battery will be discharged.**
- **Never leave the light switch on when the engine is not running for extended periods of time even if the headlights turn off automatically.**

Turn signal



Move the lever up or down to the position ① to signal the turning direction. When the turn is completed, the turn signals cancel automatically.

Lane change signal

To indicate a lane change, move the lever up or down to the position ② where the lights begin flashing.

If the lever is moved back right after moving up or down, the light will flash 3 times.

Daytime running light system

Even if the headlights are off, the daytime running lights will turn on after the engine is started.

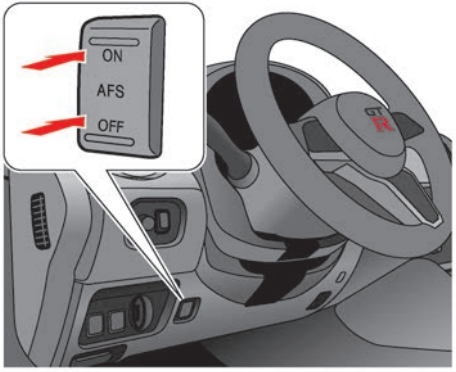
When the headlight low beam is turned on, the daytime lights will turn off (for Mexico).

When the headlight low beam is turned on, the daytime running lights will dim and illuminate as position lights (except for Mexico).

AUTOMATIC AIMING CONTROL (except for Mexico)

The headlights are equipped with the automatic leveling system. Headlight axis is controlled automatically.

ADAPTIVE FRONT LIGHTING SYSTEM (AFS) (except for Mexico)



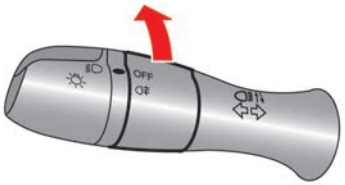
The Adaptive Front lighting System (AFS) will automatically adjust the lighting range of the headlights to improve the driver's view while high-speed driving at night.

- To turn off the system, push "OFF" side of the switch.
- To turn on the system, push "ON" side of the switch.

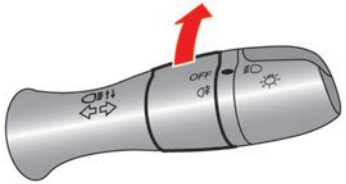
If the AFS warning appears when the ignition switch is placed in the "ON" position, this may indicate that the AFS is not functioning properly. Have the system checked by a NISSAN High Performance Center (NHPC).

(☞ "Adaptive Front lighting System (AFS) warning (except for Mexico)" page 2-41)

REAR FOG LIGHT SWITCH (except for Mexico)



Type A



Type B

To turn on the rear fog light, turn the headlight switch to the position, then turn the fog light switch to the position.

The switch returns to the OFF position automatically, and the rear fog light will illuminate.

Make sure the indicator light on the instrument panel illuminates.

To turn off the rear fog light, turn the fog light switch to the position again.

Make sure the indicator light on the instrument panel turns off.

When the headlight switch is in the AUTO position:

- Turning the rear fog light switch to the position will turn on the headlights and the other lights while the ignition switch is in the ON position or the engine is running.

The rear fog light should be used only when visibility is seriously reduced generally, to less than 100 m (328 ft).

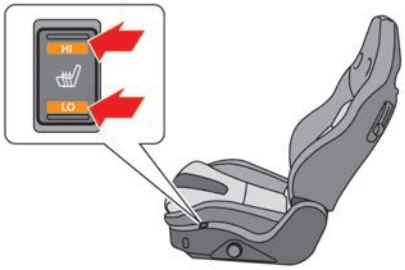
HORN

To sound the horn, push the center pad area of the steering wheel.

⚠ WARNING

Do not disassemble the horn. Doing so could affect proper operation of the supplemental front air bag system. Tampering with the supplemental front air bag system may result in serious personal injury.

HEATED SEATS (if equipped)



The seat heaters can be used when the ignition switch is in the ON position. The front seats are warmed by the built-in heaters.

TURNING ON THE HEATERS

Press the "HI" or "LO" side of the switch to activate the heaters. The switch indicator illuminates.

Switch position	Function
HI	To heat the seat quickly
LO	To keep the seat warm

TURNING OFF THE HEATERS

Move the switch to the level position. The switch indicator turns off.

⚠ CAUTION

- **Do not put anything on the seat which insulates heat, such as a blanket, cushion, seat cover, etc. Otherwise, the seat may become overheated.**
- **Do not place anything hard or heavy on the seat or pierce it with a pin or similar object. This may result in damage to the heater.**
- **Any liquid spilled on the heated seat should be removed immediately with a dry cloth.**
- **If any malfunctions are found or the heated seat does not operate, turn the switch off and have the system checked by a NISSAN High Performance Center (NHPC).**

NOTICE

- **The battery could run down if the seat heater is operated while the engine is not running.**
- **Do not use the seat heater for extended periods or when no one is using the seat.**
- **When cleaning the seat, never use gasoline, thinner, or any similar materials.**

POWER OUTLETS

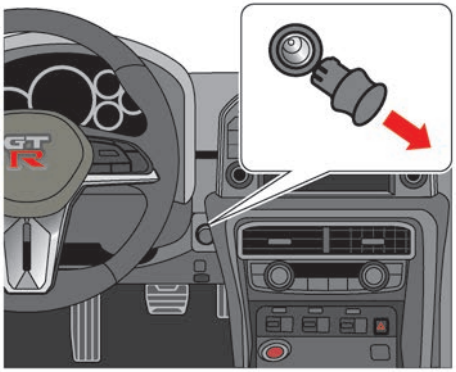
⚠ CAUTION

- The outlet and plug may be hot during or immediately after use.
- Do not use with accessories that exceed a 12 volt, 120W (10A) power draw. Do not use double adapters or more than one electrical accessory.
- This power outlet is not designed for use with a cigarette lighter unit.
- Before inserting or disconnecting a plug, be sure the electrical accessory being used is turned OFF.
- When not in use, be sure to close the cap. Do not allow water to contact the outlet.

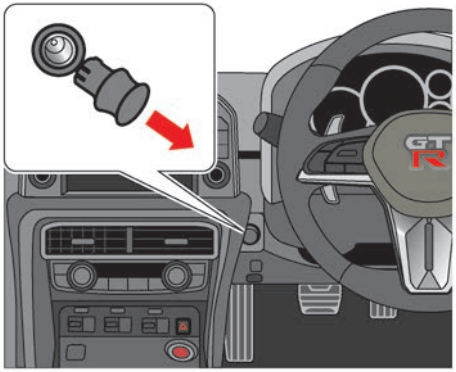
NOTICE

- Use power outlet with the engine running to avoid discharging the vehicle battery.
- Avoid using power outlet when the air conditioner, headlights or rear window defroster is on.
- Push the plug in as far as it will go. If good contact is not made, the plug may overheat or the internal temperature fuse may open.

NEXT TO THE STEERING WHEEL



Left-Hand Drive (LHD) model

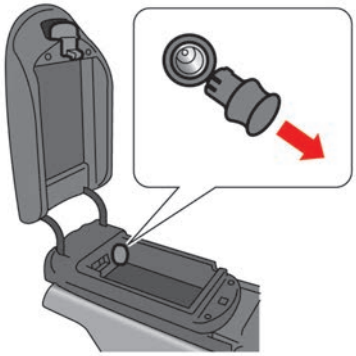


Right-Hand Drive (RHD) model

Pull out the cap to use the outlet.
Replace the cap after use.

STORAGE

INSIDE THE CONSOLE BOX

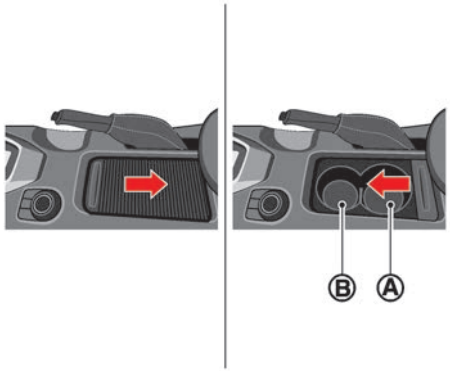


Open the cap to use the outlet.
Close the cap after use.

⚠ CAUTION

Do not leave the console box open. The open lid may suddenly close when the vehicle stops.

CUP HOLDERS



⚠ CAUTION

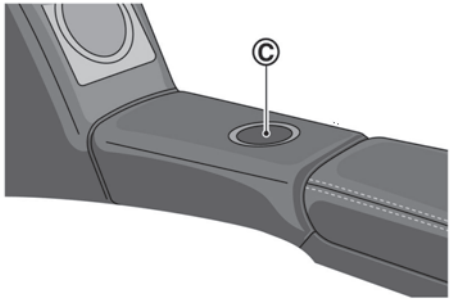
- **Avoid abrupt starting and braking when the cup holder is being used to prevent spilling the drink. If the liquid is hot, it can scald you or your passenger.**
- **Use only soft cups in the cup holder. Hard objects can injure you in an accident.**

Front

Slide the cover toward the rear of the vehicle to open.

To close, slide the cover back toward the front of the vehicle.

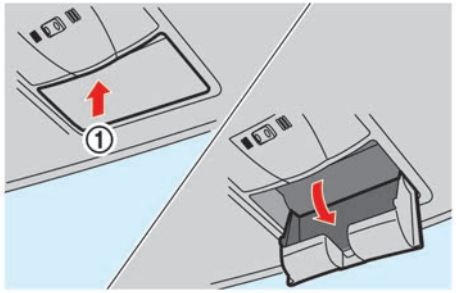
Rear



NOTE:

Cup holder Ⓐ is wider and shallower than cup holders Ⓑ and Ⓒ. Small-size cups are likely to tip over in cup holder Ⓐ. Use cup holders Ⓑ and Ⓒ.

SUNGLASSES HOLDER (if equipped)



To open the sunglasses holder, push ①.

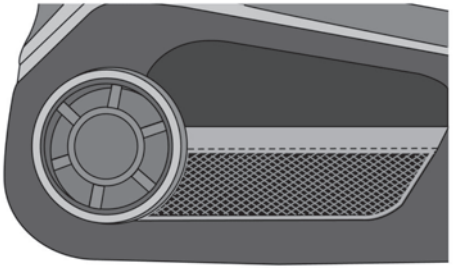
⚠ WARNING

Keep the sunglasses holder closed while driving to avoid obstructing the driver's view and to help prevent an accident.

⚠ CAUTION

- **Do not use for anything other than glasses.**
- **Do not leave glasses in the sunglasses holder while parking in direct sunlight. The heat may damage the glasses.**

DOOR POCKET

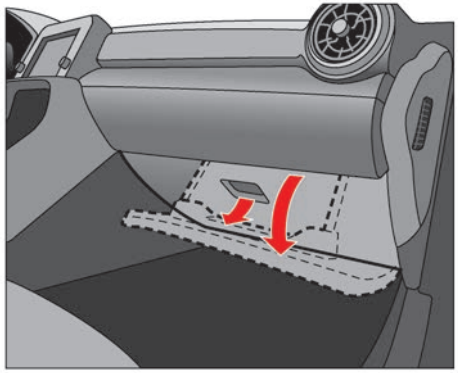


Door pockets are located inside the driver's side and passenger's side doors.

NOTICE

Do not grasp the door pockets to open and close the doors. Doing so may damage the pockets.

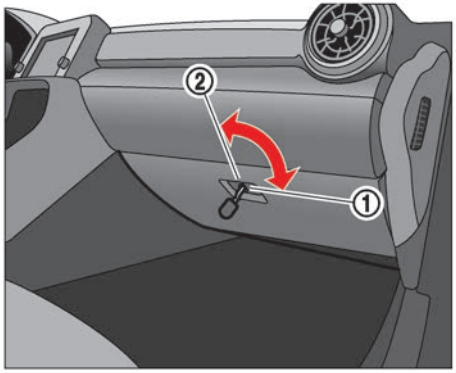
GLOVE BOX



⚠ WARNING

Keep glove box lid closed while driving to help prevent injury in an accident or a sudden stop.

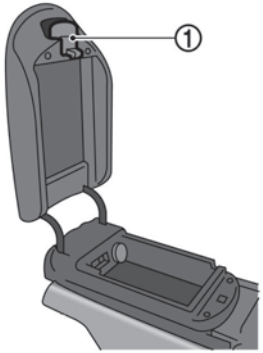
Pull the knob toward you to open the glove box.
To close the glove box, press the lid forward until it locks in place.



Use the mechanical key to lock ① and unlock ② the glove box. ("Mechanical key" page 3-3)

The mechanical key stops when it is inserted approximately halfway in.

CONSOLE BOX



Lift up the lock knob ① to open the lid.

To close the center console box, press on the lid until it locks in place.

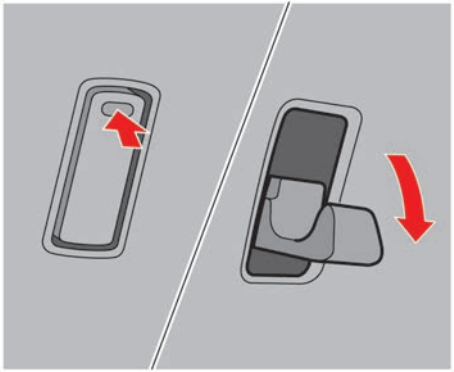
NOTE:

The console box contains a power outlet.

⚠ CAUTION

Do not leave the console box open. The open lid may suddenly close when the vehicle stops.

COAT HOOKS



To use the coat hook, push the upper side of the hook to release it.

⚠ CAUTION

Do not hang any objects with sharp edges on the coat hangers. These items may be knocked off if the SRS air bag deploys, possibly causing injury.

NOTICE

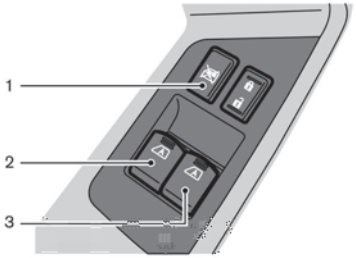
Do not place items that are more than 1 kg (2 lb) on the hook.

POWER WINDOWS

⚠ WARNING

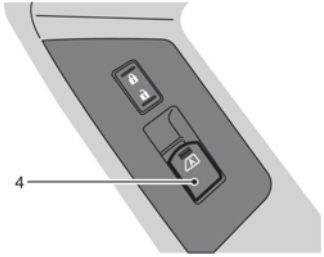
- **Make sure that all passengers have their hands, etc. inside the vehicle while it is in motion and before closing the windows. Use the window lock switch to prevent unexpected use of the power windows.**
- **To help avoid risk of injury or death through unintended operation of the vehicle and or its systems, including entrapment in windows or inadvertent door lock activation, do not leave children, people who require the assistance of others or pets unattended in your vehicle. Additionally, the temperature inside a closed vehicle on a warm day can quickly become high enough to cause a significant risk of injury or death to people and pets.**

The power windows operate when the ignition switch is in the ON position or for about 45 seconds after the ignition switch is pushed to the LOCK position. If the driver's or front passenger's door is opened during this period of about 45 seconds, power to the windows is canceled.



Left-Hand Drive (LHD) model

1. Window lock button
2. Driver's window switch
3. Front passenger's window switch



Left-Hand Drive (LHD) model

4. Front passenger's window switch

Main power window switch (driver's side)

To open or close the window, push down or pull up the switch and hold it. The main switch (driver's side switches) will open or close all the windows.

Locking passengers' windows

When the window lock button is pushed in, only the driver's side window can be opened or closed. Push it in again to cancel.

Passenger's side power window switch

The passenger side switch will open or close only the corresponding window. To open close the window, push down or pull up the switch and hold it.

Automatic operation

To fully open or close the window, completely push down or pull up the switch and release it; it does not need to be held. The window will automatically open or close all the way. To stop the window, just push or lift the switch in the opposite direction.

A light push or pull on the switch will cause the window to open or close until the switch is released.

Auto reverse function

If the control unit detects something caught in the window as it is closing, the window will be immediately lowered.

The auto reverse function can be activated when the window is closed by automatic operation when the ignition switch is in the ON position or for 45 seconds after the ignition switch is pushed to the OFF position.

Depending on the environment or driving conditions, the auto reverse function may be activated if an impact or load similar to something being caught in the window occurs.

⚠ CAUTION

There are some small distances immediately before the closed position which cannot be detected. Make sure that all passengers have their hands, etc., inside the vehicle before closing the window.

Automatic adjusting function

⚠ CAUTION

When the battery cable is removed from the battery terminal, do not close either of the front doors. The automatic window adjusting function will not work and the side roof panel may be damaged.

The power window has an automatic adjusting function. When the door is being opened, the window is automatically lowered slightly to avoid contact between the window and the side roof panel. When the door is closed, the window is automatically raised slightly.

While the automatic adjusting function does not work, the window will be controlled as follows:

- When the door is opened, the window lowers for approximately 2 seconds.
- While the door is open, the window cannot be raised.

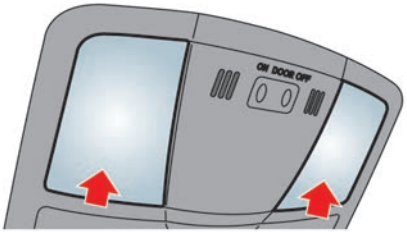
If the windows do not close automatically

If the power window automatic function (closing only) does not operate properly, perform the following procedure to initialize the power window system.

1. Push the ignition switch to start the engine.
2. Close the door.
3. After starting the engine, open the window completely by operating the power window switch.
4. Pull the power window switch and hold it to close the driver side window, and then hold the switch more than 3 seconds after the window is closed completely.
5. Release the power window switch. Operate the window by the automatic function to confirm the initialization is complete.
6. Perform steps 2 through 5 above for the passenger side window by operating either driver's or passenger's side switch.

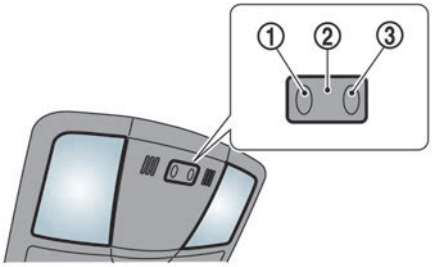
If the power window automatic function does not operate properly after performing the procedure above, have your vehicle checked by a NISSAN High Performance Center (NHPC).

MAP LIGHTS



Push the button as illustrated to turn the light on or off.

INTERIOR LIGHT CONTROL SWITCH



The interior light control switch has three positions: ON ①, DOOR ② and OFF ③.

ON position

When the switch is in the ON position ①, the map lights will illuminate.

NOTICE

Do not use the light for extended periods of time with the engine stopped. This could result in a discharged battery.

NOTE:

The lights will also turn off after a period of time when the lights remain illuminated after the ignition switch has been pushed to the OFF or LOCK position to prevent the battery from becoming discharged.

DOOR position

When the switch is in the DOOR position ②, the map lights will turn on when the door is opened and turn off when the door is closed. The map lights will turn off approximately 15 seconds after the door is closed with the ignition switch in the OFF or LOCK position.

NOTE:

When the interior light control switch is in the DOOR position and the door is open, the light will remain on even when the map light switch is pressed to turn off.

Key-linked interior light control system:

The map lights will turn on and off linked with the locking and unlocking of the door.

This function operates when the interior light control switch is in the DOOR position.

- **When entering the vehicle**

When the driver's seat door is unlocked, the map light illuminates for approximately 15 seconds, then it turns off.

While the map light is on, if the ignition switch is pushed to the ACC or ON position, or if the driver's side door is locked, the light turns off.

- **When exiting the vehicle**

When the ignition switch is pushed to the OFF or LOCK position, the map lights turn on for approximately 15 seconds, then it turns off.

If the driver's side door is locked while the map lights are on, the light turns off.

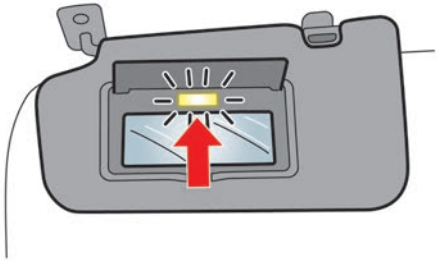
NOTE:

It is possible to cancel the key-linked interior light control system setting (if equipped). See the separate Multi Function Display Owner's Manual.

OFF position

When the switch is in the OFF position ③, the map lights will not illuminate, regardless of any condition.

VANITY MIRROR LIGHTS



There is an illuminated vanity mirror on the reverse side of the sun visor.

HomeLink® UNIVERSAL TRANSCEIVER (for Mexico)

The HomeLink® Universal Transceiver provides a convenient way to consolidate the functions of up to three individual hand-held transmitters into one built-in device.

HomeLink® Universal Transceiver:

- Will operate most Radio Frequency (RF) devices such as garage doors, gates, home and office lighting, entry door locks and security systems.
- Is powered by your vehicle's battery. No separate batteries are required. If the vehicle's battery is discharged or is disconnected, HomeLink® will retain all programming.

When the HomeLink® Universal Transceiver is programmed, retain the original transmitter for future programming procedures (Example: new vehicle purchases). Upon sale of the vehicle, the programmed HomeLink® Universal Transceiver buttons should be erased for security purposes. For additional information, refer to ☞"Programming HomeLink®" page 2-69.

⚠ WARNING

- **During the programming procedure your garage door or security gate will open and close (if the transmitter is within range). Make sure that people or objects are clear of the garage door, gate,**

etc. that you are programming.

- **Your vehicle's engine should be turned off while programming the HomeLink® Universal Transceiver. Do not breathe exhaust gases; they contain colorless and odorless carbon monoxide. Carbon monoxide is dangerous. It can cause unconsciousness or death.**

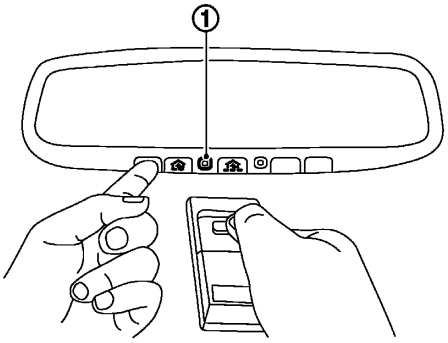
PROGRAMMING HomeLink®

If you have any questions or are having difficulty programming your HomeLink® buttons, refer to the HomeLink® web site at: www.homelink.com.

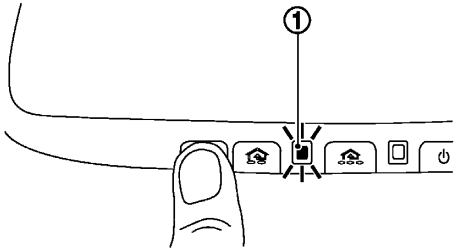
NOTE:

It is also recommended that a new battery be placed in the hand-held transmitter of the device being programmed to HomeLink® for quicker programming and accurate transmission of the radio-frequency.

1. Position the end of your hand-held transmitter 26 to 76 mm (1 to 3 in) away from the HomeLink® surface, keeping the HomeLink® indicator light ① in view.



2. Using both hands, simultaneously press and hold the desired HomeLink® button and handheld transmitter button. DO NOT release until the HomeLink® indicator light ① flashes slowly and then rapidly. When the indicator light flashes rapidly, both buttons may be released. (The rapid flashing indicates successful programming.)



3. Press and hold the programmed HomeLink® button and observe the indicator light.
   - If the indicator light ① is solid/continuous, programming is complete and your device should activate when the HomeLink® button is pressed and released.
   - If the indicator light ① blinks rapidly for two seconds and then turns to a solid/continuous light, continue with Steps 4-6 for a rolling code device. A second person may make the following steps easier. Use a ladder or other device. Do not stand on your vehicle to perform the next steps.
4. At the receiver located on the garage door opener motor in the garage, locate the "learn" or "smart" button

(the name and color of the button may vary by manufacturer but it is usually located near where the hanging antenna wire is attached to the unit). If there is difficulty locating the button, reference the garage door opener's manual.

5. Press and release the "learn" or "smart" button.

NOTE:
Once the button is pressed, you have approximately 30 seconds to initiate the next step.

6. Return to the vehicle and firmly press and hold the programmed HomeLink® button for two seconds and release. Repeat the "press/hold/release" sequence up to 3 times to complete the programming process. HomeLink® should now activate your rolling code equipped device.
7. If you have any questions or are having difficulty programming your HomeLink® buttons, refer to the HomeLink® web site at: www.homelink.com.

OPERATING THE HomeLink® UNIVERSAL TRANSCEIVER

The HomeLink® Universal Transceiver, after it is programmed, can be used to activate the programmed device. To operate, simply press and release the appropriate programmed HomeLink® Universal Transceiver button. The amber indicator light will illuminate while the signal is being transmitted.

For convenience, the hand-held transmitter of the device may also be used at any time.

PROGRAMMING TROUBLESHOOTING

If the HomeLink® does not quickly learn the hand-held transmitter information:

- replace the hand-held transmitter batteries with new batteries.
- position the hand-held transmitter with its battery area facing away from the HomeLink® surface.
- press and hold both the HomeLink® and hand-held transmitter buttons without interruption.
- position the hand-held transmitter 26 to 76 mm (1 to 3 in) away from the HomeLink® surface. Hold the transmitter in that position for up to 15 seconds. If HomeLink® is not programmed within that time, try holding the transmitter in another position - keeping the indicator light in view at all times.

If you have any questions or are having difficulty programming your HomeLink® buttons, refer to the HomeLink® web site at: www.homelink.com.

CLEARING THE PROGRAMMED INFORMATION

The following procedure clears the programmed information from both buttons. Individual buttons cannot be cleared. However, individual buttons can be reprogrammed, see ☞ "Reprogramming a single HomeLink® button" page 2-70.

To clear all programming

1. Press and hold the two outer HomeLink® buttons until the indicator light begins to flash in approximately 10 seconds. Do not hold for longer than 20 seconds.
2. Release both buttons.

HomeLink® is now in the programming mode and can be programmed at any time beginning with "Programming HomeLink®" - Step 1.

REPROGRAMMING A SINGLE HomeLink® BUTTON

To reprogram a HomeLink® Universal Transceiver button, complete the following.

1. Press and hold the desired HomeLink® button. **Do not** release the button.
2. The indicator light will begin to flash after 20 seconds. Without releasing the HomeLink® button, proceed with "Programming HomeLink®" - Step 1.

For questions or comments, contact HomeLink® at: www.homelink.com.

The HomeLink® Universal Transceiver button has now been reprogrammed. The new device can be activated by pushing the HomeLink® button that was just programmed. This procedure will not affect any other programmed HomeLink® buttons.

IF YOUR VEHICLE IS STOLEN

If your vehicle is stolen, you should change the codes of any non-rolling code device that has been programmed into HomeLink®. Consult the Owner's Manual of each device or call the manufacturer or dealer of those devices for additional information.

When your vehicle is recovered, you will need to reprogram the HomeLink® Universal Transceiver with your new transmitter information.

MEMO

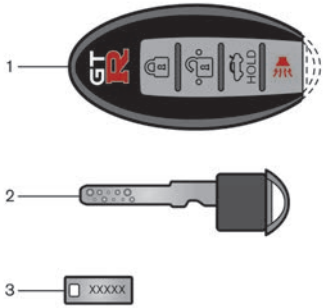
3 Pre-driving checks and adjustments

KEYS

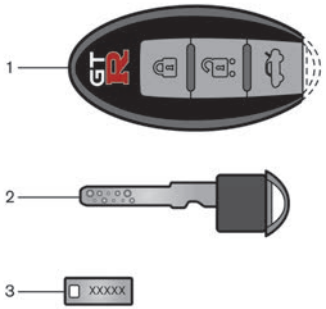
A key number plate is supplied with your keys. Record the key number and keep it in a safe place (such as your wallet), not in the vehicle. If you lose your keys, see a NISSAN High Performance Center (NHPC) for duplicates by using the key number. NISSAN does not record any key numbers so it is very important to keep track of your key number plate.

A key number is only necessary when you have lost all keys and do not have one to duplicate from. If you still have a key, this key can be duplicated by a NISSAN High Performance Center (NHPC).

INTELLIGENT KEY



Type A



Type B

1. Intelligent Key (2 sets)
2. Mechanical key (inside Intelligent Keys) (2 sets)
3. Key number plate (1 set)

Your vehicle can only be driven with the Intelligent Keys which are registered to your vehicle's Intelligent Key system components and NISSAN Vehicle Immobilizer System components. As many as 4 Intelligent Keys can be registered and used with one vehicle. The new keys must be registered by a NISSAN High Performance Center (NHPC) prior to use with the Intelligent Key system and NISSAN Vehicle Immobilizer System of your vehicle. Since the registration process requires erasing all memory in the Intelligent Key components when registering new keys, be sure to take all Intelligent Keys that you have to a NISSAN High Performance Center (NHPC).

NOTICE

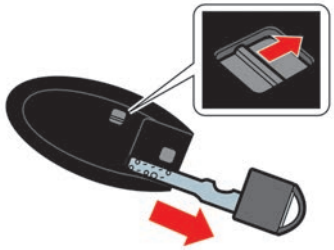
- **Be sure to carry the Intelligent Key with you when driving. The Intelligent Key is a precision device with a built-in transmitter. To avoid damaging it, please note the following.**
  - **— The Intelligent Key is water resistant; however, wetting may damage the Intelligent Key. If the Intelligent Key gets wet, immediately wipe until it is completely dry.**
  - **— Do not bend, drop or strike it against another object.**
  - **— Do not place the Intelligent Key for an extended period in a place where temperatures exceed 60°C (140°F).**
  - **— If the outside temperature is below –10°C (14°F), the battery of the Intelligent Key may not function properly.**
  - **— Do not change or modify the Intelligent Key.**
  - **— Do not use a magnet key holder.**
  - **— Do not place the Intelligent Key near an electric appliance such as a television set, per-**

sonal computer or cellular phone.

— Do not allow the Intelligent Key to come into contact with water or salt water, and do not wash it in a washing machine. This could affect the system function.

- If an Intelligent Key is lost or stolen, NISSAN recommends erasing the ID code of that Intelligent Key. This will prevent the Intelligent Key from unauthorized use to unlock the vehicle. For information regarding the erasing procedure, please contact a NISSAN High Performance Center (NHPC).

Mechanical key



To remove the mechanical key, release the lock knob at the back of the Intelligent Key.

To install the mechanical key, firmly insert it into the Intelligent Key until the lock knob returns to the lock position.

Use the mechanical key to lock or unlock the doors and the glove box. (☞ "Locking with mechanical key" page 3-6) (☞ "Glove box" page 2-63)

⚠ CAUTION

Always carry the mechanical key installed in the Intelligent Key.

Valet hand-off

When you have to leave a key with a valet, give them the Intelligent Key itself and keep the mechanical key with you to protect your belongings.

To prevent the glove box and the trunk from being opened during valet hand-off, follow the procedures below.

1. Push the trunk release power cancel switch to the OFF side. (☞ "Trunk release power cancel switch" page 3-22)
2. Remove the mechanical key from the Intelligent Key.
3. Lock the glove box with the mechanical key. (☞ "Glove box" page 2-63)
4. Hand the Intelligent Key to the valet, keeping the mechanical key in your pocket or bag for insertion into the Intelligent Key when you retrieve your vehicle.

⚠ WARNING

- **Before opening any door, always look for and avoid oncoming traffic.**
- **To help avoid risk of injury or death through unintended operation of the vehicle and or its systems, including entrapment in windows or inadvertent door lock activation, do not leave children, people who require the assistance of others or pets unattended in your vehicle. Additionally, the temperature inside a closed vehicle on a warm day can quickly become high enough to cause a significant risk of injury or death to people and pets.**

⚠ CAUTION

To prevent theft or accidents, be sure to stop the engine and lock the doors before stepping away from the vehicle.

NOTICE

When the battery cable is removed from the battery terminal, do not close either of the front doors. The automatic window adjusting function will not work, and the side roof panel may be damaged. (☞ "Automatic adjusting function" page 2-66)

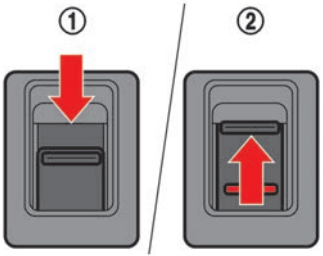
NOTE:

- **The doors of this vehicle are somewhat harder to close than those of an ordinary vehicle (especially when the vehicle is new). This is because the stiffness of the rubber has been increased to improve the airtightness of the vehicle interior during situations such as higher speed driving. This does not indicate that there is a malfunction.**
- **When the driver's door is locked or unlocked, the fuel-filler door is automatically locked or unlocked at the same time.**
- **For models with the ultrasonic and tilt sensors, when people or animals are in the vehicle and the doors are locked using the Intelligent Key or remote keyless entry system, the sensors will detect movement and the theft warning system sounds the alarm.**

  When people or animals are in the vehicle and you try to lock the doors, cancel the ultrasonic and tilt sensors. (☞ "Theft warning system (except for Taiwan, Mexico and Israel)" page 2-47)

When the door is being opened, the window is automatically lowered slightly to avoid contact between the window and the side roof panel. When the door is closed, the window is automatically raised slightly. (☞ "Automatic adjusting function" page 2-66)

LOCKING WITH INSIDE LOCK KNOB



To lock a door individually, push down the inside lock knob to the lock position ① then close the door.

To unlock, lift up the inside lock knob to the unlock position ②.

NOTE:

When locking the door without an Intelligent Key, be sure not to leave the Intelligent Key inside the vehicle.

SUPER LOCK SYSTEM (except for Taiwan and Mexico)

⚠ WARNING

For Super Lock System equipped models, failure to follow the precautions below may lead to hazardous situations. Make sure the Super Lock System activation is always safely conducted.

- **When the vehicle is occupied, never lock the doors with the Intelligent Key system. Doing so will trap the occupants, since the Super Lock System prevents the doors from being opened from the inside of the vehicle.**
- **Only operate the Intelligent Key lock button when there is a clear view of the vehicle. This is to prevent anybody from being trapped inside the vehicle through the Super Lock System activation.**

Locking the doors with the Intelligent Key LOCK button or the request switch will lock all doors and activate the Super Lock System.

This means that none of the doors can be opened from the inside in order to prevent theft.

The system will be released when the door is unlocked with the Intelligent Key UNLOCK button or the request switch.

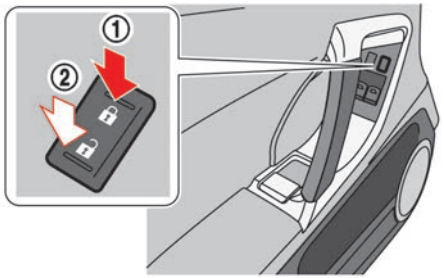
The Super Lock System will not activate when the doors are locked with the power door lock switch, inside lock knob or mechanical key.

Emergency situations

If the Super Lock System is activated due to a traffic accident or other unexpected circumstances while you are in the vehicle:

- Push the ignition switch to the ON position, the Super Lock System will be released and all the doors can be unlocked with the power door lock switch. You can then open the doors.
- Unlock the door using the Intelligent Key. The Super Lock System will be released and you can open the door.

LOCKING WITH POWER DOOR LOCK SWITCH



Operating the power door lock switch will lock or unlock all the doors. The switches are located on the driver's and front passenger's door armrests.

To lock the doors, push the power door lock switch to the lock position ① with the driver's or front passenger's door open, then close the door.

NOTE:

When locking the door this way, be sure not to leave the Intelligent Key inside the vehicle.

To unlock the doors, push the power door lock switch to the unlock position ②.

AUTOMATIC DOOR LOCK SYSTEM (for Taiwan, Mexico and the Middle East)

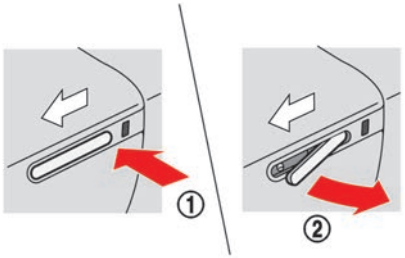
- All doors lock automatically when the vehicle speed reaches 24 km/h (15 MPH).
- All doors unlock automatically when the ignition switch is placed in the OFF position.

The automatic unlock function can be deactivated or activated. To deactivate or activate the automatic door unlock system, perform the following procedure:

1. Close all doors.
2. Place the ignition switch in the ON position.
3. Within 20 seconds of performing Step 2, push and hold the power door lock switch to the position (UNLOCK) for more than 5 seconds.
4. When activated, the hazard indicator will flash twice. When deactivated, the hazard indicator will flash once.
5. The ignition switch must be placed in the OFF and ON position again between each setting change.

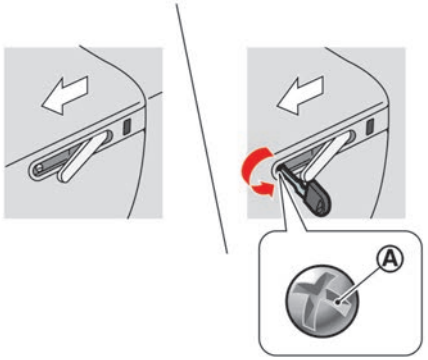
When the automatic door unlock system is deactivated, the doors do not unlock when the ignition switch is placed in the OFF position. To unlock the door manually, use the inside lock knob or the power door lock switch (driver's or front passenger's side).

LOCKING WITH MECHANICAL KEY

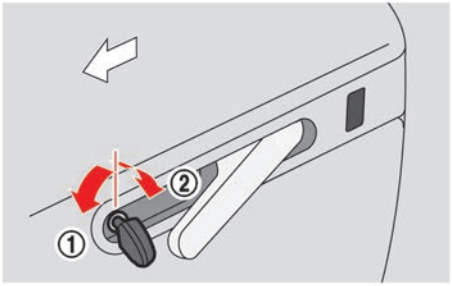


The driver's door will be locked or unlocked using the mechanical key.

1. Press the rear end of the driver's outside door handle ① to lift up the front end ②.



2. With the outside door handle lifted up, use the mechanical key and turn the key cylinder cap Ⓐ counterclockwise to remove.



3. Turning the door key cylinder to the front of the vehicle ① will lock the driver's door, and turning to the rear of the vehicle ② will unlock the driver's door.
4. Replace the key cylinder cap in the reverse order.

NOTICE

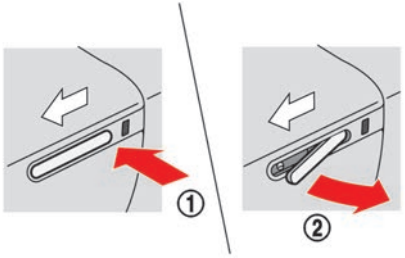
Do not drive with the cap removed. Water that enters through the key-hole may cause a malfunction.

NOTE:

- **Do not pull too hard on the door handle when locking or unlocking the doors. Pulling too hard will prevent the mechanical key from turning, making it impossible to lock or unlock the doors.**
- **Unlocking the driver's door using the mechanical key will not unlock the fuel-filler door.**

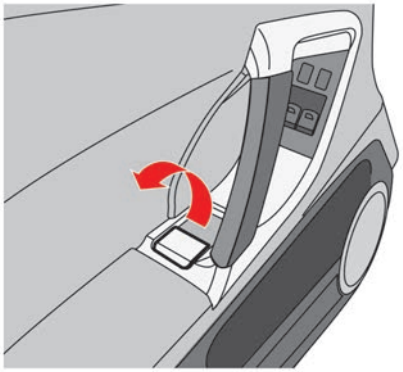
OPENING THE DOORS

Opening from outside the vehicle



1. Press the rear end of the outside door handle ① to lift up the front end of the handle.
2. Pull the front end of the outside door handle ② toward you.

Opening from inside the vehicle



Lift up the inside door handle to open a door from inside the vehicle.

Except for Taiwan and Mexico:

The doors cannot be opened by using the inside door handle when the Super Lock System is activated.

NOTICE

Do not grasp the door pockets to open and close the doors. Doing so may damage the pockets.

INTELLIGENT KEY SYSTEM

⚠ WARNING

- **Radio waves could adversely affect electric medical equipment. Those who use a pacemaker should contact the electric medical equipment manufacturer for the possible influences before use.**

The Intelligent Key system can operate all the door locks using the remote controller function or pushing the request switch on the vehicle without taking the key out from a pocket or purse. The operating environment and/or conditions may affect the Intelligent Key system operation. Be sure to read the following before using the Intelligent Key system.

⚠ CAUTION

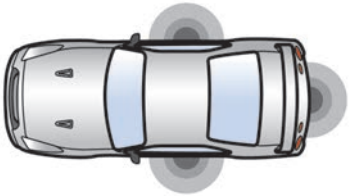
- **Be sure to carry the Intelligent Key with you when operating the vehicle.**
- **Never leave the Intelligent Key in the vehicle when you leave the vehicle.**

- The Intelligent Key is always communicating with the vehicle as it receives radio waves. The Intelligent Key system transmits weak radio waves. Environmental conditions may interfere with the operation of the Intelligent Key system under the following operating conditions. In such cases, correct the operating conditions before using the Intelligent Key function or use the mechanical key.
  - When operating near a location where strong radio waves are transmitted, such as a TV tower, power station and broadcasting station.
  - When in possession of wireless equipment, such as a cellular telephone, transceiver, and CB radio.
  - When the Intelligent Key is in contact with or covered by metallic materials.
  - When any type of radio wave remote control is used nearby.
  - When the Intelligent Key is placed near an electric appliance such as a personal computer.
  - When the vehicle is parked near a parking meter.
- Although the life of the battery varies depending on the operating conditions, the battery's life is approximately 2 years. If the battery is discharged, replace it with a new one. (☞ "Intelligent Key battery replacement" page 8-28)
- Since the Intelligent Key is continuously receiving radio waves, if the key is left near equipment which transmits strong radio waves, such as signals from a TV and personal computer, the battery life may become shorter.
- Because the steering wheel is locked electrically, unlocking the steering wheel with the ignition switch in the LOCK position is impossible when the vehicle battery is completely discharged. Pay special attention that the vehicle battery is not completely discharged.
- Do not push the door handle request switch with the Intelligent Key held in your hand. The close distance to the door handle will cause the Intelligent Key system to have difficulty recognizing that the Intelligent Key is outside the vehicle.
- After locking the doors, check that the doors are securely locked by testing them.
- To prevent the Intelligent Key from being left inside the vehicle, make sure you carry the key with you and then lock the doors.
- To prevent the Intelligent Key from being left inside the trunk, make sure you carry the key with you and then close the trunk.
- Do not pull the door handle before pushing the door handle request switch. The door will be unlocked but will not open. Release the door handle once and pull it again to open the door.

INTELLIGENT KEY FUNCTIONS

It is possible to lock/unlock all doors, fuel-filler door and trunk lid by pushing the request switch on the outside door handles and the trunk lid.

Intelligent Key operating range

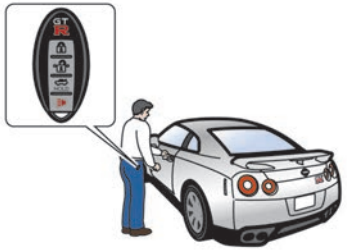


The Intelligent Key functions can only be used when the Intelligent Key is within the specified operating range from the request switch. The operating range is within 80 cm (31.50 in) from each request switch.

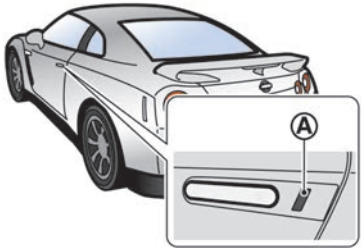
NOTE:

- **When the Intelligent Key battery is discharged or strong radio waves are present near the operating location, the Intelligent Key system's operating range becomes narrower, and the Intelligent Key may not function properly.**
- **If the Intelligent Key is too close to the door glass, handle or rear bumper, the request switches may not function.**
- **When the Intelligent Key is within the operating range, it is possible for anyone who does not carry the Intelligent Key to push the request switch to lock/unlock the doors.**

Intelligent Key operation



You can lock or unlock the doors without taking the key out from your pocket or bag.



When you carry the Intelligent Key with you, you can lock or unlock all doors by pushing the door handle request switch Ⓐ within the range of operation.

NOTE:

- **When the driver's door is locked or unlocked, the fuel-filler door is automatically locked or unlocked at the same time.**
- **When you lock or unlock the doors or the trunk lid, the hazard indicator will flash and the horn (or the outside chime) will sound as a confirmation. ("Setting hazard indicator and horn mode" page 3-14)**
- **For models with the ultrasonic and tilt sensors, when people or animals are in the vehicle and the doors are locked using the Intelligent Key or**

remote keyless entry system, the sensors will detect movement and the theft warning system sounds the alarm.

When people or animals are in the vehicle and you try to lock the doors, cancel the ultrasonic and tilt sensors. (☞ "Theft warning system (except for Taiwan, Mexico and Israel)" page 2-47)

Locking doors:

1. Move the shift lever to the **P** position, push the ignition switch to the OFF position and make sure you carry the Intelligent Key with you.
2. Close all the doors.
3. Push the driver's or front passenger's door handle request switch while carrying the Intelligent Key with you.
4. All the doors will lock.
5. Operate the door handles to confirm that the doors have been securely locked.

NOTE:

- **Doors will lock with the Intelligent Key while the ignition switch is in the ACC or ON position (for Taiwan and Mexico).**
- **Doors will not lock with the Intelligent Key while any door is open (except for Taiwan and Mexico).**
- **Doors will not lock by pushing the door handle request switch with the Intelligent Key inside the vehicle. However, when an Intelligent Key is inside the vehicle, doors can be locked with another registered Intelligent Key.**

Lockout protection:

To prevent the Intelligent Key from being accidentally locked in the vehicle, lockout protection is equipped with the Intelligent Key system.

- When the Intelligent Key is left in the vehicle and you try to lock the door using the power door lock switch or the driver's inside lock knob while any door is open after getting out of the vehicle, all the doors will unlock automatically and a chime (if equipped) will sound after the door is closed.
- When the power door lock switch (driver or front passenger) is moved to the lock position with the Intelligent Key left in the key port and any door open, all doors will lock and unlock automatically (for Taiwan and Mexico).
- When the Intelligent Key is left in the key port while the driver's door is opened and you try to lock the door using the power door lock switch after getting out of the vehicle, an inside warning chime will sound when the power door lock switch is operated (except for Taiwan and Mexico).

⚠ CAUTION

The lockout protection may not function under the following conditions:

- **When the Intelligent Key is placed on top of the instrument panel.**
- **When the Intelligent Key is placed on the top of the rear parcel.**
- **When the Intelligent Key is placed inside of the glove box.**
- **When the Intelligent Key is placed inside of the door pockets.**
- **When the Intelligent Key is placed on the outer side of the trunk area.**
- **When the Intelligent Key is placed inside or near metallic materials.**

The lockout protection may function when the Intelligent Key is outside the vehicle but is too close to the vehicle.

Unlocking doors (for Taiwan and Mexico):

The door unlock mode can be switched. Refer to the separate Multi Function Display Owner's Manual.

1. Push the driver's or front passenger's door handle request switch once while carrying the Intelligent Key with you.

2. The hazard indicator flashes once and outside chime sounds once. The corresponding door will unlock.
3. Push the door handle request switch again within 1 minute.
4. The hazard indicator flashes once and outside chime sounds once again. All the doors will unlock.

NOTE:

All doors will be locked automatically unless one of the following operations is performed within 1 minute after pushing the request switch while the doors are locked. If during this 1-minute time period, the request switch is pushed, all doors will be locked automatically after another 1 minute.

- **Opening any door**
- **Pushing the ignition switch**

Unlocking doors (except for Taiwan and Mexico):

To change the door unlock mode from one to another, see the instructions later in this section. ("Remote keyless entry functions" page 3-12)

Selective door unlock mode:

1. Carry the Intelligent Key with you.
2. Push the door handle request switch (driver's) Ⓐ once while carrying the Intelligent Key with you.
3. The driver's door will unlock.
4. Push the door handle request switch (driver's) Ⓐ again within 5 seconds.
5. All doors will be unlocked.
6. Operate the door handles to open the doors.

All door unlock mode:

1. Carry the Intelligent Key with you.
2. Push the door handle request switch (driver's or front passenger's) Ⓐ once while carrying the Intelligent Key with you.
3. All doors and the fuel-filler lid will unlock.
4. Operate the door handles to open the doors.

