

FOREWORD

Welcome to the growing family of new NISSAN owners. This vehicle is delivered to you with confidence. It was produced using the latest techniques and strict quality control.

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

A separate Warranty Information Booklet explains details about the warranties covering your vehicle. The “NISSAN Service and Maintenance Guide” explains details about maintaining and servicing your vehicle. Additionally, a separate Customer Care/Lemon Law Booklet (U.S. only) will explain how to resolve any concerns you may have with your vehicle, as well as clarify your rights under your state’s lemon law.

Your NISSAN dealership 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 FOR SAFETY!

Follow these important driving rules to help ensure a safe and complete 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. Preteen 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.

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 without notice and without obligation.

IMPORTANT INFORMATION ABOUT THIS MANUAL

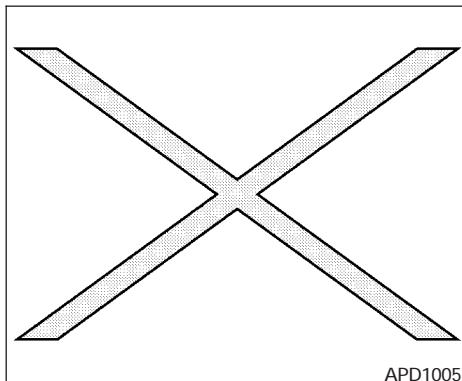
You will see various symbols in this manual. They are used in the following ways:

WARNING

This is used to indicate the presence of a hazard that could cause death or serious personal injury. To avoid or reduce the risk, the procedures must be followed precisely.

CAUTION

This is used to indicate the presence of a hazard that could cause minor or moderate personal injury or damage to your vehicle. To avoid or reduce the risk, the procedures must be followed carefully.



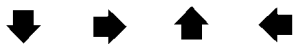
If you see this symbol, it means **“Do not do this”** or **“Do not let this happen.”**



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



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



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

CALIFORNIA PROPOSITION 65 WARNING

WARNING

Engine exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. In addition, certain fluids contained in vehicles and certain products of component wear contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

CALIFORNIA PERCHLORATE ADVISORY

Some vehicle parts, such as lithium batteries, may contain perchlorate material. The following advisory is provided: “Perchlorate Material – special handling may apply, See www.dtsc.ca.gov/hazardouswaste/perchlorate.”



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NISSAN CUSTOMER CARE PROGRAM

NISSAN CARES . . .

Both NISSAN and your NISSAN dealer are dedicated to serving all your automotive needs. Your satisfaction with your vehicle and your NISSAN dealer are our primary concerns. Your NISSAN dealer is always available to assist you with all your automobile sales and service needs.

However, if there is something that your NISSAN dealer cannot assist you with or you would like to provide NISSAN directly with comments or questions, please contact the NISSAN Consumer Affairs Department using our toll-free number:

For U.S. customers

1-800-NISSAN-1

(1-800-647-7261)

For Canadian customers

1-800-387-0122

The Consumer Affairs Department will ask for the following information:

- Your name, address, and telephone number
- Vehicle identification number (attached to the top of the instrument panel on the driver's side)
- Date of purchase
- Current odometer reading
- Your NISSAN dealer's name
- Your comments or questions

OR

You can write to NISSAN with the information at:

For U.S. customers

Nissan North America, Inc.

Consumer Affairs Department

P.O. Box 685003

Franklin, TN 37068-5003

For Canadian customers

Nissan Canada Inc.

5290 Orbitor Drive

Mississauga, Ontario L4W 4Z5

We appreciate your interest in NISSAN and thank you for buying a quality NISSAN vehicle.

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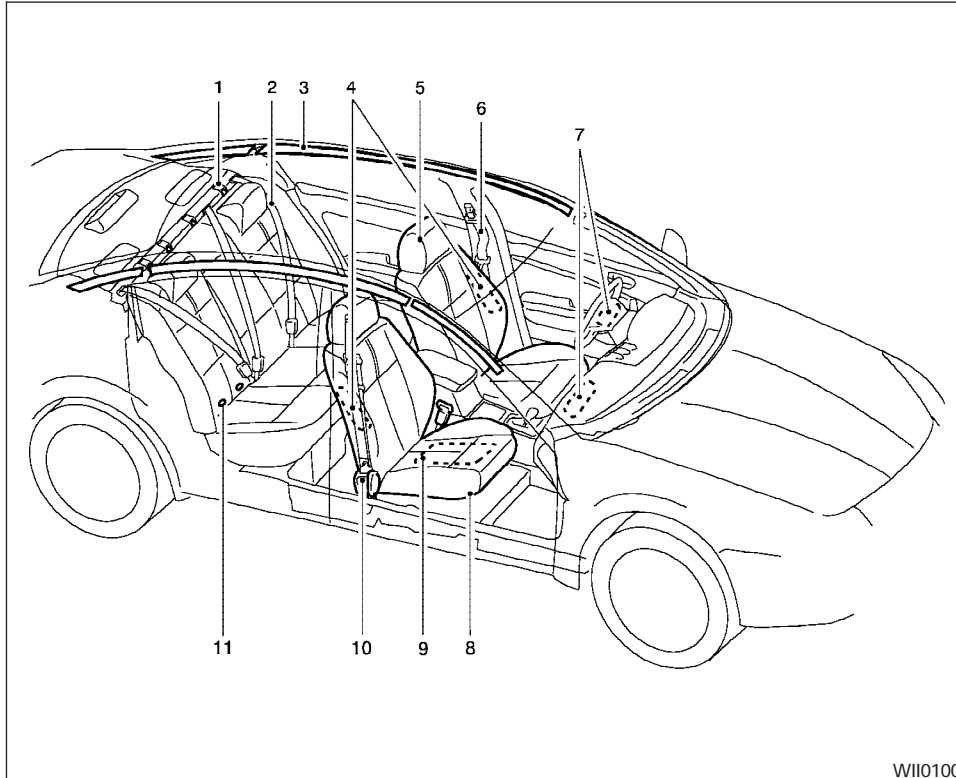
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AIRBAGS, SEAT BELTS AND CHILD RESTRAINTS