⚠ CAUTION

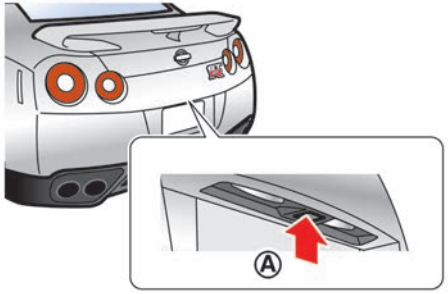
If a door handle is pulled while unlocking the doors, that door may not be unlocked. Returning the door handle to its original position will unlock the door. If the door does not unlock, after returning the door handle, push the door handle request switch to unlock the door.

NOTE:

All doors will be locked automatically unless one of the following operations is performed within 30 seconds after pushing the request switch while the doors are locked.

- **Opening any doors.**
- **Pushing the ignition switch.**

If during the preset time period the UNLOCK button on the Intelligent Key is pushed, all doors will be locked automatically after the next preset time.



Opening trunk lid:

1. Push the trunk open request switch Ⓐ for more than 1 second.
2. The trunk will unlatch. An outside chime will sound four times.
3. Raise the trunk lid to open the trunk.

NOTE:

- **To prevent the Intelligent Key from being accidentally locked in the trunk, lockout protection is equipped with the Intelligent Key system.**
- **When the trunk lid is closed with the Intelligent Key inside the trunk, the outside buzzer will sound and the trunk will open.**

Battery saver system

When all the following conditions are met for a period of time, the battery saver system will cut off the power supply to prevent battery discharge.

- The ignition switch is in the ACC position, and
- All doors are closed, and
- The shift lever is in the **P** position.

REMOTE KEYLESS ENTRY FUNCTIONS

It is possible to lock/unlock all doors, fuel-filler door, and activate the panic alarm (if equipped) by pushing the buttons on the Intelligent Key.

NOTE:

- **Before locking the doors, make sure the Intelligent Key is not left in the vehicle.**
- **For models with the ultrasonic and tilt sensors, when people or animals are in the vehicle and the doors are locked using the Intelligent Key or remote keyless entry system, the sensors will detect movement and the theft warning system sounds the alarm.**
  When people or animals are in the vehicle and you try to lock the doors, cancel the ultrasonic and tilt sensors. (☞ "Theft warning system (except for Taiwan, Mexico and Israel)" page 2-47)

Remote keyless entry operating range

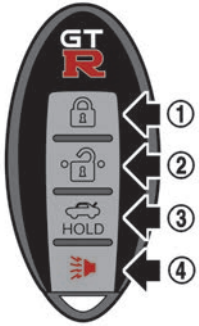
The LOCK/UNLOCK button on the Intelligent Key can operate at a distance of approximately 10 m (33 ft) (for Taiwan and Mexico) or 1 m (3.3 ft) (except for Taiwan and Mexico) from the vehicle. (The effective distance depends upon the conditions around the vehicle.)

The lock and unlock buttons on the Intelligent Key will not operate when:

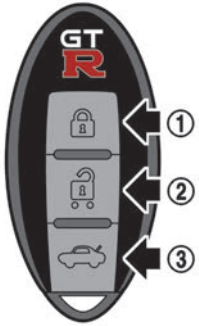
- the distance between the Intelligent Key and the vehicle is over 10 m (33 ft) (for Taiwan and Mexico) or 1 m (3.3 ft) (except for Taiwan and Mexico).
- the Intelligent Key battery runs down.

The LOCK/UNLOCK operating range varies depending on the environment. To securely operate the lock and unlock buttons, approach the vehicle to about 1 m (3.3 ft) from the door.

Remote keyless entry operation



Type A



Type B

NOTE:

- **When the driver's door is locked or unlocked, the fuel-filler door is automatically locked or unlocked at the same time.**
- **When you lock or unlock the doors or the trunk lid, the hazard indicator will flash and the horn (or the outside chime) will sound as a confirmation. (☞"Setting hazard indicator and horn mode" page 3-14)**

Locking doors:

1. Move the shift lever to the P position, push the ignition switch to the OFF position, and make sure you carry the Intelligent Key with you.
2. Close all the doors.
3. Push the LOCK button ① on the Intelligent Key.
4. All the doors will lock.
5. Operate the door handles to confirm that the doors have been securely locked.

NOTE:

- **Doors will lock with the Intelligent Key while the ignition switch is in the ACC or ON position.**
- **Doors will not lock with the Intelligent Key while any door is open.**

Unlocking doors (for Taiwan and Mexico):

The door unlock mode can be switched. Refer to the separate Multi Function Display Owner's Manual.

1. Push the UNLOCK button ② on the Intelligent Key once.
2. The hazard indicator flashes once. The driver's door will unlock.
3. Push the UNLOCK button ② on the Intelligent Key again within 1 minute.
4. The hazard indicator flashes once again. All the doors will unlock.

NOTE:

All doors will be locked automatically unless one of the following operations is performed within 1 minute after pushing the UNLOCK button ② on the Intelligent Key while the doors are locked. If during this 1-minute time period, the UNLOCK button ② on the Intelligent Key is pushed, all doors will be locked automatically after another 1 minute.

- **Opening any door**
- **Pushing the ignition switch**

Unlocking doors (except for Taiwan and Mexico):

To change the door unlock mode from one to another, see the instructions in this section.

Selective door unlock mode:

1. Push the UNLOCK button ② on the Intelligent Key.
2. The driver's door will unlock.
3. Push the UNLOCK button ② again.
4. All the doors will unlock.
5. Operate the door handles to open the doors.

All door unlock mode:

1. Push the UNLOCK button ② on the Intelligent Key.
2. All the doors will unlock.
3. Operate the door handle to open the door.

NOTE:

All doors and the fuel-filler lid will be locked automatically unless one of the following operations is performed within 30 seconds after pushing the UNLOCK button ② on the Intelligent Key while the doors are locked.

- **Opening any doors.**
- **Pushing the ignition switch.**

If during the preset time period the UNLOCK button ② on the Intelligent Key is pushed, all doors will be locked automatically after the next preset time.

Switching door unlock mode:

To switch to the door unlock mode from one to another:

- Push the LOCK button ① and UNLOCK button ② on the Intelligent Key simultaneously for more than 4 seconds. Perform the same procedure to deactivate the selective door unlock mode (except for Taiwan and Mexico).
- Refer to the separate Multi Function Display Owner's Manual (for Taiwan and Mexico).

Opening trunk lid:

1. Push the TRUNK HOLD button ③ on the Intelligent Key for more than 1 second.
2. The trunk will unlatch.
3. Raise the trunk lid to open the trunk.

Using panic alarm (for Taiwan and Mexico):

If you are near your vehicle and feel threatened, you may activate the alarm to call attention as follows:

1. Push the PANIC button ④ on the Intelligent Key for **more than 1 second.**
2. The theft warning alarm will stay on for 25 seconds.
3. The panic alarm stops when:
   - It has run for 25 seconds, or
   - Any of the buttons on the Intelligent Key are pushed. (Note: the panic button should be pushed for more than 1 second to turn the panic alarm off.)

SETTING HAZARD INDICATOR AND HORN MODE

This vehicle is set in hazard indicator and horn mode when you first receive the vehicle.

When you lock/unlock the doors, the hazard indicator will flash and the horn (or the outside chime) will sound as a confirmation.

The following descriptions show how the hazard indicator and horn will activate when locking/unlocking the doors and how the horn feature can be deactivated.

Hazard indicator and horn mode (for Taiwan and Mexico)

	DOOR LOCK	DOOR UNLOCK	TRUNK UNLOCK
Intelligent Key system (Using door handle request switch or trunk open request switch)	HAZARD - **twice** OUTSIDE CHIME - **twice**	HAZARD - **once** OUTSIDE CHIME - **once**	HAZARD - none OUTSIDE CHIME - **4 times**
Remote keyless entry system (Using , or HOLD button)	HAZARD - **twice** HORN - **once**	HAZARD - **once** HORN - none	HAZARD - none HORN - none

Hazard indicator mode (for Taiwan and Mexico)

	DOOR LOCK	DOOR UNLOCK	TRUNK UNLOCK
Intelligent Key system (Using door handle request switch or trunk open request switch)	HAZARD - **twice**	HAZARD - none	HAZARD - none
Remote keyless entry system (Using , or button)	HAZARD - **twice**	HAZARD - none	HAZARD - none

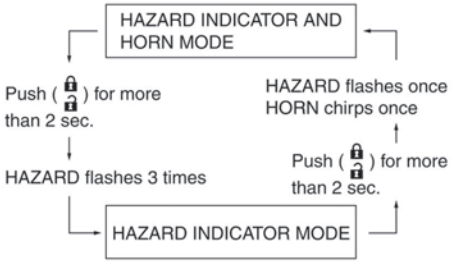
Hazard indicator mode (except for Taiwan and Mexico)

	DOOR LOCK	DOOR UNLOCK	TRUNK UNLOCK
Intelligent Key system (using request switch)	HAZARD - **once**	HAZARD - **twice**	HAZARD - none
Remote keyless entry system (using 🔒 or 🔓 button)	HAZARD - **once**	HAZARD - **twice**	HAZARD - none

Switching procedure (for Taiwan and Mexico)

The horn beep feature can be deactivated with the following procedures.

1. Push the LOCK 🔒 and UNLOCK 🔓 buttons simultaneously for more than 2 seconds.
2. The hazard indicator flashes 3 times.
3. The horn beep feature will be deactivated (Hazard indicator mode).
4. To reactivate the horn beep feature (Hazard indicator and horn mode), push the buttons once more. The hazard indicator flashes once and the horn beeps once.



WARNING SIGNALS

To help prevent the vehicle from moving unexpectedly due to an erroneous operation of the Intelligent Key listed on the following chart or to help prevent the vehicle from being stolen, a chime or beep sounds inside and outside the vehicle and a warning displays in the vehicle information display. (☞"Warning display" page 2-34) (☞"Operation displays" page 2-44)

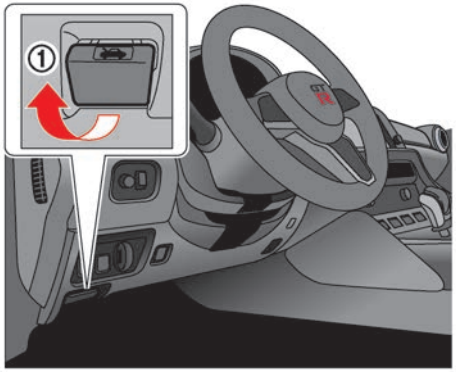
When a chime or beep sounds or a warning displays, be sure to check the vehicle and the Intelligent Key.

TROUBLESHOOTING GUIDE

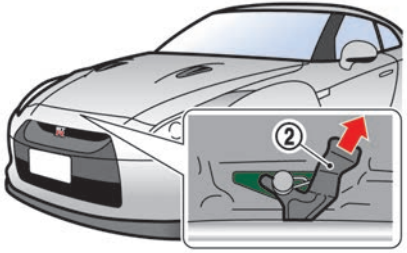
Symptom		Possible cause	Action to take
When pushing the ignition switch to stop the engine	The SHIFT P warning appears on the display and the inside warning chime sounds continuously.	The shift lever is not in the P position.	Shift the shift lever to the P position.
When opening the driver's door to get out of the vehicle	The inside warning chime sounds continuously.	The ignition switch is in the ACC position.	Push the ignition switch to the OFF position.
		The Intelligent Key is in the Intelligent Key port.	Remove the Intelligent Key from the Intelligent Key port.
When closing the door after getting out of the vehicle	The NO KEY warning appears on the display, the outside chime sounds 3 times and the inside warning chime sounds for approximately 3 seconds.	The ignition switch is in the ACC or ON position.	Push the ignition switch to the OFF position.
	The SHIFT P warning appears on the display and the outside chime sounds continuously.	The ignition switch is in the ACC or OFF position and the shift lever is not in the P position.	Move the shift lever to the P position and push the ignition switch to the OFF position.
When closing the door with the inside lock knob turned to LOCK	The outside chime sounds for approximately 3 seconds and all the doors unlock.	The Intelligent Key is inside the vehicle or trunk.	Carry the Intelligent Key with you.
When pushing the door handle request switch to lock the door	The outside chime sounds for approximately 2 seconds.	The Intelligent Key is inside the vehicle or trunk.	Carry the Intelligent Key with you.
		A door is not closed securely.	Close the door securely.
		The door handle request switch is pushed before the door is closed.	Push the door handle request switch after the door is closed.
When closing the trunk lid	The outside chime sounds for approximately 10 seconds and the trunk lid opens.	The Intelligent Key is inside the trunk.	Carry the Intelligent Key with you.

HOOD

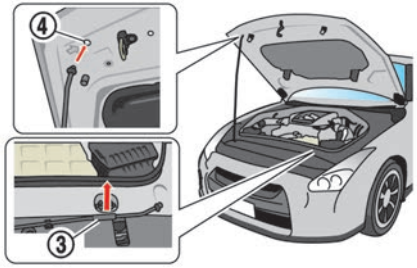
OPENING THE HOOD



1. Pull the hood lock release handle ① located below the instrument panel. The hood will then spring up slightly.



2. Pull the lever ② at the front of the hood with your fingertips and raise the hood.



3. Grasp the insulated part of the stay ③ and release it from the hook, then securely insert it into the hood hole ④.

⚠ WARNING

- **If you see steam or smoke coming from the engine compartment, do not open the hood. Doing so could cause injury.**
- **Do not pull the hood lock release handle ① or push the hood down after the pop-up engine hood system (if equipped) activates. Doing so could cause injury or damage to the hood because the hood cannot be closed manually after the system is activated. When the pop-up engine hood activates, contact a NISSAN High Performance Center (NHPC).**

⚠ CAUTION

- **Do not insert hands, clothing, tools or other items into the engine compartment while the engine is running.**
- **Do not touch the exhaust system parts, radiator or other hot parts until the engine and the parts have cooled.**

NOTICE

Do not open the hood while the wiper arms are lifted away from the windshield. The hood and wipers will be damaged.

CLOSING THE HOOD

1. While supporting the hood, store the stay to the original position.
2. Slowly lower the hood. When it is at a height of 30 cm (1 ft) or higher, drop the hood and make sure that both sides of the hood securely lock in place.

⚠ WARNING

- **Make sure the hood is completely closed and latched before driving. Failure to do so could cause the hood to open and result in an accident.**
- **Be sure to check that the hood is securely closed before driving. If both sides of the hood are not locked in place, the hood may open during driving, possibly causing an accident.**

⚠ CAUTION

When closing the hood, lower it slowly so that hands or other items do not get caught.

NOTE:

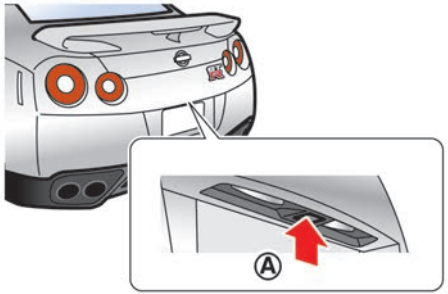
Because the hood of this vehicle requires more force to close than that for other vehicles, the hood will be difficult to close if you lower it all the way and then attempt to press it closed. Be sure to drop the hood from a height of approximately 30 cm (1 ft) and be sure that both sides securely lock in place.

TRUNK

⚠ WARNING

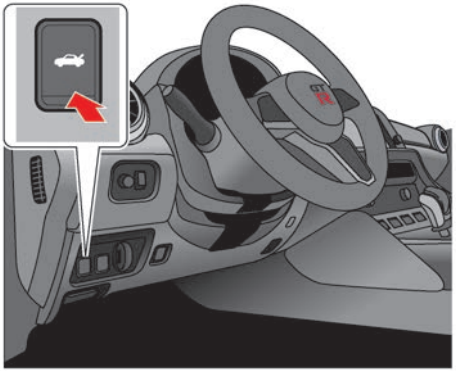
- **Do not drive with the trunk lid open. This could allow dangerous exhaust gases to be drawn into the vehicle. (☞ "Exhaust gas (carbon monoxide)" page 5-3)**
- **Closely supervise children when they are around cars to prevent them from playing and becoming locked in the trunk where they could be seriously injured. Keep the car locked, with the trunk closed, when not in use, and prevent children's access to Intelligent Keys.**

TRUNK OPEN REQUEST SWITCH



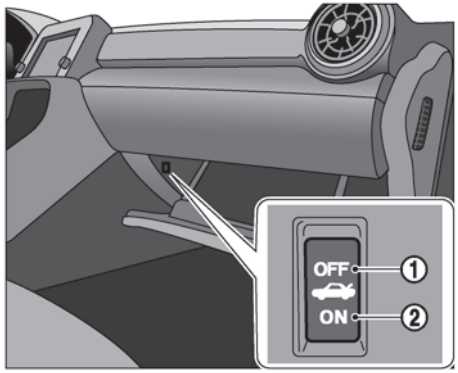
The trunk lid can be opened by pushing the trunk open request switch Ⓐ when the Intelligent Key is within the operating range of the trunk lock/unlock function regardless of the inside lock knob position. ("Intelligent Key system" page 3-8)

TRUNK LID RELEASE SWITCH



Press the trunk lid release switch to unlock the trunk.

TRUNK RELEASE POWER CANCEL SWITCH

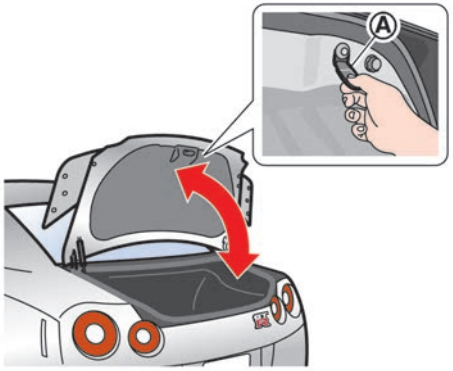


When the switch located inside the glove box is in the OFF position ①, the power to the trunk lid will be canceled and the trunk lid cannot be opened by the trunk lid release switch, the trunk open request switch or the TRUNK button on the Intelligent Key.

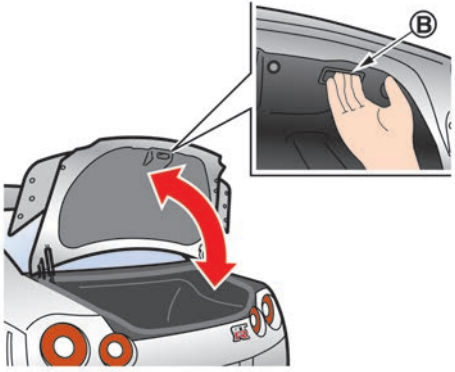
When you have to leave the vehicle with a valet and want to keep your belongings safe in the glove box and the trunk, push this switch to OFF and lock the glove box with the mechanical key. Then leave the vehicle and the Intelligent Key with the valet and keep the mechanical key with you. ("Valet hand-off" page 3-3)

To connect the power to the trunk lid, push the switch to the ON position ②.

OPENING AND CLOSING THE TRUNK



Except for carbon trunk lid models



For carbon trunk lid models

When opening the trunk, first unlock it then lift up the trunk lid so that it is fully open.

When closing the trunk, lower the trunk lid and press it until it is securely locked in place. The strap Ⓐ (except for carbon trunk lid models) or the handle Ⓑ (for carbon trunk lid models) can be used when the trunk lid is dirty.

NOTICE

- **Open and close the trunk without grasping the rear spoiler. Grasping the rear spoiler to open or close the trunk may damage the spoiler.**
- **Do not leave the key inside the trunk.**

NOTE:

- **To prevent the Intelligent Key from being accidentally locked in the trunk, lockout protection is equipped with the Intelligent Key system. When the trunk lid is closed with the Intelligent Key inside the trunk, the outside buzzer will sound and the trunk will open.**
- **The trunk of this vehicle is slightly more difficult to close than an ordinary vehicle (particularly when the vehicle is new). This is because the trunk rigidity has been increased to handle the high load on the rear spoiler during vehicle operation. This does not indicate that there is a malfunction. Check that the trunk is securely locked.**

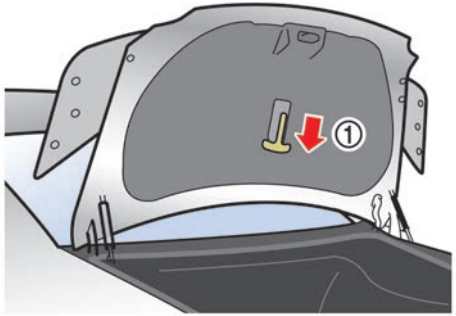
EMERGENCY TRUNK LID RELEASE

⚠ WARNING

Closely supervise children when they are around cars to prevent them from playing and becoming locked in the trunk where they could be seriously injured. Keep the car locked, with the trunk lid securely latched, when not in use, and prevent children's access to Intelligent Keys.

The emergency trunk lid release mechanism allows opening of the trunk lid in the event of the loss of electrical power such as a discharged battery.

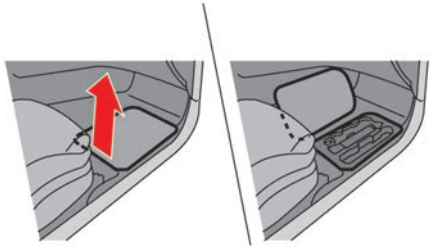
Inside the trunk (for Mexico)



To open the trunk lid from the inside, pull the release handle ① until the lock releases and push up on the trunk lid. The release lever is made of a material that glows in the dark after a brief exposure to ambient light.

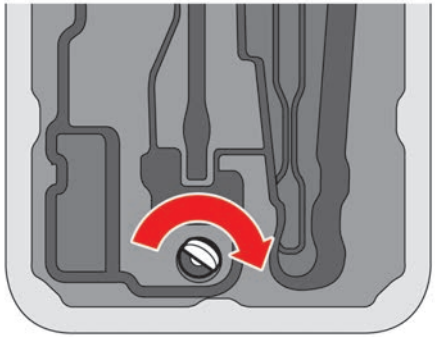
The handle is located on the back of the trunk lid as illustrated.

From the passenger compartment



The trunk can be opened with the emergency trunk lid opener located on the floor in front of the passenger's seat.

1. Remove the board located on the floor in front of the passenger's seat.



2. Insert the mechanical key into the emergency trunk lid opener and turn it clockwise until it stops.

NOTE:

Because the trunk rigidity has been increased to handle the high load on the rear spoiler during vehicle operation, more force is required to operate the mechanical key (particularly when the vehicle is new). Be sure to turn the key clockwise until it stops.

FUEL-FILLER DOOR

The fuel-filler door is located on the right and rear side of the vehicle.

⚠ WARNING

- **Gasoline is extremely flammable and highly explosive under certain conditions. You could be burned or seriously injured if it is misused or mishandled. Always stop engine and do not smoke or allow open flames or sparks near the vehicle when refueling.**
- **Do not attempt to top off the fuel tank after the fuel pump nozzle shuts off automatically. Continued refueling may cause fuel overflow, resulting in fuel spray and possibly a fire.**
- **Use only an original equipment type fuel-filler cap as a replacement. It has a built-in safety valve needed for proper operation of the fuel system and emission control system. An incorrect cap can result in a serious malfunction and possible injury. It could also cause the malfunction indicator light to come on.**
- **Never pour fuel into the throttle body to attempt to start your vehicle.**
- **Do not fill a portable fuel container in the vehicle or trailer. Static electricity can cause an explosion of flammable liquid, vapor or gas in any vehicle or trailer. To reduce the risk of serious injury or death when filling portable fuel containers:**
  - **— Always place the container on the ground when filling.**
  - **— Do not use electronic devices when filling.**
  - **— Keep the pump nozzle in contact with the container while you are filling it.**
  - **— Use only approved portable fuel containers for flammable liquid.**

⚠ CAUTION

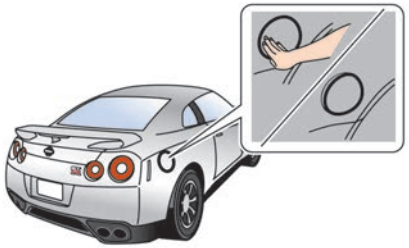
Never use fuel additives. Additives may cause damage to the engine. (for Europe)

NOTICE

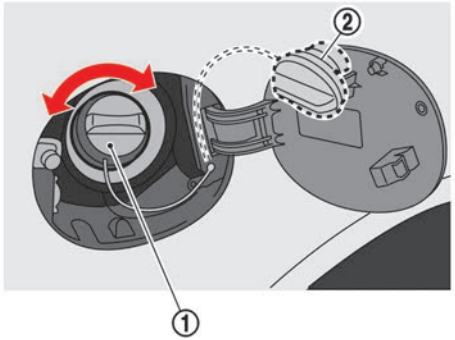
- **If fuel is spilled on the vehicle body, flush it away with water to avoid paint damage.**
- **For Taiwan and Mexico: Insert the cap straight into the fuel-filler tube, then tighten until the fuel-filler cap clicks. Failure to tighten the fuel-filler cap properly may cause the or SERVICE ENGINE SOON Malfunction Indicator Light (MIL) to illuminate. If the or SERVICE ENGINE SOON light illuminates because the fuel-filler cap is loose or missing, tighten or install the cap and continue to drive the vehicle. The or SERVICE ENGINE SOON light should turn off after a few driving trips. If the or SERVICE ENGINE SOON light does not turn off after a few driving trips, have the vehicle inspected by a NISSAN High Performance Center (NHPC). ("or Malfunction Indicator Light (MIL or MI)" page 2-31)**
- **This vehicle includes a system that can supply fuel even during high-G (gravity) turns. The fuel tank pressure is higher when the vehicle is hot. If the vehicle is refueled when the vehicle is hot, the fuel pump may automatically shut off before the tank is full. This does not indicate that there is a malfunction.**

OPENING THE FUEL-FILLER DOOR

1. Unlock the fuel-filler door by using one of the following operations.
   - Push the door handle request switch with the Intelligent Key carried with you.
   - Push the UNLOCK button on the Intelligent Key.
   - Push the power door lock switch to the UNLOCK position.



2. Press the rear side of the fuel-filler door to release the door lock, and open the door.



3. Turn the cap ① slowly counterclockwise to remove it.

   During refueling, place the cap on the inside of the door ②.

CLOSING THE FUEL-FILLER DOOR

1. Turn the cap clockwise until a click sound is heard.
2. Close the door. Lock the fuel-filler door by using one of the following operations.

- Push the door handle request switch with the Intelligent Key carried with you.
- Push the LOCK button on the Intelligent Key.
- Push the power door lock switch to the LOCK position.

NOTE:

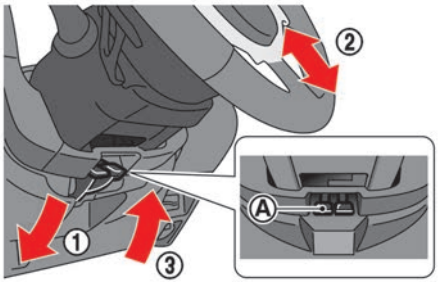
After a click is heard and the cap is released it may move slightly. This is not a malfunction.

⚠ WARNING

- **Do not adjust the steering wheel while driving. You could lose control of your vehicle and cause an accident.**
- **Do not adjust the steering wheel any closer to you than is necessary for proper steering operation and comfort. The driver's air bag inflates with great force. If you are unrestrained, leaning forward, sitting sideways or out of position in any way, you are at greater risk of injury or death in a crash. You may also receive serious or fatal injuries from the air bag if you are up against it when it inflates. Always sit back against the seatback and as far away as practical from the steering wheel. Always use the seat belts.**

TILT/TELESCOPIC STEERING COLUMN

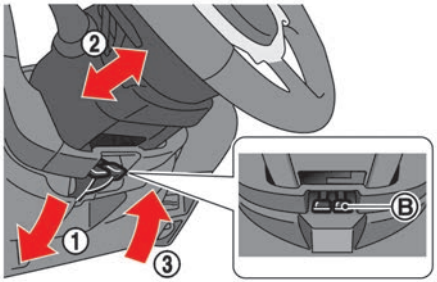
Tilt adjustment



This adjusts up/down the position of the steering wheel.

1. Press lever Ⓐ down ①.
2. Move the steering wheel up/down ② and stop it in an appropriate position.
3. Lift up lever Ⓐ to lock the steering wheel in position ③.

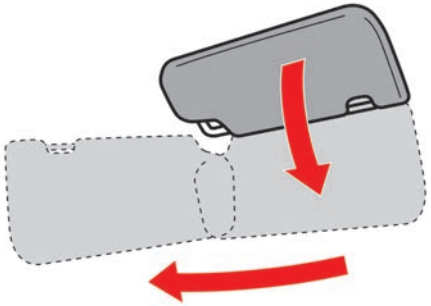
Telescopic adjustment



This adjusts the forward/backward position of the steering wheel.

1. Press lever Ⓑ down ①.
2. Move the steering wheel forward/backward ② and stop it in an appropriate position.
3. Lift up lever Ⓑ to lock the steering wheel in position ③.

SUN VISORS



Lower the sun visor to block sunlight coming from the forward direction.

To block sunlight coming from the side, lower the sun visor, then unclip it from the hook and move it to the side.

MIRRORS

INSIDE MIRROR

While holding the inside rearview mirror, adjust the mirror angles until the desired position is achieved.

NOTE:

- **Do not attach any accessories or electrical devices to or around the inside rearview mirror.**
- **Otherwise, the key system and remote keyless entry system may not function properly.**

Manual anti-glare type

Pull the adjusting lever ① when the glare from the headlights of the vehicle behind you obstructs your vision at night.

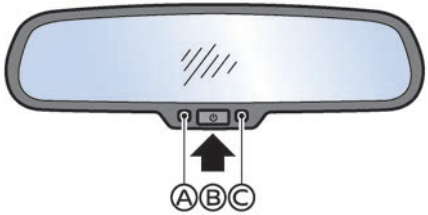
Push the adjusting lever ② during the day for the best rearward visibility.

Automatic anti-glare type (if equipped)

The inside rearview mirror is designed so that it automatically changes reflection according to the intensity of the headlights of the vehicle following you.

The anti-glare system will be automatically turned on when you push the ignition switch to the “ON” position.

Type A:



When the system is turned on, the indicator light Ⓐ will illuminate and excessive glare from the headlights of the vehicle behind you will be reduced.

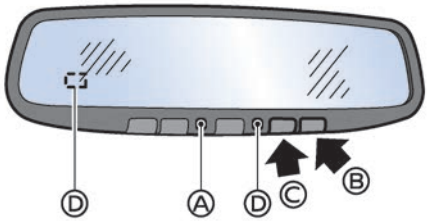
Push the switch Ⓑ for 3 seconds to make the inside rearview mirror operate normally and the indicator light will turn off. Push the switch again for 3 seconds to

turn the system on.

NOTICE

Do not hang any objects on the mirror or apply glass cleaner. Doing so will reduce the sensitivity of the sensor Ⓒ , resulting in improper operation.

Type B:



When the system is turned on, the indicator light Ⓐ will illuminate and excessive glare from the headlights of the vehicle behind you will be reduced.

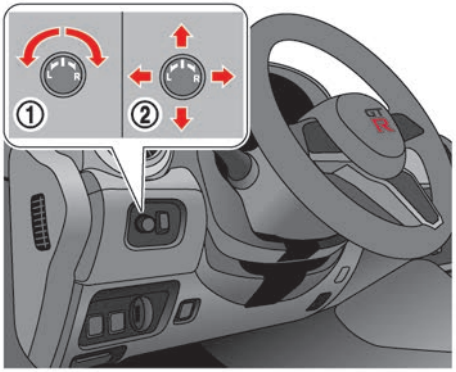
Push the "○" switch Ⓑ to make the inside rearview mirror operate normally. The indicator light will turn off. Push the "I" switch Ⓒ to turn the system on.

NOTICE

Do not allow any object to cover the sensors Ⓓ or apply glass cleaner on them. Doing so will reduce the sensitivity of the sensor, resulting in improper operation.

For the HomeLink® Universal Transceiver operation, see ☞ "HomeLink® Universal Transceiver (for Mexico)" page 2-68.

OUTSIDE MIRRORS



⚠ WARNING

- **Never touch the outside rearview mirrors while they are in motion. Doing so may pinch your fingers or damage the mirror.**
- **Never drive the vehicle with the outside rearview mirrors folded. This reduces rear view visibility and may lead to an accident.**
- **Objects viewed in the outside mirror are closer than they appear (if equipped).**
- **The picture dimensions and distance in the outside mirrors are not real.**

The outside mirror will operate only when the ignition switch is in the ACC or ON position.

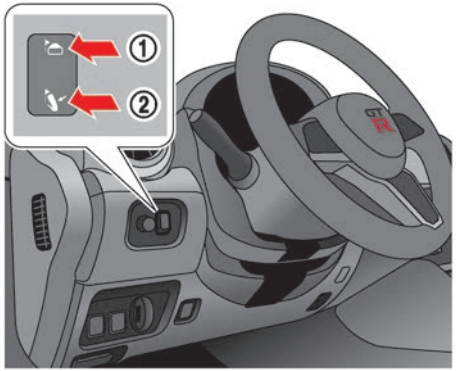
Adjusting the outside mirrors

1. Turn the switch right or left to select the right or left side mirror ①.
2. Operate the control switch ② to adjust the mirror angle.

⚠ WARNING

Adjust the mirrors before starting to drive. Adjusting the mirrors during driving is dangerous as it reduces the driver's attention to the forward direction.

Folding the outside mirrors



Press the switch down ② to fold the outside mirrors.

Press the switch up ① to unfold the mirrors before driving.

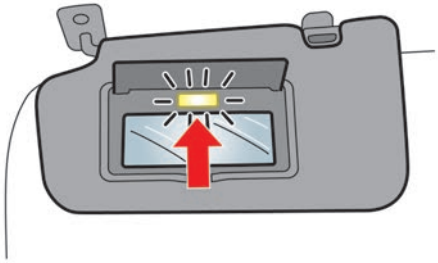
⚠ CAUTION

- **Do not touch the mirrors while they are moving. Your hand may be pinched, and the mirror may malfunction.**
- **Do not drive with the mirrors stored. You will be unable to see behind the vehicle.**
- **If the mirrors were folded or unfolded by hand, there is a chance that the mirror will move forward or backward during driving. If the mirrors were folded or unfolded by hand, be sure to adjust them again electrically before driving.**

NOTE:

- **If the switch is operated continuously, the mirror may stop before movement is completed. This does not indicate that there is a malfunction. Wait a few moments, then operate the switch again.**
- **If the mirrors were folded or unfolded by hand, the mirrors may start moving when the ignition switch is set to the ACC or ON position.**
- **When the ignition switch is in the ON position, operating the rear window defroster will also remove frost and fog from the outside mirrors.**
  (☞ "Rear window defroster switch" page 2-55)

VANITY MIRROR



To use the front vanity mirror, pull down the sun visor and pull up the cover.

4 Display screen, heater, air conditioner and audio systems

MULTI FUNCTION DISPLAY OWNER'S MANUAL

Refer to the separate Multi Function Display Owner's Manual that includes the following information.

- Multi function display system
- Settings
- Audio system
- Bluetooth® Hands-Free Phone System
- Apple CarPlay (if equipped)
- Navigation (if equipped)
- Voice recognition (if equipped)
- Multi function meter

REAR VIEW MONITOR

When the shift lever is shifted into the R position, the monitor display shows the view to the rear of the vehicle.

The system is designed as an aid to the driver in detecting large stationary objects to help avoid damaging the vehicle. The system will not detect small objects below the bumper and may not detect objects close to the bumper or on the ground.

⚠ WARNING

Failure to follow the warnings and instructions for proper use of the rear view monitor could result in serious injury or death.

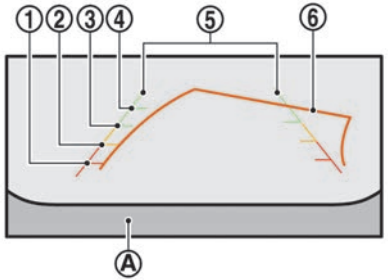
- **The rear view monitor is a convenience but it is not a substitute for proper backing. Always turn and look out the windows, and check mirrors to be sure that it is safe to move before operating the vehicle. Always back up slowly.**
- **The system is designed as an aid to the driver in showing large stationary objects directly behind the vehicle, to help avoid damaging the vehicle.**
- **The system cannot completely eliminate blind spots and may not show every object.**
- **Underneath the bumper and the corner areas of the bumper cannot be viewed on the rear view monitor because of its monitoring range limitation. The system will not show small objects below the bumper, and may not show objects close to the bumper or on the ground.**
- **Objects viewed in the rear view monitor differ from actual distance because a wide-angle lens is used.**
- **Objects in the rear view monitor will appear visually opposite than when viewed in the rearview and outside mirrors.**
- **Make sure that the trunk is securely closed when backing up.**
- **Do not put anything on the rear view camera. The rear view camera is installed above the license plate.**
- **When washing the vehicle with high pressure water, be sure not to spray it around the camera. Otherwise, water may enter the camera unit causing water condensation on the lens, a malfunction, fire or an electric shock.**
- **Do not strike the camera. It is a precision instrument. Otherwise, it may malfunction or cause damage resulting in a fire or an**

electric shock.

⚠ CAUTION

Do not scratch the camera lens when cleaning dirt or snow from the lens.

HOW TO READ DISPLAYED LINES



Guiding lines which indicate the vehicle width and distances to objects with reference to the bumper line Ⓐ are displayed on the monitor.

Distance guide lines:

Indicate distances from the bumper.

- Red line ①: approx. 0.5 m (1.5 ft)
- Yellow line ②: approx. 1 m (3 ft)
- Green line ③: approx. 2 m (7 ft)
- Green line ④: approx. 3 m (10 ft)

Vehicle width guide lines ⑤:

Indicates the approximate vehicle width.

Predictive course lines ⑥:

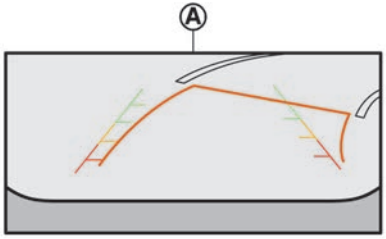
Indicate the predictive course when backing up. The predictive course lines will be displayed on the monitor when the shift lever is in the R position and the steering wheel is turned. The predictive course lines will move depending on how much the steering wheel is turned and will not be displayed while the steering wheel is in the neutral position.

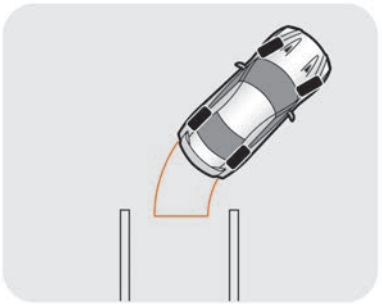
The vehicle width guide lines and the width of the predictive course lines are wider than actual width and course.

⚠ WARNING

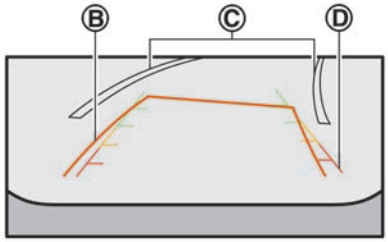
- **Always turn and check that it is safe to park your car before backing up. Always back up slowly.**
- **If the tires are replaced with different sized tires, the predictive course line may not be displayed correctly.**
- **On a snow-covered or slippery road, there may be a difference between the predictive course line and the actual course line.**
- **When the steering wheel is turned with the ignition switch in the ACC position, the predictive course lines may be displayed incorrectly.**
- **The displayed line will appear slightly off to the right because the rear view camera is not installed in the rear center of the vehicle.**
- **The distance guide line and the vehicle width guide line should be used as a reference only when the vehicle is on a level paved surface. The distance viewed on the monitor is for reference only and may be different than the actual distance between the vehicle and displayed objects.**
- **When backing up the vehicle up a hill, objects viewed in the monitor are further than they appear. When backing up the vehicle down a hill, objects viewed in the monitor are closer than they appear. Use the inside mirror or glance over your shoulder to properly judge distances to other objects.**

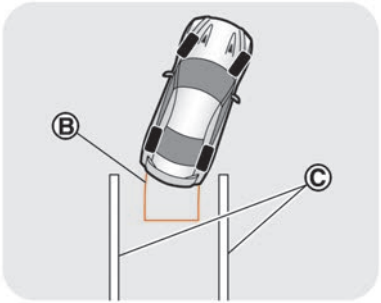
HOW TO PARK WITH PREDICTIVE COURSE LINES





1. Visually check that the parking space is safe before parking your vehicle.
2. The rear view of the vehicle is displayed on the screen Ⓐ as illustrated when the shift lever is moved to the R position.

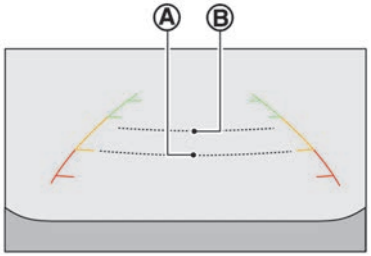


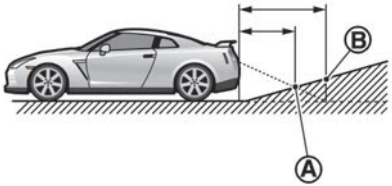


3. Slowly back up the vehicle, adjusting the steering wheel so that the predictive course lines Ⓑ enter the parking space Ⓒ.
4. When the back of the vehicle enter the parking space Ⓒ, maneuver the steering wheel to make the vehicle width guide lines Ⓓ parallel to the parking space Ⓒ.
5. When the vehicle is parked in the space completely, move the shift lever to the P position and apply the parking brake.

DIFFERENCE BETWEEN PREDICTIVE AND ACTUAL DISTANCES

Backing up on a steep uphill

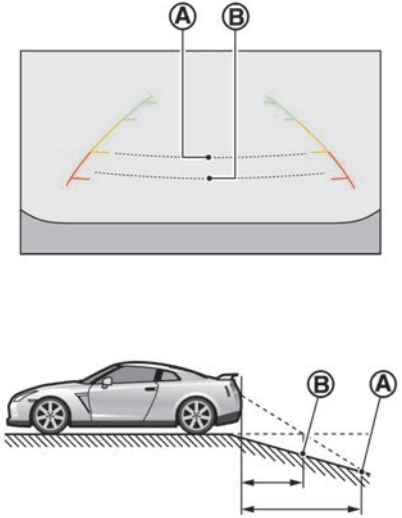




When backing up the vehicle up a hill, the distance guide lines and the vehicle width guide lines are shown closer than the actual distance. For example, the display shows 1 m (3 ft) to the place Ⓐ, but the actual 1 m (3 ft) distance on the hill is the

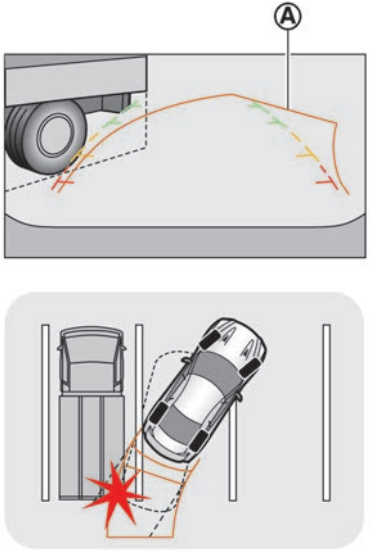
place Ⓑ. Note that any object on the hill viewed in the monitor further than it appears.

Backing up on a steep downhill



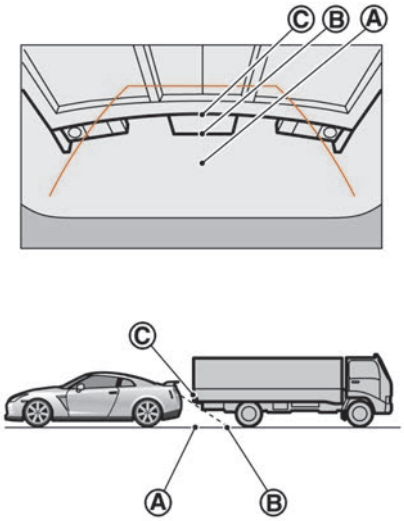
When backing up the vehicle down a hill, the distance guide lines and the vehicle width guide lines are shown further than the actual distance. For example, the display shows 1 m (3 ft) to the place Ⓐ, but the actual 1 m (3 ft) distance on the hill is the place Ⓑ. Note that any object on the hill viewed in the monitor closer than it appears.

Backing up near a projecting object



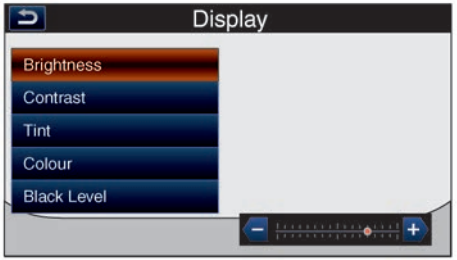
The predictive course lines Ⓐ do not touch the object in the display. However, the vehicle may hit the object if it projects over the actual backing up course.

Backing up behind a projecting object



The position Ⓒ is shown further than the position Ⓑ in the display. However, the position Ⓒ is actually at the same distance as the position Ⓐ. The vehicle may hit the object when backing up to the position Ⓐ if the object projects over the actual backing up course.

HOW TO ADJUST SCREEN



1. While on a rear view monitor screen, touch the touch screen display. The Camera Settings screen will come up.
2. Touch the [Display Settings] key.
3. Touch the [Brightness], [Contrast], [Tint], [Colour]/[Color] or [Black Level] key.
4. Adjust the item by touching the [+] or [—] key on the touch screen display.

NOTE:

Do not adjust any of the display settings of the rear view monitor while the vehicle is moving. Make sure the parking brake is firmly applied.

PREDICTIVE COURSE LINES SETTINGS

If the rear view monitor is in operation and the rear view is displayed, turn on or off the predictive course line setting according to the following procedure.

1. Touch the touch screen display.
2. Touch the [Predictive Course Lines] key to turn the feature on or off.

If the rear view monitor is not in operation, change the setting according to the following procedure.

1. Touch the [Settings] key on the Launch Bar Ⓐ on the display screen.
2. Touch the [Camera] key.
3. Touch the [Predictive Course Lines] key. The indicator illuminates when the item is turned on.

PARKING SENSOR (sonar) INDICATOR

The parking sensor (sonar) indicator will appear in the rear view monitor display. (☞ "Parking sensor (sonar) system" page 5-44)

OPERATING TIPS

- When the shift lever is shifted to the R position, the monitor screen automatically changes to the rear view monitor mode. However, the audio can be heard.
- When the view is switched, the display images on the screen may be displayed with some delay.
- When the temperature is extremely high or low, the screen may not clearly display objects. This is not a malfunction.
- When strong light is directly coming on the camera, objects may not be displayed clearly. This is not a malfunction.
- Vertical lines may be seen in objects on the screen. This is due to strong reflected light from the bumper. This is not a malfunction.
- The screen may flicker under fluorescent light. This is not a malfunction.
- The colors of objects on the rear view monitor may differ somewhat from the actual color of objects. This is not

a malfunction.

- Objects on the monitor may not be clear in a dark environment. This is not a malfunction.
- If dirt, rain or snow accumulates on the camera, the rear view monitor may not display object clearly. Clean the camera.
- Do not use alcohol, benzine, or thinner to clean the camera. This will cause discoloration. To clean the camera, wipe with a cloth dampened with diluted mild cleaning agent and then wipe with a dry cloth.
- Do not damage the camera as the monitor screen may be adversely affected.
- Do not use wax on the camera window. Wipe off any wax with a clean cloth dampened with mild detergent diluted with water.

VENTILATORS

CENTER VENTILATORS

Adjust the air flow direction of the ventilators by moving the center knob (up/down, left/right) until the desired position is achieved.

SIDE VENTILATORS

Turning the center knob clockwise or counterclockwise will close or open the ventilators.

Adjust the air flow direction by moving the ventilators until the desired position is achieved.

HEATER AND AIR CONDITIONER

⚠ WARNING

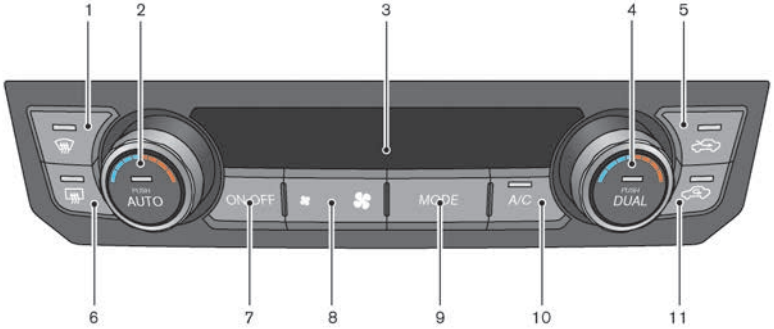
- **The heater and air conditioner operate only when the engine is running.**
- **Never leave children or adults who would normally require the support of others alone in the vehicle. Pets should not be left alone either. They could unknowingly activate switches or controls and inadvertently become involved in a serious accident and injure themselves. On hot, sunny days, temperatures in a closed vehicle could quickly become high enough to cause severe or possibly fatal injuries to people or animals.**
- **Do not use the recirculation mode for long periods as it may cause the interior air to become stale and the windows to fog up.**
- **Do not adjust the heating and air conditioning controls while driving so that full attention may be given to vehicle operation.**

The heater and air conditioner operate when the engine is running. The air blower will operate even if the engine is turned off and the ignition switch is in the ON position.

NOTE:

- **Odors from inside and outside the vehicle can build up in the air conditioner unit. Odor can enter the passenger compartment through the vents.**
- **When parking, set the heater and air conditioner controls to turn off air recirculation to allow fresh air into the passenger compartment. This should help reduce odors inside the vehicle.**

AUTOMATIC AIR CONDITIONER AND HEATER



1. front defroster button
2. Temperature control dial (driver's side)/ AUTO (automatic) button*
3. Display screen
4. Temperature control dial (passenger's side)/DUAL button*
5. outside air circulation button
6. rear window defroster switch
   (See "Rear window defroster switch" page 2-55.)
7. ON OFF button
8. fan speed control buttons
9. MODE (manual air flow control) button
10. A/C (air conditioner) button
11. air recirculation button

*:The switch layout in the illustration is for the Left-Hand Drive (LHD) model. For the Right- Hand Drive (RHD) model, the switch layout will be opposite.

Automatic operation

Cooling and/or dehumidified heating (AUTO):

This mode may be used all year round as the system automatically works to keep a constant temperature. Air flow distribution and fan speed are also controlled automatically.

1. Push the AUTO button on. (The indicator light on the button will illuminate.)
2. Turn the temperature control dial on the driver's side to the left or right to set the desired temperature.
   - The temperature of the passenger compartment will be maintained automatically. Air flow distribution and fan speed are also controlled automatically.
   - A visible mist may be seen coming from the vents in hot, humid conditions as the air is cooled rapidly. This does not indicate a malfunction.
3. You can individually set driver's and front passenger's side temperature using each temperature control dial. When the DUAL button is pushed or passenger's side temperature dial is turned, the DUAL indicator will come on. To turn off the passenger's side temperature control, push the DUAL button.

Heating (A/C OFF):

The air conditioner does not activate in this mode. Only use this mode when you need to heat the vehicle.

1. Push the AUTO button on. (The indicator light on the button will illuminate.)
2. If the indicator light on the A/C button is turned on, push the A/C button. (The indicator light will turn off.)
3. Turn the temperature control dial on the driver's side to set the desired temperature.
   - The temperature of the passenger compartment will be maintained automatically. Air flow distribution

and fan speed are also controlled automatically.

- Do not set the temperature lower than the outside air temperature or the system may not work properly.
- Not recommended if windows fog up.

4. You can individually set driver's and front passenger's side temperature using each temperature control dial. When the DUAL button is pushed or passenger's side temperature control dial is turned, the DUAL indicator light will come on. To turn off the passenger's side temperature control, push the DUAL button.

Dehumidified defrosting or defogging:

1. Push the front defroster button on. (The indicator light on the button will come on.)
2. Turn the temperature control dial to set the desired temperature.
   - To quickly remove ice from the outside of the windows, use the fan speed control buttons to set the fan speed to maximum.
   - As soon as possible after the windshield is clean, push the AUTO button to return to the automatic mode.
   - When the front defroster button is pushed, the air conditioner will automatically be turned on at outside temperatures above 2°C (35°F) (The indicator light may or may not illuminate). The air recirculation mode automatically turns off, allowing outside air to be drawn into the passenger compartment to further improve the defrosting performance.

Manual operation

Fan speed control:

Push the fan speed control buttons to manually control the fan speed.

Push the AUTO button to return to automatic control of the fan speed.

Air intake control:

- Push the air recirculation button to recirculate interior air inside the vehicle. The indicator light on the button will come on.

  Depending on the countries and specifications, the air recirculation cannot be activated when the air conditioner is in the front defrosting mode or the front defrosting and foot outlet mode.
- Push the outside air circulation button to draw outside air into the passenger compartment. The indicator light on the button will come on.
- To switch to automatic control mode, push and hold the air recirculation button or the outside air circulation button (whichever one with an indicator light illuminated) for about 2 seconds. The indicator lights (both air recirculation and outside air circulation buttons) will flash twice, and then the air intake will be controlled automatically.

Air flow control:

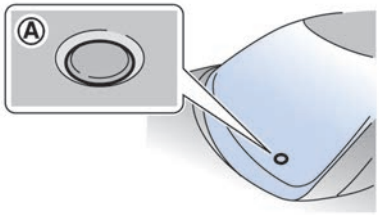
Pushing the MODE button manually controls air flow and selects the air outlet:

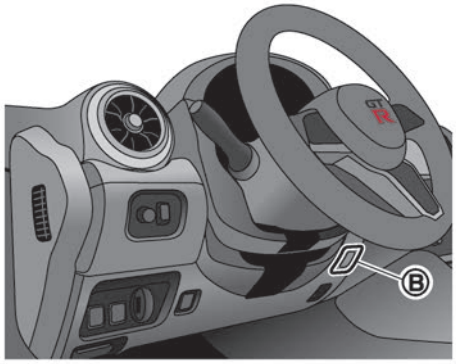
- : Air flows from the center and side ventilators.
- : Air flows from the center and side ventilators and the foot outlets.
- : Air flows mainly from the foot outlets.
- : Air flows from the defroster and foot outlets.

To turn the system off

Push the ON OFF button.

OPERATING TIPS





Left-Hand Drive (LHD) model (example)

When the engine coolant temperature and outside air temperature are low, the air flow from the foot outlets may not operate. However, this is not a malfunction. After the coolant temperature warms up, the air flow from the foot outlets will operate normally.

The sensors Ⓐ and Ⓑ located on the instrument panel help maintain a constant temperature. Do not put anything on or around the sensors.

IN-CABIN MICROFILTER

The air conditioning system is equipped with an in-cabin microfilter which collects dirt, pollen, dust, etc. To make sure the air conditioner heats, defogs, and ventilates efficiently, replace the filter in accordance with the maintenance schedule in the separate maintenance booklet. To replace the filter, contact a NISSAN High Performance Center (NHPC).

The filter should be replaced if air flow is extremely decreased or when windows fog up easily when operating the heater or air conditioning system.

SERVICING AIR CONDITIONER

The air conditioning system in your vehicle is charged with a refrigerant designed with the environment in mind. **This refrigerant will not harm the earth's ozone layer.** However, special charging equipment and lubricant are required when servicing your vehicle air conditioner. Using improper refrigerants or lubricants will cause severe damage to your air conditioning system. (☞ "Capacities and recommended fluids/lubricants" page 9-2)

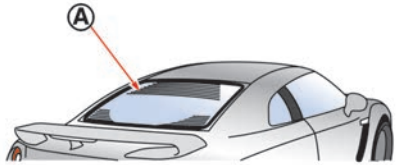
Your NISSAN High Performance Center (NHPC) will be able to service your environmentally friendly air conditioning system.

⚠ WARNING

The system contains refrigerant under high pressure. To avoid personal injury, any air conditioner service should be done only by an experienced technician with the proper equipment.

ANTENNA

WINDOW ANTENNA

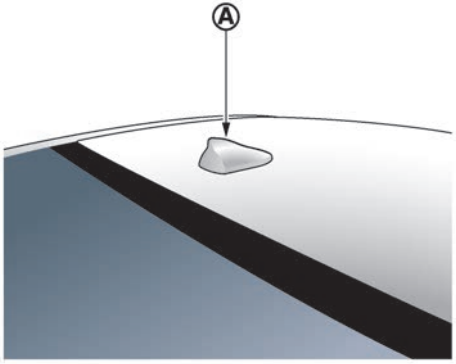


The antenna pattern Ⓐ is printed inside the rear window.

⚠ CAUTION

- **Do not place metalized film near the rear window glass or attach any metal parts to it. This may cause poor reception or noise.**
- **When cleaning the inside of the rear window, be careful not to scratch or damage the rear window antenna. Lightly wipe along the antenna with a dampened soft cloth.**

DAB ANTENNA (if equipped)



The DAB antenna Ⓐ is located on the rear part of the vehicle roof.

CAR PHONE AND CB RADIO

When installing a CB, ham radio or a car phone in the vehicle, be sure to observe the following cautions, otherwise the new equipment may adversely affect the Engine Control System and other electronic parts.

⚠ CAUTION

- **Keep the antenna as far away as possible from the Electronic Control Module.**
- **Keep the antenna wire at least 20 cm (8 in) away from the Engine Control harnesses. Do not route the antenna wire next to any harnesses.**
- **Adjust the antenna standing wave ratio as recommended by the manufacturer.**
- **Connect the ground wire from the radio chassis to the body.**
- **For details, consult a NISSAN High Performance Center (NHPC).**

5 Starting and driving

⚠ WARNING

- **Do not leave children or adults who would normally require the support of others alone in your vehicle. Pets should not be left alone either. They could accidentally injure themselves or others through inadvertent operation of the vehicle. Also, on hot, sunny days, temperatures in a closed vehicle could quickly become high enough to cause severe or possibly fatal injuries to people or animals.**
- **Closely supervise children when they are around cars to prevent them from playing and becoming locked in the trunk where they could be seriously injured. Keep the car locked, with the rear seatback and trunk lid securely latched when not in use, and prevent children's access to car keys.**

NOTE:

During the first few months after purchasing a new vehicle, if you smell strong odors of Volatile Organic Compounds (VOCs) inside the vehicle, ventilate the passenger compartment thoroughly. Open all the windows before entering or while in the vehicle. In addition, when the temperature in the passenger compartment rises, or when the vehicle is parked in direct sunlight for a period of time, turn off the air recirculation mode of the air conditioner and/or open the windows to allow sufficient fresh air into the passenger compartment.

EXHAUST GAS (carbon monoxide)

⚠ WARNING

- **Do not breathe exhaust gases; they contain colorless and odorless carbon monoxide. Carbon monoxide is dangerous. It can cause unconsciousness or death.**
- **If you suspect that exhaust fumes are entering the vehicle, drive with all windows fully open, and have the vehicle inspected immediately.**
- **Do not run the engine in closed spaces such as a garage.**
- **Do not park the vehicle with the engine running for any extended length of time.**
- **Keep the trunk lid closed while driving, otherwise exhaust gases could be drawn into the passenger compartment. If you must drive with the trunk lid open, follow these precautions:**
  a. **Open all the windows.**
  b. **Set the air recirculation to off and the fan control to high to circulate the air.**
- **The exhaust system and body should be inspected by a qualified mechanic whenever:**
  — **The vehicle is raised for service.**
  — **You suspect that exhaust fumes are entering into the passenger compartment.**
  — **You notice a change in the sound of the exhaust system.**
  — **You have had an accident involving damage to the exhaust system, underbody, or rear of the vehicle.**

THREE-WAY CATALYST

The three-way catalyst is an emission control device installed in the exhaust system. Exhaust gases in the three-way catalyst are burned at high temperatures to help reduce pollutants.

⚠ WARNING

- **The exhaust gas and the exhaust system are very hot. Keep people, animals or flammable materials away from the exhaust system**

components.

- **Do not stop or park the vehicle over flammable materials such as dry grass, waste paper or rags. They may ignite and cause a fire.**

NOTICE

- **Do not use leaded gasoline. Deposits from leaded gasoline seriously reduce the three-way catalyst's ability to help reduce exhaust pollutants.**
- **Keep your engine tuned up. Malfunctions in the ignition, fuel injection, or electrical systems can cause overrich fuel flow into the three-way catalyst, causing it to overheat. Do not keep driving if the engine misfires, or if noticeable loss of performance or other unusual operating conditions are detected. Have the vehicle inspected promptly by a NISSAN High Performance Center (NHPC).**
- **Avoid driving with an extremely low fuel level. Running out of fuel could cause the engine to misfire, damaging the three-way catalyst.**
- **Do not race the engine while warming it up.**
- **Do not push or tow your vehicle to start the engine.**

TIRE PRESSURE MONITORING SYSTEM (TPMS)

Each tire should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tire inflation pressure label. (If your vehicle has tires of a different size than the size indicated on the vehicle placard or tire inflation pressure label, you should determine the proper tire inflation pressure for those tires.)

As an added safety feature, your vehicle has been equipped with a Tire Pressure Monitoring System (TPMS) that illuminates a low tire pressure telltale when one or more of your tires is significantly under-inflated. Accordingly, when the low tire pressure telltale illuminates, you should stop and check your tires as soon as possible, and inflate them to the proper pressure. Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

If the vehicle is being driven with one or more flat tires, the low tire pressure warning light will illuminate continuously and a chime will sound for 10 seconds. The chime will only sound at the first indication of a flat tire, and the warning light will illuminate continuously. When the flat tire warning is activated, have the system reset and the tire checked and replaced if necessary by a NISSAN High Performance Center (NHPC). Even if the tire is inflated to the specified COLD tire pressure, the warning light will continue to illuminate until the system is reset by a NISSAN High Performance Center (NHPC). Your vehicle can be driven for a limited time on a flat tire. ("Run-flat tires" page 8-42)

Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if under-inflation has not reached the level to trigger illumination of the TPMS low tire pressure telltale.

Your vehicle has also been equipped with a TPMS malfunction indicator to indicate when the system is not operating properly. The TPMS malfunction indicator is combined with the low tire pressure telltale. When the system detects a malfunction, the telltale will flash for approximately one minute and then remain continuously illuminated. This sequence will continue upon subsequent vehicle start-ups as long as the malfunction exists. When the malfunction indicator is illuminated, the system may not be able to detect or signal low tire pressure as intended. TPMS malfunctions may

occur for a variety of reasons, including the installation of replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly. Always check the TPMS malfunction telltale after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

Additional information

- The TPMS will activate only when the vehicle is driven at speeds above 25 km/h (16 MPH). Also, this system may not detect a sudden drop in tire pressure (for example a flat tire while driving).
- The low tire pressure warning light may not automatically turn off when the tire pressure is adjusted. After the tire is inflated to the recommended pressure, reset the tire pressures registered in your vehicle (model with TPMS reset function) and then drive the vehicle at speeds above 25 km/h (16 MPH) to activate the TPMS and turn off the low tire pressure warning light. Use a tire pressure gauge to check the tire pressure
- The "TYRE LOW PRESSURE/TIRE LOW PRESSURE - VISIT DEALER" warning appears in the vehicle information display when the low tire pressure warning light is illuminated and low tire pressure is detected. The "TYRE LOW PRESSURE/TIRE LOW PRESSURE - VISIT DEALER" warning turns off when the low tire pressure warning light turns off.

  The "TYRE LOW PRESSURE/TIRE LOW PRESSURE - VISIT DEALER" warning appears each time the ignition switch is placed in the "ON" position as long as the low tire pressure warning light remains illuminated.

  The "TYRE LOW PRESSURE/TIRE LOW PRESSURE - VISIT DEALER" warning does not appear if the low tire pressure warning light illuminates to indicate a TPMS malfunction.
- The "FLAT TYRE/FLAT TIRE - VISIT DEALER" warning appears in the vehicle information display when the low tire pressure warning light is illuminated and one or more flat tires are detected.
- Tire pressure rises and falls depending on the heat caused by the vehicle's operation and the outside temperature. Do not reduce the tire pressure after driving because the tire pressure rises after driving. Low outside temperature can lower the temperature of the air inside the tire which can cause a lower tire inflation pressure. Altitude can also affect tire pressure. These may cause the low tire pressure warning light to illuminate. If the warning light illuminates, check the tire pressure for all four tires.
- GT-R vehicles are delivered from the factory with nitrogen-filled tires. For best performance, NISSAN recommends that GT-R owners maintain their vehicles by using nitrogen for tire inflation. Because nitrogen is more stable than compressed air, it is less prone to pressure fluctuation resulting from temperature variations. If nitrogen is not available, compressed air may be safely used under normal driving conditions. However, NISSAN recommends refilling with Nitrogen for maximum tire performance.
- The Tire Placard label (also referred to as the vehicle placard or tire inflation pressure label) is located in the driver's door opening.
- You can also check the pressure of all tires on the touch screen display. Refer to the separate Multi Function Display Owner's Manual.
- If the tire is removed in order to replace the tire pressure sensor battery, it may not be possible to reuse the removed tire. To replace the tire pressure sensor battery, contact a NISSAN High Performance Center (NHPC).
- Depending on a change in the outside temperature, the low tire pressure warning light may illuminate even if the tire pressure has been adjusted properly (model with TPMS reset function). Adjust the tire pressure to the

recommended COLD tire pressure again when the tires are cold, and reset the TPMS.

⚠ WARNING

- **If the low tire pressure warning light illuminates while driving, avoid sudden steering maneuvers or abrupt braking, reduce vehicle speed, pull off the road to a safe location and stop the vehicle as soon as possible. Driving with under-inflated tires may permanently damage the tires and increase the likelihood of tire failure. Serious vehicle damage could occur and may lead to an accident and could result in serious personal injury. Check the tire pressure for all four tires. Adjust the tire pressure to the recommended COLD tire pressure shown on the Tire Placard label to turn the low tire pressure warning light off. If the light still illuminates while driving after adjusting the tire pressure, a tire may be flat (☞ "Run-flat tires" page 6-3) or the TPMS may be malfunctioning. If no tire is flat and all tires are properly inflated, have the vehicle checked by NISSAN High Performance Center (NHPC).**
- **Although you can continue driving with a punctured run-flat tire, remember that vehicle handling stability is reduced, which could lead to an accident and personal injury. Also, driving a long distance at high speeds may damage the tires.**
- **Do not drive at speeds above 80 km/h (50 MPH) and do not drive more than 80 km (50 miles) with a punctured run-flat tire. The actual distance the vehicle can be driven on a flat tire depends on outside temperature, vehicle load, road conditions and other factors.**
- **After adjusting the tire pressure, be sure to reset the TPMS (model with TPMS reset function). Unless the resetting is performed, the TPMS will not warn of the low tire pressure**
- **When a wheel is replaced, the TPMS will not function and the low tire pressure warning light will flash for approximately 1 minute. The light will remain on after 1 minute. Contact your NISSAN High Performance Center (NHPC) as soon as possible for tire replacement and/or system resetting.**
- **Replacing tires with those not originally specified by NISSAN could affect the proper operation of the TPMS.**
- **Do not inject any tire liquid or aerosol tire sealant into the tires, as this may cause a malfunction of the tire pressure sensors.**

NOTICE

- **The TPMS may not function properly when the wheels are equipped with tire chains or the wheels are buried in snow.**
- **The TPMS will not function if the TPMS sensor is not replaced after installing non-specified road wheels or GT-R road wheels from another GT-R.**
- **Do not place metalized film or any metal parts (antenna, etc.) on the windows. This may cause poor reception of the signals from the tire pressure sensors, and the TPMS will not function properly.**

Some devices and transmitters may temporarily interfere with the operation of the TPMS and cause the low tire pressure warning light to illuminate. Some examples are:

- Facilities or electric devices using similar radio frequencies are near the vehicle.

- If a transmitter set to similar frequencies is being used in or near the vehicle.
- If a computer (or similar equipment) or a DC/AC converter is being used in or near the vehicle.

Low tire pressure warning light may illuminate in the following cases.

- If the vehicle is equipped with a wheel and tire without TPMS.
- If the TPMS has been replaced and the ID has not been registered.
- If the wheel is not originally specified by NISSAN.

TPMS resetting (model with TPMS reset function)

To maintain the proper TPMS function, the resetting operation necessary in the following cases.

- when the tire pressure is adjusted
- when a tire or a wheel is replaced

Perform the following procedures to reset the TPMS.

1. Park the vehicle in a safe and level place.
2. Apply the parking brake and place the shift lever in the P position.
3. Adjust the tire pressure on all four tires to the recommended COLD tire pressure shown on the tire placard. Use a tire pressure gauge to check the tire pressure.
4. Place the ignition switch in the "ON" position. Do not start the engine.

5. Push the MENU button ①.
6. Touch [Info].
7. Touch [Vehicle].
8. Touch [Tyre Pressure] or [Tire Pressure] on the touch screen display.
9. Touch [Settings].
10. Touch [Reset TPMS Settings to Default].
11. Touch [YES] to reset the TPMS.
12. After resetting the TPMS, drive the vehicle at speeds above 25 km/h (16 MPH).

If the low tire pressure warning light still continues to illuminate after the resetting operation, it may indicate that the TPMS is not functioning properly. Have the system checked by a NISSAN High Performance Center (NHPC).

For information regarding the low tire pressure warning light, see "Low tire pressure warning light" page 2-27.

AVOIDING COLLISION AND ROLLOVER

⚠ WARNING

Failure to operate this vehicle in a safe and prudent manner may result in loss of control or an accident.

Be alert and drive defensively at all times. Obey all traffic regulations. Avoid excessive speed, high speed cornering, or sudden steering maneuvers, because these driving practices could cause you to lose control of your vehicle. **As with any vehicle, a loss of control could result in a collision with other vehicles or objects, or cause the vehicle to rollover, particularly if the loss of control causes the vehicle to slide sideways.** Be attentive at all times, and avoid driving when tired. Never drive when under the influence of alcohol or drugs (including prescription or over-the-counter drugs which may cause drowsiness). Always wear your seat belt as outlined in this manual, and also instruct your passengers to do so. ("Seat belts" page 1-7)

Seat belts help reduce the risk of injury in collisions and rollovers. **In a rollover**

crash, an unbelted or improperly belted person is significantly more likely to be injured or killed than a person properly wearing a seat belt.

OFF-ROAD RECOVERY

While driving, the right side or left side wheels may unintentionally leave the road surface. If this occurs, maintain control of the vehicle by following the procedure below. Please note that this procedure is only a general guide. The vehicle must be driven as appropriate based on the conditions of the vehicle, road and traffic.

1. Remain calm and do not overreact.
2. Do not apply the brakes.
3. Maintain a firm grip on the steering wheel with both hands and try to hold a straight course.
4. When appropriate, slowly release the accelerator pedal to gradually slow the vehicle.
5. If there is nothing in the way, steer the vehicle to follow the road while the vehicle speed is reduced. Do not attempt to drive the vehicle back onto the road surface until vehicle speed is reduced.
6. When it is safe to do so, gradually turn the steering wheel until both tires return to the road surface. When all tires are on the road surface, steer the vehicle to stay in the appropriate driving lane.

- If you decide that it is not safe to return the vehicle to the road surface based on vehicle, road or traffic conditions, gradually slow the vehicle to a stop in a safe place off the road.

RAPID AIR PRESSURE LOSS

Rapid air pressure loss or a "blow-out" can occur if the tire is punctured or is damaged due to hitting a curb or pothole. Rapid air pressure loss can also be caused by driving on under-inflated tires.

Rapid air pressure loss can affect the handling and stability of the vehicle, especially at highway speeds.

Help prevent rapid air pressure loss by maintaining the correct air pressure and visually inspect the tires for wear and damage. (☞ "Wheels and tires" page 8-34)

If a tire rapidly loses air pressure or "blows-out" while driving maintain control of the vehicle by following the procedure below. Please note that this procedure is only a general guide. The vehicle must be driven as appropriate based on the conditions of the vehicle, road and traffic.

⚠ WARNING

The following actions can increase the chance of losing control of the vehicle if there is a sudden loss of tire air pressure. Losing control of the vehicle may cause a collision and result in personal injury.

- **The vehicle generally moves or pulls in the direction of the flat tire.**
- **Do not rapidly apply the brakes.**
- **Do not rapidly release the accelerator pedal.**
- **Do not rapidly turn the steering wheel.**

1. Remain calm and do not overreact.
2. Maintain a firm grip on the steering wheel with both hands and try to hold a straight course.
3. When appropriate, slowly release the accelerator pedal to gradually slow the vehicle.
4. Gradually steer the vehicle to a safe location off the road and away from traffic if possible.
5. Lightly apply the brake pedal to gradually stop the vehicle.
6. Turn on the hazard warning flashers and contact a roadside emergency service to change the tire.

DRINKING ALCOHOL/DRUGS AND DRIVING

⚠ WARNING

Never drive under the influence of alcohol or drugs. Alcohol in the bloodstream reduces coordination, delays reaction time and impairs judgement. Driving after drinking alcohol increases the likelihood of being involved in an accident injuring yourself and others. Additionally, if you are injured in an accident, alcohol can increase the severity of the injury.

NISSAN is committed to safe driving. However, you must choose not to drive under the influence of alcohol. Every year thousands of people are injured or killed in alcohol-related accidents. Although the local laws vary on what is considered to be legally intoxicated, the fact is that alcohol affects all people differently and most people underestimate the effects of alcohol.

Remember, drinking and driving don't mix! And that is true for drugs, too (over-the-counter, prescription, and illegal drugs). Don't drive if your ability to operate your vehicle is impaired by alcohol, drugs, or some other physical condition.

FOUR-WHEEL DRIVE (4WD)/ALL-WHEEL DRIVE (AWD) DRIVING SAFETY PRECAUTIONS

⚠ WARNING

- **Do not drive beyond the performance capability of the tires, even with 4WD/AWD engaged. Accelerating quickly, sharp steering maneuvers or sudden braking may cause loss of control.**
- **Always use the specified tires on all four wheels. Install tire chains on the rear wheels when driving on slippery roads and drive carefully.**
- **This vehicle is not designed for offroad (rough road) use. Do not drive on sandy or muddy roads that tires may get stuck in.**
- **Do not attempt to raise two wheels off the ground and shift the transmission to any A↔M or R position with the engine running. Doing so may result in drivetrain damage or unexpected vehicle movement which could result in serious vehicle damage or personal injury.**
- **Do not attempt to test a 4WD/AWD equipped vehicle on a 2-wheel dynamometer or similar equipment even if the other two wheels are raised off the ground. Make sure you inform test facility personnel that your vehicle is equipped with 4WD/AWD before it is placed on a dynamometer. Using the wrong test equipment may result in drivetrain damage or unexpected vehicle movement which could result in serious vehicle damage or personal injury.**
- **When a wheel is off the ground due to an unlevel surface, do not spin the wheel excessively.**

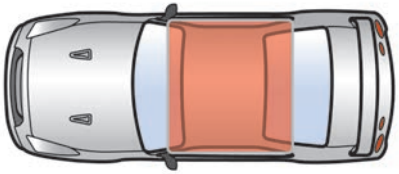
PUSH-BUTTON IGNITION SWITCH

⚠ WARNING

Do not operate the push-button ignition switch while driving the vehicle except in an emergency. (The engine will stop when the ignition switch is pushed three consecutive times or the ignition switch is pushed and held for more than 2 seconds.) If the engine stops while the vehicle is being driven, this could lead to a crash and serious injury.

Before operating the push-button ignition switch, be sure to move the shift lever to the **P** position.

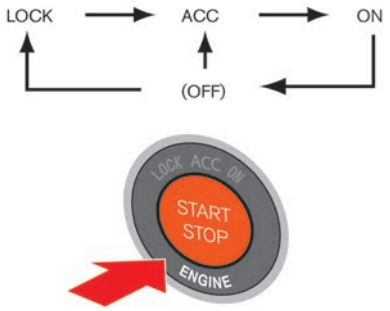
OPERATING RANGE FOR ENGINE START



The operating range for starting the engine inside the vehicle is shown in the illustration.

- If the Intelligent Key is on the instrument panel, rear parcel shelf, inside the glove box, door pocket, cup holders or console box, or the corner of interior compartment, it may not be possible to start the engine. Carry the Intelligent-Key and start the engine again.
- If the Intelligent Key is near the door or door glass outside the vehicle, it may be possible to start the engine.

IGNITION SWITCH OPERATION



When the Intelligent Key is carried with you and the ignition switch is pushed without depressing the brake pedal, the ignition switch position will change as follows:

- Push center once to change to ACC.
- Push center two times to change to ON.
- Push center three times to change to OFF. (No position illuminates.)
- Push center four times to return to ACC.
- Open or close any door to return to LOCK during the OFF position.

IGNITION SWITCH POSITIONS

LOCK (Normal parking position)

The ignition switch can only be locked in this position.

The ignition switch will be unlocked when it is pushed to the ACC position while carrying the Intelligent Key or with the Intelligent Key inserted in the port.

ACC (Accessories)

This position activates electrical accessories such as the radio, when the engine is not running.

ON (Normal operating position)

This position turns on the ignition system and electrical accessories.

OFF

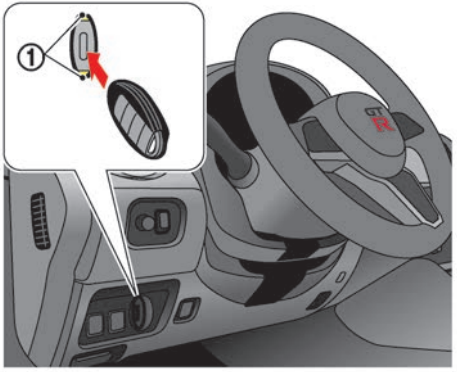
The engine can be turned off without locking the steering wheel.

The ignition lock is designed so that the ignition switch cannot be switched to the LOCK position until the shift lever is moved to the P position.

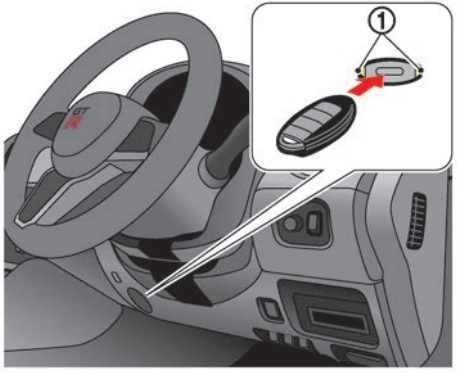
NOTE:

- **If the steering lock release malfunction indicator appears on the vehicle information display when the ignition switch is pressed, press the ignition switch again while gently turning the steering wheel left and right. (☞ "Steering lock release malfunction indicator" page 2-45)**
- **If the shift P warning appears on the vehicle information display when the ignition switch is pushed, the shift lever is in any position except the P position. Move the shift lever to the P position. (☞ "Shift "P" warning" page 2-44)**
- **If the Intelligent Key battery discharge indicator appears on the vehicle information display, the Intelligent Key battery is discharged and the ignition switch will not operate. Insert the Intelligent Key into the key port to operate the ignition switch. (☞ "Intelligent Key battery discharge indicator" page 2-46)**
- **When all of the following conditions are met for 60 minutes, the battery saver system will cut off the power supply to prevent battery discharge.**
  - **— The ignition switch is in the ACC position, and**
  - **— All doors are closed, and**
  - **— The shift lever is in the P position.**
- **Do not leave the vehicle with the ignition switch in the ACC or ON position when the engine is not running for an extended period of time. This can discharge the battery.**

INTELLIGENT KEY BATTERY DISCHARGE



Left-Hand Drive (LHD) model



Right-Hand Drive (RHD) model

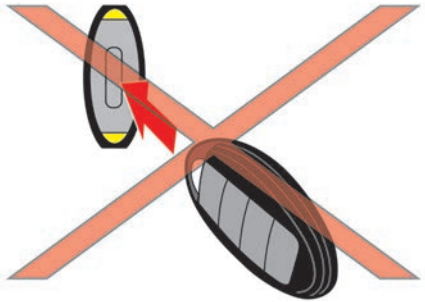
If the battery of the Intelligent Key is almost discharged, the guide light ① of the Intelligent Key port blinks and the indicator appears on the vehicle information display. (☞ "Intelligent Key insertion indicator" page 2-45)

In this case, inserting the Intelligent Key into the port allows you to start the engine. Make sure that the mechanical key side faces backward as illustrated. Insert the Intelligent Key in the port until it is latched and secured.

To remove the Intelligent Key from the port, push the ignition switch to the OFF position and pull the Intelligent Key out of the port.

NOTICE

Never place anything except the Intelligent Key in the Intelligent Key port. Doing so may cause damage to the equipment.



NOTE:

- **Make sure the Intelligent Key is in the correct direction when inserting it into the Intelligent Key port. The engine may not start if it is in the incorrect direction.**
- **Remove the Intelligent Key from the Intelligent Key port after the ignition switch is pushed to the OFF position.**
- **The Intelligent Key port does not charge the Intelligent Key battery. If you see the low battery indicator in the vehicle information display, replace the battery as soon as possible. (☞ "Intelligent Key battery replacement" page 8-28)**

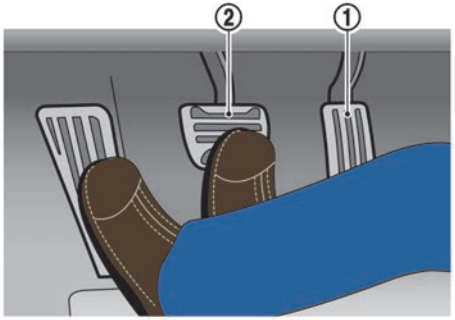
BEFORE STARTING THE ENGINE

- Make sure the area around the vehicle is clear.
- Check fluid levels such as engine oil, coolant, brake fluid and window washer fluid as frequently as possible, or at least whenever you refuel.
- Check that all windows and lights are clean.
- Visually inspect tires for their appearance and condition. Also check tires for proper inflation.
- Check that all doors are closed.
- Position seat.
- Adjust inside and outside mirrors.
- Fasten seat belts and ask all passengers to do likewise.
- Check the operation of warning lights when the ignition switch is pushed to the ON position. (☞ "Warning lights, indicator lights and audible reminders" page 2-24)

STARTING THE ENGINE

NOTE:

- **This vehicle includes spark plugs that are designed for maximum performance. If the start time becomes longer, the plugs may be fouled, making the engine difficult to start. If this occurs, start the engine using the procedure described in this section.**
- **A click sound may be heard when the brake pedal is depressed and released. This is normal.**
- **A low rattling operating sound may occur when the engine is started or stopped. This might occur because the parallel axis gear mechanism which is used in the manual transmission, light flywheel and dry sump lubrication system are applied. This does not indicate that there is a malfunction. This sound is likely to occur in particular if the engine is stopped when the temperature of the transmission oil is high.**



1. Check the positions of the accelerator pedal ① and brake pedal ②. Adjust the steering wheel and seat positions so that the correct driving posture is achieved. ("Front seats" page 1-3)
2. Check that the parking brake is engaged.
3. Check that the shift lever is in the **P** or **N** position. (**P** is recommended.)
4. Firmly depress the brake pedal. Without depressing the accelerator pedal, press the ignition switch once to start the engine.
5. To stop the engine, move the shift lever to the **P** position, and push the ignition switch to the OFF position.

NOTE:

- **If the engine is difficult to start, depress the accelerator pedal all the way to the floor and hold it. Push the ignition switch with the brake pedal depressed to start cranking the engine. After 5 or 6 seconds, stop cranking by pushing the ignition switch to the OFF position, and then release the accelerator pedal. Then perform steps 1 to 5 to start the engine. If the engine starts, but fails to run, repeat this procedure.**
- **Starting and stopping the engine over a short period of time may make the vehicle more difficult to start. If this occurs, wait for more than 3 minutes, and then press the ignition switch again to start the engine.**
- **To maintain high performance over a long period of time, the engine speed is limited to 4,300 rpm when the engine is revved with the shift lever in the N or P position, and to 4,000 rpm when the engine oil or coolant temperature is low or higher than normal.**
- **If the ignition switch is pressed before the shift lever is moved to the P position, the ignition switch will not change to the OFF position. If this occurs, the SHIFT P warning display appears on the vehicle in-**

formation display. When stopping the engine, be sure to move the shift lever to the P position and then press the ignition switch. Failure to do so may result in discharge of the battery. (☞ "Shift "P" warning" page 2-44)

- If the shift lever was in the A↔M or R position when the engine was stopped, then be sure to move the shift lever to the P position before starting the engine the next time. If the engine is started with the shift lever in the N position, then it may not be possible to drive the vehicle even when the shift lever is moved to the A↔M or R position. If this occurs, the SHIFT P warning appears on the vehicle information display. (☞ "Shift "P" warning" page 2-44)

⚠ CAUTION

If the engine was stopped soon when the engine is hot, the cooling fan may operate for approximately 2 minutes after the engine was stopped to cool the components in the engine compartment. When the cooling fan is operating, be sure that hands or other items do not get caught in it.

DUAL CLUTCH TRANSMISSION

The GT-R dual clutch transmission is a newly-developed system that uses an electronically controlled multiple-disc wet clutch attached to the highly efficient manual transmission. This transmission has two driving modes.

- A position (Automatic gearshift): allows automatic shifting of the manual transmission.
- M position (Manual gearshift): allows quick shifting of the manual transmission.

NOTE:

When starting or driving on a steep uphill grade, shift to the M position and operate the paddle shifter to shift down to 1st gear similar to a manual transmission vehicle.

The GT-R dual clutch transmission was developed specifically to maximize vehicle performance and driving enjoyment. The GT-R transmission components were designed using different engineering standards than typical passenger car transmissions. Because of this, the GT-R has different operating characteristics, and various rattle noises may be heard during some driving conditions because of the following items:

- Gear clearances
- Ultralight flywheel
- Dry sump lubrication

These noises do not indicate that there is a malfunction.

⚠ WARNING

- **Do not depress the accelerator pedal while shifting from the P or N position to the R or A↔M position. Always depress the brake pedal until shifting is completed. Failure to do so could cause loss of control and an accident.**
- **Cold engine idle speed is high, so use caution when shifting into a forward or reverse gear before the engine has warmed up.**
- **Never shift to either the P or R position while the vehicle is moving forward and P or A↔M position while the vehicle is reversing. This could cause an accident or damage the transmission.**
- **The shift lever contains a powerful magnet. Do not place electronic medical devices or other electronic products that are susceptible to magnetic force close to the shift lever.**
- **If the shift lever is moved from R to A↔M position, or A↔M to R position before the vehicle stops,**

you may not be able to shift gear or it may take longer to shift gear. Make sure to depress the brake pedal and check that the vehicle has stopped before shifting.

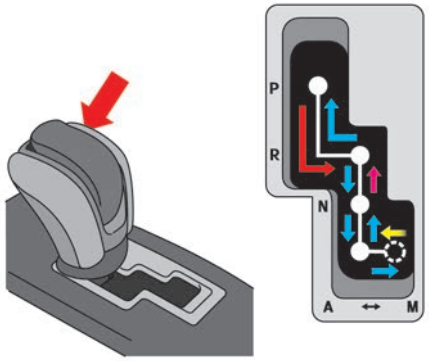
⚠ CAUTION

- Do not downshift abruptly on slippery roads. This may cause a loss of control.
- Because the vehicle includes a dual clutch transmission that automatically controls the clutch and shifting operation of the manual transmission, whenever the shift lever is in a position other than P or N, the vehicle will begin to move slowly, in the same way as when the clutch in a manual transmission vehicle is partially engaged. Keep the brake pedal firmly depressed when the vehicle is stopped. In some circumstances the vehicle may not start moving on its own, however this does not indicate that there is a malfunction.

NOTICE

- When the vehicle is stopped on a hill, do not hold the vehicle in place by depressing the accelerator pedal. Doing so may cause the clutch to overheat and result in transmission damage. Use the brakes to prevent the vehicle from moving.
- The GT-R dual clutch transmission is provided with a dry sump lubrication system that improves efficiency and ensures reliability under high g-force conditions. When oil viscosity is high at low temperatures, it takes longer for all components to be sufficiently lubricated. Thus, when the transmission temperature is low (approximately 40°C (104°F)), do not accelerate rapidly or run the engine faster than 4,000 rpm.

Operating the shift lever



After starting the engine, fully depress the brake pedal and move the shift lever from the P position to the R, N, or A↔M position. Push the button to shift into the P or R position. All other positions can be selected without pushing the button.

Shift lever operation	
→	Push the button while depressing the brake pedal.
→	Push the button.
→	Just move the shift lever.
→	Automatically returns.

P position:

Use this position for parking and starting the engine. The ignition switch will be changed to the OFF or LOCK position.

⚠ CAUTION

Use the P position only when the vehicle is completely stopped.

R position:

Use this position for driving in reverse. A chime will sound inside the vehicle and a warning will appear in the vehicle information display if the shift lever is in the R position for more than 5 minutes, or when the driver's door is opened while the shift lever is in the R position.

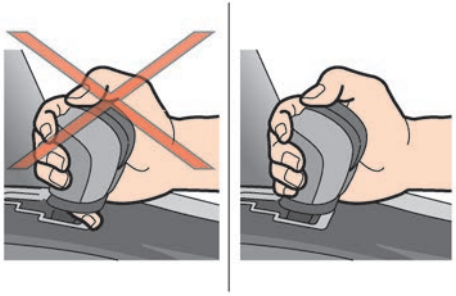
N position:

Neither forward nor reverse gear is engaged.

A↔M position:

Use this position for all normal forward driving. The shift lever can be moved between A and M to alternately change each other. The position indicator indicates the gear position with the indication of "A" or "M".

- A position: Use this position for ordinary driving, with the gears shifted automatically from first gear to sixth gear according to the speed and driving conditions.
- M position: Operate the paddle shifter to drive in first gear to sixth gear as desired.
- The position indicator blinks if it is not possible to shift the gear. (☞ "Transmission position indicator" page 2-11)



⚠ CAUTION

- **Grip the shift lever correctly when operating it. Failure to do so may cause a finger or other items to be trapped between the lever and gate, possibly causing an accident.**
- **Because rolling resistance is reduced in the GT-R, the vehicle can move when on a road with a slight gradient, even when in the N position. Be sure to depress the brake pedal.**

NOTICE

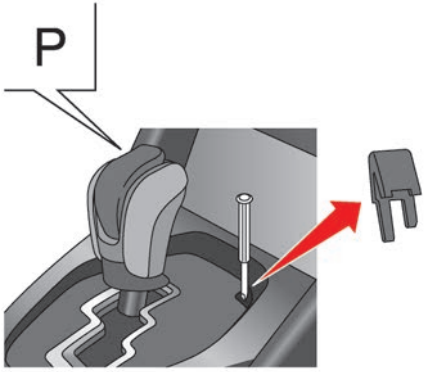
- **Be sure to observe the following precautions. Failure to do so may result in shift lever malfunction.**
  - **— Do not spill water, beverages or other liquids on the shift lever.**
  - **— Do not allow sand or similar substances to contact the shift lever.**
- **Develop the habit of performing the operations marked with "➡" without pressing the button. If the button is pressed at these times, there is the possibility that the lever could accidentally enter the P or R positions.**
- **When the vehicle is hot, the area around the shift lever may be hot or may produce an unusual sound, however this does not indicate that there is a malfunction.**
- **Avoid depressing the brake and accelerator pedals at the same time. Depressing both pedals at the same time could cause the clutch to overheat and accelerate**

deterioration.

NOTE:

- **When moving the shift lever out of the P position, it may not be possible to move the shift lever if the button is pressed before the brake pedal is depressed. Press the button only after depressing the brake pedal.**
- **Do not place coins or other small objects in the area around the shift lever. These objects may get stuck in the shift gate and prevent the shift lever from moving into a position. Sometimes, you may not be able to retrieve these objects.**
- **Immediately after a cold start, while the transmission system check display ("T/M SYSTEM CHECK IN PROCESS") appears on the vehicle information display, the shift lever cannot be moved out of the P position. This is because a check of the transmission system is in progress. This does not indicate that there is a malfunction. Move the shift lever after the message on the vehicle information display turns off.**
- **The shift lever knob and console-mounted shift indicator have a genuine leather finish that requires proper care and maintenance. (☞ "Cleaning interior" page 7-5)**

Shift lock release



If the battery charge is low or discharged, the shift lever may not be moved from the P position even with the brake pedal depressed and the shift lever button pushed.

To move the shift lever, perform the following procedure.

1. Push the ignition switch to the OFF or LOCK position.
2. Apply the parking brake.
3. Remove the shift lock cover using a suitable tool wrapped with a cloth.
4. Push down the shift lock as illustrated.
5. Push the shift lever button and move the shift lever to the N position while holding down the shift lock.

Push the ignition switch to the ON position to unlock the steering wheel. Now the vehicle may be moved to the desired location.

If the battery is discharged completely, the steering wheel cannot be unlocked. Do not move the vehicle with the steering wheel locked.

NOTICE

If the shift lever cannot be moved out of the P position after performing the shift lock release procedure, immediately have the vehicle inspected by a NISSAN High Performance Center (NHPC).

Adaptive shift control

The adaptive shift control system automatically operates when the transmission is in the A position and selects an appropriate gear depending on the road conditions such as uphill, downhill or curving roads.

Control on uphill and curving roads:

A low gear is maintained that suits the degree of the slope or curve to allow smooth driving with a small number of shifts.

Control on downhill roads:

The adaptive shift control system shifts to a low gear that suits the degree of the slope, and uses the engine brake to reduce the number of times that the foot brake must be used.

Control on winding roads:

A low gear is maintained on continuous curves that involve repeated acceleration and deceleration, so that smooth acceleration is available instantly when the accelerator pedal is depressed.

NOTE:

Adaptive shift control may not operate when the transmission oil temperature is low immediately after the start of driving or when it is very hot. If this occurs, switch to the M position and downshift if necessary.

M position

Changing to the M position:

To change to the M position from the A position, either move the shift lever to the M side or operate the paddle shifter. The position indicator indicates the gear position with the indication of "M".

If the paddle shifter is used, in one operation the A position changes to the M position and the gear position shifts (except for downshifting from 2nd gear to 1st gear). For the downshift operation from the 2nd gear to the 1st gear, the first paddle shifter operation changes the A position to the M position, and the second operation changes the gear position.

To return to the A position, either move the shift lever to the M side again or pull the right side (up sift side) paddle shifter for approximately 2 seconds. The position indicator indicates the gear position with the indication of "A".

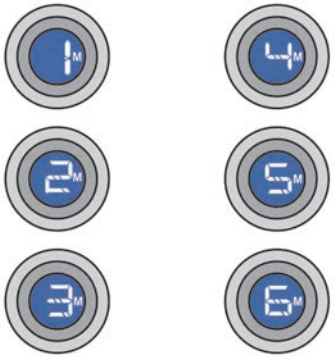
Changing gears using paddle shifters:

NOTICE

The vehicle cannot be accelerated from a stop condition while the gear is in the 2nd to 6th position. When accelerating the vehicle from a stop condition, use the 1st gear position.

To shift up, pull the paddle shifter on the right side ① toward you.

To shift down, pull the paddle shifter on the left side ② toward you.



- First gear:
  Use this position when accelerating from a stop, climbing a steep hill slowly or engine braking at low speeds.
- Second gear:
  Use this position when accelerating or engine braking at mid-low speeds.
- Third gear:
  Use this position when accelerating or gently engine braking at middle speeds.
- Fourth gear:
  Use this position when accelerating or gently engine braking at mid-high speeds.
- Fifth gear:
  Use this position for all normal forward driving at highway speeds. Engine braking is weaker in this position.
- Sixth gear:
  Use this position for all normal forward driving at highway speeds. Engine braking is weakest in this position.

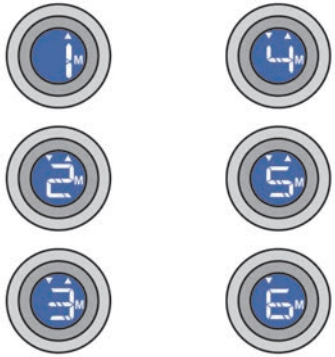
Suggested maximum speed in each gear:

Downshift to a lower gear if the engine is not running smoothly, or if you need to accelerate.

Do not exceed the maximum suggested speed (shown below) in any gear. For level road driving, use the highest gear suggested for that speed. Always observe posted speed limits, and drive according to the road conditions that will ensure safe operation. Do not over-rev the engine when shifting to a lower gear as it may cause engine damage or loss of vehicle control.