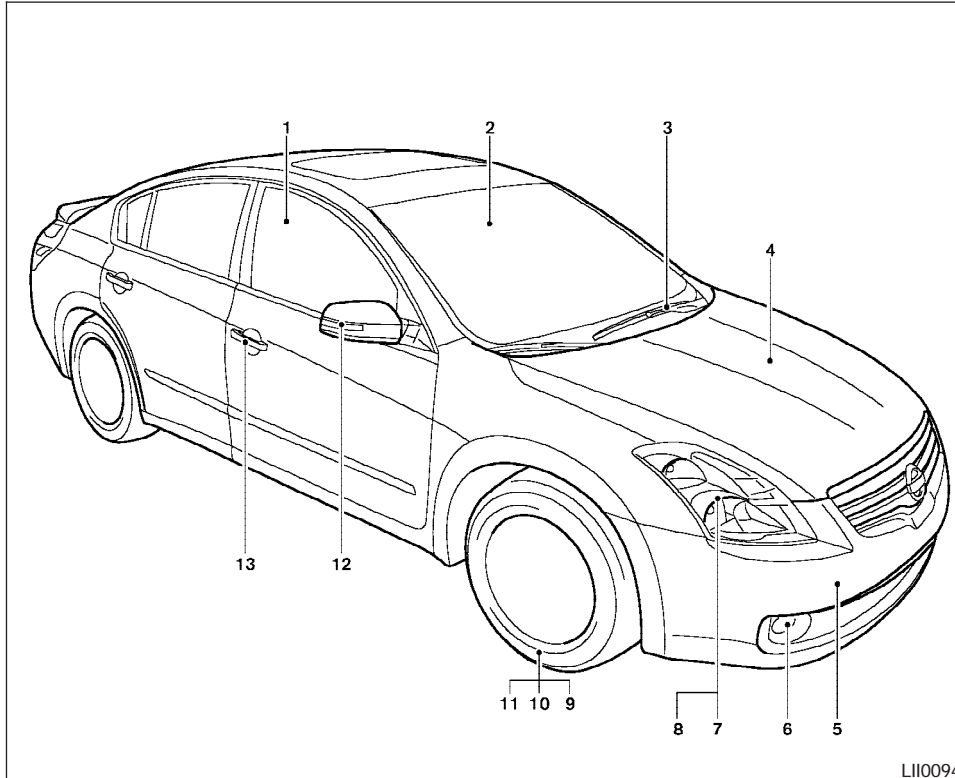


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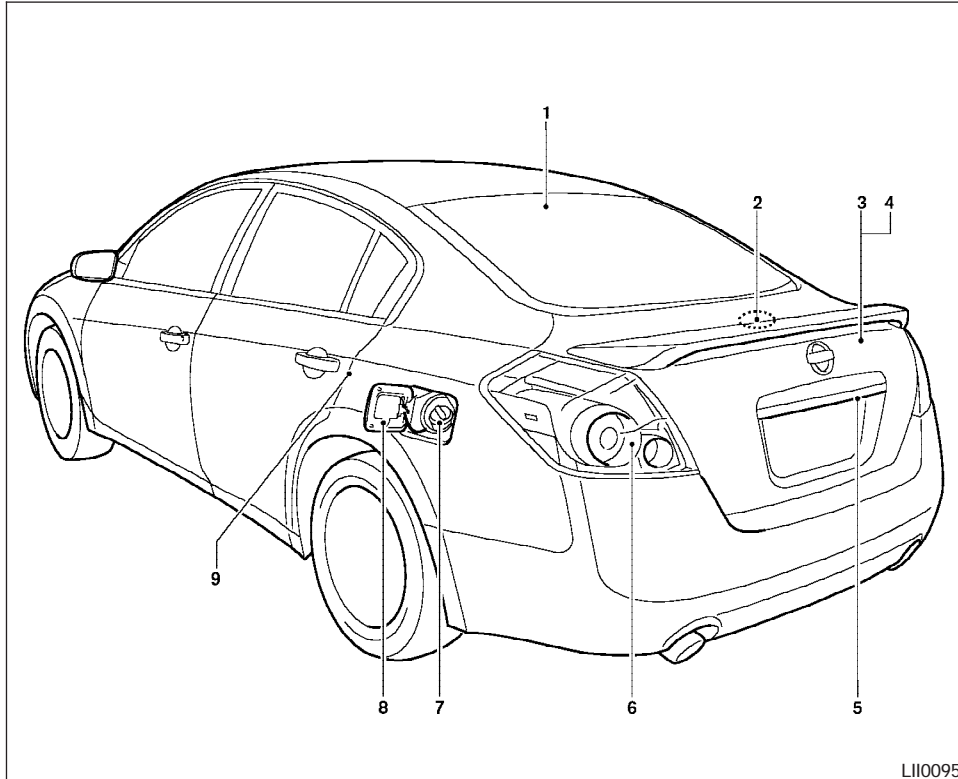
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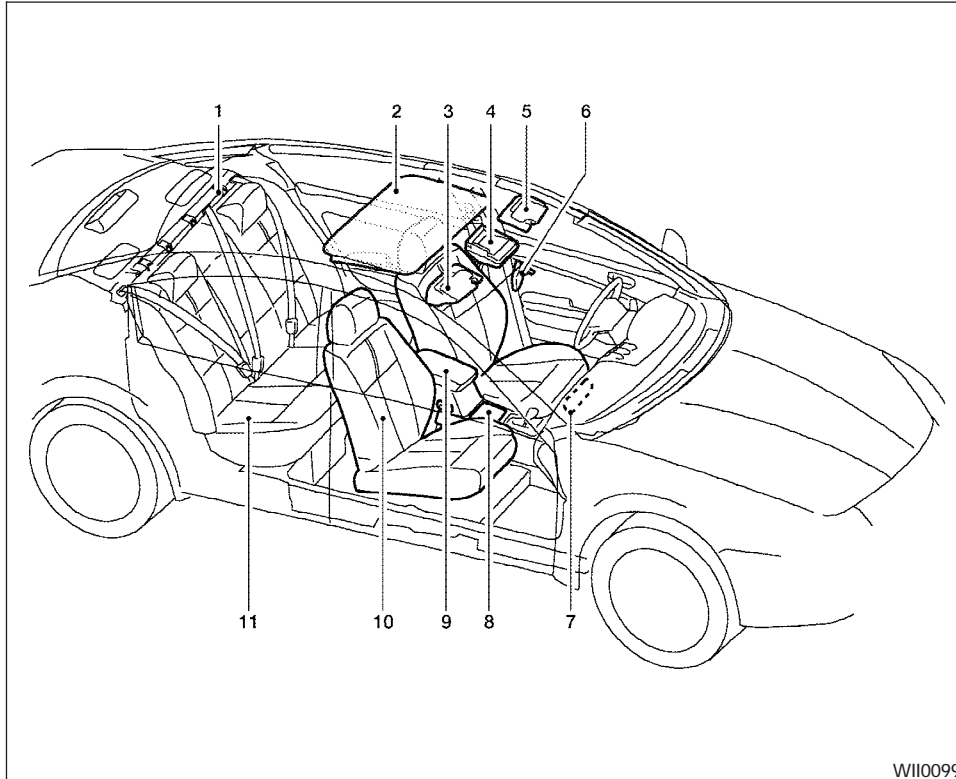
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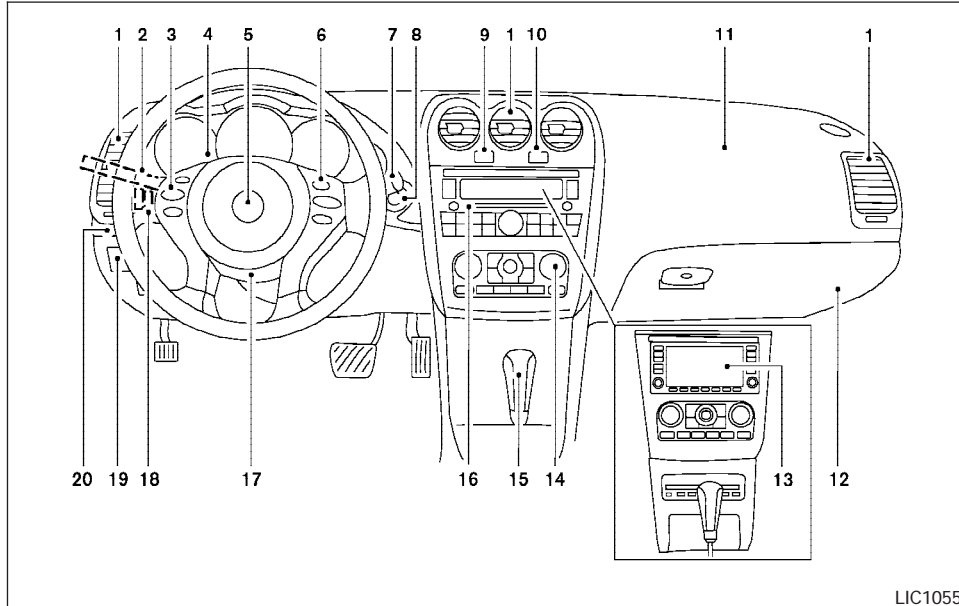


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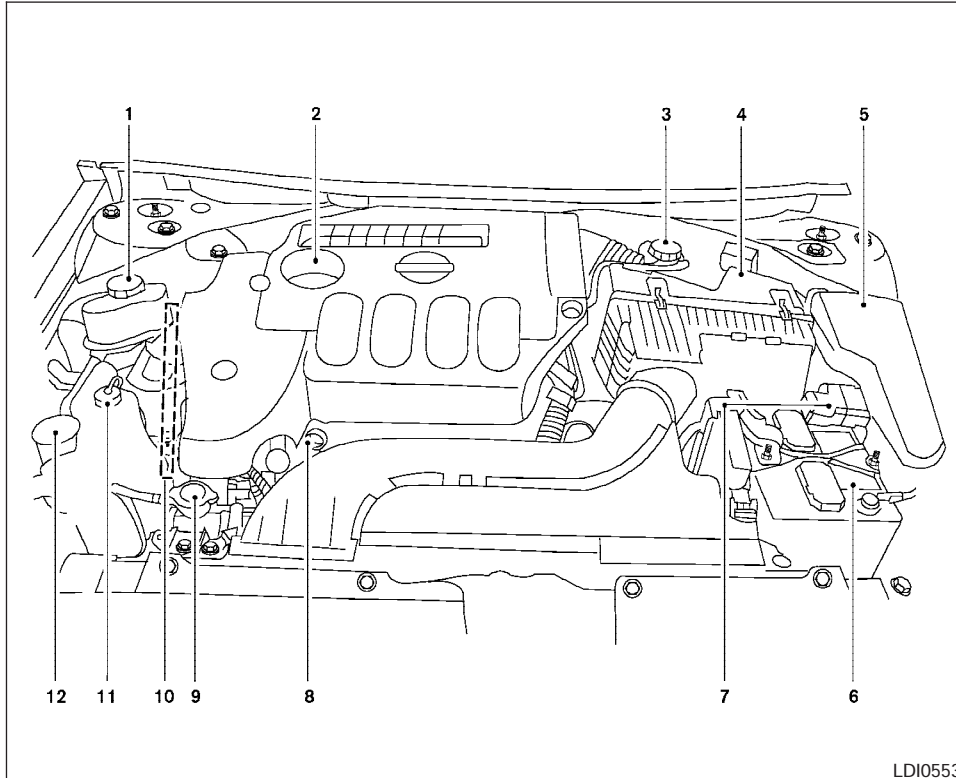
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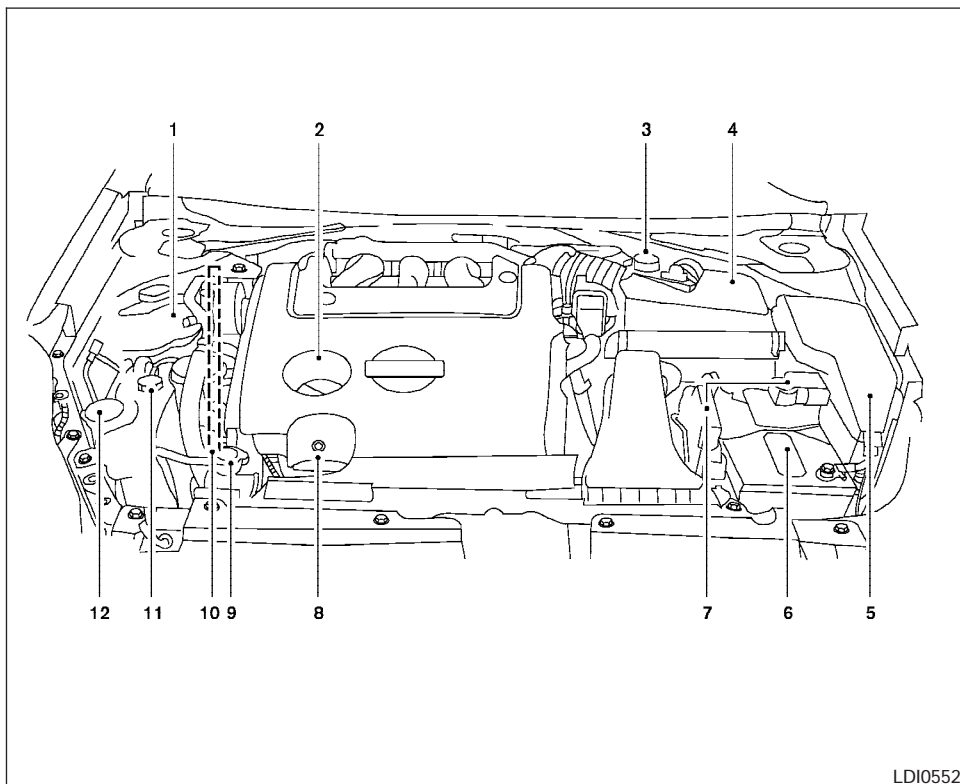


LDI0553

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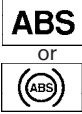

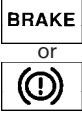




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See the page number indicated in parentheses for operating details.