Gear	km/h (MPH)
1st	58 (36)
2nd	102 (63)
3rd	148 (91)
4th	—
5th	—
6th	—

Gear Shift Indicator (if equipped):



Gear Shift Indicator appears in the transmission position indicator when the driver should shift into a higher or lower gear as indicated by the up or down arrow.

The use of Gear Shift Indicator will help to reduce fuel consumption.

When the up arrow appears, upshifting is recommended. When the down arrow appears, downshifting is recommended.

Gear shift recommendation may not be available depending on the conditions.

⚠ CAUTION

Gear Shift Indicator helps to reduce fuel consumption. It does not recommend the appropriate gear shift for

all driving situations. In a certain situations, only the driver can select the correct gear (for example, when overtaking or driving up a steep gradient).

DRIVING TIPS

After starting the engine, fully depress the foot brake pedal and push the shift lever button before shifting the shift lever from the P position to the R, N, or A↔M position. Be sure the vehicle is fully stopped before attempting to shift the shift lever.

The transmission is designed so that the foot brake pedal must be depressed before shifting from P to any other position.

The shift lever cannot be moved out of the P position and into any other position with the ignition switch other in the LOCK, OFF or ACC position.

When accelerating from a stop

Keep the foot brake pedal depressed and push the shift lever button to shift into a driving gear as following:

- To drive forward, move the shift lever to the A↔M position.
- To back up, move the shift lever to the R position.

Starting on level ground or an uphill:

1. Check the shift lever position indicator on the meter to confirm that the driving gear is selected.
2. Release the parking brake.
3. Release the foot brake pedal gradually, then slowly depress the accelerator pedal to start the vehicle in motion.

(☞ "R mode start function" page 5-30)

NOTE:

- **To prevent the clutch from overheating when the parking brake is applied, engine output is limited when the accelerator pedal is depressed. In particular, the vehicle may not start smoothly when the accelerator pedal is depressed with the parking brake applied on an uphill grade. To enable smooth starting, release the parking brake before moving the vehicle.**
- **The hill start assist function operates when the vehicle is accelerating from a stop on an uphill. (☞ "Hill Start Assist" page 5-35)**

When driving the vehicle

⚠ WARNING

Do not move the shift lever to the N position while driving. Doing so may result in an accident due to loss of engine braking. It may also damage the transmission.

Normal driving:

Drive with the shift lever in the A position.

The appropriate gear will be automatically shifted according to the position of the accelerator pedal, the driving speed and driving conditions.

Passing:

- A position:

Fully depress the accelerator pedal to the floor. This shifts the transmission down into a lower gear depending on the vehicle speed.

- M position:

Use the paddle shifter to shift down, then depress the accelerator pedal to the floor.

Hill climbing:

- When the vehicle speed decreases, depress the accelerator pedal to the floor with the shift lever in the A position. This automatically shifts the transmission into a lower gear and maintains this position depending on

the gradient of the hill.

- The system may shift down according to the condition of the accelerator pedal depressing and the vehicle speed.
- When automatic gear-shifting operates frequently while driving, switch to the M position to enable smoother driving.

Driving on a downhill:

- A position:

The system shifts down according to the degree of downhills to increase the effectiveness of the engine brake.

- M position:

When driving on a long slope, selecting the M position and 4th or 3rd gear will provide gentle engine braking.

When driving on a steep downhill, selecting the M position and 2nd or 1st gear will provide powerful engine braking.

⚠ WARNING

- **When the shift lever is in the A position, the adaptive shift control system will stay in a low gear in order to maintain the effectiveness of the engine brake. However if the vehicle is traveling too fast depending on the degree of the slope, you should shift to the M position and use the paddle shifter to shift down. If you continue to use only the foot brake, a high load will be applied to the brake, which may overheat, reducing its effectiveness. Be sure to use the engine brake together with the foot brake. (☞ "Adaptive shift control" page 5-17)**
- **Do not downshift abruptly on slippery roads. This may cause a loss of control.**

NOTE:

When driving in the A position, gear-shifting will be performed automatically with the adaptive shift control system (☞ "Adaptive shift control" page 5-17) even on road conditions with continuous and sudden hills or curves. However, when the transmission oil temperature is low immediately after starting the vehicle or high when engaging in high performance driving, there may be some cases where the system cannot control shifting. When this occurs, switch to the M position and select a lower gear, depending on the gradient of the hill.

When stopping the vehicle

Leave the shift lever in the A↔M or R position and firmly depress the foot brake pedal.

If the vehicle will be stopped for a long period of time, apply the parking brake and move the shift lever to the P or N position as necessary.

⚠ WARNING

- **Do not race the engine while the vehicle is stopped. Doing so may accelerate the vehicle suddenly and cause an accident when shifting to a driving gear.**
- **While the engine is running, the propeller shaft that transmits torque from the engine to the transmission is turning at all times. Crawling or reaching under the vehicle while the engine is running may result in serious injury.**

NOTICE

When the vehicle is stopped on a hill, do not hold the vehicle in place by depressing the accelerator pedal. Doing so may cause the clutch to overheat and result in transmission damage. Use the brakes to prevent the vehicle from moving.

When parking the vehicle

⚠ WARNING

Before exiting the vehicle, be sure to move the shift lever to the P position and stop the engine. If the engine is running and the shift lever is not in the P position, the vehicle may start moving due to partial engagement of the clutch or to the effects of gravity on a slope, or the vehicle may suddenly accelerate due to accidental operation of the accelerator pedal, possibly causing an accident.

For models without NCCB (NISSAN Carbon Ceramic Brake) package:

⚠ WARNING

Follow the instructions below when parking the vehicle to help prevent the brake rotor and brake pads from rusting together. Failure to follow the instructions could cause the rotor and pads to rust together. If the rotor and pads rust together, there may be a popping noise and some vibration when the vehicle is driven, a wheel may not roll correctly, or the brake pads could be damaged. If the pads are damaged, this may reduce the effectiveness of the brake system which could cause a collision, serious personal injury or death.

The GT-R uses brake pad materials that have high metallic content. The brake pad material helps maintain braking performance in a wide range of weather and driving conditions.

For the first 5,000 km (3,000 miles) of the vehicle's service life, and for the first 5,000 km (3,000 miles) after a brake replacement, the brake pad to brake rotor clearance is very small. When parking, apply the parking brake and move the shift lever to the P position. Idle the engine for more than 20 seconds without depressing the brake pedal. This allows the brake pads to move away from the rotor so the pad does not contact the rotor.

Additionally, the brakes must be dry before parking the vehicle after driving on wet roads or after washing the vehicle. If the roads are wet, lightly apply the brakes for a short distance before parking the vehicle to dry the brakes. After washing the vehicle, dry the brakes by driving on a dry road for a few miles and apply the brakes normally based on traffic and road conditions.

The metallic brake pads and brake disc rotor may rust together when the brakes are not applied:

- If the vehicle is not idled for 20 seconds without the brakes applied, or if the brakes are applied when the vehicle is shut off, the rotor and pads can rust together, even when the brake pads are dry.
- If the brakes are wet when the vehicle is parked and the parking brake is applied for a long time.

If the vehicle is driven on red clay that contains a lot of iron, the brake pads and disc rotor may rust together more easily. Make sure to follow the specified instructions for parking.

Contact a NISSAN High Performance Center (NHPC) if the brake pads and brake rotor have rusted together.

1. Bring the vehicle to a complete stop.
2. With the foot brake pedal depressed, apply the parking brake.
3. Move the shift lever to the P position.
4. Check the shift lever position indicator on the meter to confirm that the P position is selected.
5. Push the ignition switch to stop the engine.

For models with NCCB (NISSAN Carbon Ceramic Brake) package:

(☞ "NCCB (NISSAN Carbon Ceramic Brake)" page 8-23)

Other precautions

⚠ WARNING

- **On a slope, do not allow gravity to move the vehicle backward while the shift lever is in the A ↔ M position, or allow gravity to move the vehicle forward while the shift lever is in the R position. The engine may stop, or the force required to operate the steering wheel may increase dramatically, or the brake effectiveness may be diminished, possibly causing an accident.**
- **Do not drive, accelerate or decelerate with both the accelerator pedal and brake pedal depressed at the same time. Doing so may damage the transmission. Also at low speeds, the engine may stop, possibly causing an accident.**

Moving the vehicle a short distance:

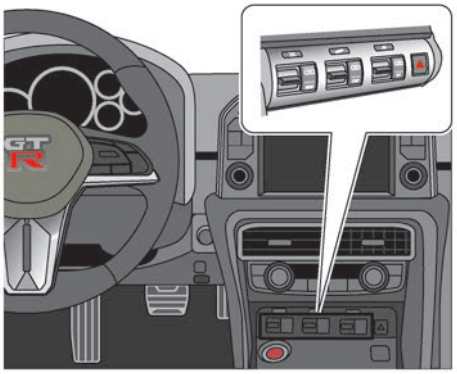
Even when moving the vehicle only a short distance, sit in the correct driving posture, fasten the seat belt, and be sure that you can correctly operate the brake pedal and accelerator pedal.

Moving the vehicle in reverse:

Twisting your body around when moving the vehicle in reverse may cause you to accidentally operate the wrong pedal. Maintain a driving posture that ensures that you can operate the brake pedal.

After moving the vehicle in reverse for only a short distance, it is possible that you may forget that the shift lever is in the R position. You should develop the habit of immediately returning the shift lever to the N position after driving in reverse.

VDC/ESP, TRANSMISSION AND SUSPENSION SETUP SWITCHES



The control of the dual clutch transmission, Bilstein DampTronic® electronically controlled shock absorbers and Vehicle Dynamic Control (VDC)/Electronic Stability Program (ESP) can be changed to the desired modes by operating the setup switches. Select the desired mode best suited to the driving conditions.

NOTE:

Bilstein DampTronic® is a registered trademark of ThyssenKrupp Bilstein Suspension GmbH.

USAGE OF EACH MODE

R mode

This mode enables optimum GT-R high performance during performance or high-speed driving.

If the gear is shifted or the accelerator pedal is quickly operated when the transmission setup switch is in R mode and the engine warmed up, a sound effect is output to enhance the sense of sportiness. (☞ "Active sound enhancement" page 5-54)

Normal mode

This mode is suitable for normal driving or performance driving. When the engine is started again, all modes will return to the normal mode.

Other modes for each switch

Transmission: SAVE mode:

This mode improves the fuel economy for long distance driving and reduce fatigue by enabling easy acceleration pedal operation.

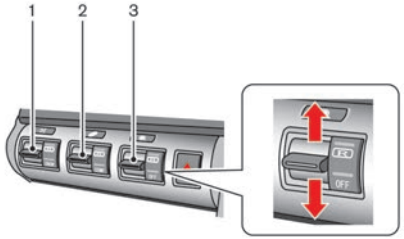
Suspension: COMF mode:

This mode is suitable for normal driving.

VDC/ESP: OFF mode:

This mode is an emergency mode that can be used to free the vehicle from slush and deep snow, etc.

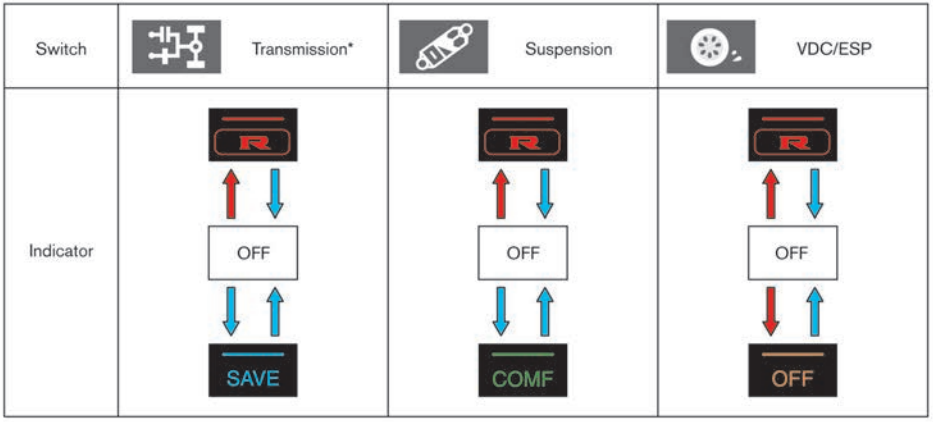
HOW TO SWITCH THE MODES



1. Transmission setup switch
2. Suspension setup switch
3. Vehicle Dynamic Control (VDC)/Electronic Stability Program (ESP) setup switch

When the engine is started, all switches are set to the normal mode. The normal mode is recommended for normal driving. Move the VDC/ESP, transmission and suspension setup switches up or down to change the mode when the engine is running.

this is not a malfunction.



: Push and hold the switch for longer than approximately 1 second

: Push the switch

* The selected mode is maintained even if the shift lever is moved between A and M position.

NOTICE

- **"ESC(Electronic Stability Control) OFF" indicated on the VDC/ESP setup switch stands for "VDC/ESP OFF".**
- **When the ignition switch is pushed to the "ON" position, the indicators on the setup switches may illuminate briefly, however**

FEATURES OF EACH MODE

Transmission

The transmission mode differs depending on the shift lever position, A or M.

A position:

Set up mode	Features
	• The appropriate gear position is automatically selected when engaging high performance or high-speed driving. • With the VDC/ESP switch in R mode, the R mode start function can be used. (☞ "R mode start function" page 5-30) • When the R mode is selected, the maximum speed is lower than the one in the normal mode.
Normal (light is off)	• For everyday and performance driving, an appropriate gear position is automatically selected.
	• For long distance high-speed driving, this mode improves fuel economy by regulating the engine output properly. • The engine response to acceleration operation is moderated and this enables to the driver to operate the vehicle easier, thus reducing driving fatigue. This also enables the driver to drive more easily on snowy roads and slippery surfaces. • When the SAVE mode is selected, the maximum speed is lower than the one in the normal mode.

M position:

Set up mode	Features
	• This mode allows you to shift gears quickly and directly. • This mode will not allow the transmission to automatically upshift even when the engine speed reaches the red zone. • With the VDC/ESP switch in R mode, the R mode start function can be used. (☞ "R mode start function" page 5-30) • When the R mode is selected, the maximum speed is lower than the one in the normal mode.
Normal (light is off)	• For everyday and performance driving, any gear position can be selected. • This mode will allow the transmission to automatically upshift even when the engine speed is about to reach the red zone.
	• For long distance highway driving, this mode improves fuel economy by regulating the engine output properly. • The engine response to acceleration operation is moderated and this enables to the driver to operate the vehicle easier, thus reducing driving fatigue. This also enables the driver to drive more easily on snowy roads and slippery surfaces. • This mode will allow the transmission to automatically upshift even when the engine speed is about to reach the red zone. • When the SAVE mode is selected, the maximum speed is lower than the one in the normal mode.

⚠ WARNING

- **When the engine speed approaches the red zone, shift to a higher gear or reduce the engine speed. Operating the engine in the red zone may cause serious engine damage.**
- **The quickest shifting in the R mode with the transmission in the M position is available when the engine speed is high. However, the transmission may shift more slowly when the engine speed is low.**

Suspension

Set up mode	Features
	• The appropriate damping force for high-speed driving and performance driving is achieved by fixing the damping force of the shock absorber. • Riding comfort becomes harder.
Normal (light is off)	• By providing variable control of the shock absorber's damping force, the vehicle can be given a broader characteristic to make it suitable for everyday driving as well as high performance driving.
	• The damping force of the shock absorbers is variably adjusted for more comfortable driving.

NOTICE

While maximizing vehicle performance, shock absorber control may automatically be returned to the normal mode. If the R mode or the COMF mode is selected in the case above, the suspension setup switch indicator may turn off. Operate the suspension setup switch to the R mode or the COMF mode and check to make sure the indicator illuminates. If the indicator does not illuminate, have the system checked by a NISSAN High Performance Center (NHPC).

Vehicle Dynamic Control (VDC)/Electronic Stability Program (ESP)

Set up mode	Features
	• In addition to the normal mode function, this mode adjusts front and rear wheel power distribution to improve handling. • With the transmission switch in R mode, the R mode start function can be used. (☞ "R mode start function" page 5-30)
Normal (light is off)	• This mode is for use in a broad range of driving conditions, for routine driving during fair to rainy weather, as well as for driving on road surfaces that are slippery due to snow or ice. Make sure to use this mode for everyday driving.
	• Emergency mode that can be used to free the vehicle from slush and deep snow (With the transmission switch in SAVE mode, freeing the vehicle become easier.)

NOTE:

- **NISSAN GT-R was developed to perform its dynamic stability and controllability in the VDC/ESP ON mode. We therefore cannot assure avoidance of any accident or incident when driving in the VDC/ESP OFF mode. It is NISSAN's social responsibility to strongly recommend driving in the VDC/ESP ON mode at all times, to maintain safety and a high level of dynamic stability.**
- **The VDC/ESP OFF mode should normally only be used to help free a vehicle stuck in mud or snow by temporarily stopping VDC/ESP operation and keeping torque applied to the wheels.**
- **Circuit driving or equivalent* in the VDC/ESP OFF mode is excluded from warranty coverage. Turning the VDC/ESP OFF in an emergency to escape from mud/snow would not invalidate the warranty.**
- **If the GT-R is used for circuit driving or equivalent* in the VDC/ESP OFF mode the warranty can be restored after additional maintenance is done at NISSAN High Performance Center (NHPC)**

  *** Public road racing (rally), chassis dynamometer driving.**
- **Vehicles driven in the VDC/ESP OFF mode are confirmed by Vehicle Status Data Recorder (VSDR).**

TURBOCHARGER SYSTEM

The turbocharger system uses engine oil for lubrication and cooling of its rotating components. The turbocharger turbine turns at extremely high speeds and it can get very hot. It is essential to maintain a supply of oil flowing through the turbocharger system. Therefore, a sudden interruption of oil supply may cause a malfunction in the turbocharger.

To ensure prolonged life and performance of the turbocharger, it is essential to perform the following maintenance procedure:

- Change your engine oil according to the recommended intervals shown in the separate maintenance booklet.
- If the engine had been operating at high engine speed for an extended period of time, let it idle for a few minutes prior to shutdown.
- Do not accelerate your engine to high engine speed immediately after start.

NOTICE

This vehicle includes spark plugs that are designed for high performance. For this reason, if the engine is repeatedly started and stopped over a short time, the spark plugs may become fouled, making the engine difficult to start. To prevent diminished starting performance, avoid starting and stopping the engine repeatedly during a short peri-

od of time.

NOTE:

- When the vehicle is delivered, the engine oil level is 10 mm (0.39 in) below the H mark on the engine oil dipstick for optimum high performance driving. The engine oil can be filled up to the H mark if not engaging in performance driving.
- There may be occasions when the rate of engine oil consumption is a maximum of 0.5 liters (1/2 qt) per 1,000 km (600 miles). Any rate of consumption below this is not a malfunction.
- The engine oil load increases with high power output. In order to maintain the vehicle's high level of performance, be sure to perform oil level inspections and fill up every 3,000 km (1,800 miles). For the information of the oil replacement interval, refer to the separate maintenance booklet.

R MODE START FUNCTION

This function enables the driver to start acceleration from a stop by selecting R mode with the VDC/ESP and transmission setup switch. The engine output will be maintained at approximately 4,100 rpm. When using the R mode or the R mode start function, always use proper seating position and follow the safety instructions in Section 1 of this manual.

⚠ WARNING

- Make sure to drive carefully within legal limits.
- Only use this function when you can guarantee that is safe to do so, based on the surrounding traffic conditions.
- Avoid using this function on slippery or wet roads. This may cause loss of vehicle control and could result in an accident.
- The R mode start function has been developed not only for controlling the engine, transmission and VDC/ESP system, but also the settings of the suspension and tires. Therefore, any modification of the vehicle may disrupt the vehicle's balance. This will not only reduce the optimal performance of the vehicle but may also cause damage to powertrain components, including the transmission.

NOTICE

- When the temperature of the engine coolant and transmission oil is high or low, the function cannot be used. The temperature range in which the R mode start function can be used:
  - Engine coolant: 60°C-100°C (140°F - 212°F)
  - Transmission oil: 60°C-130°C (140°F- 266°F)
- If the R mode start function is used 4 times continuously, the function may be disabled and cannot be turned on for protection. While the function is disabled, the warning light illuminates. When the warning light illuminates, perform cool down driving. The warning light will go off and the function can be used again.
- The performance of start may vary depending on the amount of wheel spin, or increase and decrease of the engine output in response to the outside temperature. (This vehicle was set up according to the road surface conditions of the straight sec-

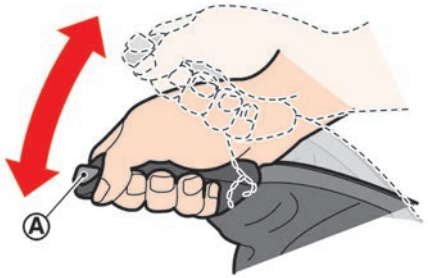
tions of the Sendai Highland Raceway course in Japan at 15°C (59°F).)

- **For safety reasons, VDC/ESP control may activate automatically when driving on a slippery road surface, such as a wet road, in order to apply the brakes or limit the engine output.**
- **In comparison to normal starting, frequent use of the R mode start function increases the load on the powertrain related parts such as the clutch and transmission. In particular, clutch wear and deterioration will develop more quickly.**

HOW TO USE R MODE START FUNCTION

1. Move the shift lever to the A or M position.
2. Select the R mode with the transmission setup switch. (☞ "VDC/ESP, transmission and suspension setup switches" page 5-23)
3. Select the R mode with the VDC/ESP setup switch.
4. Depress the brake pedal firmly with your left foot.
5. Depress the accelerator pedal quickly to the floor with your right foot. The engine speed will increase to approximately 4,100 rpm and will be maintained.
6. Within 3 seconds after depressing the accelerator pedal, release the brake pedal.

PARKING BRAKE



⚠ WARNING

- **Be sure the parking brake is fully released before driving. Failure to do so can cause brake failure and lead to an accident.**
- **Do not release the parking brake from outside the vehicle.**
- **Do not use the gear shift in place of the parking brake. When parking, be sure the parking brake is fully engaged.**
- **To help avoid risk of injury or death through unintended operation of the vehicle and/or its systems, do not leave children, people who require the assistance of others or pets unat-**

tended in your vehicle. Additionally, the temperature inside a closed vehicle on a warm day can quickly become high enough to cause a significant risk of injury or death to people and pets.

To apply: Pull the parking brake lever up.
To release:

1. Firmly apply the foot brake.
2. Place the shift lever in the N position.
3. While pulling up on the parking brake lever slightly, push the button Ⓐ and lower the lever completely.
4. Before driving, be sure the brake warning light goes out.

CRUISE CONTROL

The cruise control allows driving at speeds above 40 km/h (25 MPH) without keeping your foot on the accelerator pedal.

⚠ WARNING

Do not use the cruise control when driving under the following conditions. Doing so could cause a loss of vehicle control and result in an accident.

- **When it is not possible to keep the vehicle at a set speed.**
- **In heavy traffic or in traffic that varies in speed.**
- **On winding or hilly roads.**
- **On slippery roads (rain, snow, ice, etc.).**
- **In very windy areas.**

NOTICE

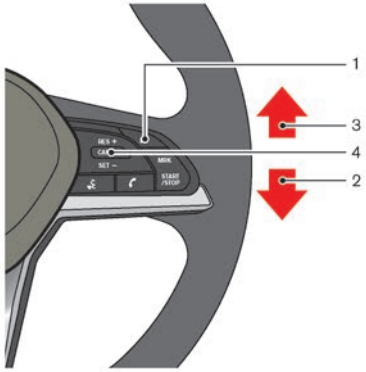
- **When the SAVE mode is selected with the transmission setup switch, the acceleration and deceleration can be controlled smoothly. When the SAVE mode is selected, the maximum setting speed is lower than the one in the normal mode.**
- **When the vehicle approaches a gentle uphill, there may be a slight delay as the vehicle returns to the preset speed. However, the vehicle will gradually accelerate and return to the preset speed.**

PRECAUTIONS ON CRUISE CONTROL

- If the cruise control system malfunctions, it will cancel automatically. The SET indicator will blink and the cruise control system warning will appear to warn the driver. (☞ "Cruise control system warning" page 2-41)

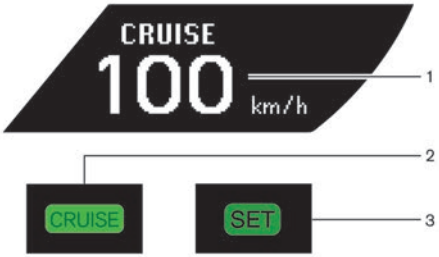
- If the engine coolant temperature becomes excessively high, the cruise control system will be canceled automatically.
- If the SET indicator blinks, turn the cruise control main switch off and contact a NISSAN High Performance Center (NHPC).
- The SET indicator may sometimes blink when the cruise control main switch is turned on while pushing the RESUME/ACCELERATE, SET/COAST or CANCEL switch. To properly set the cruise control system, perform the steps below in the order indicated.

STEERING-WHEEL-MOUNTED CONTROLS



1. MAIN switch
   Turns cruise control ON/OFF.
2. SET/COAST switch (pressed down)
   Lowers the set vehicle speed.
3. RESUME/ACCELERATE switch (pressed up)
   Raises the set vehicle speed.
4. CANCEL switch
   Cancels cruise control.

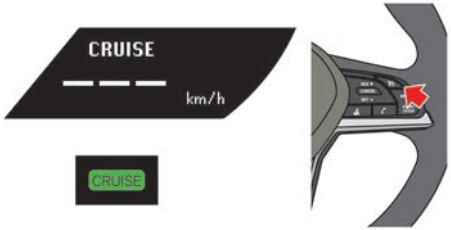
INDICATORS AND DISPLAY



km/h displays model

1. CRUISE display
   Displays the set vehicle speed.
2. CRUISE indicator
   Informs the driver that the MAIN switch is ON.
3. SET indicator
   Informs the driver that the vehicle is driving at the set speed.

CRUISE CONTROL OPERATIONS

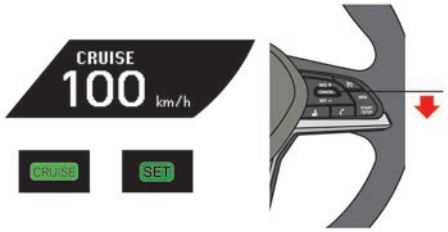


km/h displays model

Constant-speed driving

To set the cruising speed, perform the following procedure.

1. Push the MAIN switch on. The CRUISE indicator will come on.



km/h displays model

2. Accelerate your vehicle to the desired speed, push the SET/COAST switch and release it. (The SET indicator will illuminate in the instrument panel.) Take your foot off the accelerator pedal. Your vehicle will maintain the set speed.

NOTE:

If the vehicle speed reaches approximately 5 km/h (3 MPH) over the set speed, the set speed on the vehicle information display blinks.

Passing another vehicle

To pass another vehicle, depress the accelerator pedal. When you release the pedal, the vehicle will return to the previously set speed.

Increasing the set vehicle speed

To reset at a faster cruising speed, use one of the following methods:

- Depress the accelerator pedal. When the vehicle attains the desired speed, push and release the SET/COAST switch.
- Push and hold the RESUME/ACCELERATE switch. When the vehicle attains the speed you desire, release the switch.
- Push and then quickly release the RESUME/ACCELERATE switch. Each time you do this, the set speed will increase by about 1 km/h or 1 MPH.

Decreasing the set vehicle speed

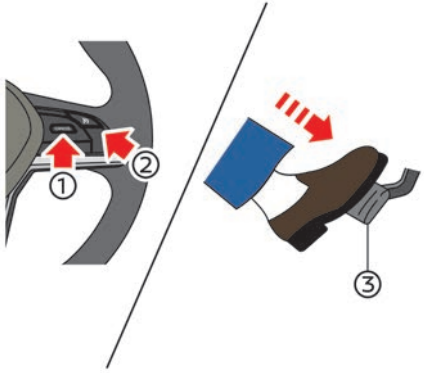
To reset at a slower cruising speed, use one of the following methods:

- Lightly tap the brake pedal. When the vehicle attains the desired speed, push and release the SET/COAST switch.
- Push and hold the SET/COAST switch. Release the switch when the vehicle slows down to the desired speed.
- Push and then quickly release the SET/COAST switch. Each time you do this, the set speed will decrease by about 1 km/h or 1 MPH.

Resuming the preset speed

To resume the preset speed, push and release the RESUME/ACCELERATE switch. The vehicle will resume the last set cruising speed when the vehicle speed is over 40 km/h (25 MPH).

Canceling the preset speed



To cancel the preset speed, use one of the following methods:

- Push the CANCEL switch ①. The SET indicator will turn off.
- Tap the brake pedal ③. The SET indicator will turn off.

- Turn the MAIN switch ② off. Both the CRUISE indicator and SET indicator will turn off.

NOTE:

- **If cruise control was canceled by pressing the cancel switch or by depressing the brake pedal, the system changes to standby status.**
- **If you depress the brake pedal while pushing the RESUME/ACCELERATE or SET/COAST switch and reset at the cruising speed, the cruise control will be deactivated. Turn the MAIN switch off once and then turn it on again.**

Under the following conditions, cruise control will be automatically canceled.

- Vehicle speed drops to below approximately 30 km/h (19 MPH).
- Vehicle speed drops to more than approximately 13 km/h (8 MPH) below the set vehicle speed.
- The shift lever is moved to a position other than A↔M.
- VDC/ESP operates.
- A tire is spinning.
- There is a malfunction in the cruise control system.

HILL START ASSIST

⚠ WARNING

- **Never rely solely on the hill start assist system to prevent the vehicle from moving backward on a hill. Always drive carefully and attentively. Depress the brake pedal when the vehicle is stopped on a steep hill. Be especially careful when stopped on a hill on frozen or muddy roads. Failure to prevent the vehicle from rolling backwards may result in a loss of control of the vehicle and possible serious injury or death.**
- **The hill start assist system is not designed to hold the vehicle at a standstill on a hill. Depress the brake pedal when the vehicle is stopped on a steep hill. Failure to do so may cause the vehicle to roll backwards and may result in a collision or serious personal injury.**
- **The hill start assist may not prevent the vehicle from rolling backwards on a hill under all load or road conditions. Always be prepared to depress the brake pedal to prevent the vehicle from rolling backwards. Failure to do so may result in a collision or serious personal injury.**

NOTICE

When the vehicle is stopped on a hill, do not hold the vehicle in place by depressing the accelerator pedal. Doing so may cause the clutch to overheat and result in transmission damage. Use the brakes to prevent the vehicle from moving.

The hill start assist system automatically keeps the brakes applied to help prevent the vehicle from rolling backwards in the time it takes the driver to release the brake pedal and apply the accelerator when the vehicle is stopped on a hill.

Hill start assist will operate automatically under the following conditions:

- The shift lever is moved to a forward or reverse position.
- The vehicle is stopped completely on a hill by applying the brake.

The maximum holding time is 2 seconds. After 2 seconds the vehicle will begin to roll back and hill start assist will stop operating completely.

Hill start assist will not operate when the shift lever is moved to the N or P position or on a flat and level road.

NOTE:

This system does not function when the Vehicle Dynamic Control (VDC)/Electronic Stability Program (ESP) system warning appears on the vehicle information display located in the tachometer. (☞ "Vehicle Dynamic Control (VDC) system warning" page 2-38) (☞ "Electronic Stability Program (ESP) system warning" page 2-38) (☞ "Indicator lights" page 2-31)

BREAK-IN SCHEDULE

NOTICE

Follow these recommendations to obtain maximum engine performance and ensure the future reliability and economy of your new vehicle. Failure to follow these recommendations may result in shortened engine life and reduced vehicle performance.

Please observe the following types of driving until the mileage shown below has been reached.

Until 500 km (300 miles):

- Do not depress the accelerator pedal more than halfway and avoid rapid acceleration.
- Drive with the engine speed kept at less than 3,500 RPM.
- Avoid unnecessary quick steering, abrupt braking and driving on poor roads.

500 to 1,000 km (300 to 600 miles):

- Avoid rapid acceleration in a low gear (1st to 3rd gears) with the accelerator pedal fully depressed. Depress the pedal slowly.
- Avoid unnecessary quick steering and abrupt braking.
- Drive with the suspension setup switch in the COMF mode to allow more suspension stroke.

1,000 to 2,000 km (600 to 1,200 miles):

- Drive with the engine speed kept relatively high with the shift lever in the M position. Shifting is recommended between 1st and 4th gears.
- Avoid unnecessary quick steering and abrupt braking.
- Drive with the suspension setup switch in the COMF mode to allow more suspension stroke.

Even though the mileage reaches over 2,000 km (1,200 miles), the clutch may take longer to properly engage if the vehicle is mainly driven in town at a low speed. NISSAN recommends breaking in the clutch at a NISSAN High Performance Center (NHPC).

WHEEL ALIGNMENT

Do not adjust the wheel alignment until the mileage reaches 2,000 km (1,200 miles). Until then, the suspension may not engage enough and the height may be higher.

However, make sure to adjust the alignment after 2,000 km (1,200 miles).

From city driving to high performance driving, settings can be performed according to the customer's needs. Please contact a NISSAN High Performance Center (NHPC) for further details.

Preventing toe-out:

Regarding the amount of toe-in, because toe-out causes lopsided wear on the tires or damage to localized areas inside the tires due to heat generation, be sure to adjust to toe-in.

Also, heat may be generated in localized areas if the toe-in amount is excessive. Particularly when engaging in high performance driving or driving at extremely high speed, be sure to adjust the front toe-in to 1.5 mm (0.059 in) or less, and rear toe-in to 2.0 mm (0.079 in) or less.

FUEL EFFICIENCY AND CARBON DIOXIDE REDUCTION DRIVING TIPS

Follow these easy-to-use Fuel Efficiency and Carbon Dioxide Reduction Driving Tips to help you achieve the most fuel economy from your vehicle and reduce carbon dioxide emissions.

1. Use smooth accelerator and brake pedal application.
   - Avoid rapid starts and stops.
   - Use smooth, gentle accelerator and brake application whenever possible.
   - Maintain constant speed while commuting and coast whenever possible.
2. Maintain constant speed.
   - Look ahead to try and anticipate and minimize stops.
   - Synchronizing your speed with traffic lights allows you to reduce your number of stops.
   - Maintaining a steady speed can minimize red light stops and improve fuel efficiency.
3. Drive at economical speeds and distances.
   - Observing the speed limit and not exceeding 97 km/h (60 MPH) (where legally allowed) can improve fuel efficiency due to reduced aerodynamic drag.
   - Maintaining a safe following distance behind other vehicles reduces unnecessary braking.
   - Safely monitoring traffic to anticipate changes in speed permits reduced braking and smooth acceleration changes.
   - Select a gear range suitable to road conditions.
4. Use cruise control.
   - Using cruise control during highway driving helps maintain a steady speed.
   - Cruise control is particularly effective in providing fuel savings when driving on flat terrains.
5. Plan for the shortest route.
   - Utilize a map or navigation system (if equipped) to determine the best route to save time.
6. Avoid idling.
   - Shutting off your engine when safe for stops exceeding 30-60 seconds saves fuel and reduces emissions.
7. Buy an automated pass for toll roads.
   - Automated passes permit drivers to use special lanes to maintain cruising speed through the toll and avoid stopping and starting.
8. Winter warm up.
   - Limit idling time to minimize impact to fuel economy.
   - Vehicles typically need no more than 30 seconds of idling at start-up to effectively circulate the engine oil before driving.

- Your vehicle will reach its ideal operating temperature more quickly while driving versus idling.

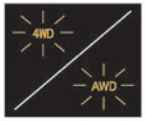
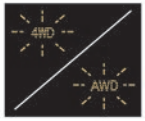
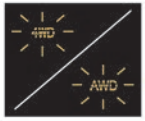
9. Keeping your vehicle cool.
   - Park your vehicle in a covered parking area or in the shade whenever possible.
   - When entering a hot vehicle, opening the windows will help to reduce the inside temperature faster, resulting in reduced demand on your A/C system.
10. Do not carry excessive weight.
    - Remove unnecessary objects from the vehicle to reduce vehicle weight.
11. Use the SAVE mode.
    - It is recommended that you select the SAVE mode with the transmission setup switch while driving, except engaging in high performance driving. Doing so will enable improved fuel economy. (☞ "VDC/ESP, transmission and suspension setup switches" page 5-23)

INCREASING FUEL ECONOMY AND REDUCING CARBON DIOXIDE EMISSIONS

- Keep your engine tuned up.
- Follow the recommended scheduled maintenance.
- Keep the tires inflated to the correct pressure. Low tire pressure increases tire wear and lowers fuel economy.
- Keep the wheels in correct alignment. Improper alignment increases tire wear and lowers fuel economy.
- Use the recommended viscosity engine oil. (See ☞ "Capacities and recommended fluids/lubricants" page 9-2.)

FOUR-WHEEL DRIVE (4WD)/ALL-WHEEL DRIVE (AWD)

4WD/AWD WARNING LIGHT

Warning light	Comes on or blinks when
 Comes on	There is a malfunction in the all wheel drive system.
 Blinks rapidly	The 4WD/AWD clutch temperature rises abnormally.
 Blinks slowly	The difference in wheel rotation is large.

The 4WD/AWD warning light is located in the meter.

The 4WD/AWD warning light comes on when the ignition switch is pushed to the ON position. It turns off soon after the engine is started.

If any malfunction occurs in the 4WD/AWD system while the engine is running, the warning light will come on.

The warning light may blink rapidly (about twice per second) while trying to free a stuck vehicle due to high 4WD/AWD clutch temperature. The driving mode may change to two-wheel drive. If the warning light blinks rapidly during operation, stop the vehicle with the engine idling in a safe place immediately. Then if the light goes off after a while, you can continue driving.

A large difference between the diameters of front and rear wheels will make the warning light blink slowly (about once per two seconds). Pull off the road in a safe area, and idle the engine. Check that all tire sizes are the same, tire pressure is correct, tires are not worn and winter tires are not installed on the front or rear wheels only.

If the warning light is blinking after the above operation, have your vehicle checked by a NISSAN High Performance Center (NHPC) as soon as possible.

If non-genuine GT-R tires are used, the warning light may illuminate. (☞ "GT-R special precautions" page GTR-9)

⚠ WARNING

- **Do not attempt to raise two wheels off the ground and shift the transmission to any drive or reverse position with the engine running. Doing so may result in drivetrain damage or unexpected vehicle movement which could result in serious vehicle damage or personal injury.**
- **Do not attempt to test a 4WD/AWD equipped vehicle on a 2-wheel dynamometer or similar equipment even if the other two wheels are raised off the ground. Make sure that you inform the test facility personnel that your vehicle is equipped with 4WD/AWD before it is placed on a dynamometer. Using the wrong test equipment may result in drivetrain damage or unexpected vehicle movement which could result in serious vehicle damage or personal injury.**

NOTICE

- **If the warning light comes on while driving there may be a malfunction in the 4WD/AWD system. Reduce the vehicle speed and have your vehicle checked by a NISSAN High Performance Center (NHPC) as soon as possible.**
- **If the warning light remains on after the above operation, have your vehicle checked by a NISSAN High Performance Center (NHPC) as soon as possible.**
- **The powertrain may be damaged if you continue driving with the warning light blinking.**
- **Do not drive the vehicle with its rear wheels spinning. Doing so will result in overload to the system, and damage may occur due to abnormal temperature increase.**

TIGHT CORNER BRAKING PHENOMENON

If the steering wheel is turned widely when the vehicle is started in the cold condition, it may be harder to move the vehicle forward and backward. This phenomenon is known as the "tight corner braking phenomenon".

This phenomenon is unique to 4WD/AWD vehicles, and occurs due to a difference in speeds between the front and rear wheels while the vehicle is turning. This does not indicate that there is a malfunction.

NOTE:

If the tight corner braking phenomenon occurs, a slipping sound may be heard from the tires, or a squeaking sound may be heard from the drive system.

Reducing tight corner braking phenomenon

The tight corner braking phenomenon can be reduced if the following three conditions are met:

- Transmission setup switch is set to Normal mode.
- Vehicle speed is low (less than approximately 10 km/h (6 MPH)).
- The steering wheel is turned more than 1/2 turn.

TIRES

This vehicle is equipped with special tires. When changing the tires, install the designated special tires. Replacing tires as a set of four with new ones is recommended. However, if a tire is punctured or damaged, it may be possible to replace only the damaged tire. Determining whether one tire or a complete set of tires should be replaced is based on a number of factors including tire wear and condition. Contact your NISSAN High Performance Center (NHPC). They can recommend if an individual tire or a complete set should be replaced.

NOTICE

If tires other than the designated tires, tires with large differences in wear or tires of different sizes are installed, the 4WD/AWD performance will be degraded and the drive mechanism may be damaged.

4WD/AWD SYSTEM CHARACTERISTICS

The 4WD/AWD system automatically distributes the optimal torque to the front and rear wheels. This provides both the superior turning performance of a front wheel drive vehicle and the traction of a 4WD/AWD vehicle.

Electronic control continuously distributes torque to the front and rear wheels in the range from 0:100 (rear-wheel drive mode) to 50:50 (four-wheel drive mode) to match the driving conditions and road conditions. This allows the engine output (torque) to be effectively transmitted to the road surface.

LIMITED SLIP DIFFERENTIAL (LSD)

The rear final drive of this vehicle is equipped with a 1.5-way mechanical Limited Slip Differential (LSD).

⚠ WARNING

Sudden operation of the accelerator pedal can result in fishtailing or sideslip, possibly causing an accident. Use particular caution when driving in rainy weather or on slippery roads.

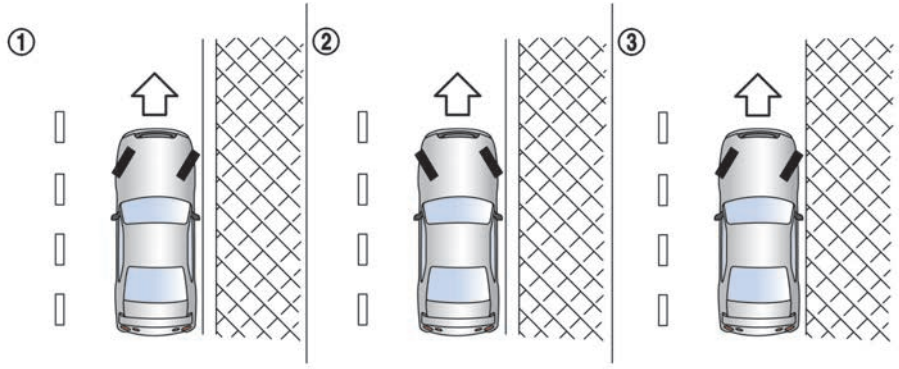
NOTICE

Use the designated differential gear oil. If any oil other than the designated oil is used, the LSD may not operate correctly, and noise and vibration may occur, possibly resulting in a malfunction.

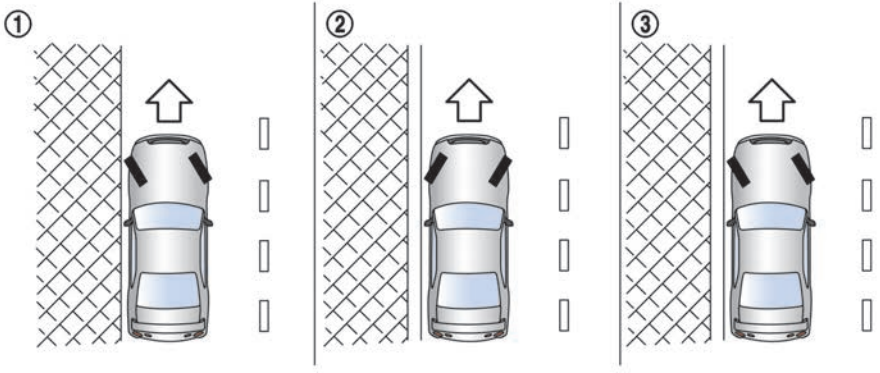
NOTE:

- **If the vehicle accelerates from a stop with the steering wheel turned in cold temperatures, the inner wheel tire may slip and some noise or vibration may be heard. This phenomenon is unique to vehicles equipped with the LSD. This does not indicate that there is a malfunction.**

- **The LSD controls the speed difference between the left and right wheels, and optimally allocates torque to the wheels.**
- **The 1.5-way mechanical LSD in the rear final drive of this vehicle is characterized by its asymmetrical LSD effects when the accelerator pedal is ON and when it is OFF. This allows the appropriate amount of torque for the driving environment to be transmitted to the road surface.**



Left-Hand Drive (LHD) model



Right-Hand Drive (RHD) model

⚠ WARNING

- **Do not stop or park the vehicle over flammable materials such as dry grass, waste paper or rags. They may ignite and cause a fire.**
- **Never leave the engine running while the vehicle is unattended.**
- **Do not leave children unattended inside the vehicle. They could unknowingly activate switches or controls. Unattended children could become involved in serious accidents.**
- **To help avoid risk of injury or death through unintended operation of the vehicle and/or its systems, do not leave children, people who require the assistance of others or pets unattended in your vehicle. Additionally, the temperature inside a closed vehicle on a warm day can quickly become high enough to cause a significant risk of injury or death to people and pets.**
- **Safe parking procedures require that both the parking brake be applied and the transmission placed into the P position. Failure to do so could cause the vehicle to move unexpectedly or roll away and result in an accident.**
- **Make sure the shift lever has been pushed as far forward as it can go and cannot be moved without depressing the foot brake pedal.**
- **Follow the instructions below when parking the vehicle to help prevent the brake rotor and brake pads from rusting together. Failure to following the instructions could cause the rotor and pads to rust together. If the rotor and pads rust together, there may be a popping noise and some vibration when the vehicle is driven, a wheel may not roll correctly, or the brake pads could be damaged. If the pads are damaged, this may reduce the effectiveness of the brake system which could cause a collision, serious personal injury or death. (for models without NCCB (NISSAN Carbon Ceramic Brake) package)**

1. Firmly apply the parking brake.
2. Move the shift lever to the P position.
3. To help prevent the vehicle from rolling into the street when parked on a sloping drive way, it is a good practice to turn the wheels as illustrated.
   - HEADED DOWNHILL WITH CURB: ①

     Turn the wheels into the curb and move the vehicle forward until the curb side wheel gently touches the curb.
   - HEADED UPHILL WITH CURB: ②

     Turn the wheels away from the curb and move the vehicle back until the curb side wheel gently touches the curb.
   - HEADED UPHILL OR DOWNHILL, NO CURB: ③

     Turn the wheels toward the side of the road so the vehicle will move away from the center of the road if it moves.
4. Push the ignition switch to the LOCK position.

For models without NCCB (NISSAN Carbon Ceramic Brake) package:

The GT-R uses brake pad materials that have high metallic content. The brake pad material helps maintain braking performance in a wide range of weather and driving conditions.

For the first 5,000 - 10,000 km (3,000 - 6,000 miles) of the vehicle's service life, and for the first 5,000 - 10,000 km (3,000 - 6,000 miles) after a brake replacement, the brake pad to brake rotor clearance is very small. When parking, apply the parking brake and move the shift lever to the P position. Idle the engine for more than 20 seconds without depressing the brake pedal. This allows the brake pads to move away from the rotor so the pad does not contact the rotor.

Additionally, the brakes must be dry before parking the vehicle after driving on wet roads or after washing the vehicle. If the roads are wet, lightly apply the brakes for a short distance before parking the vehicle to dry the brakes. After washing the vehicle, dry the brakes by driving on a dry road for a few miles and apply the brakes normally based on traffic and road conditions.

The metallic brake pads and brake disc rotor may rust together when the brakes are not applied:

- If the vehicle is not idled for 20 seconds without the brakes applied, or if the brakes are applied when the vehicle is shut off, the rotor and pads can rust together, even when the brake pads are dry.
- If the brakes are wet when the vehicle is parked and the parking brake is applied for a long time.

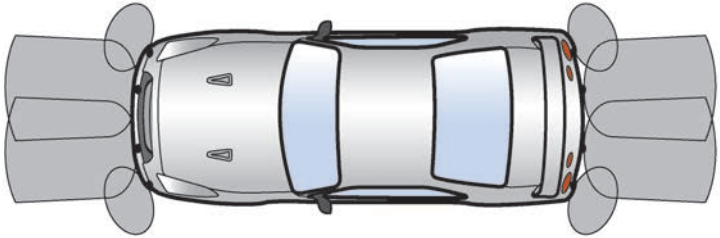
If the vehicle is driven on red clay that contains a lot of iron, the brake pads and disc rotor may rust together more easily. Make sure to follow the specified instructions for parking.

Contact a NISSAN High Performance Center (NHPC) if the brake pads and brake rotor have rusted together.

For models with NCCB (NISSAN Carbon Ceramic Brake) package:

(☞ "NCCB (NISSAN Carbon Ceramic Brake)" page 8-23)

PARKING SENSOR (sonar) SYSTEM



⚠ WARNING

- **The parking sensor (sonar) system is a convenience but it is not a substitute for proper parking. Always look around and check that it is safe to do so before parking. Always move slowly.**
- **Read and understand the limitations of the parking sensor (sonar) system as contained in this section. Inclement weather may affect the function of the parking sensor (sonar) system; this may include reduced performance or a false activation.**
- **This system is not designed to prevent contact with small or moving objects.**
- **The system is designed as an aid to the driver in detecting large stationary objects to help avoid damaging the vehicle. The system will not detect small objects below the bumper, and may not detect objects that are too close to the bumper or on the ground.**
- **If your vehicle sustains damage to the bumper fascia, leaving it misaligned or bent, the sensing zone may be altered causing inaccurate measurement of obstacles or false alarms.**

⚠ CAUTION

- **Keep the interior of the vehicle as quiet as possible to hear the tone clearly. Excessive noise (such as audio system volume or an open vehicle window) will interfere with the tone and it may not be heard.**
- **Keep the sensors (sonar) (located on the bumper fascia) free from snow, ice and large accumulations of dirt (do not clean the sensors with sharp objects). If the sensors is covered, it will affect the accuracy of the parking sensor (sonar) system.**
- **Parking sensor (sonar) system may not operate correctly if a license plate cover is installed or if the license plate is not installed in the recommended location.**

The parking sensor (sonar) system sounds a tone to warn the driver of obstacles near the bumper. The parking sensor (sonar) indicator will also appear in the touch screen display. (☞ "Parking sensor (sonar) indicator" page 5-45.) The system detects front obstacles when the shift lever is in the **A** position or **N** position and both front and rear obstacles when the shift lever is in the **R** position.

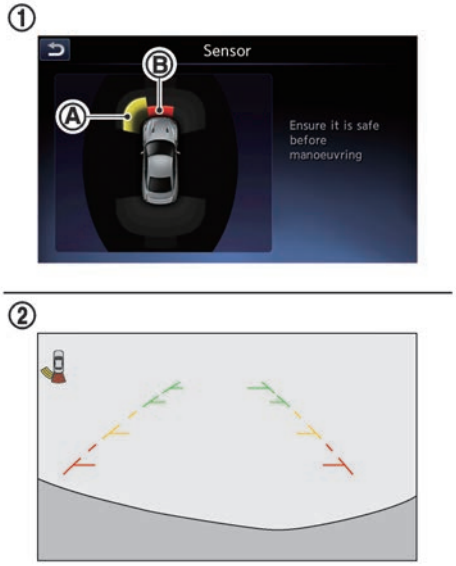
The system may not detect objects at speeds above 10 km/h (6 MPH) and may not detect certain angular or moving objects.

Refer to the illustration for approximate zone coverage areas. As you move closer to the obstacle, the rate of the tone increases. When you move even closer to the obstacle, the tone will sound continuously.

The sensitivity level of the parking sensor (sonar) can be adjusted (higher or lower) in the Sensor or Sonar setting display. (☞ "Parking sensor/sonar settings" page 5-46)

The intermittent tone will stop in 3 seconds when an obstacle is detected by only the corner sensor and the distance does not change.

PARKING SENSOR (sonar) INDICATOR



① Parking sensor (sonar) display
Ⓐ Corner sensor indicator
Ⓑ Center sensor indicator
② Rear view monitor display

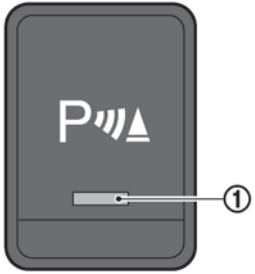
With the "Automatic Display with Parking Sensor"/"Automatic Display with Sonar" key ON in the touch screen display, when the front sensors (sonar) detects obstacles near the bumper, a tone will sound and the parking sensor (sonar) indicator will appear in the touch screen display ①. When the rear view monitor is displayed, the parking sensor (sonar) indicator will appear in the upper corner of the display ②.

The parking sensor (sonar) indicators Ⓐ and Ⓑ indicate the position of the object and the distance to the object with its color and rate of blinking.

When an object is detected, the indicator (green) appears and blinks (the tone sounds intermittently). When the vehicle moves closer to the object, the color of the indicator turns yellow and the rate of blinking increases (the rate of the tone increases). When the vehicle moves even closer to the object, the indicator stops blinking and turns red (the tone sounds continuously).

When the rear view monitor is displayed, the colors of the parking sensor (sonar) indicator and the distance guide lines in the rear view indicate different distance to the object.

PARKING SENSOR (sonar) SYSTEM OFF SWITCH



The parking sensor (sonar) system OFF switch on the lower side of the instrument panel allows the driver to turn the parking sensor (sonar) system on and off. To turn the parking sensor (sonar) system on and off, the ignition switch must be in the ON position. The indicator light ① on the switch will turn off when the system is turned off. If the indicator light flashes it may indicate a malfunction in the parking sensor (sonar) system.

The parking sensor (sonar) system will turn on automatically under the following conditions.

- When the shift lever is placed in the R position.
- When vehicle speed decreases below approximately 10 km/h (6 MPH).
- When the ignition switch is placed in the OFF position and turned back to the ON position again.

PARKING SENSOR/SONAR SETTINGS

Parking sensor/Sonar settings can be adjusted.

1. Touch the "Settings" key on the Launch Bar in the touch screen display.
2. Select the "Sensor"/"Sonar" key.

Select a menu item to change from the following options.

- Parking Sensor/Sonar
- Only Front Sensor Use/Only FR Sensor Use
- Automatic Display with Parking Sensor/Automatic Display with Sonar
- Parking Sensor Sensitivity/Sonar Sensitivity
- Volume

Parking Sensor/Sonar

When this item is turned ON, the front and rear sensor (sonar) is activated. When this item is turned to OFF (indicator turns off), the front and rear sensor (sonar) is deactivated.

ON (default) - OFF

Only Front Sensor Use/Only FR Sensor Use

When this item is turned on, only the rear sensor (sonar) is turned off. The amber markers are displayed at the rear corners of the vehicle icon.

ON - OFF (default)

Automatic Display with Parking Sensor/Automatic Display with Sonar

Automatically shows the sensor (sonar) view on the touch screen display when the sensor (sonar) is activated.

ON (default) - OFF

Parking Sensor Sensitivity/Sonar Sensitivity

Adjust the sensitivity level of the sensor (sonar).

higher (right) - lower (left)

Volume

Adjust the volume of the tone.

higher (right) - lower (left)

POWER STEERING

⚠ WARNING

If the engine is not running or is turned off while driving, the power assist for the steering will not work. Steering will be harder to operate.

The power assisted steering uses a hydraulic pump, driven by the engine, to assist steering.

If the engine stops or the drive belt breaks, you will still have control of the vehicle. However, much greater steering effort is needed, especially in sharp turns and at low speeds.

BRAKE SYSTEM

BRAKING PRECAUTIONS

The brake system has two separate hydraulic circuits. If one circuit malfunctions, you will still have braking at two wheels.

You may feel a small click and hear a sound when the brake pedal is fully depressed slowly. This is not a malfunction and indicates that the brake assist mechanism is operating properly.

Vacuum assisted brakes

The brake booster aids braking by using engine vacuum. If the engine stops, you can stop the vehicle by depressing the brake pedal. However, greater foot pressure on the brake pedal will be required to stop the vehicle and the stopping distance will be longer.

Wet brakes

When the vehicle is washed or driven through water, the brakes may get wet. As a result, your braking distance will be longer and the vehicle may pull to one side during braking.

To dry brakes, drive the vehicle at a safe speed while lightly tapping the brake pedal to heat-up the brakes. Do this until the brakes return to normal. Avoid driving the vehicle at high speeds until the brakes function correctly.

Using the brakes

Avoid resting your foot on the brake pedal while driving. This will cause overheating of the brakes, wearing out the brake and pads faster and reduce gas mileage.

To help reduce brake wear and to prevent the brakes from overheating, reduce speed and downshift to a lower gear before going down a slope or long grade. Overheated brakes may reduce braking performance and could result in loss of vehicle control.

⚠ WARNING

- **While driving on a slippery surface, be careful when braking, accelerating or downshifting. Abrupt braking or accelerating could cause the wheels to skid and result in an accident.**
- **If the engine is not running or is turned off while driving, the power assist for the brakes will not work. Braking will be harder.**

PARKING BRAKE BREAK-IN

Break in the parking brake shoes whenever the stopping effect of the parking brake is weakened or whenever the parking brake shoes and/or drums/rotors are replaced, in order to assure the best braking performance.

This procedure is described in the vehicle service manual and can be performed by a NISSAN High Performance Center (NHPC).

BRAKE ASSIST

ANTI-LOCK BRAKING SYSTEM (ABS)

⚠ WARNING

- **The Anti-lock Braking System (ABS) is a sophisticated device, but it cannot prevent accidents resulting from careless or dangerous driving techniques. It can help maintain vehicle control during braking on slippery surfaces. Remember that stopping distances on slippery surfaces will be longer than on normal surfaces even with ABS. Stopping distances may also be longer on rough, gravel or snow covered roads, or if you are using tire chains. Always maintain a safe distance from the vehicle in front of you. Ultimately, the driver is responsible for safety.**
- **Tire type and condition may also affect braking effectiveness. When replacing tires, install the specified size of tires on all four wheels.**

The Anti-lock Braking System (ABS) controls the brakes so the wheels do not lock during hard braking or when braking on slippery surfaces. The system detects the rotation speed at each wheel and varies the brake fluid pressure to prevent each

wheel from locking and sliding. By preventing each wheel from locking, the system helps the driver maintain steering control and helps to minimize swerving and spinning on slippery surfaces.

Using the system

Depress the brake pedal and hold it down. Depress the brake pedal with firm steady pressure, but do not pump the brakes. The ABS will operate to prevent the wheels from locking up. Steer the vehicle to avoid obstacles.

⚠ WARNING

Do not pump the brake pedal. Doing so may result in increased stopping distances.

Self-test feature

The ABS includes electronic sensors, electric pumps, hydraulic solenoids and a computer. The computer has a built-in diagnostic feature that tests the system each time you start the engine and move the vehicle at a low speed in forward or reverse. When the self-test occurs, you may hear a "clunk" noise and/or feel a pulsation in the brake pedal. This does not indicate that there is a malfunction. If the computer senses a malfunction, it switches the ABS off and illuminates the ABS warning light on the instrument panel. The brake system then operates normally, but without anti-lock assistance.

If the ABS warning light illuminates during the self-test or while driving, have the vehicle checked by a NISSAN High Performance Center (NHPC).

Normal operation

The ABS operates at speeds above 5 to 10 km/h (3 to 6 MPH). The speed varies according to road conditions.

When the ABS senses that one or more wheels are close to locking up, the actuator rapidly applies and releases hydraulic pressure. This action is similar to pumping the brakes very quickly. You may feel a pulsation in the brake pedal and hear a noise from under the hood or feel a vibration from the actuator when it is operating. This is normal and indicates that the ABS is operating properly. However, the pulsation may indicate that road conditions are hazardous and extra care is required while driving.

VEHICLE DYNAMIC CONTROL (VDC)/ELECTRONIC STABILITY PROGRAM (ESP) SYSTEM

The Vehicle Dynamic Control (VDC)/Electronic Stability Program (ESP) system uses various sensors to monitor driver inputs and vehicle motion. Under certain driving conditions, the VDC/ESP system helps to perform the following functions.

- The VDC/ESP mode can be changed using the VDC/ESP setup switch. (☞ "VDC/ESP, transmission and suspension setup switches" page 5-23)
- Controls brake pressure to reduce wheel slip on one slipping drive wheel so power is transferred to a non slipping drive wheel on the same axle.
- Controls brake pressure and engine output to reduce drive wheel slip based on vehicle speed (traction control function).
- Controls brake pressure at individual wheels and engine output to help the driver maintain control of the vehicle in the following conditions:
  - understeer (vehicle tends to not follow the steered path despite increased steering input)
  - oversteer (vehicle tends to spin due to certain road or driving conditions).

The VDC/ESP system can help the driver to maintain control of the vehicle, but it cannot prevent loss of vehicle control in all driving situations.

When the VDC/ESP system operates, the VDC/ESP warning light in the instru-

ment panel flashes so note the following:

- The road may be slippery or the system may determine some action is required to help keep the vehicle on the steered path.
- You may feel a pulsation in the brake pedal and hear a noise or vibration from under the hood. This is normal and indicates that the VDC/ESP system is working properly.
- Adjust your speed and driving to the road conditions.

("Vehicle Dynamic Control (VDC) warning light (except for Europe and India)/Electronic Stability Program (ESP) warning light (for Europe and India)" page 2-30)

If a malfunction occurs in the system, the VDC/ESP warning light illuminates in the instrument panel. The VDC/ESP system automatically turns off.

The VDC/ESP setup switch is used to turn off the VDC/ESP system. The VDC/ESP off indicator light illuminates to indicate the VDC/ESP system is off. When the VDC/ESP setup switch is used to turn off the system, the VDC/ESP system still operates to prevent one drive wheel from slipping by transferring power to a non slipping drive wheel. The VDC/ESP warning light flashes if this occurs. All other VDC/ESP functions are off and the VDC/ESP warning light will not flash. The VDC/ESP system is automatically reset to on when the ignition switch is placed in the off position then back to the on position.

("Vehicle Dynamic Control (VDC) off indicator light (except for Europe and India)/Electronic Stability Program (ESP) off indicator light (for Europe and India)" page 2-32)

The computer has a built-in diagnostic feature that tests the system each time you start the engine and move the vehicle forward or in reverse at a slow speed. When the self-test occurs, you may hear a "clunk" noise and/or feel a pulsation in the brake pedal. This is normal and is not an indication of a malfunction.

WARNING

- **The VDC/ESP system is designed to help the driver maintain stability but does not prevent accidents due to abrupt steering operation at high speeds or by careless or dangerous driving techniques. Reduce vehicle speed and be especially careful when driving and cornering on slippery surfaces and always drive carefully.**
- **Do not modify the vehicle's suspension. If suspension parts such as shock absorbers, struts, springs, stabilizer bars, bushings and wheels are not NISSAN approved or are extremely deteriorated, the VDC/ESP system may not operate properly. This could adversely affect vehicle handling performance, and the VDC/ESP warning light may illuminate.**
- **If brake related parts such as brake pads, rotors and calipers are not standard equipment or are extremely deteriorated, the VDC/ESP system may not operate properly and the VDC/ESP warning light may illuminate.**
- **If engine control related parts are not standard equipment or are extremely deteriorated, the VDC/ESP warning light may illuminate.**
- **When driving on extremely inclined surfaces such as higher banked corners, the VDC/ESP system may not operate properly and the VDC/ESP warning light may illuminate. Do not drive on these types of roads.**
- **When driving on an unstable surface such as a turntable, ferry, elevator or ramp, the VDC/ESP warning light may illuminate. This is not a malfunction. Restart the engine after driving onto a stable surface.**
- **If wheels or tires other than the those recommended are used, the VDC/ESP system may not operate properly and the VDC/**

ESP warning light may illuminate.

- **The VDC/ESP system is not a substitute for winter tires or tire chains on a snow covered road.**

NOTE:

- **NISSAN GT-R was developed to perform its dynamic stability and controllability in the VDC/ESP ON mode. We therefore cannot assure avoidance of any accident or incident when driving in the VDC/ESP OFF mode. It is NISSAN's social responsibility to strongly recommend driving in the VDC/ESP ON mode at all times, to maintain safety and a high level of dynamic stability.**
- **The VDC/ESP OFF mode should normally only be used to help free a vehicle stuck in mud or snow by temporarily stopping VDC/ESP operation and keeping torque applied to the wheels.**
- **Circuit driving or equivalent* in the VDC/ESP OFF mode is excluded from warranty coverage. Turning the VDC/ESP OFF in an emergency to escape from mud/snow would not invalidate the warranty.**
- **If the GT-R is used for circuit driving or equivalent* in the VDC/ESP OFF mode the warranty can be restored after additional maintenance is done at NISSAN High Performance Center (NHPC).**

  *** Public road racing (rally), chassis dynamometer driving**
- **Vehicles driven in the VDC/ESP OFF mode are confirmed by Vehicle Status Data Recorder (VSDR).**
- **When attempting to free the vehicle from mud or fresh snow, the VDC/ESP will detect the tire slipping, and the engine speed may not increase even when the accelerator pedal is depressed. To raise the engine speed, use the VDC/ESP set up switch to turn the VDC/ESP system OFF and select the SAVE mode with the transmission setup switch. (☞ "VDC/ESP, transmission and suspension setup switches" page 5-23)**
- **When the VDC/ESP system is turned OFF, all VDC/ESP functions (including traction control), except for the ABS functions, are deactivated.**

COLD WEATHER DRIVING

FREEING A FROZEN DOOR LOCK

To prevent a door lock from freezing, apply deicer through the key hole. If the lock becomes frozen, heat the key before inserting it into the key hole or use the Intelligent Key system.

ENGINE COOLANT

In the winter when it is anticipated that the outside temperature will drop below 0°C (32°F), check engine coolant to assure proper winter protection. (☞ "Engine cooling system" page 8-8)

BATTERY

If the battery is not fully charged during extremely cold weather conditions, the battery fluid may freeze and damage the battery. To maintain maximum efficiency, the battery should be checked regularly. (☞ "Battery" page 8-15)

DRAINING OF COOLANT WATER

If the vehicle is to be left outside without antifreeze, drain the cooling system, including the engine block. Refill before operating the vehicle. For details, contact a NISSAN High Performance Center (NHPC).

TIRE EQUIPMENT

The GT-R summer tires are made from a specially formulated rubber to maximize the vehicle's performance capabilities. Performance of summer tires is substantially reduced when temperatures are less than 0°C (32°F) so you must drive carefully. NISSAN recommends the use of winter tires on all four wheels if you plan to operate your vehicle in snowy or icy conditions when temperatures are less than 0°C (32°F).

⚠ WARNING

Never use summer tires when the temperature is below −20°C (−4°F) to prevent permanent tread deformation which may cause tire damage or tire failure. This may cause a loss of vehicle control which can result in serious personal injury or death.

Tire chains may be used. (☞ "Tire chains" page 8-43)

If you install tires, they must also be the specified size, brand, construction and tread pattern on all four wheels.

SPECIAL WINTER EQUIPMENT

It is recommended that the following items be carried in the vehicle during winter:

- A scraper and stiff-bristled brush to remove ice and snow from the windows and wiper blades.
- A sturdy, flat board to be placed under the jack to give it firm support.
- A shovel to dig the vehicle out of snowdrifts.
- Extra window washer fluid to refill the reservoir tank.

DRIVING ON SNOW OR ICE

⚠ WARNING

- **Wet ice (0°C, 32°F and freezing rain), very cold snow or ice can be slick and very hard to drive on. The vehicle will have much less traction or "grip" under these conditions. Try to avoid driving on wet ice until the road is salted or sanded.**
- **Whatever the condition, drive with caution. Accelerate and slow down with care. If accelerating or downshifting too fast, the drive wheels will lose even more traction.**
- **Allow more stopping distance under these conditions. Braking should be started sooner than on dry pavement.**
- **Allow greater following distances on slippery roads.**
- **Watch for slippery spots (glare ice). These may appear on an otherwise clear road in shaded areas. If a patch of ice is seen ahead, brake before reaching it. Try not to brake while on the ice, and avoid any sudden steering maneuvers.**
- **Do not use the cruise control on slippery roads.**
- **Snow can trap dangerous exhaust gases under your vehicle. Keep snow clear of the exhaust pipe and from around your vehicle.**

NOTICE

When driving on snow, select the SAVE mode with the setup switch. By selecting the SAVE mode, the engine output is regulated appropriately for snow or slippery road surfaces. This enables the vehicle to start or accelerate smoothly.

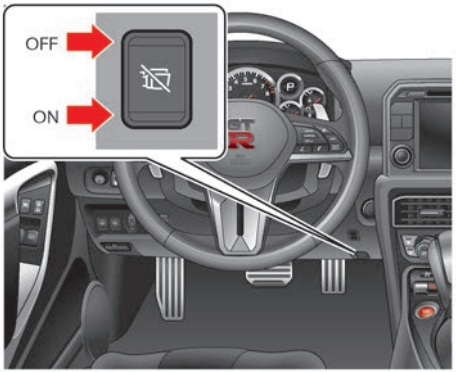
PARKING BRAKE

When parking in an area where the outside temperature is below 0°C (32°F), do not apply the parking brake in order to prevent it from freezing. For safe parking:

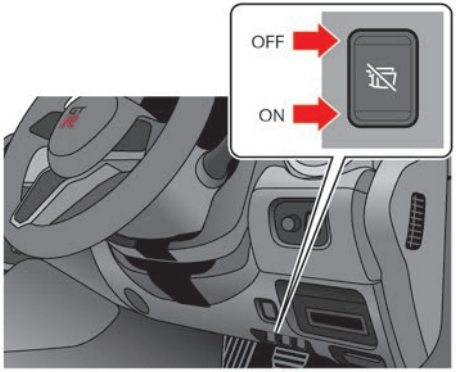
- Place the shift lever in the **P** position.
- Securely block the wheels.

EXHAUST SOUND CONTROL SYSTEM

This system enhances exhaust sound silencing by closing the electronic control valve when starting the engine, and while idling after starting the engine.



Left-Hand Drive (LHD) model



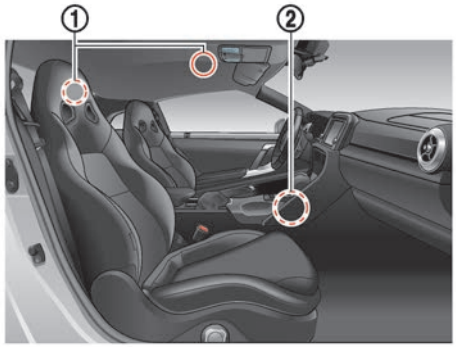
Right-Hand Drive (RHD) model

To close the electronic control valve, push the exhaust sound control switch to the ON side.

To open the electronic control valve, push the exhaust sound control switch to the OFF side.

NOTE:

Do not disconnect the electronic control valve connector. If the connector is not plugged in, the system will detect this as a malfunction and engine output will be limited.



NOTE:

To operate the active noise cancellation and active sound enhancement system properly:

- Do not cover the speakers or woofer.
- Do not cover the microphones.
- Do not change or modify speakers including the woofer and any audio related parts such as the amplifier.
- Do not make any modification including sound deadening or modifications around the microphones, speakers or woofer.

ACTIVE NOISE CANCELLATION

The active noise cancellation uses the front and rear microphones ① to detect engine booming noise. The system then automatically generates a noise cancelling sound through the speakers ② and woofer ③ to reduce engine booming noise.

The front and rear microphones ① are located inside of the roof.

The front speakers are located on the doors and the woofer is located in between the rear seats.

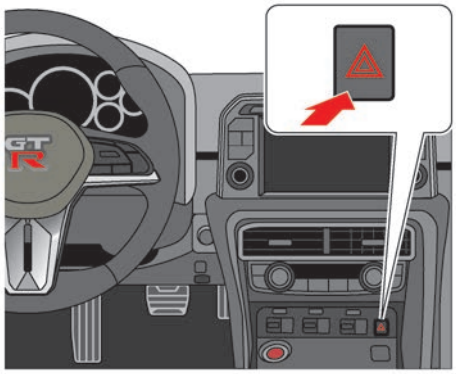
ACTIVE SOUND ENHANCEMENT

The active sound enhancement generates sounds according to engine speed and driving modes selected by the Vehicle Dynamic Control (VDC) system, transmission and suspension setup switches through the speakers ② and woofer ③ to enhance the quality of the engine sound.

In addition, if the gear is shifted or the accelerator pedal is quickly operated when the transmission setup switch is in R mode and the engine warmed up, a sound effect is output to enhance the sense of sportiness. (☞ “R mode” page 5-24)

6 In case of emergency

HAZARD WARNING FLASHER SWITCH



Push the switch on to warn other drivers when you must stop or park under emergency conditions. All turn signal lights will flash.

The flasher can be actuated with the ignition switch in any position.

⚠ WARNING

- **If stopping for an emergency, be sure to move the vehicle well off the road.**
- **Do not use the hazard warning flashers while moving on the highway unless unusual circumstances force you to drive so slowly that your vehicle might become a hazard to other traffic.**
- **Turn signals do not work when the hazard warning flasher lights are on.**

FLAT TIRE

TIRE PRESSURE MONITORING SYSTEM (TPMS)

This vehicle is equipped with the Tire Pressure Monitoring System (TPMS). It monitors tire pressure of all tires. When the low tire pressure warning light is lit, one or more of your tires is significantly under-inflated. If the vehicle is being driven with low tire pressure, the TPMS will activate and warn you of it by the low tire pressure warning light (in the meter) or the warning message (on the display). This system will activate only when the vehicle is driven at speeds above 25 km/h (16 MPH). (☞ "Low tire pressure warning light" page 2-27) (☞ "Tire Pressure Monitoring System (TPMS)" page 5-4)

⚠ WARNING

- **If the low tire pressure warning light illuminates while driving, avoid sudden steering maneuvers or abrupt braking, reduce vehicle speed, pull off the road to a safe location and stop the vehicle as soon as possible. Driving with under-inflated tires may permanently damage the tires and increase the likelihood of tire failure. Serious vehicle damage could occur and may lead to an accident and could result in serious personal injury. Check the tire pressure for all four tires.**

Adjust the tire pressure to the recommended COLD tire pressure shown on the Tire Placard label to turn the low tire pressure warning light off. If the light still illuminates while driving after adjusting the tire pressure, a tire may be flat (☞ "Run-flat tires" page 6-3) or the TPMS may be malfunctioning. If no tire is flat and all tires are properly inflated, have the vehicle checked by a NISSAN High Performance Center (NHPC).

- **When a wheel is replaced, the TPMS will not function and the low tire pressure warning light will flash for approximately 1 minute. The light will remain on after 1 minute. Contact a NISSAN High Performance Center (NHPC) as soon as possible for tire replacement and/or system resetting.**
- **Replacing tires with those not originally specified by NISSAN could affect the proper operation of the TPMS.**
- **Do not inject any tire liquid or aerosol tire sealant into the tires, as this may cause a malfunction of the tire pressure sensors.**

NOTE:

- **You can check the pressure of all four tires on the touch screen display. See the separate Multi Function Display Owner's Manual.**
- **The tires of this vehicle are filled with nitrogen gas. When the tire pressure is low, fill the tires with nitrogen. Contact a NISSAN High Performance Center (NHPC) for information on filling the tires with nitrogen.**
- **If nitrogen is not available, compressed air may be safely used under normal driving conditions. However, NISSAN recommends refilling with nitrogen for maximum tire performance.**

RUN-FLAT TIRES

Run-flat tires are those tires that can be used temporarily if they are punctured. (☞ "Run-flat tires" page 8-42)

Also, see the tire safety information in a separate warranty booklet.

⚠ WARNING

- **Although you can continue driving with a punctured run-flat tire, remember that vehicle handling stability is reduced, which could lead to an accident and personal injury. Also, driving a long distance at high speeds may damage the tires.**
- **Do not drive at speeds above 80 km/h (50 MPH) and do not drive more than 80 km (50 miles) with a punctured run-flat tire. The actual distance the vehicle can be driven on a flat tire depends on outside temperature, vehicle load, road conditions and other factors.**
- **Drive safely at reduced speeds. Avoid hard cornering or braking, which may cause you to lose control of the vehicle.**

NOTICE

- **Never install tire chains on a punctured run-flat tire, as this could damage your vehicle.**
- **Avoid driving over any projection or pothole, as the clearance between the vehicle and the ground is smaller than normal.**
- **Do not enter an automated car wash with a punctured run-flat tire.**
- **Have the punctured tire replaced by your NISSAN High Performance Center (NHPC) as soon as possible, as the tire's performance capability is reduced.**

If you have a flat tire and have to stop the vehicle, follow the instructions below.

1. Safely move the vehicle off the road and away from traffic.
2. Turn on the hazard warning flashers.
3. Park on a level surface and apply the parking brake. Move the shift lever to the P position.
4. Turn off the engine.
5. Raise the hood to warn other traffic, and to signal professional road assistance personnel that you need assistance.
6. Have all passengers get out of the vehicle and stand in a safe place, away from traffic and clear of the vehicle.

For the tire removing procedure, see the following section. (☞ "Jacking vehicle and removing wheels" page 8-45)

JUMP STARTING

The following circumstances indicate that the battery is discharged.

- The starter motor does not turn or it turns weakly and the engine does not start.
- The vehicle lights are much dimmer than usual.
- The sound of the horn is weak. The horn makes no sound.

NOTICE

When the battery is discharged, do not close either of the front doors. The automatic window adjusting function will not work, and the side roof panel may be damaged.

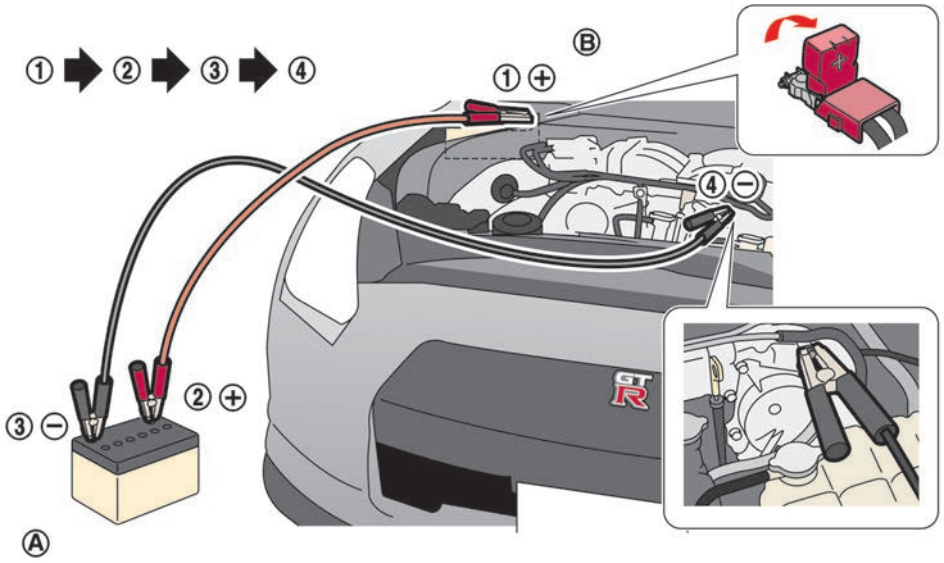
To start your engine with a booster battery, the instructions and precautions below must be followed.

For the battery maintenance information, see the following section. (☞ "Battery" page 8-15)

⚠ WARNING

- **If done incorrectly, jump starting can lead to a battery explosion, resulting in severe injury or death. It could also damage your vehicle.**
- **Explosive hydrogen gas is always present in the vicinity of the battery. Keep all sparks and flames away from the battery.**
- **Do not allow battery fluid to come into contact with eyes, skin, clothing or painted surfaces. Battery fluid is a corrosive sulphuric acid solution which can cause severe burns. If the fluid should come into contact with anything, immediately flush the contacted area with water.**
- **Keep the battery out of the reach of children.**
- **The booster battery must be rated at 12 volts. Use of an improperly rated battery can damage your vehicle.**
- **Whenever working on or near a battery, always wear suitable eye protectors (for example, goggles or industrial safety spectacles) and remove rings, metal bands, or any other jewelry. Do not lean over the battery when jump starting.**
- **Do not attempt to jump start a frozen battery. It could explode and cause serious injury.**
- **Your vehicle has an automatic engine cooling fan. It could come on at any time. Keep hands and**

other objects away from it.



⚠ WARNING

Always follow the instructions below. Failure to do so could result in damage to the charging system and cause personal injury.

1. If the booster battery is in another vehicle Ⓐ, position the two vehicles (Ⓐ and Ⓑ) to bring their batteries into close proximity to each other. **Do not allow the two vehicles to touch.**
2. Apply parking brake. Move the shift lever to the **P** position. Switch off all unnecessary electrical systems (light, heater, air conditioner, etc.).
3. Remove the battery cover. Cover the battery with a firmly wrung out moist cloth to reduce explosion hazard.
4. Connect jumper cables in the sequence as illustrated (① → ② → ③ → ④).

   If the battery is disconnected or discharged, the steering wheel will lock and cannot be turned. Supply power using jumper cables before pushing the ignition switch and disengaging the steering lock.

⚠ CAUTION

- **Always connect positive (+) to positive (+) and negative (–) to body ground (as illustrated), not to the battery.**
- **Make sure that the jumper cables do not touch moving parts in the engine compartment and that clamps do not contact any other metal.**

5. Start the engine of the booster vehicle Ⓐ and let it run for a few minutes.
6. Keep the engine speed of the booster vehicle Ⓐ at about 2,000 rpm, and start the engine of the vehicle being jump started Ⓑ.

NOTE:
Do not keep the starter motor engaged for more than 10 seconds. If the engine does not start right away, push the ignition switch to the OFF position and wait 10 seconds before trying again.

7. After starting your engine, carefully disconnect the negative cable and then the positive cable (④ → ③ → ② → ①).
8. Be sure to dispose of the cloth used to cover the vent holes as it may be contaminated with corrosive acid.
9. Put the battery cover on.

NOTE:

If the clamp clip is difficult to connect to the battery terminal, remove the cowl top cover to make it easier. (☞ "Removing the cowl top cover" page 8-7)

PUSH STARTING

Do not attempt to start the engine by pushing.

NOTICE

Your NISSAN cannot be push-started or tow-started. Attempting to do so may cause transmission damage.

IF YOUR VEHICLE OVERHEATS

⚠ WARNING

- **Do not continue to drive if your vehicle overheats. Doing so could cause engine damage or a vehicle fire.**
- **To avoid the danger of being scalded, never remove the radiator filler cap and the coolant reservoir cap while the engine is still hot. When the cap is removed, pressurized hot water will spurt out, possibly causing serious injury.**
- **Do not open the hood if steam is coming out.**

If your vehicle is overheating (indicated by an extremely high temperature gauge reading), or if you feel a lack of engine power, detect unusual noise, etc., take the following steps:

1. Move the vehicle safely off the road, apply the parking brake and move the shift lever to the **P** position.

   Do not stop the engine.
2. Turn off the air conditioner. Open all the windows, move the temperature control to maximum hot and fan control to high speed.
3. If engine overheating is caused by climbing a long hill on a hot day, run the engine at a fast idle (approxi-

mately 1,500 rpm) until the temperature gauge indication returns to normal.

4. Get out of the vehicle. Look and listen for steam or coolant escaping from the radiator before opening the hood. (If steam or coolant is escaping, turn off the engine.) Do not open the hood further until no steam or coolant can be seen.
5. Open the engine hood.

⚠ WARNING

If steam or water is coming from the engine, stand clear to prevent getting burned.

6. Visually check drive belts for damage or looseness. Also check if the cooling fan is running. The radiator hoses and radiator should not leak water. If coolant is leaking, the drive belts are missing or loose, or the cooling fan does not run, stop the engine.

⚠ WARNING

Be careful not to allow your hands, hair, jewelry or clothing to come into contact with, or get caught in, engine belts or the engine cooling fan. The engine cooling fan can start at any time.

7. When the coolant temperature gauge goes down to the midpoint, stop the engine and wait until the gauge goes down further to "C" (cold).
8. After the engine cools down, check the coolant level in the reservoir tank. Add coolant to the reservoir, if necessary, after opening the coolant reservoir cap with a heavy cloth covering it. (☞ "Engine cooling system" page 8-8)
9. Have your vehicle repaired at the nearest NISSAN High Performance Center (NHPC).

TOWING YOUR VEHICLE

When towing your vehicle, local regulations for towing must be followed. Incorrect towing equipment could damage your vehicle. Towing instructions are available from a NISSAN High Performance Center (NHPC). Local service operators are familiar with the applicable laws and procedures for towing. To assure proper towing and to prevent accidental damage to your vehicle, NISSAN recommends that you have a service operator tow your vehicle. It is advisable to have the service operator carefully read the following precautions.

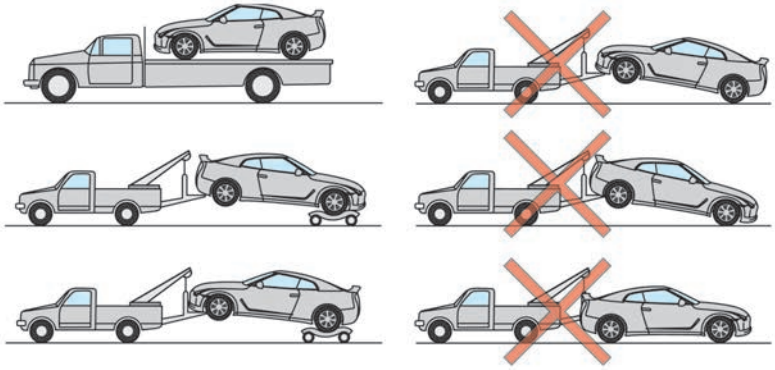
⚠ WARNING

- **Never ride in a vehicle that is being towed.**
- **Never get under your vehicle after it has been lifted by a tow truck.**

⚠ CAUTION

Always attach safety chains before towing.

TOWING RECOMMENDED BY NISSAN

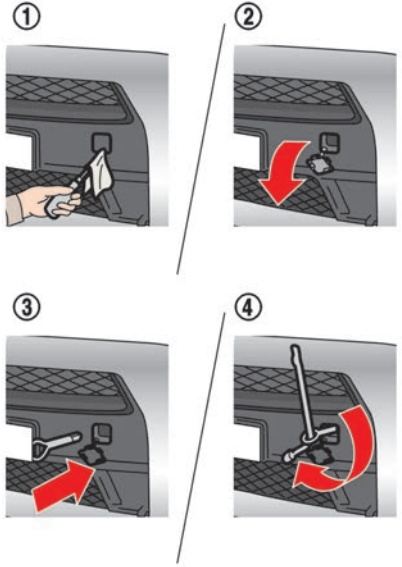


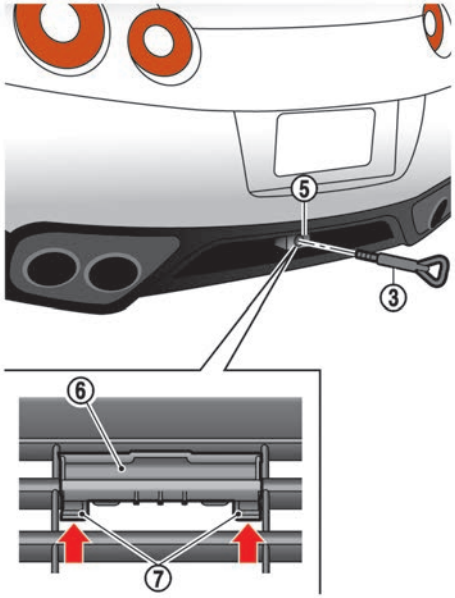
NISSAN recommends that towing dollies be used when towing your vehicle or the vehicle be placed on a flat bed truck as illustrated.

NOTICE

Never tow the vehicle with any of the wheels on the ground as this may cause serious and expensive damage to the powertrain.

VEHICLE RECOVERY (freeing a stuck vehicle)





Rear

⚠ WARNING

- **Stand clear of a stuck vehicle.**
- **Do not spin your tires at high speed. This could cause them to explode and result in serious injury. Parts of your vehicle could also overheat and be damaged.**

Pulling a stuck vehicle

If your vehicle is stuck in sand, snow, mud, etc., use a tow strap or other device designed specifically for vehicle recovery. Always follow the manufacturer's instructions for the recovery device.

Front:

Using a suitable tool wrapped with a cloth ①, remove the cover ② from the front bumper.

Securely install the vehicle recovery hook ③ stored in the toolbox located under the front passenger's floor. Use the wheel nut wrench ④ as illustrated to secure the recovery hook. Attach the tow strap to the recovery hook. Make sure that the hook is properly secured in the original place after use.

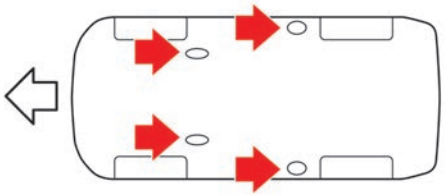
Rear:

The rear hook ⑤ is designed as the recovery hook.

To remove the cover ⑥ from the rear bumper, first push in the tabs ⑦ until they unlatch and then pull the cover.

Securely install the recovery hook ③ to the attaching mount located on the rear bumper.

Make sure that the recovery hook is properly secured in its storage location after use.



Do not use the tie down hooks for towing or vehicle recovery.

⚠ CAUTION

- **Do not use the vehicle tie downs to free a vehicle stuck in sand, snow, mud, etc.**
- **Always pull the cable straight out from the vehicle. Never pull on the vehicle at an angle.**
- **Pulling devices such as ropes or canvas straps are not recommended for use in vehicle towing or recovery.**

NOTICE

- **Tow chains or cables must be attached only to the vehicle recovery hooks or main structural members of the vehicle. Otherwise, the vehicle body will be damaged.**
- **Never tow a vehicle using the vehicle tie downs or recovery hooks.**
- **Pulling devices should be routed so they do not touch any part of the suspension, steering, brake or cooling systems.**

Rocking a stuck vehicle

If your vehicle is stuck in sand, snow, mud, etc., use the following procedure:

1. Turn off the Vehicle Dynamic Control (VDC) or Electronic Stability Program (ESP) system and select SAVE mode with the transmission setup switch. (☞ "VDC/ESP, transmission and suspension setup switches" page 5-23)
2. Make sure the area in front and behind the vehicle is clear of obstructions.
3. Turn the steering wheel right and left to clear an area around the front tires.
4. Slowly rock the vehicle forward and backward.
   - Shift back and forth between the R and A↔M positions.
   - Apply the accelerator as little as possible to maintain the rocking motion.
   - Release the accelerator pedal before shifting between the R and A↔M positions.
   - Do not spin the tires above 55 km/h (35 MPH).
5. Turn on the Vehicle Dynamic Control (VDC) or Electronic Stability Program (ESP) system.
6. If the vehicle cannot be freed after a few tries, contact a professional towing service to remove the vehicle.

7 Appearance and care

CLEANING EXTERIOR

In order to maintain the appearance of your vehicle, it is important to take proper care of it.

To protect the paint surfaces, wash your vehicle as soon as you can:

- after a rainfall to prevent possible damage from acid rain
- after driving on coastal roads
- when contaminants such as soot, bird droppings, tree sap, metal particles or bugs get on the paint surface
- when dust or mud builds up on the surface

Whenever possible, store or park your vehicle inside a garage or in a covered area.

When it is necessary to park outside, park in a shady area or protect the vehicle with a body cover.

Be careful not to scratch the paint surface when putting on or removing the body cover.

WASHING

⚠ WARNING

Do not use a wax on the glass, rubber or plastic parts around the glass or door. This may prevent window operation, or cause poor visibility which can cause a collision, personal injury or death.

NOTICE

- **Do not use compound agents on clear-coated carbon parts (such as the NISMO model's bumper, side sill protector, rear spoiler, roof, hood duct, front fender duct, etc.).**
- **Do not use any chemical agents (wax, coating agent, compound agent, etc.) on matte-painted carbon parts (such as the rear diffuser, a rear spoiler that is of specifications other than NISMO, etc.).**

Wash dirt off the vehicle with a wet sponge and plenty of water. Clean the vehicle thoroughly using a mild soap, a special vehicle soap or general purpose dishwashing liquid mixed with clean, lukewarm (never hot) water.

NOTICE

- **Do not use an automatic car wash. The rear spoiler may be damaged.**
- **Do not use car washes that use acid in the detergent. Some car washes, especially brushless ones, use some acid for cleaning. The acid may react with some plastic vehicle components, causing them to crack. This could affect their appearance, and also could cause them not to function properly. Always check with your car wash to confirm that acid is not used.**
- **Do not wash the vehicle with strong household soap, strong chemical detergents, gasoline or solvents.**
- **Do not wash the vehicle in direct sunlight or while the vehicle body is hot, as the surface may become water-spotted.**
- **Avoid using tight-napped or rough cloths, such as washing mitts. Care must be taken when removing caked-on dirt or other foreign substances so the paint surface is not scratched or damaged.**
- **For models with decorative sticker and/or protection film on front fender and rear bumper, observe the following:**
  - **— Wash dirt off the vehicle with a wet sponge and plenty of water. Then wipe the vehicle gently using a soft cloth.**
  - **— Do not apply direct water pressure, such as high-pressure sprayer, on the vehicle body around the sticker and/or protection film. This may cause the sticker and/or pro-**

tection film edges to peel away or come off from the vehicle.

Rinse the vehicle thoroughly with plenty of clean water.

Inside flanges, seams and folds on the doors, hatches and hood are particularly vulnerable to the effects of road salt. Therefore, these areas must be regularly cleaned. Take care that the drain holes in the lower edge of the door are open. Spray water under the body and in the wheel wells to loosen the dirt and wash away road salt.

Avoid leaving water spots on the paint surface by using a damp chamois to dry the vehicle.

WAXING

Regular waxing protects the paint surface and helps retain new vehicle appearance. Polishing is recommended to remove built-up wax residue and to avoid a weathered appearance before reapplying wax.

A NISSAN High Performance Center (NHPC) can assist you in choosing the proper product.

- Wax your vehicle only after a thorough washing. Follow the instructions supplied with the wax.
- Do not use a wax containing any abrasives, cutting compounds or cleaners that may damage the vehicle finish.

Machine compound or aggressive polishing on a base coat/clear coat paint finish may dull the finish or leave swirl marks.

⚠ WARNING

Do not use wax on the glass, rubber or plastic parts around the glass or door. This may prevent the window operation or cause poor visibility and the wax cannot be coated uniformly.

NOTICE

- **Do not use compound agents on clear-coated carbon parts (such as the NISMO model's bumper, side sill protector, rear spoiler, roof, hood duct, front fender duct, etc.).**
- **Do not use any chemical agents (wax, coating agent, compound agent, etc.) on matte-painted carbon parts (such as the rear diffuser, a rear spoiler that is of specifications other than NISMO, etc.).**

REMOVING SPOTS

Remove tar and oil spots, industrial dust, insects, and tree sap as quickly as possible from the paint surface to avoid lasting damage or staining. Special cleaning products are available at a NISSAN High Performance Center (NHPC) or any automotive accessory stores.

UNDERBODY

In areas where road salt is used in winter, the underbody must be cleaned regularly. This will prevent dirt and salt from building up and causing the acceleration of corrosion on the underbody and suspension. Before the winter period and again in the spring, the underseal must be checked and, if necessary, re-treated.

GLASS

Use glass cleaner to remove smoke and dust film from the glass surfaces. It is normal for glass to become coated with a film after the vehicle is parked in the hot sun. Glass cleaner and a soft cloth will easily remove this film.

NOTICE

When cleaning the inside of the windows, do not use sharp-edged tools, abrasive cleaners or chlorine-based disinfectant cleaners. They could damage the electrical conductors, radio antenna elements or rear

window defroster elements.

WHEELS

Wash the wheels when washing the vehicle to maintain their appearance.

- Clean the inner side of the wheels when the wheel is changed or the underside of the vehicle is washed.
- Inspect wheel rims regularly for dents or corrosion. Such damage may cause loss of pressure or poor seal at the tire bead.
- NISSAN recommends that the road wheels be waxed to protect against road salt in areas where it is used during winter.

⚠ CAUTION

Do not use abrasive cleaners when washing the wheels.

Aluminum alloy wheels

Wash regularly with a sponge dampened in a mild soap solution, especially during winter months in areas where road salt is used. Salt could discolor the wheels if not removed.

Small scratches or dirt may be found on the wheels when your vehicle is delivered. These are due to the test drives performed for the quality validation before the delivery.

It may discolor to black depending on storage conditions. If only one wheel is changed, it may be different color with other wheels. If the wheel is changed, consult with a NISSAN High Performance Center (NHPC).