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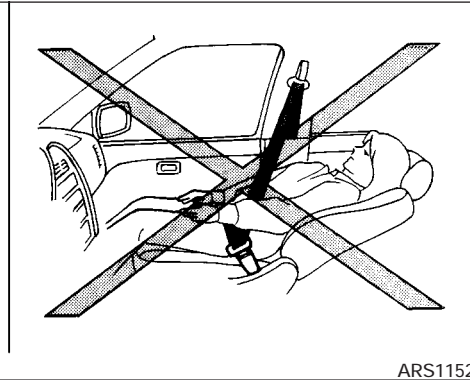
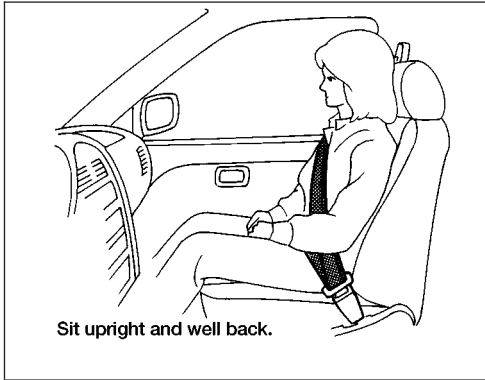
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MEMO

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SEATS

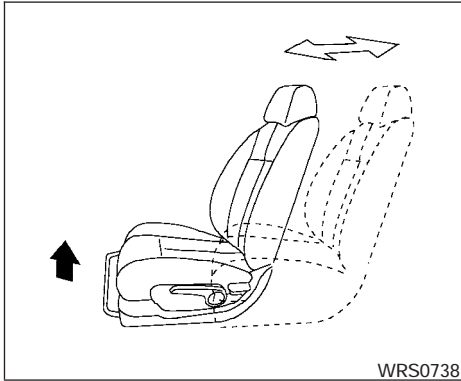


FRONT MANUAL SEAT ADJUSTMENT

WARNING

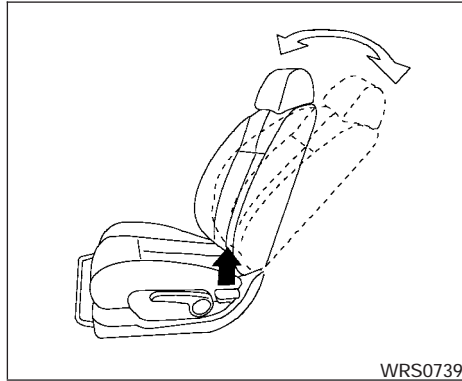
- Do not ride in a moving vehicle when the seatback is reclined. This can be dangerous. The shoulder belt will not be against your body. In an accident, you could be thrown into it and receive neck or other serious injuries. You could also slide under the lap belt and receive serious internal injuries.

- For the most effective protection when the vehicle is in motion, the seat should be upright. Always sit well back in the seat with both feet on the floor and adjust the seat properly. See “Precautions on Seat Belt Usage” later in this section.
- 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.



Forward and backward

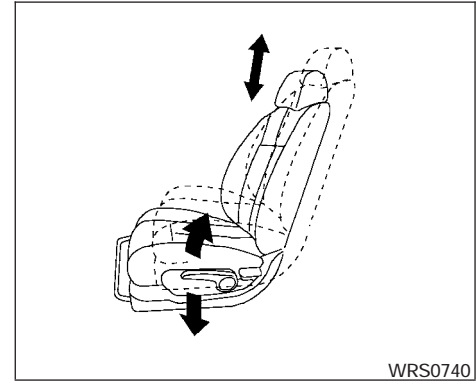
Pull the lever up and hold it while you slide the seat forward or backward to the desired position. Release the lever to lock the seat in position.



Reclining

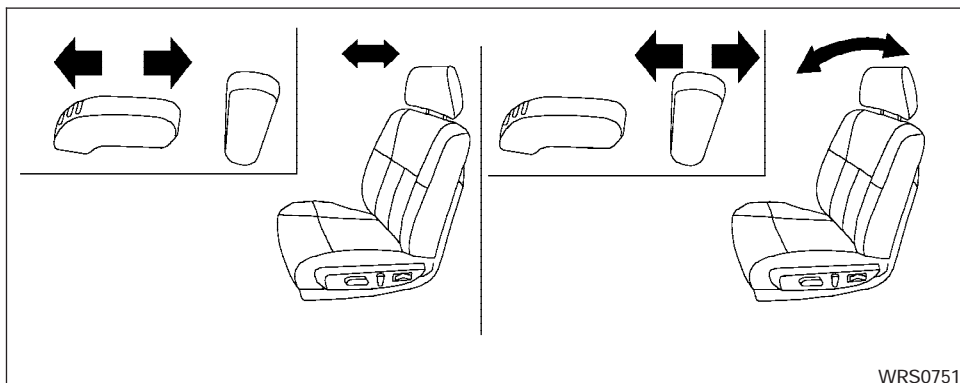
To recline the seatback, pull the lever up and lean back. To bring the seatback forward, pull the lever up and lean your body forward. Release the lever to lock the seatback in position.

The reclining feature allows adjustment of the seatback for occupants of different sizes for added comfort and to help obtain proper seat belt fit. See "Precautions on seat belt usage" later in this section. Also, the seatback can be reclined to allow occupants to rest when the vehicle is stopped.



Seat lifter (if so equipped for driver's seat)

Pull up or push down the adjusting lever to adjust the seat height until the desired position is achieved.



FRONT POWER SEAT ADJUSTMENT (if so equipped for driver's seat)

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.

Forward and backward

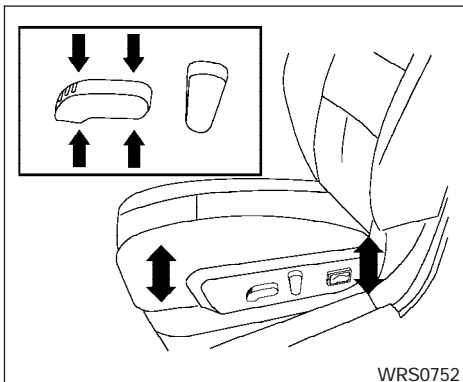
Moving the switch forward or backward will slide the seat forward or backward to the desired position.

Reclining

Move the recline switch backward until the desired angle is obtained. To bring the seatback forward again, move the switch forward and move your body forward. The seatback will move forward.

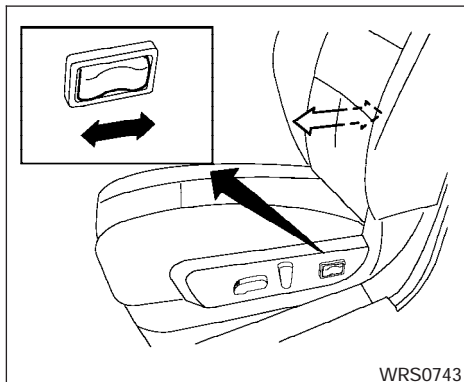
The reclining feature allows adjustment of the seatback for occupants of different sizes for added comfort and to help obtain proper seat

belt fit (see "Precautions on seat belt usage" later in this section). Also, the seatback can be reclined to allow occupants to rest when the vehicle is stopped.



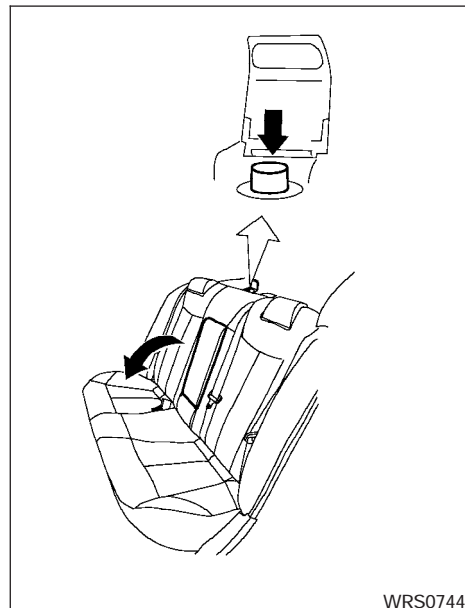
Seat lifter (if so equipped for driver's seat)

Push the front or rear end of the switch up or down to adjust the angle and height of the seat cushion.