NOTICE

Follow the directions below to avoid staining or discoloring the wheels:

- **Do not use a cleaner that uses strong acid or alkali contents to clean the wheels.**
- **Do not apply wheel cleaners to the wheels when they are hot. The wheel temperature should be the same as ambient temperature.**
- **Rinse the wheel to completely remove the cleaner within 15 minutes after the cleaner is applied.**

CHROME PARTS

Clean chrome parts regularly with a non-abrasive chrome polish to maintain the finish.

FRONT GRILLE

Use alcohol (IPA), such as ethanol, to remove dirt, tar and oil spots, etc. that adheres to the surface of plated parts.

OUTSIDE DOOR HANDLES

After driving on a road where salt is used in winter, immediately wash and clean the outside door handles that are provided with a special coating. This will keep the beautiful finish longer.

TIRE DRESSING

NISSAN does not recommend the use of tire dressings. Tire manufacturers apply a coating to the tires to help reduce discoloration of the rubber. If a tire dressing is applied to the tires, it may react with the coating and form a compound. This compound may come off the tire while driving and stain the vehicle paint.

If you choose to use a tire dressing, take the following precautions:

- Use a water-based tire dressing. The coating on the tire dissolves more easily with an oil-based tire dressing.
- Apply a light coat of tire dressing to help prevent it from entering the tire tread/grooves (where it would be difficult to remove).

- Wipe off excess tire dressing using a dry towel. Make sure the tire dressing is completely removed from the tire tread/grooves.
- Allow the tire dressing to dry as recommended by tire dressing manufacturer.

CLEANING INTERIOR

Occasionally remove loose dust from the interior trim, plastic parts and seats using a vacuum cleaner or soft bristled brush. Wipe the vinyl and leather surfaces with a clean, soft cloth dampened in mild soap solution, then wipe clean with a dry soft cloth.

Regular care and cleaning is required in order to maintain the appearance of the leather.

Before using any fabric protector, read the manufacturer's recommendations. Some fabric protectors contain chemicals that may stain or bleach the seat material.

Use a cloth dampened only with water, to clean the meter and gauge lens.

⚠ WARNING

- **For the model with the Advanced Air Bag system, do not use water or acidic cleaners (hot steam cleaners) on the seat. This can damage the seat or occupant classification sensor. This can also affect the operation of the air bag system and result in serious personal injury.**
- **Never use benzine, thinner, or any similar material.**

⚠ CAUTION

- **Small dirt particles can be abrasive and damaging to the leather surfaces and should be removed promptly. Do not use saddle soap, car waxes, polishes, oils, cleaning fluids, solvents, detergents or ammonia-based cleaners as they may damage the leather's natural finish.**
- **Never use fabric protectors unless recommended by the manufacturer.**
- **Do not use glass or plastic cleaner on meter or gauge lens covers. It may damage the lens cover.**

AIR FRESHENERS

Most air fresheners use a solvent that could affect the vehicle interior. If you use an air freshener, take the following precautions:

- Hanging-type air fresheners can cause permanent discoloration when they contact vehicle interior surfaces. Place the air freshener in a location that allows it to hang free and not contact an interior surface.
- Liquid-type air fresheners typically clip on the vents. These products can cause immediate damage and discoloration when spilled on interior sur-

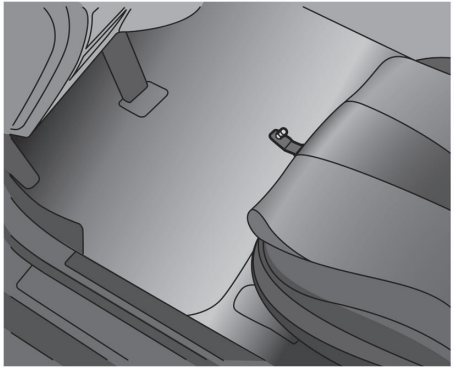
faces.

Carefully read and follow the manufacturer's instructions before using air fresheners.

FLOOR MATS

The use of NISSAN floor mats can extend the life of your vehicle carpet and make it easier to clean the interior. **No matter what mats are used, be sure they are fitted for your vehicle and are properly positioned in the footwell to prevent interference with pedal operation.** Mats should be maintained with regular cleaning and replaced if they become excessively worn.

Floor mat positioning aid



This vehicle includes front floor mat brackets to act as floor mat positioning aid. NISSAN floor mats have been specially designed for your vehicle model. The front floor mats have grommet holes in them. To install, position the mat by placing the floor mat bracket hook through the floor mat grommet hole while centering the mat in the footwell.

Periodically check to make certain that the mats are properly positioned.

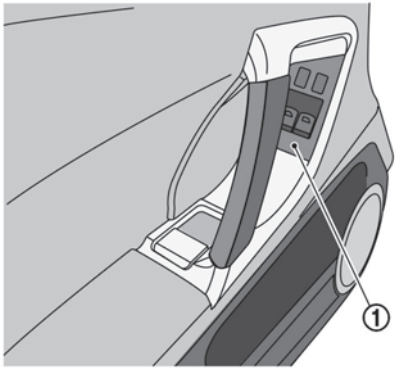
SEAT BELTS

The seat belts can be cleaned by wiping them with a sponge dampened in a mild soap solution. Allow the belts to dry completely in the shade before using them. (☞ "Seat belt maintenance" page 1-12)

⚠ WARNING

Do not allow wet seat belts to roll up in the retractor. NEVER use bleach, dye, or chemical solvents to clean the seat belts, since these materials may severely weaken the seat belt webbing.

Cleaning the power window finisher



Moisten a soft cloth with neutral detergent and wipe off the dirt on the power window finisher ①.

After wiping off the dirt, soak a cloth with water and wring it out thoroughly, then wipe off the neutral detergent.

NOTICE

Some cleaners may cause the paint to peel or cause spots to occur. If using a cleaner, consult with a NISSAN High Performance Center (NHPC).

CLEANING CARBON PARTS (if equipped)

Because of the characteristics of the material, the carbon parts may turn yellow due to exposure to ultraviolet rays. The surfaces of carbon parts are coated with a special ultraviolet protection paint. To maintain the appearance of these parts, it is important to take proper care of them.

- Do not use compound agents on clear-coated carbon parts (such as the NISMO model's bumper, side sill protector, rear spoiler, roof, hood duct, front fender duct, etc.).
- Do not use any chemical agents (wax, coating agent, compound agent, etc.) on matte-painted carbon parts (such as the rear diffuser, a rear spoiler that is of specifications other than NISMO, etc.).
- When carbon parts become dirty, prepare a dilute cleaning solution by mixing one capful of mild detergent in a bucket of water, and use that mixture to clean the parts.

CORROSION PROTECTION

MOST COMMON FACTORS CONTRIBUTING TO VEHICLE CORROSION

- The accumulation of moisture-retaining dirt and debris in body panel sections, cavities, and other areas.
- Damage to paint and other protective coatings caused by gravel and stone chips or minor traffic accidents.

ENVIRONMENTAL FACTORS INFLUENCE THE RATE OF CORROSION

Moisture

Accumulation of sand, dirt and water on the vehicle body underside can accelerate corrosion. Wet floor coverings will not dry completely inside the vehicle, and should be removed for drying to avoid floor panel corrosion.

Relative humidity

Corrosion will be accelerated in areas of high relative humidity, especially those areas where the temperatures stay above freezing where atmospheric pollution exists, or where road salt is used.

Temperature

A temperature increase will accelerate the rate of corrosion to those parts which are not well ventilated.

Air pollution

Industrial pollution, the presence of salt in the air in coastal areas, or heavy road salt use will accelerate the corrosion process. Road salt will also accelerate the disintegration of paint surfaces.

TO PROTECT YOUR VEHICLE FROM CORROSION

- Wash and wax your vehicle often to keep the vehicle clean.
- Always check for minor damage to the paint and repair it as soon as possible.
- Keep drain holes at the bottom of the doors open to avoid water accumulation.
- Check the underbody for accumulation of sand, dirt or salt. If present, wash with water as soon as possible.

⚠ CAUTION

- **NEVER remove dirt, sand or other debris from the passenger compartment by washing it out with a hose. Remove dirt with a vacuum cleaner.**
- **Never allow water or other liquids to come in contact with electronic components inside the vehicle as this may damage them.**

Chemicals used for road surface deicing are extremely corrosive. They accelerate corrosion and deterioration of underbody components such as the exhaust system, fuel and brake lines, brake cables, floor pan and fenders.

In winter, the underbody must be cleaned periodically.

For additional protection against rust and corrosion, which may be required in some areas, consult a NISSAN High Performance Center (NHPC).

8 Maintenance and do-it-yourself

MAINTENANCE REQUIREMENT

Some day-to-day and regular maintenance is essential to maintain your vehicle good mechanical condition, as well as its emission and engine performance.

It is the owner's responsibility to make sure that the scheduled maintenance, as well as general maintenance, is performed.

As the vehicle owner, you are the only one who can ensure that your vehicle receives the proper maintenance care.

SCHEDULED MAINTENANCE

For your convenience, the required scheduled maintenance items are described and listed in a separate Warranty Information and Maintenance booklet. You must refer to that booklet to ensure that necessary maintenance is performed on your vehicle at regular intervals.

GENERAL MAINTENANCE

General maintenance includes those items which should be checked during normal day-to-day operation of the vehicle. They are essential if your vehicle is to continue to operate properly. It is your responsibility to perform these procedures regularly as prescribed.

Performing general maintenance checks requires minimal mechanical skill and only a few general automotive tools.

These checks or inspections can be done by yourself, a qualified technician or, if you prefer, a NISSAN High Performance Center (NHPC).

WHERE TO GO FOR SERVICE

NISSAN High Performance Centers (NHPC) are required to have additional training and equipment, and only NISSAN High Performance Centers (NHPC) are authorized to perform warranty work on key vehicle performance systems such as engine, transmission, suspension and brakes.

If maintenance service is required or your vehicle appears to malfunction, have the systems checked and serviced by a NISSAN High Performance Center (NHPC).

GENERAL MAINTENANCE

During the normal day-to-day operation of the vehicle, general maintenance should be performed regularly as prescribed in this section. If you detect any unusual sounds, vibrations or smell, be sure to check for the cause or have a NISSAN High Performance Center (NHPC) do it promptly. In addition, you should notify a NISSAN High Performance Center (NHPC) if you think that repairs are required. (☞ "Maintenance precautions" page 8-6)

EXPLANATION OF MAINTENANCE ITEMS

Additional information on the following items with "*" is found later in this section.

Outside the vehicle

The maintenance items listed here should be performed from time to time, unless otherwise specified.

Doors and engine hood: Check that all doors and the hood, operate properly. Also ensure that all latches lock securely. Lubricate hinges, latches, latch pins, rollers and links if necessary. Make sure that the secondary latch keeps the hood from opening when the primary latch is released.

When driving in areas using road salt or other corrosive materials, check lubrication frequently.

Lights*: Clean the headlights on a regular basis. Make sure that the headlights, stop lights, tail lights, turn signal lights, and other lights are all operating properly and installed securely. Also check headlight aim.

Road wheel nuts (lug nuts)*: When checking the tires, make sure no wheel nuts are missing, and check for any loose wheel nuts. Tighten if necessary.

Tire rotation*: Tires cannot be rotated because your vehicle is equipped with different sized tires in the front and rear.

Tires*: Check the pressure with a gauge often and always prior to long distance trips. If necessary, adjust the pressure in all tires to the pressure specified. Check carefully for damage, cuts or excessive wear.

NOTE:

- **You can check the pressure of all four tires on the touch screen display. See the separate Multi Function Display Owner's Manual.**
- **The tires of this vehicle are filled with nitrogen gas. When the tire pressure is low, fill the tires with nitrogen. Contact a NISSAN High Performance Center (NHPC) for information on filling the tires with nitrogen.**
- **If nitrogen is not available, compressed air may be safely used under normal driving conditions. However, NISSAN recommends refilling with nitrogen for maximum tire performance.**

Tire Pressure Monitoring System (TPMS) transmitter components: Replace grommet seal of transmitter in TPMS, when replacing each tire by reaching the wear limit.

Tire, wheel alignment and balance: If the vehicle should pull to either side while driving on a straight and level road, or if you detect uneven or abnormal tire wear, there may be a need for wheel alignment.

If the steering wheel or seat vibrates at normal highway speeds, wheel balancing may be needed.

Windshield: Clean the windshield on a regular basis. Check the windshield at least every six months for cracks or other damage. Have a damaged windshield repaired by a qualified repair facility.

Windshield wiper blades*: Check for cracks or wear if they do not wipe properly.

Inside the vehicle

The maintenance items listed here should be checked on a regular basis, such as when performing scheduled maintenance, cleaning the vehicle, etc.

Accelerator pedal: Check the pedal for smooth operation and make sure the pedal does not catch or require uneven effort. Keep the floor mat away from the pedal.

TransmissionP mechanism: On a fairly steep hill, check that your vehicle is held securely with the shift lever in the P position without applying any brakes.

Brake pedal: Check the pedal for smooth operation. If the brake pedal suddenly goes down further than normal, the pedal feels spongy or the vehicle seems to take longer to stop, see a NISSAN High Performance Center (NHPC) immediately. Keep the floor mat away from the pedal.

Brakes: Check that the brakes do not pull the vehicle to one side when applied.

Parking brake: Check the parking brake operation regularly. The vehicle should be securely held on a fairly steep hill with only the parking brake applied. If the parking brake needs to be adjusted, see a NISSAN High Performance Center (NHPC).

Seat belts: Check that all parts of the seat belt system (for example, buckles, anchors, adjuster and retractors) operate properly and smoothly, and are installed securely. Check the belt webbing for cuts, fraying, wear or damage.

Seats: Check seat position controls such as seat adjusters, seatback recliner, etc. to ensure they operate smoothly and that all latches lock securely in every position.

Steering wheel: Check for changes in the steering conditions, such as excessive free play, hard steering or strange noises.

Warning lights and chimes: Make sure that all warning lights and chimes are operating properly.

Windshield defroster: Check that the air comes out of the defroster outlets properly and in sufficient quantity when operating the heater or air conditioner.

Windshield wiper and washer*: Check that the wipers and washer operate properly and that the wipers do not streak.

Under the hood and vehicle

The maintenance items listed here should be checked periodically (for example, each time you check the engine oil or refuel).

Battery*: Check the fluid level in each cell. It should be between the MAX and MIN lines. Vehicles operated in high temperatures or under severe condition require frequent checks of the battery fluid level.

Brake fluid level*: Make sure that the brake fluid level is between the MAX and MIN lines on the reservoir.

Engine coolant level*: Check the coolant level when the engine is cold.

Engine drive belts*: Make sure that no belt is frayed, worn, cracked or oily.

Engine oil level*: Check the level after parking the vehicle on a level spot and turning off the engine. Wait at least 5 minutes for the oil to drain back into the oil pan before checking the oil.

Exhaust system: Make sure there are no loose supports, cracks or holes. If the sound of the exhaust seems unusual or there is a smell of exhaust fumes in the engine compartment, immediately have the exhaust system inspected by a NISSAN High Performance Center (NHPC). ("Exhaust gas (carbon monoxide)" page 5-3)

Fluid leaks: Check under the vehicle for fuel, oil, water or other fluid leaks after the vehicle has been parked for a while. Water dripping from the air conditioner after use is normal. If you should notice any leaks or if gasoline fumes are evident, check for the cause and have it corrected immediately.

Power steering fluid level* and lines: Check the level with the engine off. Check the lines for proper attachment, leaks, cracks, etc.

Radiator and hoses: Check the front of the radiator and clean off any dirt, insects, leaves, etc., that may have accumulated. Make sure the hoses have no cracks, deformation, rot or loose connections.

Underbody: The underbody is frequently exposed to corrosive substances such as those used on icy roads or to control dust. It is very important to remove these substances, otherwise rust will form on the floor pan, frame, fuel lines and around the exhaust system. At the end of winter, the underbody should be thoroughly flushed with plain water, being careful to clean those areas where mud and dirt may accumulate. ("Underbody" page 7-3)

Windshield washer fluid*: Check that there is adequate fluid in the reservoir.

MAINTENANCE PRECAUTIONS

When performing any inspection or maintenance work on your vehicle, always take care to prevent serious accidental injury to yourself or damage to the vehicle. The following are general precautions which should be closely observed.

⚠ WARNING

- **Park the vehicle on a level surface, apply the parking brake securely and block the wheels to prevent the vehicle from moving. Move the shift lever to the P position.**
- **Be sure the ignition switch is in the OFF or LOCK position when performing any parts replacement or repairs.**
- **If you must work with the engine running, keep your hands, clothing, hair and tools away from moving fans, belts and any other moving parts.**
- **It is advisable to secure or remove any loose clothing and remove any jewelry, such as rings, watches, etc. before working on your vehicle.**
- **Always wear eye protection whenever you work on your vehicle.**
- **If you must run the engine in an enclosed space such as a garage, be sure there is proper ventilation for exhaust gases to escape.**
- **Never get under the vehicle while it is supported by a jack.**
- **Keep smoking materials, flame and sparks away from fuel tank and the battery.**
- **Your vehicle is equipped with an automatic engine cooling fan. It may come on at any time without warning, even if the ignition key is in the OFF position and the engine is not running. To avoid injury, always disconnect the negative battery cable before working near the fan.**
- **The fuel filter or fuel lines should be serviced by a NISSAN High Performance Center (NHPC) because the fuel lines are under high pressure even when the engine is off.**

⚠ CAUTION

- **Do not work under the hood while the engine is hot. Turn the engine off and wait until it cools down.**
- **Avoid direct contact with used engine oil and coolant. Improperly disposed engine oil, coolant, and/or other vehicle fluids can damage the environment. Always conform to local regulations for disposal of vehicle fluid.**

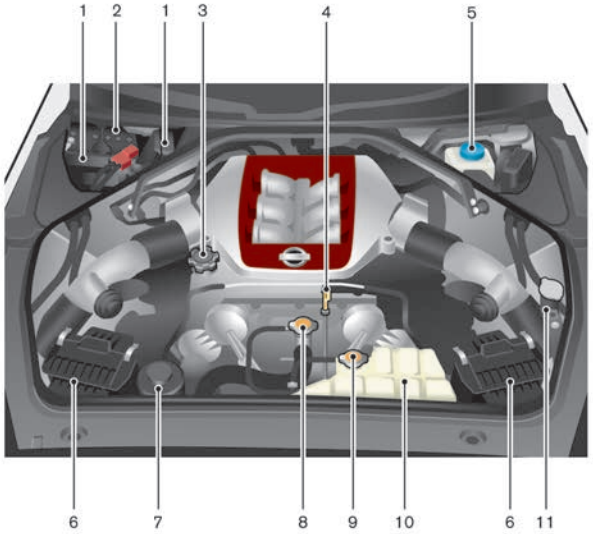
NOTICE

- **Never connect or disconnect the battery or any transistorized component while the ignition switch is in the ON position.**
- **Never leave the engine or transmission related component harnesses disconnected while the ignition switch is in the ON position.**

This "8. Maintenance and do-it-yourself" section gives instructions regarding only those items which are relatively easy for an owner to perform.

You should be aware that incomplete or improper servicing may result in operating difficulties or excessive emissions. **If in doubt about any servicing, we recommend that it be done by a NISSAN High Performance Center (NHPC).**

ENGINE COMPARTMENT CHECK LOCATIONS



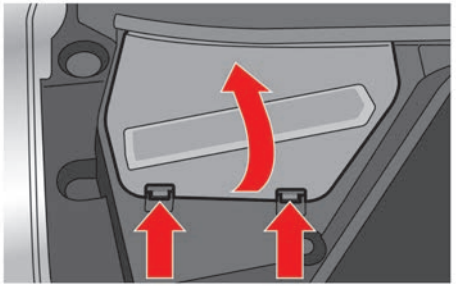
1. Fuse/fusible link holder*
2. Battery*
3. Engine oil filler cap
4. Engine oil dipstick
5. Brake fluid reservoir*
6. Air cleaner
7. Power steering fluid reservoir
8. Radiator filler cap
9. Coolant reservoir cap (pressure type)
10. Coolant reservoir
11. Window washer fluid reservoir

*: The layout illustrated is for the Left-Hand Drive (LHD) model. On the Right-Hand Drive (RHD) model, these components are located on the opposite side.

NOTICE

The coolant reservoir is equipped with a pressure type cap, and the radiator is equipped with a non-pressure type cap. Do not switch the radiator filler cap and the coolant reservoir cap. Doing so will cause substandard cooling performance and overheating.

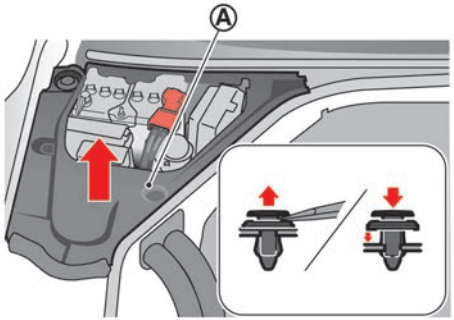
REMOVING THE COWL TOP COVER



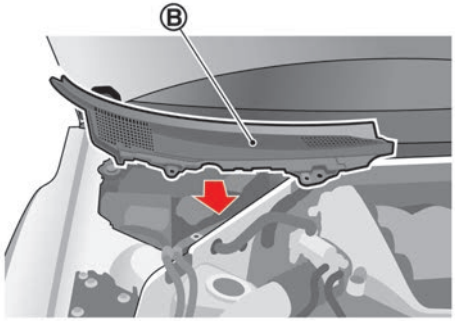
The layout illustrated is for the Left-Hand Drive (LHD) model. On the Right-Hand Drive (RHD) model, components are located on the opposite side.

Remove the cowl top cover if necessary.

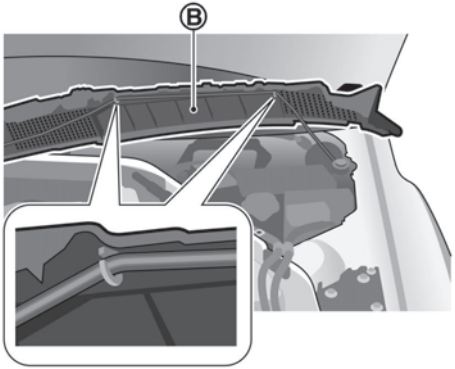
1. Remove the battery cover.



2. Unfasten the 5 clips and remove the cowl top cover Ⓐ by pulling it up.



3. Unfasten the 3 clips and remove the cowl top cover Ⓑ by pulling it towards the front of the vehicle.



4. Unfasten the washer hose from the 2 places where it is affixed to inside of the cowl top cover Ⓑ (for Right-Hand Drive (RHD) model).

ENGINE COOLING SYSTEM

The engine cooling system is filled at the factory with a high-quality, year-round, engine coolant solution. The engine coolant solution contains rust and corrosion inhibitors, therefore additional cooling system additives are not necessary.

⚠ WARNING

Never remove the radiator cap and engine coolant reservoir cap when the engine is hot. Wait until the engine and radiator cool down. Serious burns could be caused by high pressure fluid escaping from the radiator or coolant reservoir. (☞ "If your vehicle overheats" page 6-6)

NOTICE

- **Never use any cooling system additives such as radiator sealer. Additives may clog the cooling system and cause damage to the engine, transmission and/or cooling system.**
- **When adding or replacing coolant, be sure to use only a Genuine NISSAN Engine Coolant or equivalent in its quality with the proper mixture ratio shown in the following chart. The use of other types of coolant solutions may damage**

the engine cooling system.

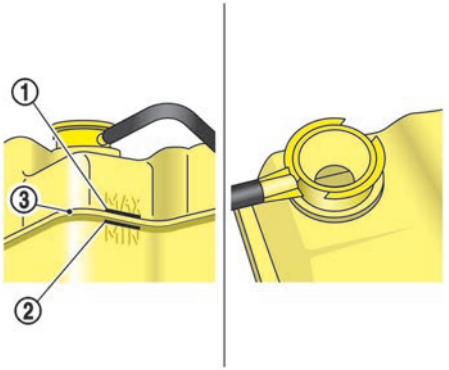
- **The coolant reservoir is equipped with a pressure type radiator cap. To prevent engine damage, use only a genuine NISSAN coolant reservoir cap.**

Outside temperature down to		Coolant mixture ratio		Driving conditions
°C	°F	Engine coolant	Demineralized water or distilled water	
–15	5	30%	70%	For maximum cooling performance
–30	–22	50%	50%	For driving in an extremely cold area

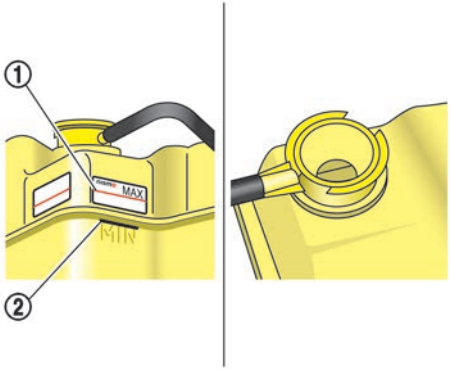
NOTE:

- **The coolant mixture ratio should be a combination of 30% engine coolant and 70% demineralized or distilled water for maximum cooling system performance.**
- **If ambient temperatures are anticipated to be below –15°C (5°F), make sure a proper mixture ratio of 50% engine coolant and 50% demineralized or distilled water mix is used.**
- **To maximize vehicle performance, the coolant mixture ratio should be a combination of 30% engine coolant and 70% demineralized or distilled water for maximum cooling system performance regardless of ambient temperatures.**

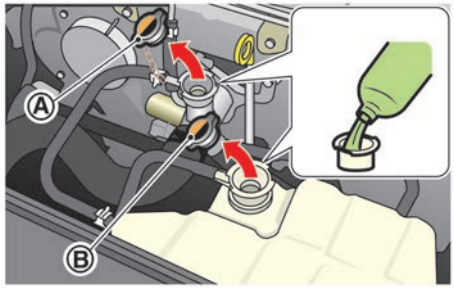
CHECKING ENGINE COOLANT LEVEL



Except for NISMO and Track edition engineered by nismo models



NISMO and Track edition engineered by nismo models



①: MAX line
②: MIN line
③: Between MAX and MIN lines (except for NISMO and Track edition engineered by nismo models)

Check the coolant level **in the reservoir when the engine is cold**. If the coolant level is below the MIN level ②, open the reservoir cap (pressure type) Ⓑ and add coolant up to between the MAX ① and MIN ② level. If the reservoir is empty, open the radiator filler cap Ⓐ and check the coolant level in the radiator **when the engine is cold**. If there is insufficient coolant in the radiator, fill the radiator with coolant up to the filler opening and also add it to the reservoir up to between the MAX ① and MIN ② level.

If the cooling system frequently requires coolant, have it checked by a NISSAN High Performance Center (NHPC).

Check that the level of coolant is between MAX and MIN on the pressurized radiator reservoir. If the level is below the midpoint, the amount of coolant circulating may be insufficient for maximum vehicle performance, possibly causing engine overheating or other trouble.

For the coolant level and mixture ratio when engaging in performance driving, see "Coolant level and mixture ratio" page GTR-18.

Except for NISMO and Track edition engineered by nismo models:

If it is difficult to determine the midpoint between MAX and MIN, remove the coolant reservoir cap and look inside through the opening to check that the coolant level is above the divider ③ between the top half and bottom half of the pressurized coolant reservoir.

NOTICE

- **The coolant reservoir is equipped with a pressure type cap, and the radiator is equipped with a non-pressure type cap. Do not switch the radiator filler cap and the coolant reservoir cap. Doing so will cause substandard cooling performance and overheating.**
- **If you have added only water as the coolant in an emergency, change it to a coolant mixture ratio specified as soon as possible.**

CHANGING ENGINE COOLANT

If major cooling system repairs are required, contact a NISSAN High Performance Center (NHPC). The service procedures can be found in the appropriate NISSAN Service Manual.

Improper servicing can result in reduced heater performance and engine overheating.

⚠ WARNING

- **To avoid the danger of being scalded, never change the cool-**

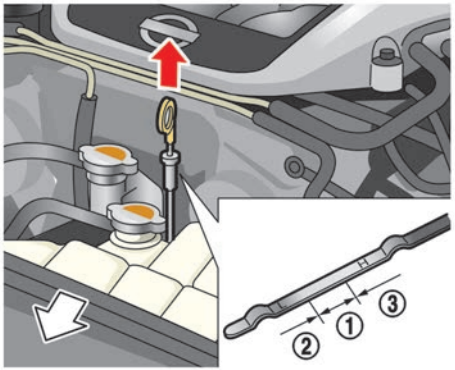
ant when the engine is hot.

- **Never remove the radiator filler cap and the coolant reservoir cap when the engine is hot. Serious burns could be caused by high pressure fluid escaping from the radiator and reservoir.**
- **Avoid direct skin contact with used coolant. If skin contact is made, wash thoroughly with soap or hand cleaner as soon as possible.**
- **Keep coolant out of reach of children and pets.**

Engine coolant must be disposed of properly. Check your local regulations.

ENGINE OIL

CHECKING ENGINE OIL LEVEL



1. Park the vehicle on a level surface and apply the parking brake.
2. Run the engine until it reaches operating temperature.
3. Turn off the engine. **Wait at least 5 minutes for the oil to drain back into the oil pan before checking the oil.**
4. Remove the dipstick and wipe it clean. Reinsert it all the way.
5. Remove the dipstick again and check the oil level. It should be within the range ①. If the oil level is below ②, remove the oil filler cap and pour recommended oil through the opening. **Do not overfill ③.**
6. Recheck oil level with the dipstick.

NOTE:

- **It is normal to add some oil between oil maintenance intervals or during the break-in period, depending on the severity of operating conditions or depending on the property of the engine oil used. More engine oil is consumed by frequent acceleration/deceleration especially when the engine rpm is high. Consumption is likely to be higher when the engine is new. If the rate of oil consumption is more than 0.5 liter (1/2 qt) per 1,000 km (600 miles), consult a NISSAN High Performance Center (NHPC).**
- **When the vehicle is delivered, the engine oil is set to 10 mm (0.39 in) below the H mark for optimal high performance driving. The engine oil can be filled up to the H mark if performance driving is not engaged.**

NOTICE

- **Mobil 1 (0W-40) (100% synthetic) is the factory fill oil. The VR38 engine with its plasma-sprayed bores was developed using this oil. NISSAN cannot ensure proper engine operation and durability if other 0W-40 synthetic oil is used.**
- **Oil level should be checked regularly. Operating the engine with an insufficient amount of oil can**

damage the engine. See a separate maintenance booklet for details including applicable exclusions.

CHANGING ENGINE OIL AND FILTER

NOTE:

When replacement is required, contact a NISSAN High Performance Center (NHPC) for servicing.

⚠ WARNING

- **Prolonged and repeated contact with used engine oil may cause skin cancer.**
- **Try to avoid direct skin contact with used oil. If skin contact is made, wash thoroughly with soap or hand cleaner as soon as possible.**
- **Keep used engine oil out of reach of children.**

TRANSMISSION OIL

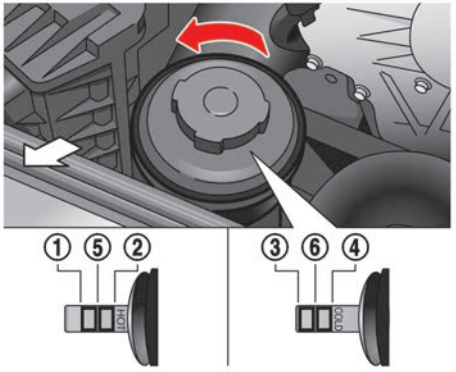
NOTE:

When checking or replacement is required, contact a NISSAN High Performance Center (NHPC) for servicing.

NOTICE

- **Do not mix with other fluids.**
- **Using transmission oil other than Genuine NISSAN Transmission Oil R35 Special will cause deterioration in driveability and transmission durability, and may damage the transmission. See a separate maintenance booklet for details including applicable exclusions.**

POWER STEERING FLUID



Check the fluid level in the reservoir. Remove the cap that is attached with a gauge inside.

The fluid level should be checked using the front side of the gauge marked "HOT" (①: HOT MIN., ②: HOT MAX.) at fluid temperatures of 50 to 80°C (122 to 176°F) or using the reverse side of the gauge marked "COLD" (③: COLD MIN., ④: COLD MAX.) at fluid temperatures of 0 to 30°C (32 to 86°F).

If the fluid is below the MIN line, add Genuine NISSAN PSF or equivalent. Remove the cap and fill through the opening.

NOTE:

For maximum steering system performance, adjust the fluid level at the line ⑤ at the hot fluid temperature or ⑥ at the cold fluid temperature. Contact a NISSAN High Performance Center (NHPC) when precise fluid level adjustment is required.

NOTICE

- **Do not overfill.**
- **Use Genuine NISSAN PSF or equivalent.**

BRAKE FLUID

For further brake fluid information, see the following section. (☞ "Capacities and recommended fluids/lubricants" page 9-2)

⚠ WARNING

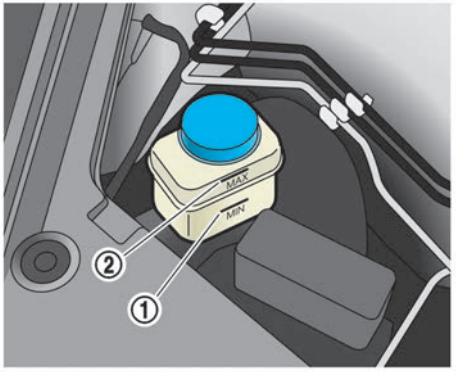
- **Use only new fluid from a sealed container. Old, inferior or contaminated fluid may damage the brake system. The use of improper fluids can damage the brake system and affect the vehicle's stopping ability.**
- **Clean the filler cap before removing.**
- **Brake fluid is poisonous and should be stored carefully in marked containers out of the reach of children.**

⚠ CAUTION

Genuine NISSAN Brake Fluid R35 Special II is the factory fill brake fluid. The Vehicle Dynamic Control (VDC)/ Electronic Stability Program (ESP) unit and other related parts were specially designed for this brake fluid and NISSAN cannot ensure the best performance and proper operation of the vehicle if other brake fluid is used.

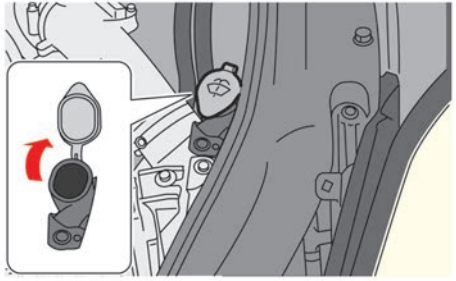
NOTICE

Do not spill the fluid on any painted surfaces. This will damage the paint. If fluid is spilled, wash the surface with water.



Check the fluid level in the reservoir. If the fluid is below the MIN line ① or the brake warning light comes on, add Genuine NISSAN Brake Fluid R35 Special II fluid up to the MAX line ②. If fluid must be added frequently, the system should be checked by a NISSAN High Performance Center (NHPC).

WINDOW WASHER FLUID



⚠ WARNING

Anti-freeze is poisonous and should be stored carefully in marked containers out of the reach of children.

Fill the window washer fluid reservoir periodically. Add window washer fluid when the low washer fluid warning appears on the vehicle information display. (☞ "Low washer fluid warning" page 2-43)

To fill the window washer fluid reservoir, lift the cap off the reservoir tank and pour the window washer fluid into the tank opening.

Add a washer solvent to the washer for better cleaning. In the winter season, add a windshield washer anti-freeze. Follow the manufacturer's instructions for the mixture ratio.

Refill the reservoir more frequently when driving conditions require an increased amount of window washer fluid.

NOTICE

- **Do not substitute engine anti-freeze coolant for window washer solution. This may result in damage to the paint.**
- **Do not fill the window washer reservoir tank with washer fluid concentrates at full strength. Some methyl alcohol based washer fluid concentrates may permanently stain the grille if spilled while filling the window washer reservoir tank.**

NOTE:

Pre-mix washer fluid concentrates with water to the manufacturer's recommended levels before pouring the fluid into the window washer reservoir. Do not use the window washer reservoir to mix the washer fluid concentrate and water.

BATTERY

Caution symbols for battery			⚠ WARNING
①		No smoking, No exposed flames, No sparks	Never smoke around battery. Never expose battery to open flames or electrical sparks.
②		Shield eyes	Handle the battery cautiously. Always wear eye protection glasses to protect against explosion or battery acid.
③		Keep away from children	Never allow children to handle battery. Keep the battery out of the reach of children.
④		Battery acid	Do not allow battery fluid to contact your skin, eyes, fabrics, or painted surfaces. After handling the battery or battery cap, immediately wash your hands thoroughly. If the battery fluid gets into your eyes, or onto your skin or clothing, flush with water immediately for at least 15 minutes and seek medical attention. Battery fluid is acid. If the battery fluid gets into your eyes or onto your skin, it could cause loss of your eyesight or burns.
⑤		Note operating instructions	Before handling the battery, read this instruction carefully to ensure correct and safe handling.
⑥		Explosive gas	Hydrogen gas, generated by battery fluid, is explosive.

- Keep the battery surface clean and dry. Clean the battery with a solution of baking soda and water.
- Make certain the terminal connections are clean and securely tightened.
- If the vehicle is not to be used for 30 days or longer, disconnect the negative (–) battery terminal cable to prevent discharging it.

PRECAUTIONS

NOTICE

When the battery cable is removed from the battery terminal, do not close either of the front doors. The automatic window adjusting function will not work, and the side roof panel may be damaged.

To disconnect the negative (–) battery terminal, perform the procedure in the following order. Otherwise, the window and the side roof panel may contact and be damaged.

1. Close the windows.
2. Open the hood.
3. Close and lock all the doors.
4. Disconnect the negative (–) battery terminal.
5. Securely close the hood.

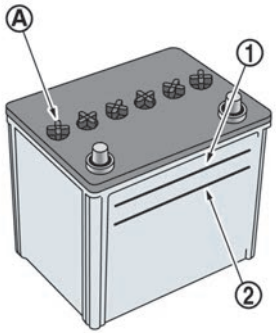
To connect the negative (–) battery terminal, perform the procedure in the following order. Otherwise, the window and the side roof panel may contact and be damaged.

1. Unlock and open the driver side door. Do not close the door.
2. Open the hood.
3. Connect the negative (–) battery terminal. Then close the hood.
4. Fully open the driver side door window.
5. Close the driver side door and the window.

FLUID LEVEL CHECK

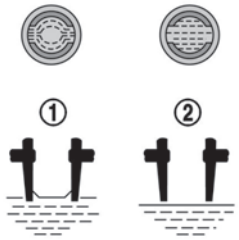
⚠ WARNING

- **Do not expose the battery to flames or electrical sparks. Hydrogen gas generated by the battery is explosive. Do not allow battery fluid to contact your skin, eyes, fabrics, or painted surfaces. After touching a battery or battery cap, do not touch or rub your eyes. Thoroughly wash your hands. If the acid contacts your eyes, skin or clothing, immediately flush with water for at least 15 minutes and seek medical attention.**
- **Do not operate the vehicle if the fluid in the battery is low. Low battery fluid can cause a higher load on the battery which can generate heat, reduce battery life, and in some cases lead to an explosion.**
- **When working on or near a battery, always wear suitable eye protection and remove all jewelry.**
- **Battery posts, terminals and related accessories contain lead and lead compounds. Wash hands after handling.**
- **Keep the battery out of the reach of children.**



Check the fluid level in each cell (Remove the battery cover if it is necessary). It should be between the UPPER LEVEL ① and LOWER LEVEL ② lines.

If it is necessary to add fluid, add only distilled water to bring the level to the indicator in each filler opening. **Do not overfill.**



1. Remove the cell plugs Ⓐ.
2. Add distilled water up to the UPPER LEVEL ① line.
   If the side of the battery is not clear, check the distilled water level by looking directly above the cell; the condition ① indicates OK and the condition ② needs more to be added.
3. Tighten cell plugs Ⓐ.

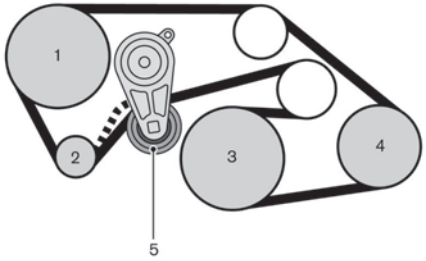
Vehicles operated in high temperatures or under severe conditions require frequent checks of the battery fluid level.

JUMP STARTING

If jump starting is necessary, see the following section. ("Jump starting" page 6-4)

If the engine does not start by jump starting, the battery may have to be replaced. Contact a NISSAN High Performance Center (NHPC).

DRIVE BELTS



1. Power steering fluid pump
2. Alternator
3. Crankshaft pulley
4. Air conditioner compressor
5. Drive belt auto-tensioner

⚠ WARNING

Be sure the ignition switch is in the OFF or LOCK position before servicing drive belts. The engine could rotate unexpectedly.

1. Visually inspect each belt for signs of unusual wear, cuts, fraying or looseness. If the belt is in poor condition or loose, have it replaced or adjusted by a NISSAN High Performance Center (NHPC).

2. Have the belts checked regularly for condition and tension in accordance with the maintenance schedule in a separate maintenance booklet.

SPARK PLUGS

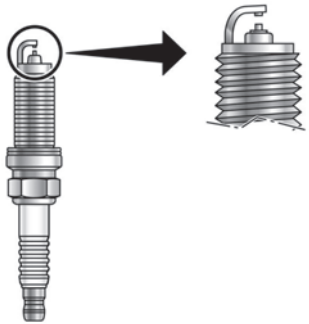
⚠ WARNING

Be sure the engine and the ignition switch are off and that the parking brake is engaged securely.

NOTICE

Be sure to use the correct socket to remove the spark plugs. An incorrect socket can damage the spark plugs.

REPLACING SPARK PLUGS



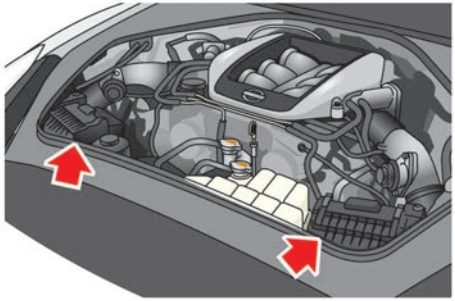
If replacement is required, see a NISSAN High Performance Center (NHPC) for servicing.

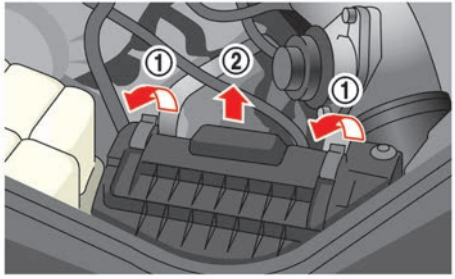
Iridium-tipped spark plugs

Replace the iridium-tipped spark plugs according to the maintenance schedule in a separate maintenance booklet, but do not reuse them by cleaning or regapping.

Always replace spark plugs with recommended or equivalent ones.

AIR CLEANER





Remove the retainers ① as illustrated and pull out the filter element ②.

The filter element should not be cleaned and reused. Replace it according to the maintenance intervals. See a separate maintenance booklet for maintenance intervals. When replacing the filter, wipe the inside of the air cleaner housing and the cover with a damp cloth.

⚠ WARNING

- **Operating the engine with the air cleaner removed can cause you or others to be burned. The air cleaner not only cleans the air, it stops flame if the engine backfires. If it isn't there, and the engine backfires, you could be burned. Do not drive with the air cleaner removed, and be careful when working on the engine with the air cleaner removed.**
- **Never pour fuel into the throttle body or attempt to start the engine with the air cleaner removed. Doing so could result in serious injury.**

WINDSHIELD WIPER BLADES

CLEANING

If your windshield is not clear after using the windshield washer or if a wiper blade chatters when running, wax or other material may be on the blade or windshield.

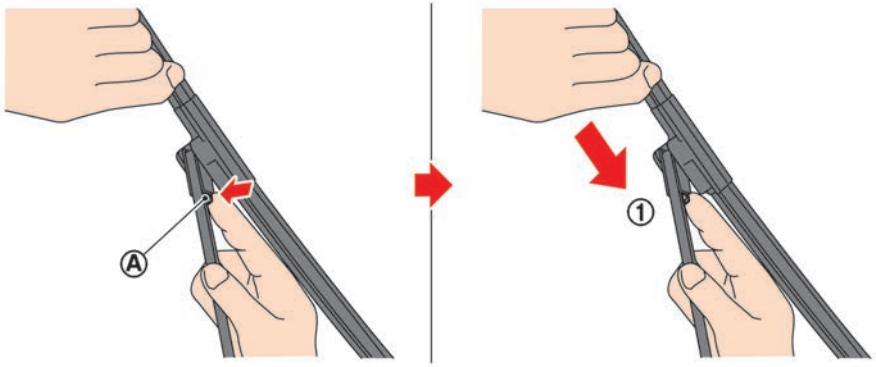
Clean the outside of the windshield with a washer solution or a mild detergent. Your windshield is clean if beads do not form when rinsing with clear water.

Clean each blade by wiping it with a cloth soaked in a washer solution or a mild detergent. Then rinse the blade with clear water. If your windshield is still not clear after cleaning the blades and using the wiper, replace the blades.

⚠ CAUTION

Worn windshield wiper blades can damage the windshield and impair driver vision.

REPLACING THE WIPER BLADES

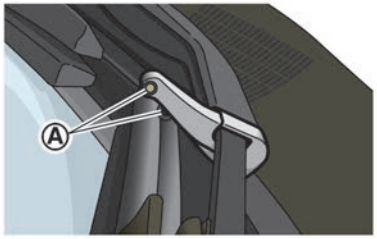


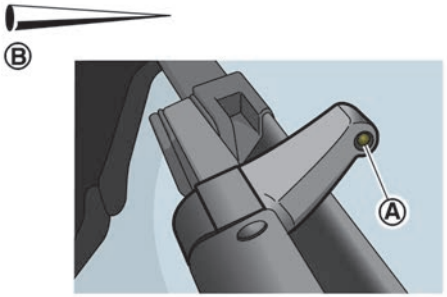
Replace the wiper blades if they are worn.

1. Pull the wiper arm.
2. Push the release tab Ⓐ, and then move the wiper blade down the wiper arm ① while pushing the release tab to remove.
3. Insert the new wiper blade onto the wiper arm until a click sounds.
4. Rotate the wiper blade so the dimple is in the groove.

NOTICE

- **After wiper blade replacement, return the wiper arm to its original position; otherwise it may be damaged when the hood is opened.**
- **Make sure the wiper blades contact the glass; otherwise the arm may be damaged from wind pressure.**





Be careful not to clog the washer nozzle Ⓐ. This may cause improper windshield washer operation. If the nozzle is clogged, remove any objects with a needle or small pin Ⓑ. Be careful not to damage the nozzle.

BRAKES

If the brakes do not operate properly, have the brakes checked by a NISSAN High Performance Center (NHPC).

BRAKE ADJUSTMENTS

Self-adjusting brakes

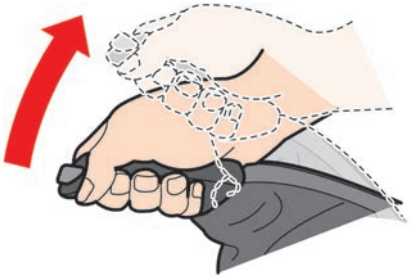
Your vehicle is equipped with self-adjusting brakes.

The disc-type brakes self-adjust every time the brake pedal is applied.

⚠ WARNING

See a NISSAN High Performance Center (NHPC) for a brake system check if the brake pedal height does not return to normal.

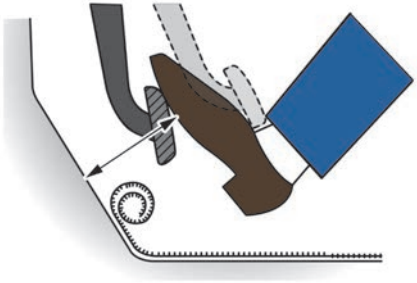
Checking parking brake



From the released position, pull the parking brake lever slowly and firmly. If the number of clicks is out of the range listed, see a NISSAN High Performance Center (NHPC).

5 to 6 clicks
Pulling force 196 N (20 kg, 44 lb)

Checking foot brake



⚠ WARNING

See a NISSAN High Performance Center (NHPC) for a brake system check if the brake pedal height does not return to normal.

With the engine running, check the distance between the upper surface of the pedal and the metal floor. If it is out the range listed, see a NISSAN High Performance Center (NHPC).