Lumbar support (if so equipped for driver's seat)

The lumbar support feature provides lower back support to the driver. Move the switch forward or backward to adjust the seatback lumbar area.



FOLDING REAR SEAT

Interior trunk access

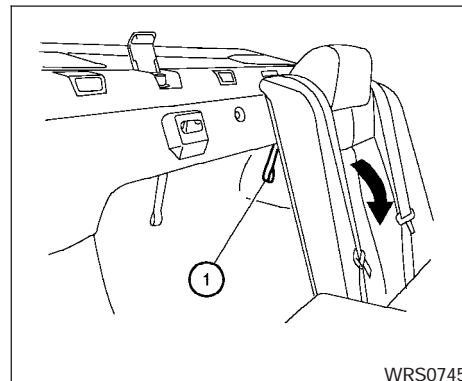
The trunk can be accessed from the passenger side of the rear seat for loading and unloading, as shown.

- ① Open access cover on rear parcel shelf.
- ② Push down on the button on the rear parcel shelf.
- ③ Fold down the passenger side seatback.

⚠ WARNING

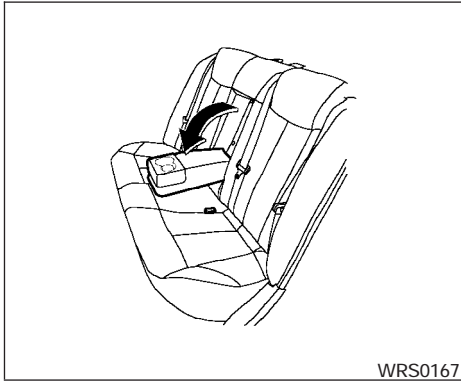
- **Never allow anyone to ride in the cargo area or on the rear seat when it is in the fold-down position. Use of these areas by passengers without proper restraints could result in serious injury in an accident or sudden stop.**
- **Properly secure all cargo with ropes or straps to help prevent it from sliding or shifting. Do not place cargo higher than the seatbacks. In a sudden stop or collision, unsecured cargo could cause personal injury.**
- **When returning the seatbacks to the upright position, be certain they are completely secured in the latched position. If they are not completely secured, passengers may be injured in an accident or sudden stop.**

- **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.**



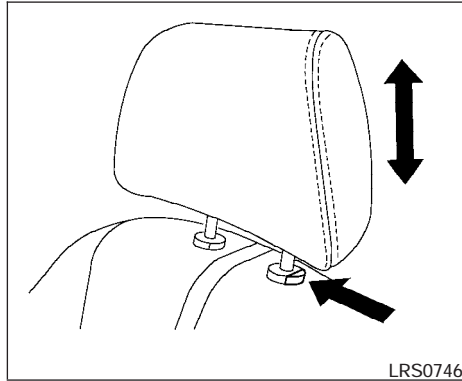
To fold down the driver's side of the rear seat, reach through the opening and pull on the strap ① located behind the seat.

The rear seats can be locked using the mechanical key to prevent unauthorized access. For more information on keys, refer to "Keys" in the "Pre-driving checks and adjustments" section of this manual.



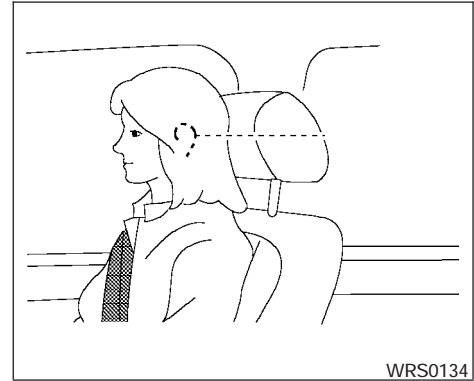
Center armrest

Pull the armrest down until it is horizontal.



HEAD RESTRAINT ADJUSTMENT

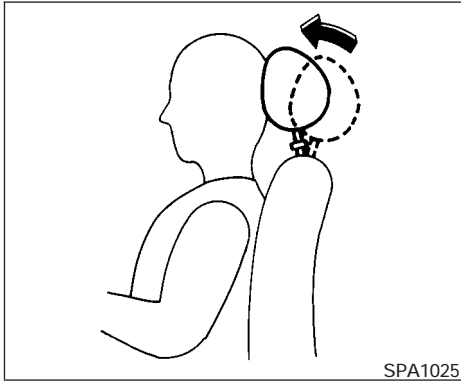
To raise the head restraint, pull it up. To lower, push and hold the lock knob and push the head restraint down.



Adjust the head restraint so the center is level with the center of your ears.

WARNING

Head restraints should be adjusted properly as they may provide significant protection against injury in an accident. Do not remove them. Check the adjustment after someone else uses the seat.



ACTIVE HEAD RESTRAINT (front seats)

⚠ WARNING

- **Always adjust the head restraints properly as specified in this section. Failure to do so can reduce the effectiveness of the Active Head Restraint.**
- **Active head restraints are designed to supplement other safety systems. Always wear seat belts. No system can prevent all injuries in any accident.**

- **Do not attach anything to the head restraint stalks. Doing so could impair active head restraint function.**

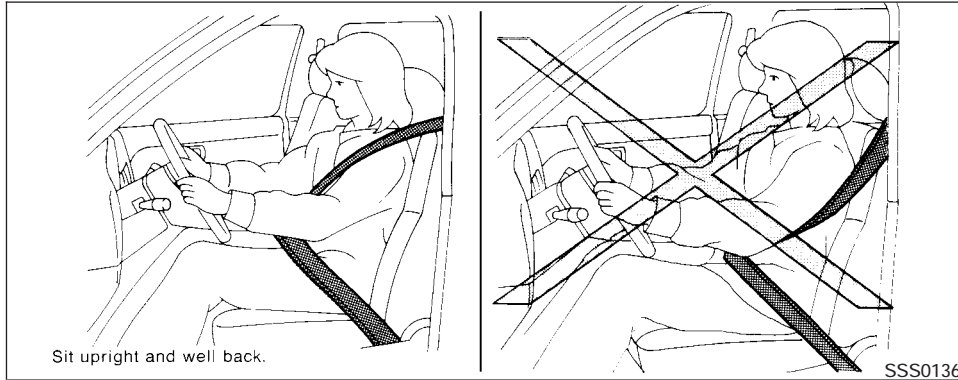
The Active Head Restraint moves forward utilizing the force that the seatback receives from the occupant in a rear-end collision. The movement of the head restraint helps support the occupant's head by reducing its backward movement and helping absorb some of the forces that may lead to whiplash type injuries.

Active Head Restraints are effective for collisions at low to medium speeds in which it is said that whiplash injury occurs most.

Active Head Restraints operate only in certain rear-end collisions. After the collision, the head restraints return to their original positions.

Properly adjust the Active Head Restraints as described earlier in this section.

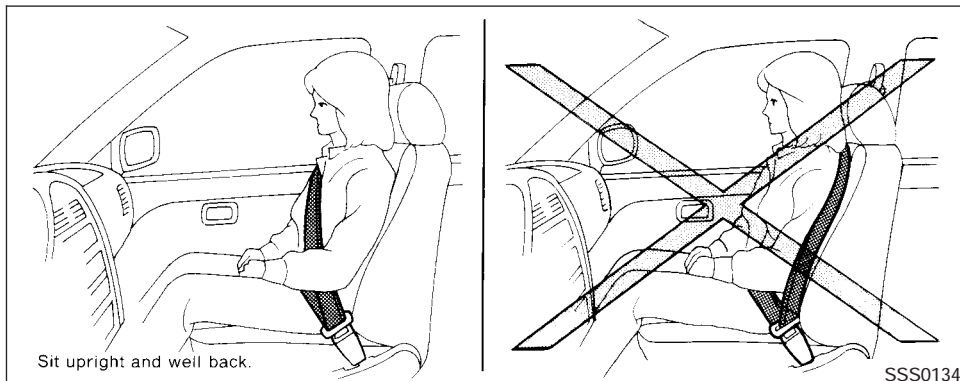
SEAT BELTS



PRECAUTIONS ON SEAT BELT USAGE

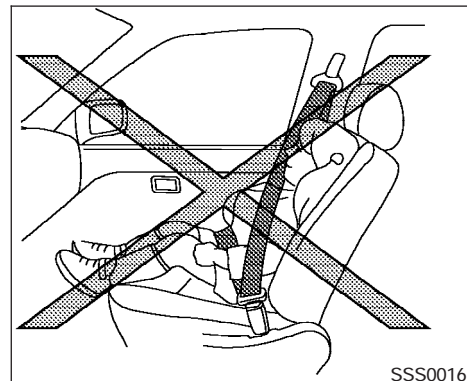
If you are wearing your seat belt properly adjusted and you are sitting upright and well back in your seat with both feet on the floor, your chances of being injured or killed in an accident and/or the severity of injury may be greatly reduced. NISSAN strongly encourages you and all of your passengers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

Most U.S. states and Canadian provinces or territories specify that seat belts be worn at all times when a vehicle is being driven.



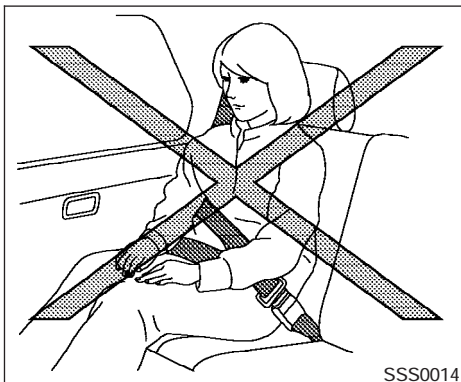
⚠ WARNING

- 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.



⚠ WARNING

- The seat belt should be properly adjusted to a snug fit. Failure to do so may reduce the effectiveness of the entire restraint system and increase the chance or severity of injury in an accident. Serious injury or death can occur if the seat belt is not worn properly.



⚠ WARNING

- Always route the shoulder belt over your shoulder and across your chest. Never run 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.
- Do not wear the seat belt inside out or twisted. Doing so may reduce its effectiveness.
- Do not allow more than one person to use the same seat belt.
- 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 dealer.
- Once the pre-tensioner seat belt has activated, it cannot be reused and must be replaced together with the retractor. See your NISSAN dealer.
- Removal and installation of the pre-tensioner seat belt system components should be done by a NISSAN dealer.

- All seat belt assemblies, including retractors and attaching hardware, should be inspected after any collision by a NISSAN dealer. 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.

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 20 pounds (9 kg) 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.

All U.S. states and Canadian provinces or territories require the use of approved child restraints

for infants and small children. See “Child Restraints” later in this section.

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. See “Supplemental restraint system” later in this section.

Infants

Infants up to at least 1 year old should be placed in a rear facing child restraint. NISSAN recommends that infants be placed in child restraints that comply with Federal Motor Vehicle Safety Standards or Canadian Motor Vehicle Safety Standards. You should choose a child restraint that 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 20 lbs (9 kg) can be placed in a forward

facing child restraint. Refer to the manufacturer's instructions for minimum and maximum weight and height recommendations. NISSAN recommends that small children be placed in child restraints that comply with Federal Motor Vehicle Safety Standards or Canadian Motor Vehicle Safety Standards. 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 4 feet 9 inches (142.5 cm) tall and weighs between 40 lbs (18 kg) and 80 lbs (36 kg). 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. The booster seat should fit the vehicle seat and

have a label certifying that it complies with Federal Motor Vehicle Safety Standards or Canadian Motor Vehicle Safety Standards. 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. 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.

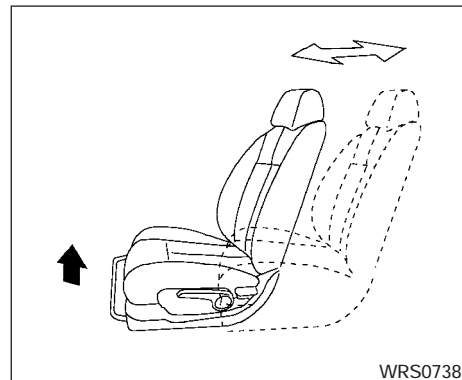
INJURED PERSONS

NISSAN recommends that injured persons use seat belts. Check with your doctor for specific recommendations.

THREE-POINT TYPE SEAT BELT WITH RETRACTOR

WARNING

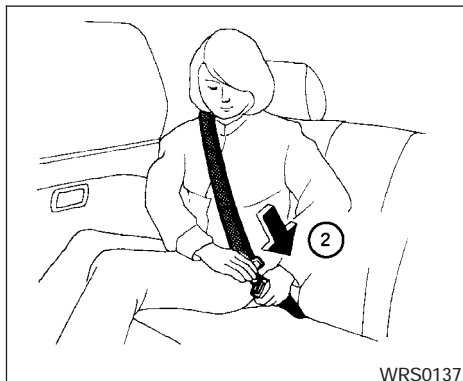
- **Every person who drives or rides in this vehicle should use a seat belt at all times.**
- **Do not ride in a moving vehicle when the seatback is reclined. This can be dangerous. The shoulder belt will not be against your body. In an accident, you could be thrown into it and receive neck or other 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 in the seat with both feet on the floor and adjust the seat belt properly.**



Manual front seat shown

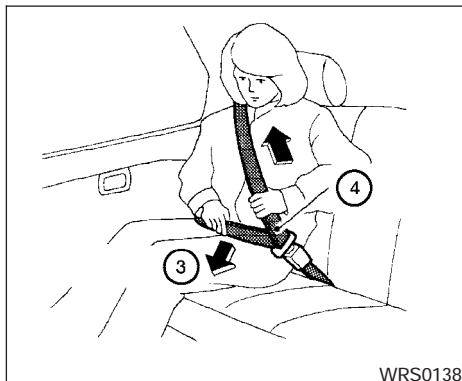
Fastening the seat belts

- ① Adjust the seat. See “Seats” earlier in this section.



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 seat 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.

The front passenger seat and the rear seating positions three-point seat belts have a locking mechanism for child restraint installation. It is referred to as the automatic locking mode or child restraint mode.

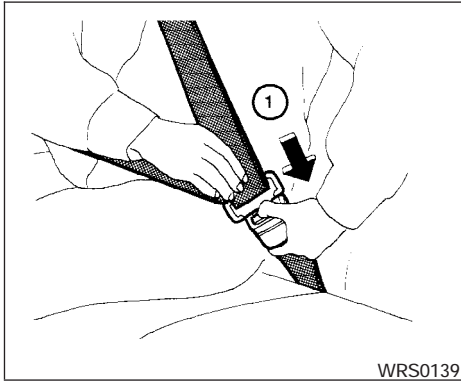
When automatic locking mechanism is activated the seat belt cannot be extended again until the seat belt tongue is detached from the buckle and

fully retracted. Once retracted, the seat belt is in the emergency locking mode. See “Child restraints” later in this section for more information.

The automatic locking mode should be used only for child restraint installation. During normal seat belt use by a passenger, the locking mode should not be activated. If it is activated it may cause uncomfortable seat belt tension.

⚠ WARNING

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



Unfastening the seat belts

- ① To unfasten the seat belt, press the button on the buckle. The seat belt automatically retracts.

Checking seat belt operation

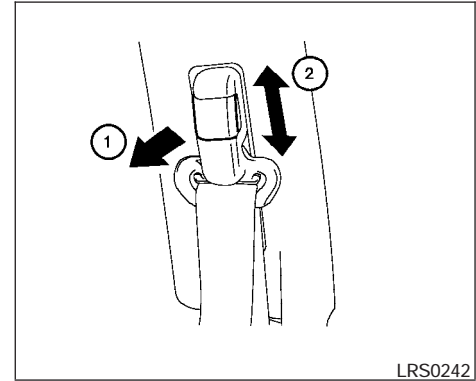
Seat belt retractors are designed to lock seat belt movement by two separate methods:

- When the seat 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 questions about seat belt operation, see a NISSAN dealer.



Shoulder belt height adjustment (Front seats)

The shoulder belt anchor height should be adjusted to the position best for you. (See “Precautions on seat belt usage” earlier in this section.) To adjust, pull out the adjustment button ① and move the shoulder belt anchor to the desired position ②, so the belt passes over the center of the shoulder. The belt should be away from your face and neck, but not falling off your shoulder. Release the adjustment button to lock the shoulder belt anchor into position.

⚠ WARNING

- After adjustment, release the adjustment button and try to move the shoulder belt anchor up and down to make sure it is securely fixed in position.
- The shoulder belt anchor height should be adjusted to the position best for you. Failure to do so may reduce the effectiveness of the entire restraint system and increase the chance or severity of injury in an accident.

SEAT BELT EXTENDERS

If, because of body size or driving position, it is not possible to properly fit the lap-shoulder belt and fasten it, an extender is available which is compatible with the installed seat belts. The extender adds approximately 8 inches (200 mm) of length and may be used for either the driver or front passenger seating position. See a NISSAN dealer for assistance if an extender is required.

⚠ WARNING

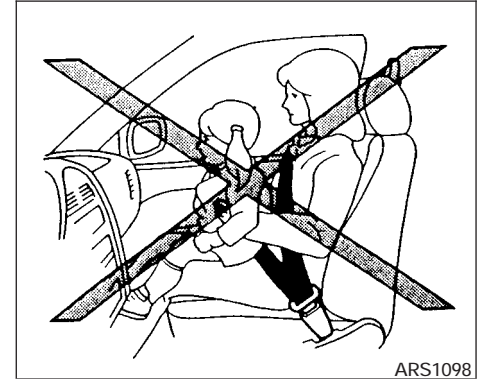
- Only NISSAN seat belt extenders, made by the same company which made the original equipment seat belts, should be used with NISSAN seat belts.

- Adults and children who can use the standard seat belt should not use an extender. Such unnecessary use could result in serious personal injury in the event of an accident.
- Never use seat belt extenders to install child restraints. If the child restraint is not secured properly, the child could be seriously injured in a collision or a sudden stop.

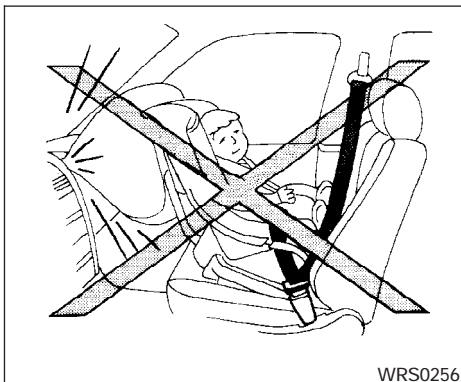
SEAT BELT MAINTENANCE

- To clean the seat belt webbing, apply a mild soap solution or any solution recommended for cleaning upholstery or carpet. 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 RESTRAINTS



WRS0256

WARNING

- Infants and small children should always be placed in an appropriate child restraint while riding in the vehicle. Failure to use a child restraint can result in serious injury or death.
- 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, do not put the same seat belt around both your child and yourself.