Depressing force
490 N (50 kg, 110 lb)
Left-Hand Drive (LHD) model:
— 100 mm (4 in) or more
Right-Hand Drive (RHD) model:
— 109 mm (4-1/4 in) or more

BRAKE PAD WEAR WARNING (models without NCCB (NISSAN Carbon Ceramic Brake) package)

The disc brake pads have audible wear warnings. When a brake pad requires replacement, it will make a high pitched scraping sound when the vehicle is in motion. This scraping sound will first occur only when the brake pedal is depressed. After more wear of the brake pad, the sound will always be heard even if the brake pedal is not depressed. Have the brakes checked as soon as possible if the wear warning sound is heard.

Under some driving or climate conditions, occasional brake squeak, squeal or other noise may be heard. Occasional brake noise during light to moderate stops is normal and does not affect the function or performance of the brake system.

Proper brake inspection intervals should be followed. For additional information, see the maintenance section of a separate maintenance booklet for maintenance intervals.

HIGH PERFORMANCE BRAKE SYSTEM (models without NCCB (NISSAN Carbon Ceramic Brake) package)

This vehicle is equipped with high performance brake pads that provide appropriate braking force in a broad range of driving environments. Due to the material used for the brake pads, the road wheels may become more easily covered by brake dust, however this does not indicate that there is a malfunction.

The GT-R brake pads use material that contains a lot of iron to maintain steady braking performance even in high and low temperatures. However, if the brake system is wet and the parking brake is applied for a long time, the iron in this material may get rusty and the brake pad and disc rotor may be fixed together. This may cause noise and vibration while driving. Before parking the vehicle, dry the brake by driving on a dry road, especially after washing the vehicle or driving in rain. (☞ "Noises are heard while driving" page GTR-26) Contact a NISSAN High Performance Center (NHPC) if the noise and vibration continue.

Frequent hard braking may cause scorching of the brake pads. This will require the brake pads to be replaced, even if the wear limit has not been reached. Have the brake pads and disc rotors inspected at the regular vehicle inspections.

For more details, contact a NISSAN High Performance Center (NHPC).

REPLACING THE BRAKE PADS (models without NCCB (NISSAN Carbon Ceramic Brake) package)

NISSAN generally recommends to replace all four sets of brake pads and disc rotors at the same time to maintain maximum brake performance.

However, replacing only the brake pads may be allowed in some cases (four wheels or only front wheels depending on the conditions). A GT-R certified technician must inspect the vehicle and determine that only the brake pads need to be replaced. In this case, replacing all brake pads and disc rotors as a set is not necessary.

Note that the replacement of brake pads and the disc rotors as a set on all four wheels should be performed when a GT-R certified technician determines that this is the correct repair.

If the inside of the disc rotors are cold during the winter and the surface becomes hot due to a heavy force being applied repeatedly to the brakes, cracks may occur near the coolant hole on the surface of the disc rotor. Cracks may also occur due to a heavy force being repeatedly applied to the brakes during high performance driving. In these cases it may be necessary to replace the disc rotors or brake pads depending on the condition of the crack. It is recommended you contact a NISSAN High Performance Center (NHPC) for replacement.

NCCB (NISSAN Carbon Ceramic Brake) (if equipped)

NOTE:

- **In order to enjoy the high performance braking sensation as well as the sporty driving and flexibility offered by the GT-R, NCCB (NISSAN Carbon Ceramic Brake) is available. In addition, NCCB (NISSAN Carbon Ceramic Brake) has excellent durability during normal driving and its light weight allows the reduction of the unsprung weight to improve the road holding grip performance.**
- **After high performance driving or extreme use of the brake, the composition of the brake disc rotor will change due to brake pad wear or high temperature friction heat. Even if the brake disc rotor looks normal, it may need to be replaced.**
- **NCCB (NISSAN Carbon Ceramic Brake) has the same full floating structure as the standard brake system in GT-R. Therefore, the joint of the full floating structure of the disc rotor may not rust depending on the status of use. In case of rust on the joint, have NCCB (NISSAN Carbon Ceramic Brake) and the related parts inspected at a NISSAN High Performance Center (NHPC).**
- **The materials used for the brake disc rotor and brake pads for NCCB (NISSAN Carbon Ceramic Brake) are different from those used for the standard brake system in GT-R. The**

rotor and pads will be protected from adhesion caused by rusting. However, never park your vehicle for a long time with the brake system wet. This helps maintain the brake disc rotor and brake pads for a long time and prevents an influence on the material composition of the carbon ceramic rotor and deterioration in the joint of brake disc rotor's full floating structure. Especially during winter, be sure to park your vehicle with the brake disc rotor and pads dry to prevent them from being frozen and damaged in below freezing temperature conditions. The carbon ceramic brake includes air bubbles in the rotor and pads. Note that leaving them in the wet condition tends to cause adhesion due to freezing.

⚠ WARNING

After an impact to the underbody or when the brake disc rotor has chipping or cracks, have your vehicle inspected at a NISSAN High Performance Center (NHPC). Otherwise, the brake disc rotor may be damaged, which may result in a serious accident.

NOTICE

- **Never use brake cleaner or any chemical agent on the brake disc rotor. Using brake cleaner or any chemical agent on the brake disc rotor may cause a decrease in durability of the brake disc rotor.**
- **After driving on a gravel road, such as an evacuation route, have your vehicle checked for damage to the brake disc rotor at a NISSAN High Performance Center (NHPC).**
- **Since the carbon ceramic brake disc rotor is very hard, do not subject it to a strong impact. When removing the tires, be careful not to allow the tire to interfere with the brake disc rotor.**

REPLACING BRAKE PADS AND BRAKE DISC ROTORS

- When replacing brake pads and brake disc rotors, NISSAN recommends replacing two sets of them at the same time. However, the brake pads can be separately replaced only when a GT-R certified technician judges that the brake disc rotors are reusable, based on a measured weight and a check for scratches and cracks.
- Maintenance and inspection on your vehicle should be performed at a NISSAN High Performance Center (NHPC) after engaging in high performance driving. Otherwise, the peripheral parts of the brake may be damaged due to the generation of special radiant heat because of the characteristics of the material in addition to brake pad wear and the deterioration in durability of the brake disc rotor.

Brake pad

When the warning light* illuminates, have the brake system checked and brake pads replaced as soon as possible at a NISSAN High Performance Center (NHPC).

* The brake warning light (for the Middle East and Mexico) or brake wear warning light (except for the Middle East and Mexico)

⚠ CAUTION

Never drive for a long period of time when the warning light is illuminated. Otherwise, the brake may not function properly due to brake pad wear.

Brake disc rotor

Under the following conditions, the immediate replacement of the brake disc rotor may be necessary. Even if it looks normal, have your vehicle inspected at a NISSAN High Performance Center (NHPC) immediately.

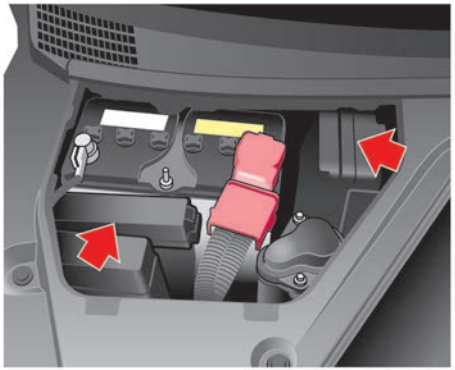
- Extremely decreased braking force
- Chipping or cracks on the brake disc rotor
- After an impact to tires or the periphery of the wheels
- Parts around the brake may have contacted with the brake disc rotor or brake caliper due to wear.
- The metal plate of a brake pad has contacted with the surface of a brake disc rotor because the brake pad replacement period was exceeded.
- Interference between the wheel and brake disc rotor during tire installation or removal.

⚠ WARNING

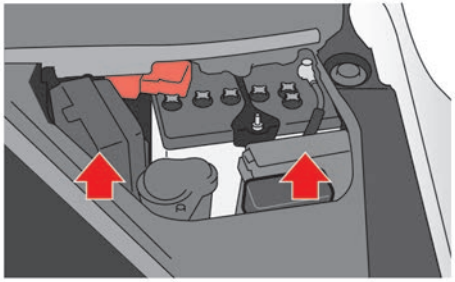
When a GT-R certified technician judges that a brake disc rotor should be replaced, have the disc rotor replaced.

FUSES

ENGINE COMPARTMENT



Left-Hand Drive (LHD) model



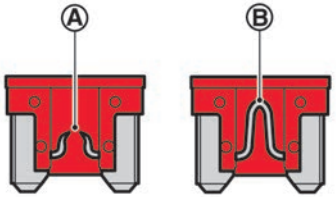
Right-Hand Drive (RHD) model

⚠ CAUTION

Never use a fuse of a higher or lower amperage rating than that specified on the fuse box cover. This could damage the electrical system or cause a fire.

If any electrical equipment does not operate, check for an open fuse.

1. Be sure the ignition switch is pushed to the OFF or LOCK position and the headlights are turned off.
2. Open the engine hood and remove the cover on the battery and the fuse/fusible link holder.
3. Remove the fuse/fusible link holder cover.
4. Remove the fuse with the fuse puller that is located in the engine compartment fuse box.

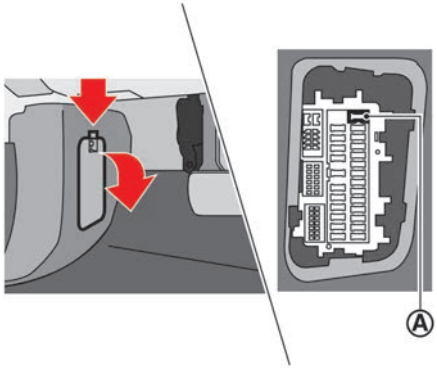


5. If the fuse is open Ⓐ, replace it with a new fuses Ⓑ. Spare fuses are stored in the passenger compartment fuse box.
6. If a new fuse also opens, have the electrical system checked and repaired by a NISSAN High Performance Center (NHPC).

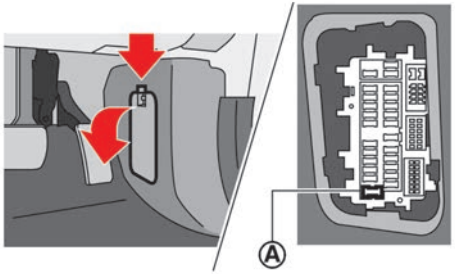
Fusible links

If any electrical equipment does not operate and fuses are in good condition, check the fusible links. If any of these fusible links are melted, replace only with genuine NISSAN parts.

PASSENGER COMPARTMENT



Left-Hand Drive (LHD) model



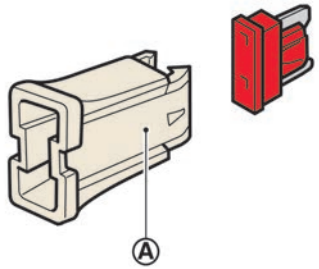
Right-Hand Drive (RHD) model

⚠ CAUTION

Never use a fuse of a higher or lower amperage rating than that specified on the fuse box cover. This could damage the electrical system or cause a fire.

If any electrical equipment does not operate, check for an open fuse.

1. Be sure the ignition switch is pushed to the OFF or LOCK position and the headlights are turned OFF.
2. Open the fuse box lid.



3. Remove the fuse with the fuse puller Ⓐ.

4. If the fuse is open, replace it with a new fuse. Spare fuses are stored in the fuse box.
5. If a new fuse also opens, have the electrical system checked and repaired by a NISSAN High Performance Center (NHPC).

Extended storage fuse switch (if equipped)

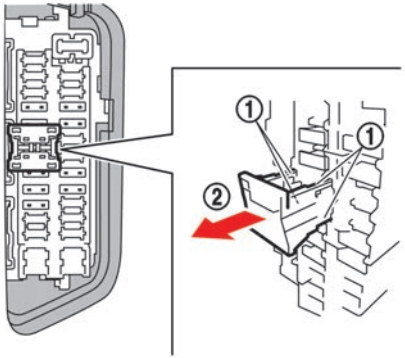
To reduce battery drain, the extended storage fuse switch comes from the factory switched off. Prior to delivery of your vehicle, the switch is pushed in (switched on) and should always remain on.

If any electrical equipment does not operate, remove the extended storage fuse switch and check for an open fuse.

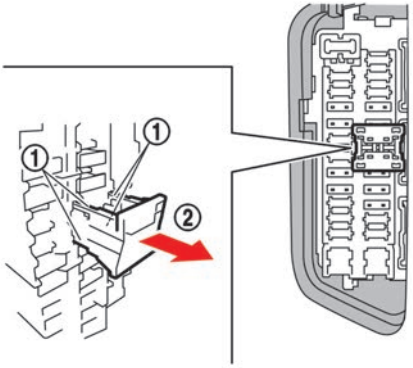
NOTICE

If the extended storage fuse switch malfunctions, or if the fuse is open, it is not necessary to replace the switch. In this case, remove the extended storage fuse switch and replace it with a new fuse of the same rating.

How to remove the extended storage fuse switch:



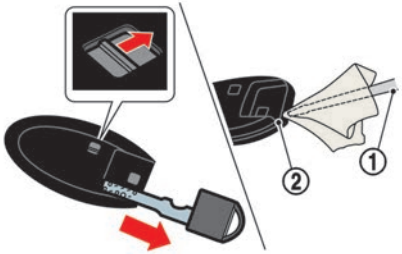
Left-Hand Drive (LHD) model



Right-Hand Drive (RHD) model

1. To remove the extended storage fuse switch, be sure the ignition switch is in the OFF or LOCK position.
2. Be sure the headlights are turned off.
3. Remove the fuse box cover.
4. Pinch the locking tabs ① found on each side of the storage fuse switch.
5. Pull the storage fuse switch straight out from the fuse box ② .

INTELLIGENT KEY BATTERY REPLACEMENT



⚠ WARNING

Be careful that batteries and other removed components are not swallowed by children.

NOTICE

There is the possibility that the key may be damaged when the battery is replaced. It is recommended that you have the battery replaced by a NISSAN High Performance Center (NHPC).

Recommended battery: Lithium battery CR2032 or an equivalent.

1. Disengage the lock on the reverse side of the Intelligent Key while pulling out the mechanical key.
2. Insert a flat-bladed screwdriver ① wrapped with a cloth into the slit ② and twist it to separate the case into the upper and lower parts.

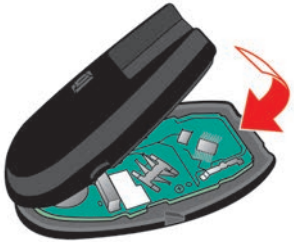
NOTICE

Because there is the risk of scratching the key, wrap a cloth or similar item around the screwdriver when separating the parts. If the screwdriver is inserted too far into the key, it may damage the internal circuit board.

3. Remove the old battery and insert a new battery with the + side facing down.

NOTICE

- **Be sure that the + and – sides of the battery are facing in the correct directions when the battery is inserted.**
- **Do not touch the internal circuits or electronic terminals. Doing so may damage them.**



4. Reconnect the upper and lower parts of the Intelligent Key.

   See a NISSAN High Performance Center (NHPC) if you need any assistance for replacement.

NOTE:
After replacing the battery, be sure to check that all Intelligent Key system functions operate correctly.

FCC Notice:

For USA:

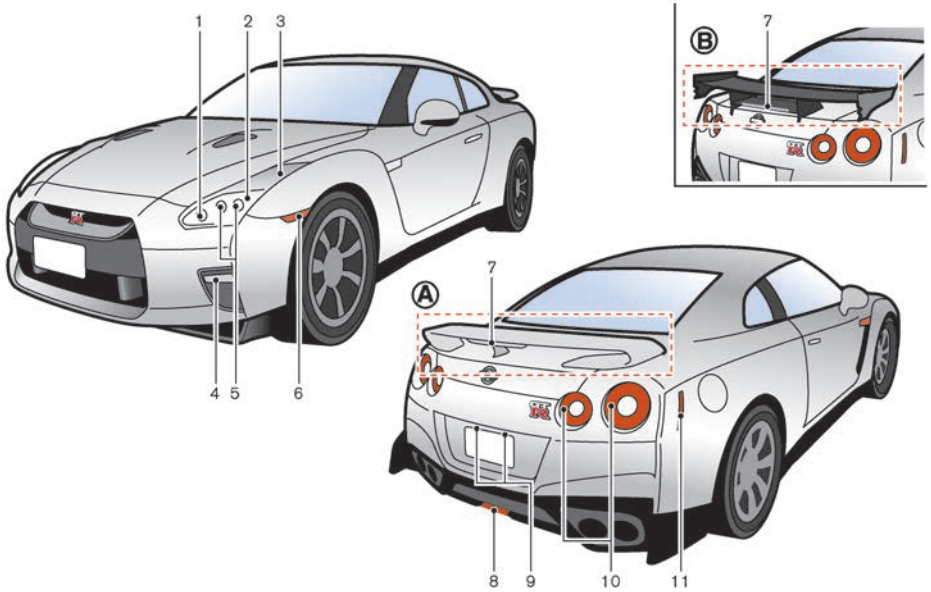
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

For Canada:

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

LIGHTS



1. Headlight (High beam)
2. Position light
3. Front turn signal light
4. Daytime running light/Position light (except for Mexico)
5. Headlight (Low beam)
6. Side turn signal light (except for Mexico)/ Front side marker light (for Mexico)
7. High-mounted stop light
8. Rear fog light (except for Mexico)
9. License plate light
10. Rear combination light (rear turn signal/ tail/stop/back-up)
11. Rear side marker light (for Mexico)

Ⓐ: Except for NISMO models

Ⓑ: NISMO models

HEADLIGHTS

Fog may temporarily form inside the lens of the exterior lights in the rain or in a car wash. A temperature difference between the inside and the outside of the lens causes the fog. This does not indicate that there is a malfunction. If large drops of water collect inside the lens, contact a NISSAN High Performance Center (NHPC).

Replacing

LED headlight:

If replacement is necessary, see a NISSAN High Performance Center (NHPC).

EXTERIOR AND INTERIOR LIGHTS

Item	Wattage (W)	Bulb No.
Headlight assembly		
low-beam*	LED	—
high-beam*	LED	—
Front turn signal light*	28/8 (for Mexico)/21 (except for Mexico)	7444NA (for Mexico)/ WY21W (except for Mexico)
Position light*	LED	—
Daytime running light*	LED	—
Side turn signal light (except for Mexico)	5	WY5W
Front side marker light (for Mexico)	3.8	T10
Rear combination light		
back-up	16	W16W
turn signal	21	WY21W
stop/tail*	LED	—

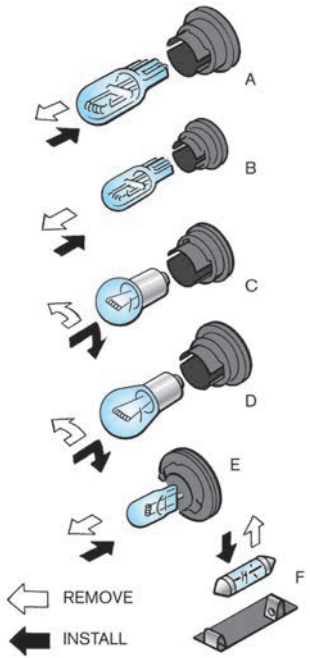
Rear fog light (except for Mexico)*	LED	—
License plate light*	LED	—
Rear side marker light (for Mexico)*	LED	—
Map light	8	—
Vanity mirror light*	2	—
Step light	2.7	—
Trunk room light	3.4	—
High-mounted stop light*	LED	—

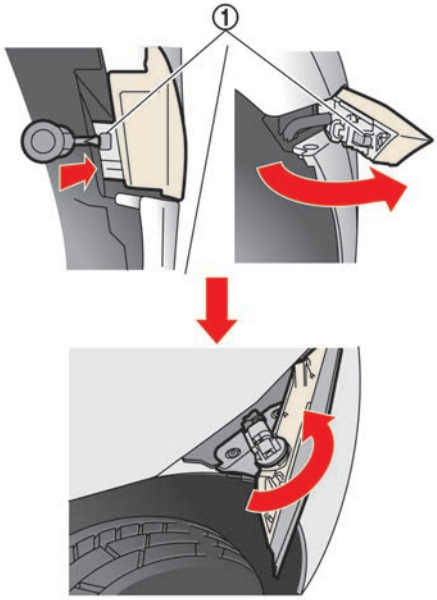
*: See a NISSAN High Performance Center (NHPC) for replacement.

Always check with the Parts Department at a NISSAN High Performance Center (NHPC) for the latest parts information.

Replacement procedures

All other lights are either type A, B, C, D, E or F. When replacing a bulb, first remove the lens and/or cover.



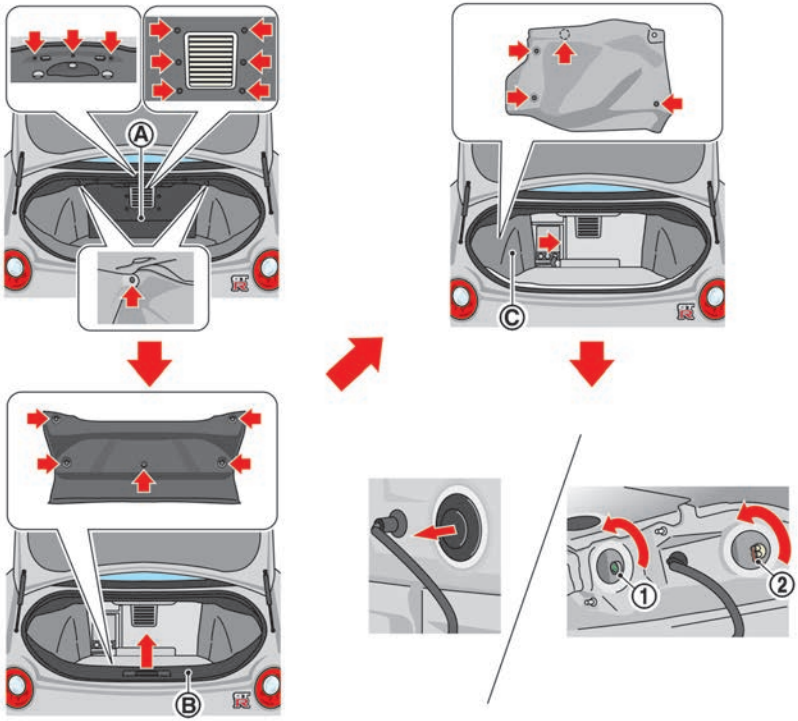


Side turn signal light (except for Mexico)/Front side marker light (for Mexico)

1. Insert a flat-bladed screwdriver into the rear side of the lens and push the metal clip ① to remove the light.
2. Turn the socket counterclockwise and remove it, then replace the bulb.

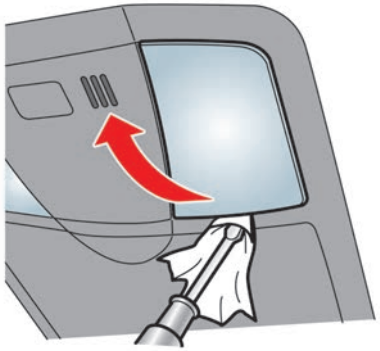
NOTICE

Do not pull the light without the metal clip release. The metal clip will be damaged and the light may become loose or come off.

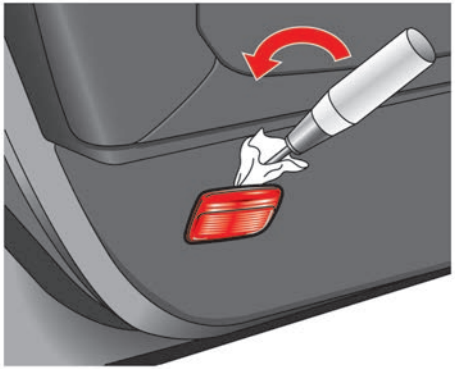


Rear combination light (① turn signal light/② back-up light)

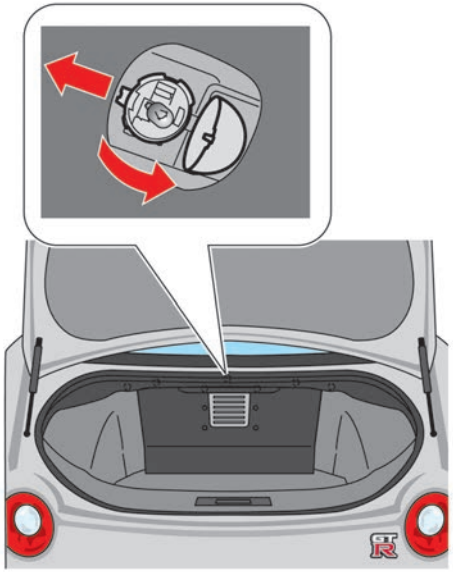
1. Remove the clips, and then remove the trunk center trim Ⓐ.
2. Remove the clips, and pull the trunk rear cover Ⓑ upward, then remove it.
3. Remove the clips, and pull the trunk side trim Ⓒ sideways, then remove it.
4. Disconnect the bulb socket, and then replace the bulb.



Map light



Step light



Trunk room light

WHEELS AND TIRES

If you have a flat tire, see the following section. (☞ "Flat tire" page 6-2)

⚠ CAUTION

A NISSAN High Performance Center (NHPC) should perform a tire change. It will be necessary to reset the tire pressure sensors. To change the tires, contact a NISSAN High Performance Center (NHPC).

Be sure to use the tires and wheels together as a set that are designated for use with this vehicle.

When tire replacement is required, replacing the tires as a set of four with new tires is recommended. However, if a tire is punctured or damaged, it may be possible to replace only the damaged tire. Determining whether one tire or a complete set of tires should be replaced is based on a number of factors including tire wear and condition. Contact your NISSAN High Performance Center (NHPC). They can recommend if an individual tire or a complete set should be replaced.

Make sure the tire valve stem cap is installed and that the valve stem is tight. When installing the cap, make sure to tighten the cap by hand. If a tool is used to tighten the cap, the cap may be damaged.

TIRE PRESSURE

Tire Pressure Monitoring System (TPMS)

This vehicle is equipped with the Tire Pressure Monitoring System (TPMS). It monitors tire pressure of all tires. When the low tire pressure warning light is lit, one or more of your tires is significantly under-inflated. The system also displays pressure of all tires on the touch screen display by sending a signal from a sensor that is installed in each wheel.

The TPMS will activate only when the vehicle is driven at speeds above 25 km/h (16 MPH). Also, this system may not detect a sudden drop in tire pressure. (☞ "Low tire pressure warning light" page 2-27) (☞ "Tire Pressure Monitoring System (TPMS)" page 5-4) (☞ "Flat tire" page 6-2)

Tire inflation pressure

Check the tire pressure often and always prior to long distance trips. Tire pressures should be checked regularly because:

- Most tires naturally lose air over time.
- Tires can lose air suddenly when driven over potholes or other objects or if the vehicle strikes a curb while parking.

NOTE:

- **You can check the pressure of all four tires on the touch screen display. See the separate Multi Function Display Owner's Manual.**
- **The tires of this vehicle are filled with nitrogen gas. When the tire pressure is low, fill the tires with nitrogen. Contact a NISSAN High Performance Center (NHPC) for information on filling the tires with nitrogen.**
- **If nitrogen is not available, compressed air may be safely used under normal driving conditions. However, NISSAN recommends refilling with nitrogen for maximum tire performance.**

The tire pressures should be checked when the tires are cold. The tires are considered COLD after the vehicle has been parked for 3 or more hours, or driven less than 1.6 km (1 mile) at moderate speeds.

Incorrect tire pressure, including under inflation, may adversely affect tire life and vehicle handling.

⚠ WARNING

- **Improperly inflated tires can fail suddenly and cause an accident.**
- **Before taking a long trip, or whenever you heavily load your vehicle, use a tire pressure gauge to ensure that the tire pressures are at the specified level.**

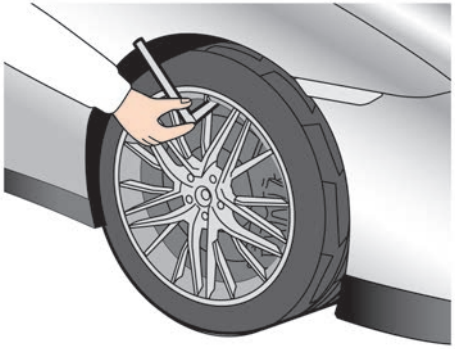
NOTE:

- **The GT-R uses specially designed run-flat tires and matching road wheels. Use of these specially developed tires and wheels provides the greatest potential for maximum performance.**
  - **Genuine GT-R tires and road wheels help achieve maximum cornering and braking performance.**
  - **Genuine GT-R tires and road wheels help achieve maximum tire durability during acceleration.**
  - **Genuine GT-R tires and road wheels help achieve maximum handling capability during performance driving.**
  - **Genuine GT-R tires and road wheels help provide road holding in the event of decreasing tire pressure and punctures.**
  - **Genuine GT-R tires and road wheels help prevent the decrease of straight-running stability caused by uneven tire wear due to high rigidity wheels and wide**

tires.

- **The GT-R uses specially designed run-flat tires which feature an extremely rigid side wall. Special techniques and equipment are therefore required when replacing these tires. NISSAN recommends that tire replacement be performed at a NISSAN High Performance Center (NHPC).**
- **When tires are reinstalled after being uninstalled from the wheels, use equipment such as a leverless automatic tire changer. It is only possible to reuse the tires when they have no cracks and/or deformations on the bead portion. However, if you use a lever-type tire changer, cracks and deformation may occur on the bead portion of the tires meaning that the tires cannot be reused.**

CHECKING THE TIRE PRESSURE



1. Remove the valve stem cap from the tire.
2. Press the pressure gauge squarely onto the valve stem. Do not press too hard or force the valve stem sideways, or air will escape. If the hissing sound of air escaping from the tire is heard while checking the pressure, reposition the gauge to eliminate this leakage.
3. Remove the gauge.
4. Read the tire pressure on the gauge stem and compare it to the specification shown on the Tire Placard label.
5. Add air to the tire as needed. If too much air is added, press the core of the valve stem briefly with the tip of the gauge stem to release pressure. Recheck the pressure and add or release air as needed.
6. Install the valve stem cap.
7. Check the pressure of all other tires.

NOTE:

- **You can check the pressure of all four tires on the touch screen display. See the separate Multi Function Display Owner's Manual.**
- **The tires of this vehicle are filled with nitrogen gas. When the tire pressure is low, fill the tires with nitrogen. Contact a NISSAN High Performance Center (NHPC) for information on filling the tires with nitrogen.**
- **If nitrogen is not available, compressed air may be safely used under normal driving conditions. However, NISSAN recommends refilling with nitrogen for maximum tire performance.**

Except for NISMO and Track edition engineered by nismo models

Tires:

For Europe, Israel, India, Australia, South Africa, the Middle East and Thailand

	SIZE	COLD TIRE INFLATION PRESSURE
FRONT ORIGINAL TIRE	255/40ZR-F20 (101Y)	210 kPa (2.1 bar, 30 psi)
REAR ORIGINAL TIRE	285/35ZR-F20 (104Y)	200 kPa (2.0 bar, 29 psi)

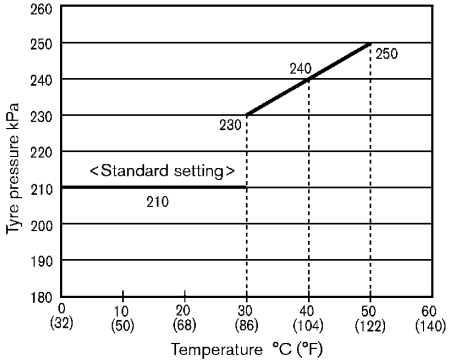
Except for Europe, Israel, India, Australia, South Africa, the Middle East and Thailand

	SIZE	COLD TIRE INFLATION PRESSURE
FRONT ORIGINAL TIRE	255/40ZR-F20 (97Y)	210 kPa (2.1 bar, 30 psi)
REAR ORIGINAL TIRE	285/35ZR-F20 (100Y)	200 kPa (2.0 bar, 29 psi)

For Europe and the Middle East:

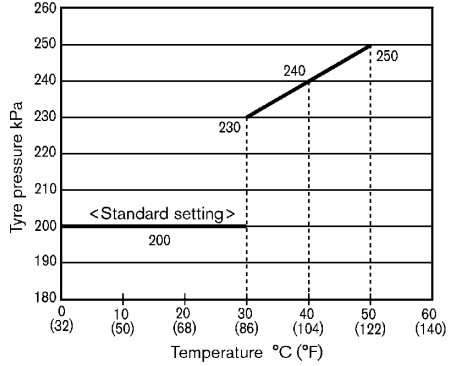
If you drive continuously at speeds over 260 km/h (162 MPH) when the outside air temperature is 30°C (86°F) and above, NISSAN recommends to adjust the tire pressure referring to the following charts.

Front tire



Front tire

Rear tire



Rear tire

Speed	Outside temperature	Tire pressure (kPa)/(kgf/cm2)/(psi)	
under 260 km/h (162 MPH)	All	Front	210/2.1/30
		Rear	200/2.0/29
over 260 km/h (162 MPH)	-30°C (-22°F) to 30°C (86°F)	Front	210/2.1/30
		Rear	200/2.0/29
	30°C (86°F) to 40°C (104°F)	Front	230/2.3/33
		Rear	
	40°C (104°F) to 50°C (122°F)	Front	240/2.4/36
		Rear	

For NISMO and Track edition engineered by nismo models

Tires:

For Europe, Israel, Australia and the Middle East

	SIZE	COLD TIRE INFLATION PRESSURE
FRONT ORIGINAL TIRE	255/40ZR-F20 (101Y)	220 kPa (2.2 bar, 31 psi)
REAR ORIGINAL TIRE	285/35ZR-F20 (104Y)	200 kPa (2.0 bar, 29 psi)

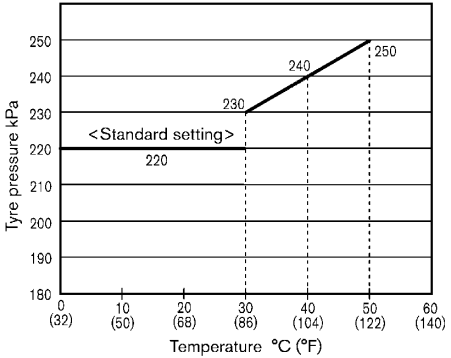
Except for Europe, Israel, Australia and the Middle East

	SIZE	COLD TIRE INFLATION PRESSURE
FRONT ORIGINAL TIRE	255/40ZR-F20 (97Y)	220 kPa (2.2 bar, 31 psi)
REAR ORIGINAL TIRE	285/35ZR-F20 (100Y)	200 kPa (2.0 bar, 29 psi)

For Europe and the Middle East:

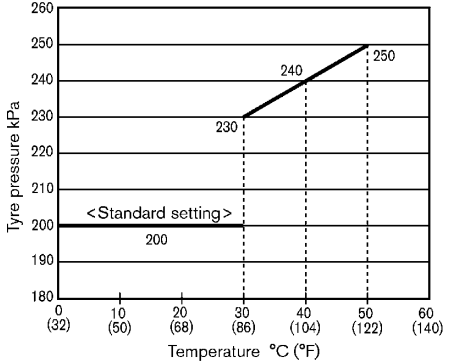
If you drive continuously at speeds over 260 km/h (162 MPH) when the outside air temperature is 30°C (86°F) and above, NISSAN recommends to adjust the tire pressure referring to the following charts.

Front tire



Front tire

Rear tire



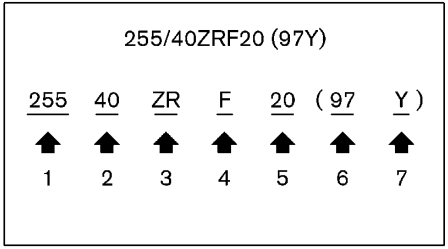
Rear tire

Speed	Outside temperature	Tire pressure (kPa)/(kgf/cm2)/(psi)	
under 260 km/h (162 MPH)	All	Front	220/2.2/32
		Rear	200/2.0/29
over 260 km/h (162 MPH)	-30°C (-22°F) to 30°C (86°F)	Front	220/2.2/32
		Rear	200/2.0/29
	30°C (86°F) to 40°C (104°F)	Front	230/2.3/33
		Rear	
	40°C (104°F) to 50°C (122°F)	Front	240/2.4/36
		Rear	

TIRE LABELING

Example

Tire labeling identifies and describes the fundamental characteristics of the tire and also provides the tire identification number (TIN) for safety standard certification. The TIN can be used to identify the tire in case of a recall.



Example

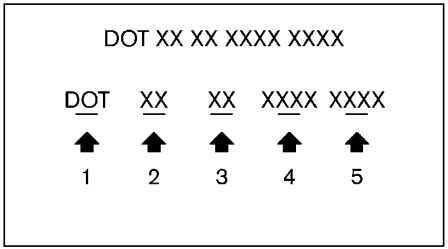
① Tire size (example: 255/40ZRF20 (97Y)

1. Three-digit number (255): This number gives the width in millimeters of the tire from sidewall edge to sidewall edge.
2. Two-digit number (40): This number, known as the aspect ratio, gives the tire's ratio of height to width.
3. ZR: Speed category markings and tire construction.

   The "ZR" indicates the tire speed capabilities are above 240 km/h (149 MPH) and radial construction.
4. F: The "F" stands for run-flat tire.
5. Two-digit number (20): This number is the wheel or rim diameter in inches.
6. Two- or three-digit number (97): This number is the tire's load index. It is a measurement of how much weight each tire can support.
7. Y: Speed symbol

   This indicates the maximum speed at which the tire can carry a load corresponding to its load index.

   When the tire size has "ZR" [3] and the tire load index [6] and the speed symbol [7] are in the parentheses, as shown in this example, it indicates that the tire is suitable for speeds over 300 km/h (186 MPH).



Example

TIN (Tire Identification Number) for a new tire (example: DOT XX XX XXXX XXXX)

1. DOT: Abbreviation for the "Department of Transportation". The symbol can be placed above, below or to the left or right of the Tire Identification Number.
2. Two-digit code: Manufacturer's identification mark
3. Two-digit code: Tire size
4. Four-digit code: Tire type code (Optional)
5. Four numbers represent the week and year the tire was built. For example, the numbers 3103 means the 31st week of 2003. If these numbers are missing, then look on the other sidewall of the tire.

③ Tire ply composition and material

The number of layers or plies of rubber-coated fabric in the tire.

Tire manufacturers also must indicate the materials in the tire, which include steel, nylon, polyester, and others.

④ Maximum permissible inflation pressure

This number is the greatest amount of air pressure that should be put in the tire. Do not exceed the maximum permissible inflation pressure.

⑤ Maximum load rating

This number indicates the maximum load in kilograms and pounds that can be carried by the tire. When replacing the tires on the vehicle, always use a tire that has the same load rating as the factory installed tire.

⑥ Term of "tubeless" or "tube type"

Indicates whether the tire requires an inner tube ("tube type") or not ("tubeless").

⑦ The word "radial"

The word "radial" is shown, if the tire has radial structure.

⑧ Manufacturer or brand name

Manufacturer or brand name is shown.

Other tire-related terminology:

In addition to the many terms that are defined throughout this section, Intended Outboard Sidewall is (1) the sidewall that contains a whitewall, bears white lettering or bears manufacturer, brand and/or model name molding that is higher or deeper than the same molding on the other sidewall of the tire, or (2) the outward facing sidewall of an asymmetrical tire that has a particular side that must always face outward when mounted on a vehicle.

TYPES OF TIRES

⚠ WARNING

- **When changing or replacing tires, be sure all four tires are of the same type (Examples: Summer) and construction. A NISSAN High Performance Center (NHPC) may be able to help you with information about tire type, size, speed rating and availability.**
- **Replacing tires with those not originally specified by NISSAN could affect the proper operation of the TPMS.**

Summer tires

The GT-R summer tires are made from a specially formulated rubber to maximize the vehicle's performance capabilities. Performance of summer tires is substantially reduced when temperatures are less than 0°C (32°F) so you must drive carefully. NISSAN recommends the use of winter tires on all four wheels if you plan to operate your vehicle in snowy or icy conditions when temperatures are less than 0°C (32°F).

⚠ WARNING

Never use summer tires when the temperature is below −20°C (−4°F) to

prevent permanent tread deformation which may cause tire damage or tire failure. This may cause a loss of vehicle control which can result in serious personal injury or death.

Run-flat tires

Your vehicle is equipped with run-flat tires. You can continue driving to a safe location even if they are punctured. Always use run-flat tires of the specified size on all four wheels. Mixing tire sizes or construction may reduce vehicle handling stability. If necessary, contact a NISSAN High Performance Center (NHPC) for assistance.

If you use winter tires, use GT-R winter tires (run-flat tires) on all four wheels as for GT-R summer tires.

Frequently check the tire pressure information on the touch screen display and adjust pressure of each tire properly. See the separate Multi Function Display Owner's Manual.

It can be difficult to tell if a run-flat tire is under-inflated or flat. Check the tire pressures as described earlier in this section. If the tire becomes under-inflated while driving, the low tire pressure warning light will come on. If the tire becomes flat while driving, the low tire pressure warning light and the run-flat tire warning display will come on.

Low tire pressure:

If the vehicle is being driven with low tire pressure, the low tire pressure warning light will illuminate and the low tire pressure warning will appear in the vehicle information display.

Flat tire:

If the vehicle is being driven with one or more flat tires, the low tire pressure warning light will illuminate continuously and a chime will sound for 10 seconds. The run-flat tire warning also appears in the vehicle information display.

The chime will only sound at the first indication of a flat tire and the run-flat tire warning display will illuminate continuously. When the flat tire warning is activated, have the system reset and the tire checked and replaced if necessary by a NISSAN High Performance Center (NHPC). Even if the tire is inflated to the specified COLD tire pressure, the warning light will continue to illuminate until the system is reset by a NISSAN High Performance Center (NHPC).

If the low tire pressure and the run-flat tire warning appears on the vehicle information display:

- Do not exceed 80 km/h (50 MPH).
- Increase your following distance to allow for increased stopping distances.
- Avoid sudden maneuvers, hard cornering and hard braking.

⚠ WARNING

- **Although you can continue driving with a punctured run-flat tire, remember that vehicle handling stability is reduced, which could lead to an accident and personal injury. Also, driving a long distance at high speeds may damage the tire.**
- **Do not drive at speeds above 80 km/h (50 MPH) and do not drive more than 80 km (50 miles) with a punctured run-flat tire. The actual distance the vehicle can be driven on a flat tire depends on outside temperature, vehicle load, road conditions and other factors.**
- **Drive safely at reduced speeds. Avoid hard cornering or braking, which may cause you to lose control of the vehicle.**

NOTICE

- **Never install tire chains on a punctured run-flat tire, as this could damage your vehicle.**
- **Avoid driving over any projection or pothole, as the clearance between the vehicle and the ground**

is smaller than normal.

- **Do not enter an automated car wash with a punctured run-flat tire.**
- **Have the punctured tire replaced by a NISSAN High Performance Center (NHPC) as soon as possible, as the tire's performance capability is reduced.**

Tires for Four-Wheel Drive (4WD)/ All-Wheel Drive (AWD)

If excessive tire wear is found, it is recommended that all four tires be replaced with tires of the specified size, brand, construction and tread pattern. The tire pressure and wheel alignment should also be checked and corrected as necessary. Contact a NISSAN High Performance Center (NHPC).

TIRE CHAINS

Use of tire chains may be prohibited according to location. Check the local laws before installing tire chains. When installing tire chains, make sure they are of proper size for the tires on your vehicle and are installed according to the chain manufacturer instructions. The minimum clearances are determined using the factory equipped tire size. Other types may damage your vehicle. Use chain tensioners when recommended by the tire chain manufacturer to ensure a tight fit. Loose end links of the tire chain must be secured or removed to prevent the possibility of whipping action damage to the fenders or undercarriage. If possible, avoid fully loading your vehicle when using tire chains. In addition, drive at a reduced speed. Otherwise, your vehicle may be damaged and/or vehicle handling and performance may be adversely affected.

NOTE:

Tire chains must be installed only on the rear wheels and not on the front wheels.

⚠ CAUTION

Do not use tire chains on dry roads.

NOTICE

Never install tire chains on a punctured run-flat tire, as this could damage your vehicle.

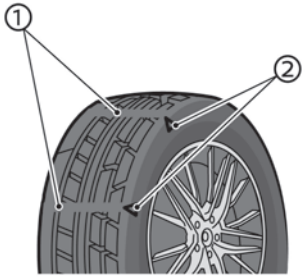
Do not drive with tire chains on paved roads that are clear of snow. Driving with chains in such conditions can cause damage to the various mechanisms of the vehicle due to some overstress.

CHANGING WHEELS AND TIRES

Tire rotation

Tires cannot be rotated because your vehicle is equipped with different sized tires in the front and rear.

Tire wear and damage



① Wear indicator
② Wear indicator location marks. The locations are shown by " △ ", "TWI", etc. depending on tire types.

⚠ WARNING

- **Tires should be periodically inspected for wear, cracking, bulging or objects caught in the tread. If excessive wear,**

cracks, bulging or deep cuts are found, the tire(s) should be replaced.

- **The original tires have built-in tread wear indicators. When the wear indicators are visible, the tire(s) should be replaced.**
- **Tires degrade with age and use. Have tires, over 6 years old checked by a qualified technician because some tire damage may not be obvious. Replace the tires as necessary to prevent tire failure and possible personal injury.**

Replacing wheels and tires

When tire replacement is required, replacing tires as a set of four with new tires is recommended. However, if a tire is punctured or damaged, it may be possible to replace only the damaged tire. Determining whether one tire or a complete set of tires should be replaced is based on a number of factors including tire wear and condition. Contact your NISSAN High Performance Center (NHPC). They can recommend if an individual tire or a complete set should be replaced.

When replacing a tire, use the specified size, speed rating and load carrying capacity as originally equipped. (☞ "Tires and wheels" page 9-8)

⚠ WARNING

- **When you replace the GT-R tires, it is recommended that you replace all the tires at the same time.**
- **The GT-R uses specially designed run-flat tires which feature an extremely rigid side wall. Special techniques and equipment are therefore required when replacing these tires. NISSAN recommends that tire replacement be performed at a NISSAN High Performance Center (NHPC).**
- **When tires are reinstalled after being uninstalled from the wheels, use equipment such as a leverless automatic tire changer. It is only possible to reuse the tires when they have no cracks and/or deformations on the bead portion. However, if you use a lever-type tire changer, cracks and deformation may occur on the bead portion of the tires meaning that the tires cannot be reused.**

  Even if there is no visible damage, reusing these tires is not safe and may cause an accident.
- **Make sure the tire valve stem cap is installed and that the valve stem is tight. When installing the cap, make sure to tighten the cap by hand. If a tool is used to tighten the cap, the cap may be damaged.**
- **The use of tires other than those specified or the mixed use of tires of different brands, construction (bias, bias-belted, radial or run-flat), or tread patterns can adversely affect the ride, braking, VDC/ESP system, handling, ground clearance, body-to-tire clearance, tire chain clearance, speedometer calibration, headlight aim and bumper height. Some of these effects may lead to accidents and could result in serious personal injury.**
- **If the wheels are changed for any reason, always replace with wheels which have the same off-set dimension. Wheels of a different off-set could cause premature tire wear, degrade vehicle handling characteristics, affect the VDC/ESP system and/or cause interference with the brake discs. Such interference can lead to decreased braking efficiency and/or early brake pad wear. (☞ "Wheels and tires" page 8-34)**
- **After a tire or a wheel is replaced, the TPMS must be reset (model with TPMS reset function). (See**

☞ "Tire Pressure Monitoring System (TPMS)" page 5-4 for details about the resetting procedure.)