- Even with the NISSAN Advanced Air Bag System, never install a rear-facing child restraint in the front seat. An inflating supplemental front air bag could seriously injure or kill your child. A rear-facing child restraint must only be used in the rear seat.
- NISSAN recommends that the child restraint be installed in the rear seat. According to accident statistics, children are safer when properly restrained in the rear seat than in the front seat. If you must install a front facing child restraint in the front seat, see “Child restraint installation using the seat belts” later in this section.
- Improper use or improper installation of a child restraint can increase the risk or severity of injury for both the child and other occupants of the vehicle and can lead to serious injury or death in an accident.
- Follow all of the child restraint manufacturer’s instructions for installation and use. When purchasing a child restraint, be sure to select one which will fit your child and vehicle. It may not be possible to properly install some types of child restraints in your vehicle.

- If the child restraint is not anchored properly, the risk of a child being injured in a collision or a sudden stop greatly increases.
- Child restraint anchor points 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 or harnesses.
- Adjustable seatbacks should be positioned to fit the child restraint, but as upright as possible.
- After attaching the child restraint, test it before you place the child in it. Push it from side to side while holding the seat near the LATCH attachment or by the seat belt path. Try to tug it forward and check to see if the belt holds the restraint in place. The child restraint should not move more than 1 inch (25 mm). If the restraint is not secure, tighten the belt 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.

- **When your child restraint is not in use, keep it secured with the LATCH System or a seat belt to prevent it from being thrown around in case of a sudden stop or accident.**

CAUTION

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

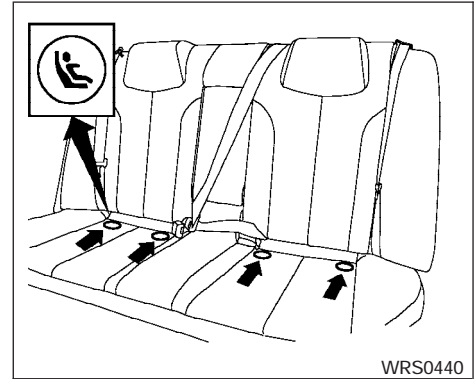
This vehicle is equipped with a universal child restraint lower anchor system, referred to as the Lower Anchors and Tethers for CHildren System or LATCH. Some child restraints include two rigid or webbing-mounted attachments that can be connected to these lower anchors. For details, see the “Lower Anchors and Tethers for CHildren System (LATCH)” later in this section.

If you do not have a LATCH compatible child restraint, the vehicle seat belts can be used. See “Child restraint installation using the seat belts” later in this section. In general, child restraints are also designed to be installed with the lap portion of a lap/shoulder seat belt.

Several manufacturers offer child restraints for infants and small children of various sizes. When selecting any child restraint, keep the following points in mind:

- Choose only a restraint with a label certifying that it complies with Federal Motor Vehicle Safety Standard 213 or Canadian Motor Vehicle Safety Standard 213.
- Check the child restraint in your vehicle to be sure it is compatible with the vehicle's seat and seat belt system.
- If the child restraint is compatible with your vehicle, place your child in the child restraint and check the various adjustments to be sure the child restraint is compatible with your child. Choose a child restraint that is designed for your child's height and weight. Always follow all recommended procedures.

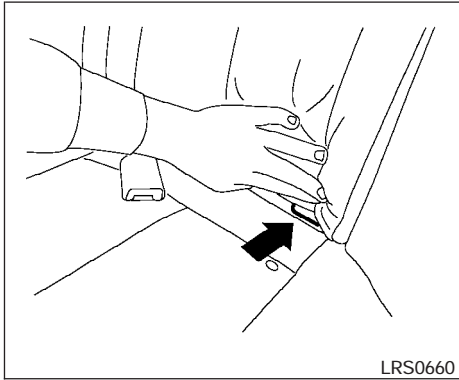
All U.S. states and Canadian provinces or territories require that infants and small children be restrained in an approved child restraint at all times while the vehicle is being operated.



LATCH system anchor locations LOWER ANCHORS AND TETHERS FOR CHILDREN SYSTEM (LATCH)

Your vehicle is equipped with special anchor points that are used with Lower Anchors and Tethers for CHildren System (LATCH) compatible child restraints. This system may also be referred to as the ISOFIX or ISOFIX compatible system. With this system, you do not have to use a vehicle seat belt to secure the child restraint.

The LATCH anchor points are provided to install child restraints in the rear outboard seating positions only. Do not attempt to install a child restraint in the center position using the LATCH anchors.



LATCH lower anchor location

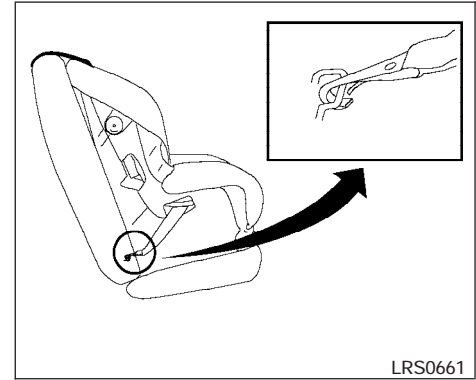
LATCH lower anchor point locations

The LATCH 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 LATCH anchors.

⚠ WARNING

- **Attach LATCH compatible child restraints only at the locations shown in the illustration. If a child restraint is not secured properly, your child could be seriously injured or killed in an accident.**

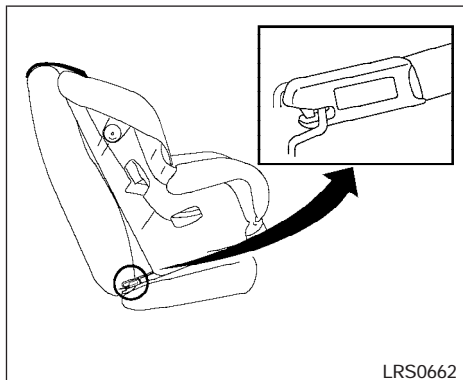
- **Do not secure a child restraint in the center rear seating position using the LATCH anchors. The child restraint will not be secured properly.**
- **Child restraint anchor points are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstance are they to be used for adult seat belts or harnesses.**



LATCH webbing-mounted attachment

Installing child restraint LATCH anchor attachments

LATCH compatible child restraints include two rigid or webbing-mounted attachments that can be connected to two anchors located at certain seating positions in your vehicle. 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 LATCH system. This information may also be in the instructions provided by the child restraint manufacturer.



LATCH rigid-mounted attachment

LATCH child restraints generally require the use of a top tether strap. See “Top tether strap child restraint” later in this section for installation instructions.

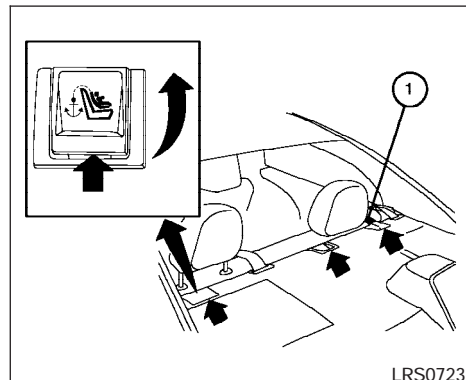
When installing a child restraint, carefully read and follow the instructions in this manual and those supplied with the child restraint. See “Child restraint installation using LATCH System” in this section.

TOP TETHER STRAP CHILD RESTRAINT

If the manufacturer of your child restraint requires the use of a top tether strap, it must be secured to the anchor point.

⚠ WARNING

Child restraint anchor points 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 or harnesses.



Top Tether Anchor Point Locations

Anchor points are located on the rear parcel shelf.

Installing top tether strap

First, secure the child restraint with the seat belt or LATCH System (rear outboard seat positions only), as applicable.

1. Flip up the anchor cover from the anchor point which is located directly behind the child seat.
2. Position the top tether strap over the top of the seatback.
3. Secure the tether strap to the tether anchor bracket that provides the straightest installation.
4. Tighten the tether strap according to the manufacturer's instructions to remove any slack.

If you have any questions when installing a top tether strap child restraint on the rear seat, consult your NISSAN dealer for details.

CHILD RESTRAINT INSTALLATION USING LATCH

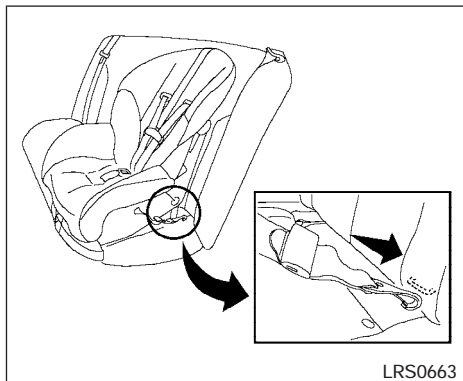
WARNING

- **Attach LATCH compatible child restraints only at the locations shown. For the LATCH lower anchor locations, see “Lower Anchors and Tethers for Children System (LATCH)” in this section. If a child restraint is not secured properly, your child could be seriously injured or killed in an accident.**
- **The LATCH anchors are designed to withstand only those loads imposed by correctly fitted child restraints. Under no circumstance are they to be used for adult seat belts or harnesses.**
- **Inspect the lower anchors by inserting your fingers into the lower anchor area and feeling to make sure there are no obstructions over the LATCH anchors, such as seat belt webbing or seat cushion material. The child restraint will not be secured properly if the LATCH anchors are obstructed.**

Front-facing

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

1. Position the child restraint on the seat. Always follow the child restraint manufacturer's instructions.

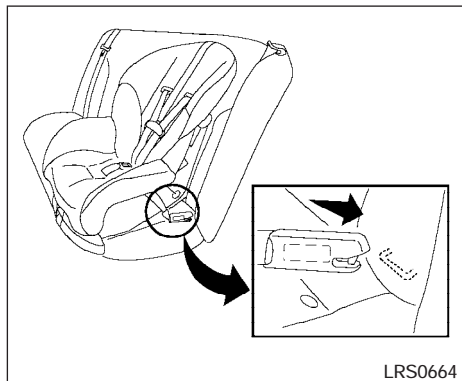


LRS0663

Front facing web-mounted – step 2

2. Secure the child restraint anchor attachments to the LATCH lower anchors.
3. The back of the child restraint should be secured against the vehicle seatback.

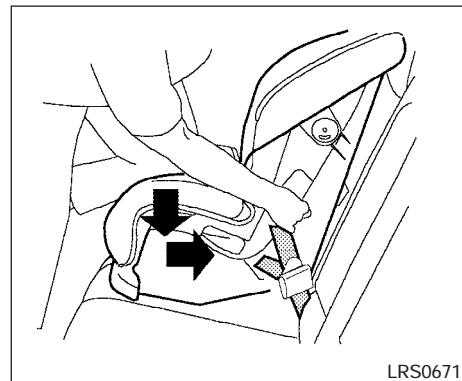
If the seating position does not have an adjustable head restraint and it is interfering with the proper child restraint fit, try another seating position or a different child restraint.



LRS0664

Front facing rigid-mounted – step 2

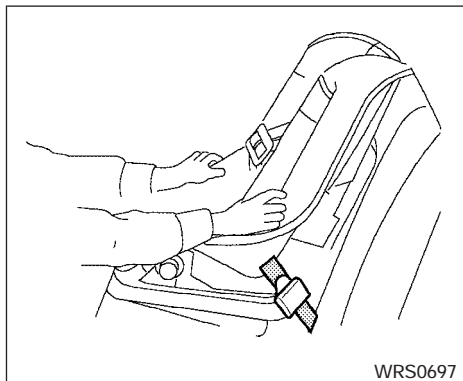
4. For child restraints that are equipped with webbing mounted attachments, remove any additional slack from the anchor attachments. Press downward and rearward firmly in the center of the child restraint with your knee to compress the vehicle seat cushion and seatback while tightening the webbing of the anchor attachments.
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. See "Top tether strap child restraint" in this section.



LRS0671

Front facing – step 4

6. Before placing the child in the child restraint, hold the child restraint near the LATCH attachment and use force to push the child restraint from side to side, and tug it forward to make sure that it is securely held in place. It should not move more than 1 in (25 mm). If it does move more than 1 in (25 mm), pull again on the anchor attachments to further tighten the child restraint. If you are unable to properly secure the restraint, move the restraint to another seating position and try again, or try a different child restraint. Not all child restraints fit in all types of vehicles.



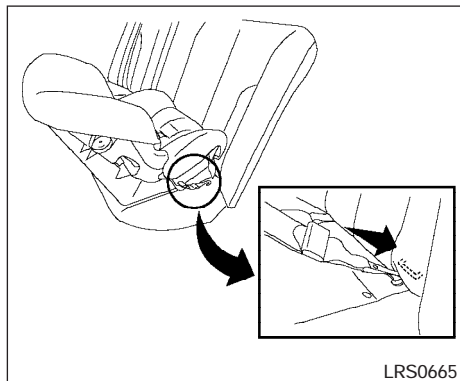
Front facing – step 6

7. Check to make sure the child restraint is properly secured prior to each use. If the child restraint is loose, repeat steps 3 through 6.

Rear-facing

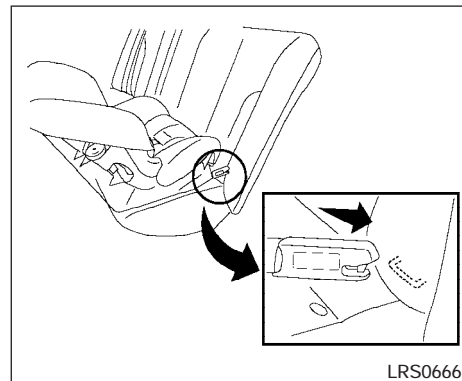
Follow these steps to install a rear-facing child restraint using LATCH System:

1. Position the child restraint on the seat. Always follow the child restraint manufacturer's instructions.



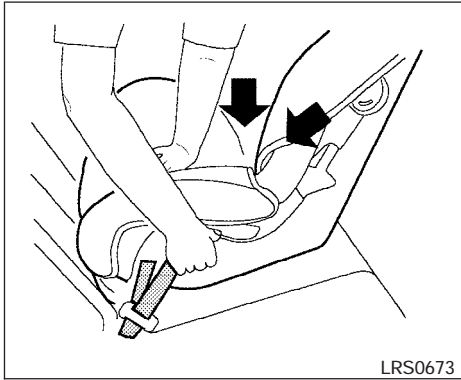
Rear facing web-mounted – step 2

2. Secure the child restraint anchor attachments to the LATCH lower anchors.

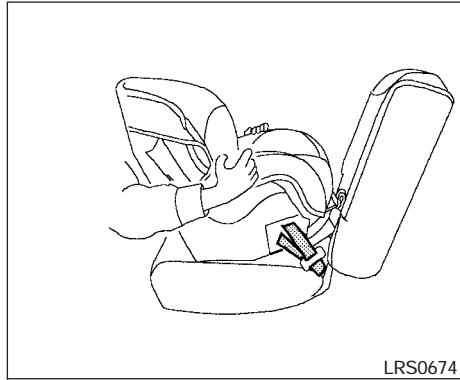


Rear facing rigid-mounted – step 2

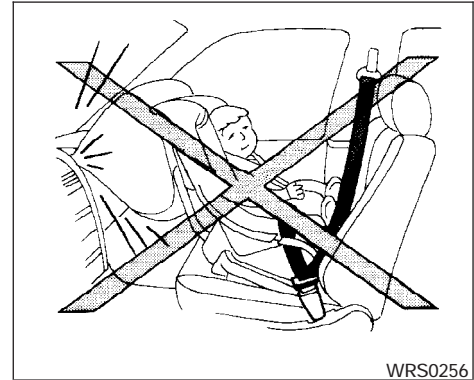
3. For child restraints that are equipped with webbing mounted attachments, remove any additional slack from the anchor attachments. Press downward and rearward firmly in the center of the child restraint with your hand to compress the vehicle seat cushion and seatback while tightening the webbing of the anchor attachments.



Rear facing – step 3



Rear facing – step 4



**CHILD RESTRAINT INSTALLATION
USING THE SEAT BELTS**

4. Before placing the child in the child restraint, hold the child restraint near the LATCH attachment and use force to push the child restraint from side to side, and tug it forward to make sure that it is securely held in place. It should not move more than 1 in (25 mm). If it does move more than 1 in (25 mm), pull again on the anchor attachments to further tighten the child restraint. If you are unable to properly secure the restraint, move the restraint to another seating position and try again, or try a different child restraint. Not all child restraints fit in all types of vehicles.

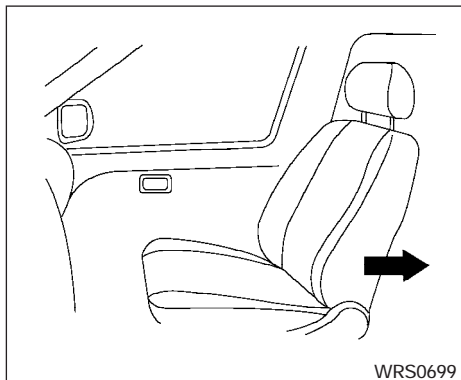
5. Check to make sure the child restraint is properly secured prior to each use. If the child restraint is loose, repeat steps 2 through 4.

⚠ WARNING

- Even with the NISSAN Advanced Air Bag System, never install a rear-facing child restraint in the front passenger seat. Supplemental front air bags inflate with great force. A rear-facing child restraint could be struck by the supplemental front air bag in a crash and could seriously injure or kill your child.

- **NISSAN** recommends that child restraints be installed in the rear seat. However, if you must install a forward facing child restraint in the front passenger seat, move the passenger seat to the rearmost position. Also, be sure the front passenger air bag status light is illuminated to indicate the passenger air bag is OFF. See “Front passenger air bag and status light” later in this section for details.
- The three-point seat belt in your vehicle is equipped with an automatic locking mode retractor which must be used when installing a child restraint.
- Failure to use the retractor’s locking mode will result in the child restraint not being properly secured. The restraint could tip over or otherwise be unsecured and cause injury to the child in a sudden stop or collision.
- A child restraint with a top tether strap should not be used in the front passenger seat.

The instructions in this section apply to child restraint installation using the vehicle seat belts in the rear seat or the front passenger seat.