- **When a wheel is replaced, tire pressure will not be indicated, the TPMS will not function and the low tire pressure warning light will flash for approximately 1 minute and remain on after the 1 minute. Contact a NISSAN High Performance Center (NHPC) as soon as possible for tire replacement and/or system resetting.**
- **Replacing tires with those not originally specified by NISSAN could affect the proper operation of the TPMS.**
- **The TPMS sensor may be damaged if it is not handled correctly. Be careful when handling the TPMS sensor.**
- **When replacing the TPMS sensor, the ID registration may be required. Contact a NISSAN High Performance Center (NHPC) for ID registration.**
- **Do not use a valve stem cap that is not specified by NISSAN. The valve stem cap may become stuck.**
- **Be sure that the valve stem caps are correctly fitted. Otherwise the valve may be clogged up with dirt and cause a malfunction or loss of pressure.**
- **Do not install a damaged or deformed wheel or tire even if it has been repaired. Such wheels or tires could have structural damage and could fail without warning.**
- **Never use retread tires.**
- **Always use tires of the specified type, size, brand, construction (bias, bias-belted, radial or run-flat), and tread pattern on all four wheels. Failure to do so may result in a circumference difference between tires on the front and rear axles which will cause excessive tire wear and may damage the transmission, transfer case and differential gears.**

Wheel balance

Unbalanced wheels may affect vehicle handling and tire life. Even with regular use, wheels can get out of balance. Therefore, they should be balanced as required.

Wheel balance service should be performed with the wheels off the vehicle. Spin balancing the rear wheels on the vehicle could lead to mechanical damage.

Care of wheels

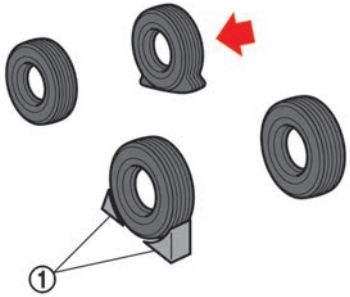
(☞ "Cleaning exterior" page 7-2)

JACKING VEHICLE AND REMOVING WHEELS

⚠ WARNING

- **Make sure the parking brake is securely applied and the transmission is shifted into the P position.**
- **Never change tires when the vehicle is on a slope, ice or slippery areas. This is hazardous.**
- **Never change tires if oncoming traffic is close to your vehicle. Wait for professional road assistance.**

Blocking wheels

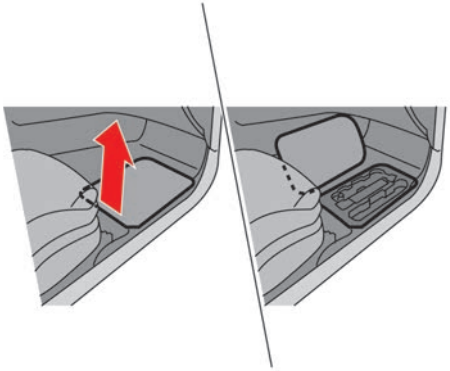


Place suitable blocks ① at both the front and back of the wheel diagonally opposite the flat tire to prevent the vehicle from moving when it is jacked up.

⚠ WARNING

Be sure to block the wheel as the vehicle may move and result in personal injury.

Getting the tools



NOTE:

A jack, jack lever and rod are not equipped as standard with this vehicle. These parts are dealer options. Contact a NISSAN High Performance Center (NHPC) about acquiring a jack, jack lever and rod. You can store a jack, jack lever and rod in the floor in front of the passenger's seat.

⚠ CAUTION

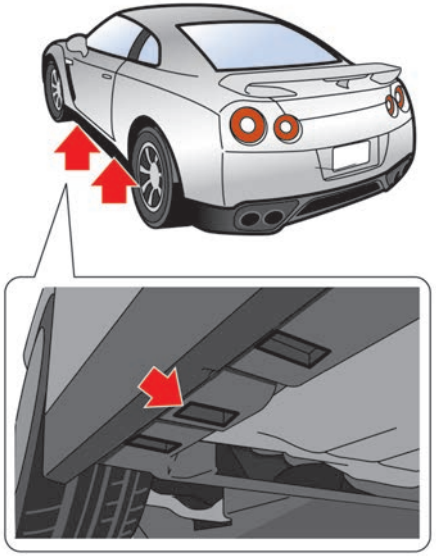
After using the tools, put them back in their original places. An accident may occur if you leave them in the car unsecured.

Jacking up the vehicle and removing the tire

⚠ WARNING

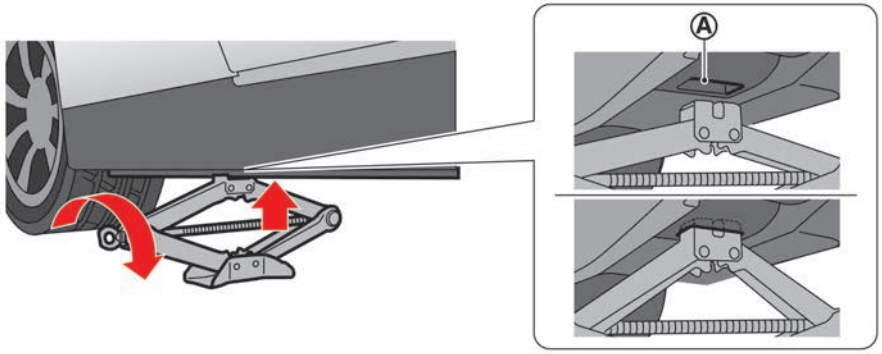
- **DO NOT GET UNDER A VEHICLE THAT IS SUPPORTED BY A JACK.**
- **Never use a jack which is not provided with your vehicle.**
- **The jack, which is provided with your vehicle, is designed only to lift your vehicle during a tire change.**
- **The jack should be placed on firm level ground.**
- **Use the correct jack-up points. Never use any other part of the vehicle for jack support.**
- **Never jack up the vehicle more than necessary.**
- **Never use blocks on or under the jack.**
- **Do not start or run the engine while vehicle is on the jack, as it may cause the vehicle to move. This is especially true for vehicles with limited slip differentials.**
- **Never allow passengers to remain in the vehicle while the tire is off the ground.**

Carefully read the caution label attached to the jack body and the following instructions.

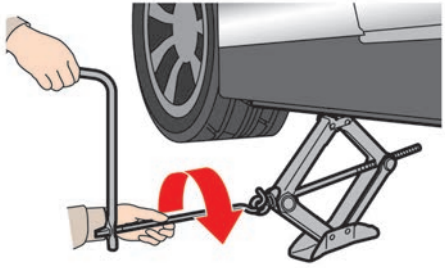


Jack-up point

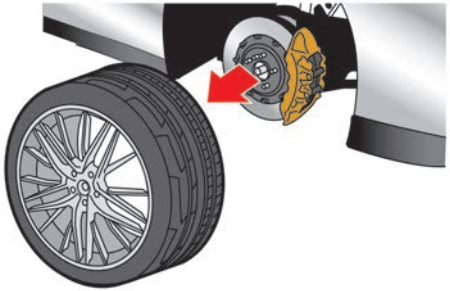
1. Place the jack directly under the jack-up point as illustrated so the top of the jack contacts the vehicle at the jack-up point. **The jack should be used on level firm ground.**



2. Fit the jack head into the recess Ⓐ of the jack-up point by turning the jack-screw clockwise with your fingers.
3. Loosen each wheel nut one or two turns by turning counterclockwise with the wheel nut wrench. **Do not remove the wheel nuts until the tire is off the ground.**

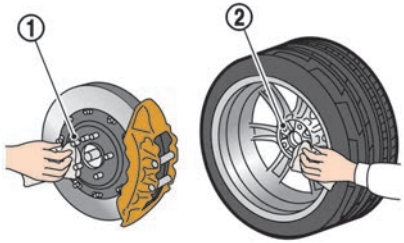


4. Carefully raise the vehicle until the tire clears the ground. To lift the vehicle, securely hold the jack lever and rod with both hands as shown above.

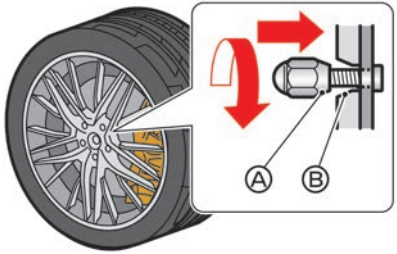


5. Remove the wheel nuts and then remove the wheel.

   NOTE:
   When putting a wheel on the ground, put it down with the outer side of the wheel facing up to prevent scratching of the wheel surface.

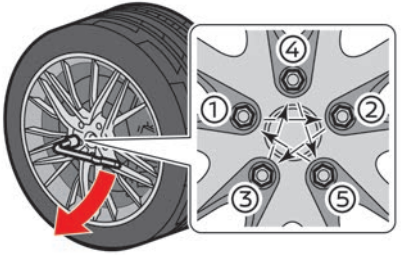


6. Clean any mud or dirt from the surface between the brake disc rotor ① and wheel ②.



7. Tighten the wheel nuts by hand by turning them clockwise until the tapered part Ⓐ of each nut lightly contacts the seat part Ⓑ of the wheel hole.

   When replacing a front wheel, make sure the hole in the wheel is aligned with the pin on the brake disc rotor.



8. With the wheel nut wrench, tighten wheel nuts alternately and evenly in the sequence illustrated (①, ②, ③, ④, ⑤) until they are tight.
9. Lower the vehicle slowly until the tire touches the ground. Then, with the wheel nut wrench, tighten the wheel nuts securely in the sequence as illustrated. Lower the vehicle completely.

⚠ WARNING

- **Incorrect wheel nuts or improperly tightened wheel nuts can cause the wheel to become loose or come off. This could cause an accident.**
- **Do not use oil or grease on the wheel studs or nuts. This could cause the nuts to become loose.**
- **Retighten the wheel nuts when the vehicle has been driven for 1,000 km (600 miles).**

⚠ WARNING

If the road wheels are hot, allow them to cool sufficiently before tightening the wheel nuts. Otherwise, the wheel nuts cannot be tightened to specification.

NOTE:

- **As soon as possible, tighten the wheel nuts to the specified torque with a torque wrench.**

  Wheel nut tightening torque:

  Except for NISMO and Track edition engineered by nismo models
  132 N·m (13.5 kg-m, 97 ft-lb)
  NISMO and Track edition engineered by nismo models
  155 N·m (15.8 kg-m, 114 ft-lb)

  The wheel nuts must be kept tightened to specification at all times. It is recommended that wheel nuts be tightened to specifications at each lubrication interval.

- **Adjust tire pressure to the COLD pressure.**

  COLD pressure: After the vehicle has been parked for three hours or more or driven less than 1.6 km (1 mile).

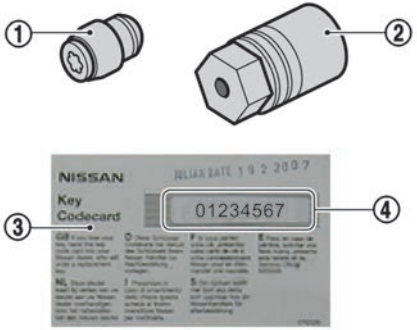
  COLD tire pressures are shown on the Tire Placard label affixed to the driver's door opening.

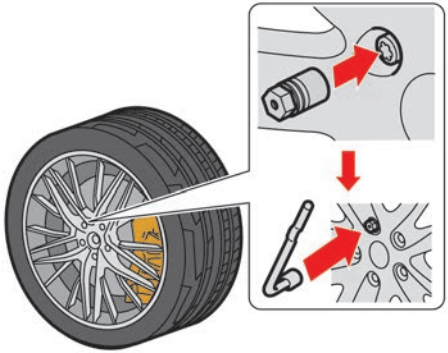
10. Securely store the jacking equipment in the vehicle.

For models equipped with the Tire Pressure Monitoring System (TPMS)

- After adjusting the tire pressure, the TPMS must be reset (model with TPMS reset function). See ☞ "Tire Pressure Monitoring System (TPMS)" page 5-4 for details about the resetting procedure.
- After adjusting tire pressure to the COLD tire pressure, the display of the tire pressure (on the touch screen display) may show higher pressure than the COLD tire pressure after the vehicle has been driven more than 1.6 km (1 mile). This is because the tire pressurizes as the tire temperature rises. This does not indicate a system malfunction.

WHEEL LOCK NUTS (if equipped)





In order to prevent theft, the specially designed wheel lock nut ① is installed to each wheel. The wheel lock nut cannot be removed with the commonly used tools.

When removing tires, use the lock key ② provided with your vehicle.

Removing the wheel lock nut

To remove the wheel lock nut, use the lock key stored under the passenger's side floor.

1. Insert the lock key to the wheel lock nut.
2. To remove the wheel lock nut, turn the lock key counterclockwise using the wheel nut wrench.

⚠ CAUTION

- **Do not use a power tool to remove the wheel lock nuts.**
- **Tighten the wheel lock nuts to the same tightening torque as the normal wheel nuts. (☞ "Jacking up the vehicle and removing the tire" page 8-46)**

NOTE:

- **The wheel lock nut has an individual code. A lock key with other than the individual code cannot remove the wheel lock nut. If you lose the wheel lock key, contact a NISSAN High Performance Center (NHPC) immediately.**
- **Keep the key code card ③ in a safe place. To purchase a lock key, contact a NISSAN High Performance Center (NHPC) with your original code ④ on the key code card.**
- **When you ask for a service at a NISSAN High Performance Center (NHPC), make sure to keep the lock key in the vehicle. Otherwise, tires cannot be removed and the service cannot be performed.**

9 Technical and consumer information

CAPACITIES AND RECOMMENDED FLUIDS/LUBRICANTS

The following are approximate capacities. The actual refill capacities may be a little different. When refilling, follow the procedure instructed in the "8. Maintenance and do-it-yourself" section to determine the proper refill capacity.

Fluid type			Capacity (approximate) Metric Measure	US Measure	Imperial Measure	Recommended Fluids/Lubricants
Fuel			74 L	19-1/2 gal	16-1/4 gal	· (☞ "Fuel information" page 9-3)
Engine oil*1 Drain and refill *1: For additional information, see ☞ "Changing engine oil and filter" page 8-12.		With oil filter change	5.0 L	5-1/4 qt	4-3/8 qt	· Mobil 1 (0W-40) · Mobil 1 (0W-40) (100% synthetic) is the factory fill oil. The VR38 engine with its plasma-sprayed bores was developed using this oil. NISSAN cannot ensure proper engine operation and durability if other 0W-40 synthetic oil is used. (☞ "Engine oil and oil filter recommendation" page 9-5) · The recommended oil capacity level is 10mm (0.39 in) (0.5 L) below the H mark on the engine oil dipstick. For additional information, see the following section. (☞ "Engine oil" page 8-11)
		Without oil filter change	4.5 L	4-3/4 qt	4 qt	
Engine coolant	For NISMO and Track edition engineered by nismo models	With reservoir	11.7 L	12-3/8 qt	10-1/4 qt	**For Europe** · Genuine NISSAN Engine Coolant or equivalent in its quality*2 **Except for Europe** · Genuine NISSAN Engine Coolant (blue) or equivalent*2 *2: Use Genuine NISSAN Engine Coolant or equivalent in its quality, in order to avoid possible aluminum corrosion within the engine cooling system caused by the use of non-genuine engine coolant. Note that any repairs for the incidents within the engine cooling system while using non-genuine engine coolant may not be covered by the warranty even if such incidents occurred during the warranty period. For additional information, see the following section. (☞ "Engine cooling system" page 8-8)
		Reservoir	1.8 L	1-7/8 qt	1-5/8 qt	
	Except for NISMO and Track edition engineered by nismo models	With reservoir	11.3 L	12 qt	10 qt	
		Reservoir	1.4 L	1-1/2 qt	1-1/4 qt	
Transmission oil (Drain and refill)			9.4 L	10 qt	8-1/4 qt	· Genuine NISSAN Transmission Oil R35 Special · The use of fluids and lubricants other than the specified may cause vehicle malfunctions and result in non-warranty vehicle repairs. · All of the fluid cannot be removed when servicing the transmission. The actual refill amount may be less than shown.
Differential oil (Drain and refill)		Front	0.65 L	3/4 qt	5/8 qt	· Genuine NISSAN Differential Oil R35 COMPETITION type 2189E · The use of fluids and lubricants other than the specified may cause vehicle malfunctions and result in non-warranty vehicle repairs.
		Rear	1.35 L	1-3/8 qt	1-1/4 qt	
Power steering fluid (PSF)			Refill to the proper oil level according to the instructions in the "8. Maintenance and do-it-yourself" section.			· Genuine NISSAN PSF or equivalent · DEXRON™VI type ATF may also be used.
Brake fluid						· Genuine NISSAN Brake Fluid R35 Special II · Genuine NISSAN Brake Fluid R35 Special II is the factory fill brake fluid. The Vehicle Dynamic Control (VDC)/Electronic Stability Program (ESP) unit and other related parts were specially designed for this brake fluid and NISSAN cannot ensure the best performance and proper operation of the vehicle if other brake fluid is used.

Fluid type	Capacity (approximate)			Recommended Fluids/Lubricants
	Metric Measure	US Measure	Imperial Measure	
Multi-purpose grease	—	—	—	· NLGI No. 2 (Lithium soap base)
Air conditioning system refrigerant	—	—	—	· HFO-1234yf (R-1234yf) (for Europe and India) · HFC-134a (R-134a) (except for Europe and India) · For additional information, see the following section. (☞ "Air conditioner specification label" page 9-11)
Air conditioning system lubricants	—	—	—	· VC100YF (PAG) (for Europe and India) · DH-PS (PAG) (except for Europe and India)

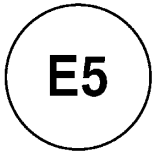
FUEL INFORMATION

VR38 engine

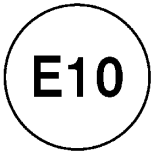
⚠ CAUTION

Never use fuel additives. Additives may cause damage to the engine. (for Europe)

For Europe:



Unleaded premium gasoline with an octane rating of at least 100 RON (Research Octane Number) and conforming to **EN228**, containing less than 5% ethanol by volume.



Unleaded premium gasoline with an octane rating of at least 100 RON and conforming to **EN228**, containing less than 10% ethanol by volume.

For Israel:

Use unleaded premium gasoline or gasohol (up to E10*) with an octane rating of at least 100 RON (Research Octane Number).

If unleaded premium gasoline with an octane rating of 100 RON is not used, unleaded premium gasoline with an octane rating of at least 98 RON may be used, but performance is slightly reduced. However, for the maximum vehicle performance and the best driveability, the use of 100 RON unleaded premium gasoline is recommended. Do not use gasoline with a lower octane rating than 98 RON.

*: Gasohol is alcohol blended gasoline. For example, "E10" is a mixture of approximately 10% fuel ethanol and 90% unleaded gasoline.

For Mexico:

Use unleaded premium gasoline or gasohol (up to E10*) with an octane rating of at least 93 AKI (Anti-Knock Index) number (Research octane number 98) to maximize vehicle performance.

If the premium gasoline specified above is not available, you may use unleaded premium gasoline with an octane rating of at least 91 AKI number (Research octane number 96), but you may notice a decrease in performance.

Do not use gasoline with an octane rating lower than 91 AKI (Research octane number 96).

*: Gasohol is alcohol blended gasoline. For example, "E10" is a mixture of approximately 10% fuel ethanol and 90% unleaded gasoline.

For Philippines:

Use unleaded premium gasoline with an octane rating of at least 97 RON (Research Octane Number).

If unleaded premium gasoline with an octane rating of 97 RON is not used, unleaded premium gasoline with an octane rating of at least 96 RON may be used, but performance is slightly reduced. However, for the maximum vehicle performance and the best drivability, the use of 97 RON unleaded premium gasoline is recommended. Do not use gasoline with a lower octane rating than 96 RON.

Except for Europe, Israel, Mexico and Philippines:

See the label attached to the inside of the fuel-filler door for the recommendation.

Use unleaded premium gasoline with an octane rating of at least 98 RON (Research Octane Number).

For models with the label showing 98 RON:

If unleaded premium gasoline with an octane rating of 98 RON is not used, unleaded premium gasoline with an octane rating of at least 96 RON may be used, but performance is slightly reduced. However, for the maximum vehicle performance and the best drivability, the use of 98 RON unleaded premium gasoline is recommended. Do not use gasoline with a lower octane rating than 96 RON.

For models with the label showing 95 RON:

If unleaded premium gasoline with an octane rating of 98 RON is not used, unleaded premium gasoline with an octane rating of at least 95 RON may be used, but performance is slightly reduced. However, for the maximum vehicle performance and the best drivability, the use of 98 RON unleaded premium gasoline is recommended. Do not use gasoline with a lower octane rating than 95 RON.

NOTICE

- **Using a fuel other than that specified could adversely affect the emission control system and cause persistent heavy spark knock, which can lead to engine damage. This may also affect warranty coverage.**
- **Under no circumstances should a leaded gasoline be used, because this will damage the three-way catalyst.**
- **Never use fuel containing as much alcohol as non-premium gasoline. Also, never add a water depleting solvent when enough fuel does not remain in the fuel tank. The temperature may increase extremely to over 1,100°C (2,012°F) and it may cause a spark plug to melt or a cylinder and cylinder head to be damaged.**

Aftermarket fuel additives

NOTICE

NISSAN does not recommend the use of any aftermarket fuel additives (Example: fuel injector cleaner, intake valve deposit removers, etc.) which are sold commercially. Many of these additives intended for gum, varnish or deposit removal may contain active solvent or similar ingredients that can be harmful to the fuel system and engine.

Octane rating tips

Using unleaded gasoline with an octane rating lower than recommended above can cause persistent, heavy spark knock. (Spark knock is a metallic rapping noise.) If severe, this can lead to engine damage. If you detect a persistent heavy spark knock even when using gasoline of the stated octane rating, or if you hear steady spark knock while holding a steady speed on level roads, have a NISSAN High Performance Center (NHPC) correct the condition. Failure to correct the condition is misuse of the vehicle, for which NISSAN is not responsible.

Incorrect ignition timing will result in knocking, after-run or overheating. This in turn may cause excessive fuel con-

sumption or damage to the engine. If any of the above symptoms are encountered, have your vehicle checked at a NISSAN High Performance Center (NHPC).

However, now and then you may notice light spark knock for a short time while accelerating or driving up hills. This is no cause for concern, because you get the greatest fuel benefit when there is light spark knock for a short time under heavy engine load.

ENGINE OIL AND OIL FILTER RECOMMENDATION

Selecting the correct oil

It is essential to choose the correct grade, quality, and viscosity engine oil to ensure satisfactory engine life and performance. (☞"Capacities and recommended fluids/lubricants" page 9-2)

Mobil 1 (0W-40) (100% synthetic) is the factory fill oil. The VR38 engine with its plasma-sprayed bores was developed using this oil. NISSAN cannot ensure proper engine operation and durability if other 0W-40 synthetic oil is used.

NOTICE

Using an engine oil other than that specified could adversely affect the engine. See a separate maintenance booklet for details and exclusions.

Oil additives

NISSAN does not recommend the use of oil additives. The use of an oil additive is not necessary when the proper oil type is used and maintenance intervals are followed.

Oil which may contain foreign matter or has been previously used should not be used.

Oil viscosity

The engine oil viscosity or thickness changes with temperature. Because of this, it is important that the engine oil viscosity be selected based on the temperatures at which the vehicle will be operated before the next oil change. Choosing an oil viscosity other than that recommended could cause serious engine damage.

Selecting the correct oil filter

Your new vehicle is equipped with a high-quality genuine NISSAN oil filter. NISSAN recommends to use the genuine NISSAN oil filter for the reason described in change intervals.

Change intervals

The oil and oil filter change intervals for your engine are based on the use of the specified quality oils and filters. Oil and filter other than the specified quality, or oil and filter change intervals longer than recommended could reduce engine life. Damage to engines caused by improper maintenance or use of incorrect oil and filter quality and/or viscosity is not covered by the new NISSAN vehicle limited warranties.

Your engine was filled with a high quality engine oil when it was built. You do not have to change the oil before the first recommended change interval. Oil and filter change intervals depend upon how you use your vehicle. Operation under the following conditions may require more frequent oil and filter changes.

- repeated short distance driving at cold outside temperatures
- driving in dusty conditions
- extensive idling
- stop and go "rush hour" traffic

Refer to the separate maintenance booklet for the maintenance schedule.

AIR CONDITIONING SYSTEM REFRIGERANT AND LUBRICANT RECOMMENDATIONS

The air conditioner system of your vehicle must be charged with the specified refrigerant and compressor oil or equivalent.

- **Refrigerant**
  - **For Europe and India: HFO-1234yf (R-1234yf)**

- **Except for Europe and India: HFC-134a (R-134a)**

- **Compressor Oil**
  - **For Europe and India (HFO1234yf): VC100YF (PAG)**
  - **Except for Europe and India: DH-PS (PAG)**

NOTICE

The use of any other refrigerant or lubricant will cause severe damage to the air conditioning system and will require the replacement of all air conditioner system components.

The release of refrigerants into the atmosphere is prohibited in many countries and regions. The refrigerant in your vehicle will not harm the Earth's ozone layer. However, it may contribute in a small part to the global warming effect. NISSAN recommends that the refrigerant be appropriately recovered and recycled. Contact a NISSAN High Performance Center (NHPC) when servicing the air conditioner system. Your NISSAN High Performance Center (NHPC) has the trained technicians and equipment needed to recover and recycle your air conditioning system refrigerant.

Contact a NISSAN High Performance Center (NHPC) when servicing your air conditioning system.

SPECIFICATIONS

ENGINE MODEL

Model		VR38
Type		Gasoline, 4-cycle
Cylinder arrangement		6-cylinder, V-slanted at 60°
Bore × Stroke	mm (in)	95.5 × 88.4 (3.760 × 3.480)
Displacement	cm^3 (cu in)	3,799 (231.83)
Firing order		1-2-3-4-5-6
Idle speed at the N position	rpm	No adjustment is necessary.
Ignition timing (B.T.D.C.) at the N position	degree/rpm	
Spark plug	Standard	DILKAR8A8
Spark plug gap (Normal)	mm (in)	0.8 (0.031)
Camshaft operation		Timing chain

TECHNICAL CHARACTERISTICS (for Gulf Standard models)

Engine model		VR38
Maximum net power	kW/rpm	419/6,800*2
		441/6,800*3
Maximum net torque	Nm/rpm	632/3,300 to 5,800*2
		652/3,600 to 5,600*3
Maximum speed*1	km/h (MPH)	315 (196)*2*3

*1: Gulf Standard requires automobile manufacturers to indicate the maximum vehicle speed for applicable models. The maximum vehicle speed, listed above, is the measured speed under certain testing conditions. The actual value may differ according to the vehicle usage and road and environmental conditions. NISSAN recommends you to ALWAYS observe posted speed limits and never drive too fast for conditions.

*2: Except for NISMO models

*3: NISMO models

TIRES AND WHEELS

Tire

Tire size	Except for NISMO and Track edition engineered by nismo models	Front	255/40ZRF20 (101Y) XL*1 255/40ZRF20 (97Y)*2
		Rear	285/35ZRF20 (104Y) XL*1 285/35ZRF20 (100Y)*2
	NISMO and Track edition engineered by nismo models	Front	255/40ZRF20 (101Y) XL*3 255/40ZRF20 (97Y)*4
		Rear	285/35ZRF20 (104Y) XL*3 285/35ZRF20 (100Y)*4

Make sure to use the tires for GT-R. The damages or failures resulting from the use of tires other than specified cannot be covered by the warranty.

*1: For Europe, Israel, India, Australia, South Africa, the Middle East and Thailand

*2: Except for Europe, Israel, India, Australia, South Africa, the Middle East and Thailand

*3: For Europe, Israel, Australia and the Middle East

*4: Except for Europe, Israel, Australia and the Middle East

Road wheel

		Size	Offset mm (in)
Road wheel	Front	20 × 9-1/2J*1 20 × 10J*2	45 (1.77)*1 41 (1.61)*2
	Rear	20 × 10-1/2J	25 (0.98)

*1: Except for NISMO and Track edition engineered by nismo models

*2: NISMO and Track edition engineered by nismo models

Make sure to use the road wheels for GT-R. The damages or failures resulting from the use of road wheels other than specified cannot be covered by the warranty.

DIMENSIONS

mm (in)

Overall length	4,710 (185.4)*1 4,690 (184.6)*2
Overall width	1,895 (74.6)
Overall height	1,370 (53.9)
Front tread	1,590 (62.6)*3 1,600 (63.0)*4
Rear tread	1,600 (63.0)
Wheelbase	2,780 (109.4)

*1: Except for NISMO models

*2: NISMO models

*3: Except for NISMO models and Track edition engineered by nismo models

*4: NISMO models and Track edition engineered by nismo models

WHEN TRAVELLING OR REGISTERING IN ANOTHER COUNTRY

If you plan to travel in another country, you should first find out if the fuel available is suitable for your vehicle's engine.

Using fuel with too low an octane rating may cause engine damage. All gasoline vehicles must be operated with unleaded gasoline. Therefore, avoid taking your vehicle to areas where appropriate fuel is not available.

When transferring the registration of your vehicle to another country, state, province or district, it may be necessary to modify the vehicle to meet local laws and regulations.

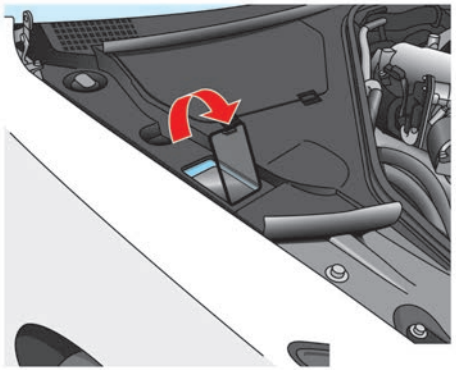
The laws and regulations for motor vehicle emission control and safety standards vary according to the country, state, province or district; therefore, vehicle specifications may differ.

When any vehicle is to be taken into another country, state, province or district and registered, its modifications, transportation, and registration are the responsibility of the user. NISSAN is not responsible for any inconvenience that may result.

VEHICLE IDENTIFICATION

It is prohibited to cover, paint, weld, cut, drill, alter or remove Vehicle Identification Number (VIN).

VEHICLE IDENTIFICATION PLATE



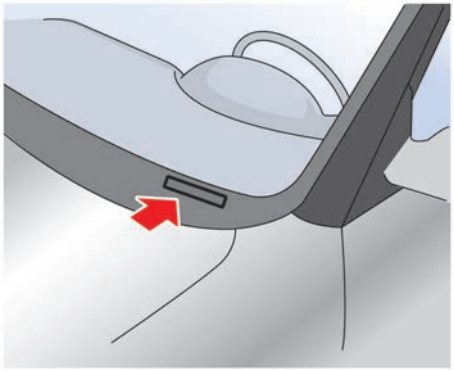
The plate is affixed as shown.

Built date (if equipped)

Built date is stamped on the vehicle identification plate.

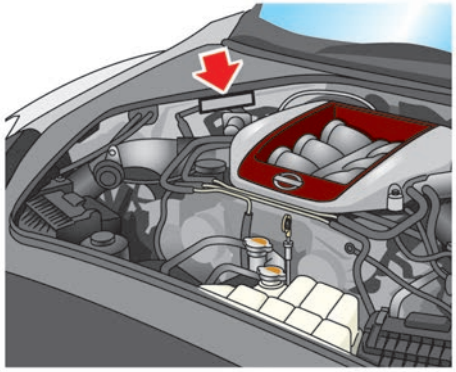
The built date means the calendar month and the year in which the body shell and powertrain subassemblies are conjoined and the vehicle is driven or moved from the production line.

VEHICLE IDENTIFICATION NUMBER (VIN) PLATE (if equipped)



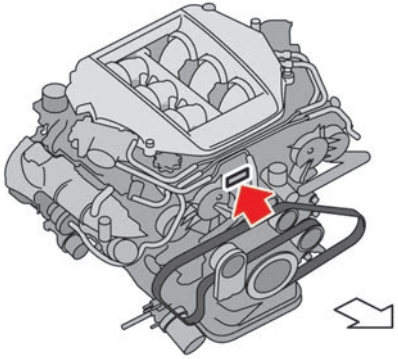
The vehicle identification number plate is attached as shown.

VEHICLE IDENTIFICATION NUMBER (VIN)



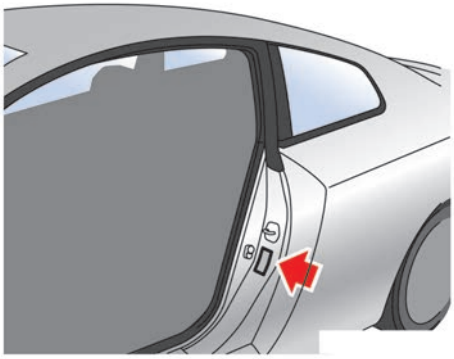
The vehicle identification number is stamped as shown in the engine compartment.

ENGINE SERIAL NUMBER



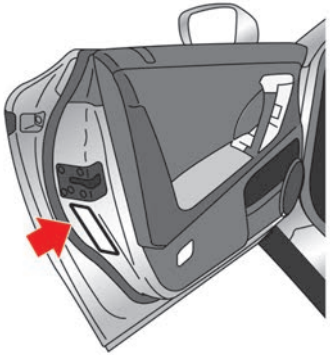
The number is stamped on the engine as shown.

CERTIFICATION LABEL (if equipped)



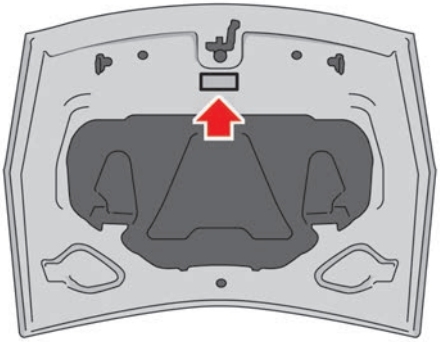
The certification label is attached as shown.

TIRE PLACARD



The cold tire pressure is shown on the tire placard label affixed to the door end as illustrated.

AIR CONDITIONER SPECIFICATION LABEL



The air conditioner specification label is attached as shown.

TOWING A TRAILER

Do not tow a trailer with your vehicle.

FLAT TOWING

Towing your vehicle with all four wheels on the ground is sometimes called flat towing. This method is sometimes used when towing a vehicle behind a recreational vehicle, such as a motor home.

DO NOT tow the GT-R with all four wheels on the ground (flat towing). Doing so WILL DAMAGE internal transmission parts. Tow the GT-R with all four wheels off the ground. (☞ "Towing your vehicle" page 6-7)

UNIFORM TIRE QUALITY GRADING (if equipped)

Quality Grades: All passenger car tires must conform to local safety requirements in addition to these grades.

Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width. For example:

Treadwear 200 Traction AA Temperature A

TREADWEAR

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and one-half (1 1/2) times as well on the government course as a tire graded 100. The relative performance of tires depends upon the actual conditions of their use, however, and may depart significantly from the norm due to variations in driving habits, service practices and differences in road characteristics and climate.

TRACTION AA, A, B AND C

The traction grades, from highest to lowest, are AA, A, B, and C. Those grades represent the tire's ability to stop on wet pavement as measured under controlled conditions on specified government test surfaces of asphalt and concrete. A tire marked C may have poor traction performance.

⚠ WARNING

The traction grade assigned to this tire is based on straight-ahead braking traction tests, and does not include acceleration, cornering, hydroplaning, or peak traction characteristics.

TEMPERATURE A, B AND C

The temperature grades are A (the highest), B, and C, representing the tire's resistance to the generation of heat and its ability to dissipate heat when tested under controlled conditions on a specified indoor laboratory test wheel. Sustained high temperature can cause the material of the tire to degenerate and reduce tire life, and excessive temperature can lead to sudden tire failure. The grade C corresponds to a level of performance which all passenger car tires must meet under the local regulations. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

⚠ WARNING

The temperature grade for this tire is established for a tire that is properly inflated and not overloaded. Excessive speed, under-inflation, or excessive loading, either separately or in

combination, can cause heat build-up and possible tire failure.

EVENT DATA RECORDERS (EDR) (for Mexico)

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 air bag 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. The EDR in this vehicle is designed to record such data as:

- How various systems in your vehicle were operating;
- Whether or not the driver and passenger safety belts were buckled/fastened;
- How far (if at all) the driver was depressing the accelerator and/or brake pedal; and,
- How fast the vehicle was traveling.
- Sounds are not recorded.

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 nontrivial 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 and NISSAN dealer, 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. EDR data will only be accessed with the consent of the vehicle owner or lessee or as otherwise required or permitted by law.

VEHICLE STATUS DATA RECORDER (VSDR)

The NISSAN GT-R is equipped with a Vehicle Status Data Recorder (VSDR). The VSDR is designed to record (i) vehicle operating and performance information (such as gear position); (ii) engine control information (such as engine speed and boost pressure); and (iii) component replacement and/or re-programming history.

NISSAN, NISSAN affiliates and NISSAN High Performance Center (NHPC) may access and use the data recorded by the VSDR to (i) evaluate warranty claims; and (ii) carry out statistical analysis and ongoing research and development of the GT-R.

The VSDR does not record conversations, other sounds, images or location based data. No personal data are recorded by the VSDR. However, the information recorded on the VSDR may be combined with your personal information by NISSAN (and/or NISSAN High Performance Center (NHPC)) for the above purposes.

NISSAN will not share the VSDR data (without your agreement) with any third parties other than NISSAN affiliates and NISSAN High Performance Center (NHPC) except as required by law or any enforcement authority, or in an anonymised form for statistical analysis and research. The data on the VSDR are encrypted so that the information is secure and can only be accessed by people with the relevant technology to read the data.

You should not tamper with or disable the VSDR (or engage or permit anyone else to do so). You acknowledge that any warranty claim will be subject to NISSAN or NISSAN High Performance Center (NHPC) obtaining access to the data on the VSDR and that tampering with or disabling the VSDR may invalidate the manufacturer's warranty. Your statutory rights will not be affected. You should have the VSDR inspected if the vehicle has been involved in an accident, flooding, or other event which might have damaged the VSDR.

INSTALLATION OF AN RF-TRANSMITTER

For countries conforming to UN regulation No.10 or equivalent:

The installation of an RF transmitter in your vehicle could affect electric equipment systems. Be sure to check with your NISSAN High Performance Center (NHPC) for precautionary measures or special instructions regarding installation. Upon request, your NISSAN High Performance Center (NHPC) will provide the detailed information (frequency band, power, antenna position, installation guide, etc.) regarding installation.

RADIO APPROVAL NUMBER AND INFORMATION

FOR EUROPE

NISSAN Vehicle Immobilizer System

Hereby, Continental declares that the radio equipment type [NISSAN Vehicle Immobilizer System] is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:

http://continental-homologation.com/nissan

- Manufacturer name, Address:
  Continental Automotive GmbH
  Siemensstraße 12, D-93055 Regensburg, Germany
- Importer name, Address:
  Nissan International SA
  Zone d'activités La Pièce 12
  1180 Rolle, Switzerland
- Operating frequency band: 125 kHz
- Maximum radio-frequency power: <40 dBμA/m@10m

Intelligent Key system

Hereby, Continental declares that the radio equipment type [Intelligent Key system] is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:

http://continental-homologation.com/nissan

- Manufacturer name, Address:
  Continental Automotive GmbH
  Siemensstraße 12, D-93055 Regensburg, Germany
- Importer name, Address:
  Nissan International SA
  Zone d'activités La Pièce 12
  1180 Rolle, Switzerland
- Operating frequency band: 433.92 MHz
- Maximum radio-frequency power: <10 dBm

BCM (Body Control Module)

Hereby, Continental declares that the radio equipment type [Body Control Module] is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:

http://continental-homologation.com/nissan

- Manufacturer name, Address:
  Continental Automotive GmbH
  Siemensstraße 12, D-93055 Regensburg, Germany
- Importer name, Address:
  Nissan International SA
  Zone d'activités La Pièce 12
  1180 Rolle, Switzerland
- Operating frequency band: 125 kHz
- Maximum radio-frequency power: <40 dBμA/m@10m

Tire Pressure Monitoring System (TPMS) transmitter

- Manufacturer's name:
  PACIFIC INDUSTRIAL CO., LTD.
- Registered trademark: PACIFIC

  This trademark is registered in the following countries:
  UK, Italy, Austria, Greece, Germany, France, Belgium, the Netherlands, Luxembourg, Portugal.
- Manufacturer's address:
  1300-1 Yokoi, Godo-cho, Anpachi-gun, Gifu, 503-2397, Japan
- Importer name, Address:
  Nissan International SA
  Zone d'activités La Pièce 12 1180 Rolle, Switzerland
- Operating frequency band:
  433.05 - 434.79 MHz
- Maximum radio-frequency power:
  100 dBμV/m

Hereby, PACIFIC INDUSTRIAL CO.,LTD. declares that the radio equipment type PMV-CA14 is in compliance with Directive

2014/53/EU.
The full text of the EU declaration of conformity is available at the following internet address:
https://www.pacific-ind.co.jp/eng/products/car/tpms/doc/

Tire Pressure Monitoring System (TPMS) tuner

Hereby, ALPS ELECTRIC CO., LTD., declares that the radio equipment type TWD1G791 is in compliance with Directive 2014/53/EU.
The full text of the EU declaration of conformity is available at the following internet address:
http://www.alps.com/products/common/pdf/Tuner/TWD1G791.pdf

- Manufacturer name:
  ALPS ELECTRIC CO.,LTD.
- Registered trademark:
  ALPS ELECTRIC CO., LTD.
- Manufacturer address:
  6-3-36, Nakazato,
  Furukawa, Osaki-city,
  Miyagi-pref., JAPAN 989-6181
- Importer name, Address:
  Nissan International SA
  Zone d'activités La Pièce 12
  1180 Rolle, Switzerland
- Operating frequency band: 433.92 MHz

FOR SOUTH AFRICA

NISSAN Vehicle Immobilizer System

TA-2006/951
ICASA
APPROVED

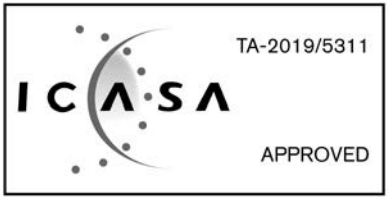
Intelligent Key system

TA-2008/319
ICASA
APPROVED

Tire Pressure Monitoring System (TPMS) tuner

TA-2008/1090
ICASA
APPROVED

Tire Pressure Monitoring System (TPMS) transmitter



FOR TAIWAN

低功率電波輻射性電機管理辦法注意事項：

不當的變更此裝置將會影響您操作此裝置的授權性，請勿擅自變更。

本裝置之操作符合第 12 及 14 條之規定：

第 12 條：經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第 14 條：低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信法規定作業之無線電通信。

低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

- NISSAN Vehicle Immobilizer System
- Intelligent Key system

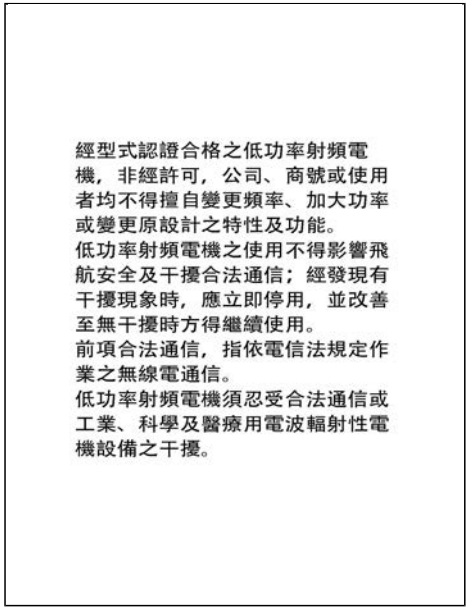
第 12 條：經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第 14 條：低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信法規定作業之無線電通信。

低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

Tire Pressure Monitoring System (TPMS) tuner



Tire Pressure Monitoring System (TPMS) transmitter

FOR SINGAPORE

Tire Pressure Monitoring System (TPMS) transmitter

Complies with
IMDA Standards

DA03389

FOR MEXICO

Tire Pressure Monitoring System (TPMS) tuner

IFETEL : RLVALTF16-0022

La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

FOR OMAN

Tire Pressure Monitoring System (TPMS) transmitter

OMAN-TRA
R/3114/16
D080134

FOR UNITED ARAB EMIRATES

Tire Pressure Monitoring System (TPMS) transmitter

TRA
REGISTERED No:
ER75898/19
DEALER No:
DA0063612/11

MEMO

MEMO

MEMO

10 Index

D

E

F

G

H

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GAS STATION INFORMATION

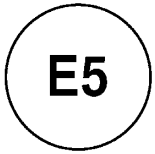
FUEL INFORMATION

VR38 engine

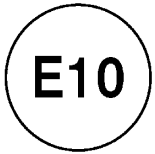
⚠ CAUTION

Never use fuel additives. Additives may cause damage to the engine. (for Europe)

For Europe:



Unleaded premium gasoline with an octane rating of at least 100 RON (Research Octane Number) and conforming to **EN228**, containing less than 5% ethanol by volume.



Unleaded premium gasoline with an octane rating of at least 100 RON and conforming to **EN228**, containing less than 10% ethanol by volume.

For Israel:

Use unleaded premium gasoline or gasohol (up to E10*) with an octane rating of at least 100 RON (Research Octane Number).

If unleaded premium gasoline with an octane rating of 100 RON is not used, unleaded premium gasoline with an octane rating of at least 98 RON may be used, but performance is slightly reduced. However, for the maximum vehicle performance and the best driveability, the use of 100 RON unleaded premium gasoline is recommended. Do not use gasoline with a lower octane rating than 98 RON.

*: Gasohol is alcohol blended gasoline. For example, "E10" is a mixture of approximately 10% fuel ethanol and 90% unleaded gasoline.

For Mexico:

Use unleaded premium gasoline or gasohol (up to E10*) with an octane rating of at least 93 AKI (Anti-Knock Index) number (Research octane number 98) to maximize vehicle performance.

If the premium gasoline specified above is not available, you may use unleaded premium gasoline with an octane rating of at least 91 AKI number (Research octane number 96), but you may notice a decrease in performance.

Do not use gasoline with an octane rating lower than 91 AKI (Research octane number 96).

*: Gasohol is alcohol blended gasoline. For example, "E10" is a mixture of approximately 10% fuel ethanol and 90% unleaded gasoline.

For Philippines:

Use unleaded premium gasoline with an octane rating of at least 97 RON (Research Octane Number).

If unleaded premium gasoline with an octane rating of 97 RON is not used, unleaded premium gasoline with an octane rating of at least 96 RON may be used, but performance is slightly reduced. However, for the maximum vehicle performance and the best drivability, the use of 97 RON unleaded premium gasoline is recommended. Do not use gasoline with a lower octane rating than 96 RON.

Except for Europe, Israel, Mexico and Philippines:

See the label attached to the inside of the fuel-filler door for the recommendation.

Use unleaded premium gasoline with an octane rating of at least 98 RON (Research Octane Number).

For models with the label showing 98 RON:

If unleaded premium gasoline with an octane rating of 98 RON is not used, unleaded premium gasoline with an octane rating of at least 96 RON may be used, but performance is slightly reduced. However, for the maximum vehicle performance and the best drivability, the use

of 98 RON unleaded premium gasoline is recommended. Do not use gasoline with a lower octane rating than 96 RON.

For models with the label showing 95 RON:

If unleaded premium gasoline with an octane rating of 98 RON is not used, unleaded premium gasoline with an octane rating of at least 95 RON may be used, but performance is slightly reduced. However, for the maximum vehicle performance and the best drivability, the use of 98 RON unleaded premium gasoline is recommended. Do not use gasoline with a lower octane rating than 95 RON.

NOTICE

- **Using a fuel other than that specified could adversely affect the emission control system and cause persistent heavy spark knock, which can lead to engine damage. This may also affect warranty coverage.**
- **Under no circumstances should a leaded gasoline be used, because this will damage the three-way catalyst.**

For additional information, see the following section. (☞ "Capacities and recommended fluids/lubricants" page 9-2)

ENGINE OIL RECOMMENDATION

Mobil 1 (0W-40) (100% synthetic) is the factory fill oil. The VR38 engine with its plasma-sprayed bores was developed using this oil. NISSAN cannot ensure proper engine operation and durability if other 0W-40 synthetic oil is used.

See the following section for engine oil and oil filter recommendation. (☞ "Capacities and recommended fluids/lubricants" page 9-2)

TIRE COLD PRESSURE

The label is typically located on the driver side center pillar or on the driver's door. (☞ "Wheels and tires" page 8-34)

NEW VEHICLE BREAK-IN PROCEDURES RECOMMENDATION

Follow these recommendations for the future reliability and economy of your new vehicle.

During the first 2,000 km (1,200 miles) of vehicle use, follow the recommendations outlined in this Owner's Manual. (☞ "Break-in schedule" page 5-36)