Front-facing (front passenger seat) – step 1

Front-facing

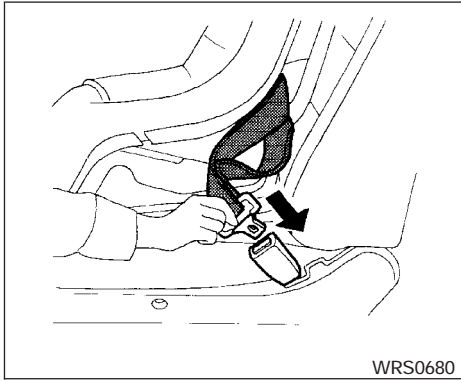
Follow these steps to install a front-facing child restraint using the vehicle seat belt in the rear seats or in the front passenger seat:

1. **If you must install a child restraint in the front seat, it should be placed in a front-facing direction only. Move the seat to the rearmost position. Child restraints for infants must be used in the rear-facing direction and therefore must not be used in the front seat.**

2. Position the child restraint on the seat. Always follow the child restraint manufacturer’s instructions

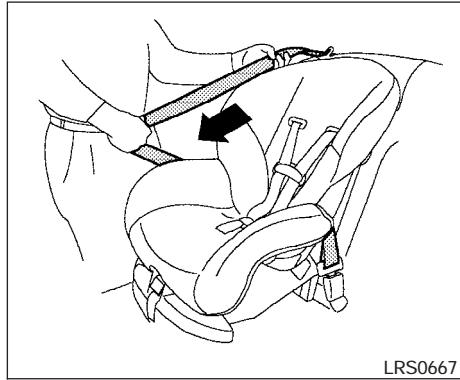
The back of the child restraint should be secured against the vehicle seatback. If necessary, adjust or remove the head restraint to obtain the correct child restraint fit. See “Head restraint adjustment” in this section.

If the head restraint is removed, store it in a secure place. Be sure to install the head restraint when the child restraint is removed. If the seating position does not have an adjustable head restraint and it is interfering with the proper child restraint fit, try another seating position or a different child restraint.



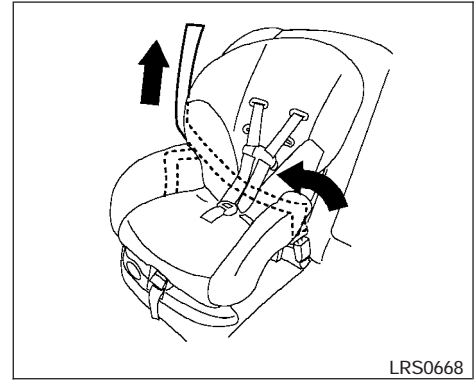
Front facing – step 3

3. Route the seat belt tongue through the child restraint and insert it into the buckle until you hear and feel the latch engage. Be sure to follow the child restraint manufacturer's instructions for belt routing.



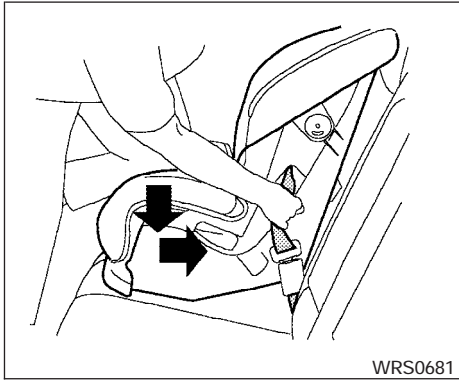
Front facing – step 4

4. Pull the shoulder belt until the belt is fully extended. At this time, the seat belt retractor is in the automatic locking mode (child restraint mode). It reverts to emergency locking mode when the seat belt is fully retracted.



Front facing – step 5

5. Allow the seat belt to retract. Pull up on the shoulder belt to remove any slack in the belt.



Front facing – step 6

6. Remove any additional slack from the seat belt; press downward and rearward firmly in the center of the child restraint with your knee to compress the vehicle seat cushion and seatback while pulling up on the seat belt.




Front facing – step 7

7. 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 (rear seat installation only). See “Top tether strap child restraint” in this section. 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.

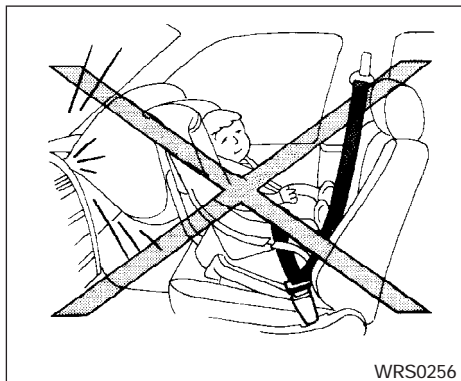
8. Before placing the child in the child restraint, hold the child restraint near the seat belt path and use force to push the child restraint from side to side, and tug it forward to make sure that it is securely held in place. It should not move more than 1 in (25 mm). If it does move more than 1 in (25 mm), pull again on the shoulder belt to further tighten the child restraint. If you are unable to properly secure the restraint, move the restraint to another seating position and try again, or try a different child restraint. Not all child restraints fit in all types of vehicles.
9. Check that the retractor is in the automatic locking mode by trying to pull more seat belt out of the retractor. If you cannot pull any more belt webbing out of the retractor, the retractor is in the automatic locking mode.
10. Check to make sure the child restraint is properly secured prior to each use. If the seat belt is not locked, repeat steps 3 through 9.



Front facing – step 11

11. If the child restraint is installed in the front passenger seat, push the ignition switch to the ON position. The front passenger air bag status light  should illuminate. If this light is not illuminated see "Front passenger air bag and status light" in this section. **Move the child restraint to another seating position.** Have the system checked by a NISSAN dealer.

After the child restraint is removed and the seat belt is fully retracted, the automatic locking mode (child restraint mode) is canceled.

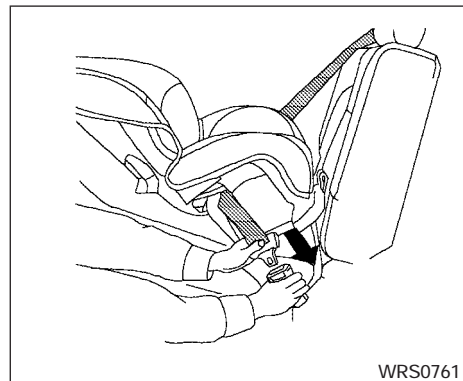


Rear-facing – step 1

Rear-facing

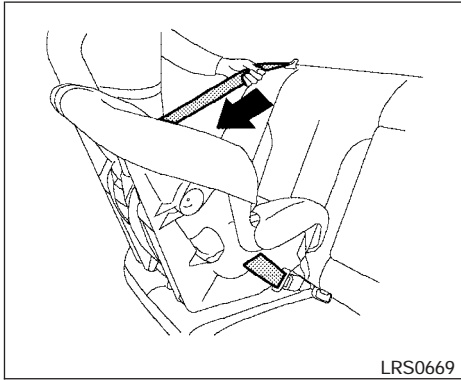
Follow these steps to install a rear-facing child restraint using the vehicle seat belt in the rear seats:

1. **Child restraints for infants must be used in the rear-facing direction and therefore must not be used in the front seat.** Position the child restraint on the seat. Always follow the restraint manufacturer's instructions.



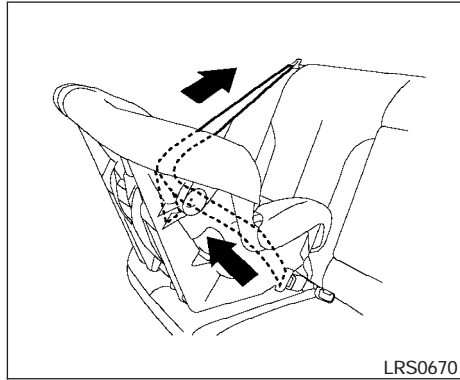
Rear facing – step 2

2. Route the seat belt tongue through the child restraint and insert it into the buckle until you hear and feel the latch engage. Be sure to follow the child restraint manufacturer's instructions for belt routing.



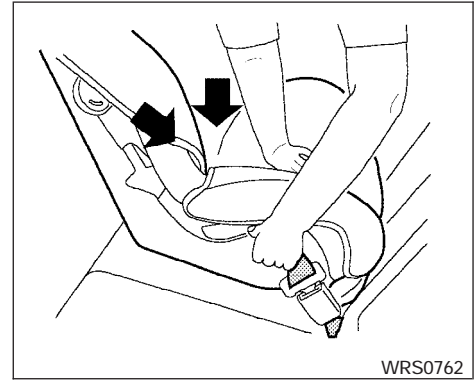
Rear facing – step 3

3. Pull the shoulder belt until the belt is fully extended. At this time, the seat belt retractor is in the automatic locking mode (child restraint mode). It reverts to emergency locking mode when the seat belt is fully retracted.



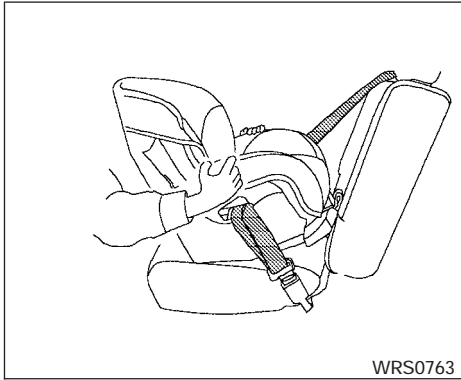
Rear facing – step 4

4. Allow the seat belt to retract. Pull up on the shoulder belt to remove any slack in the belt.



Rear facing – step 5

5. Remove any additional slack from the child restraint; press downward and rearward firmly in the center of the child restraint to compress the vehicle seat cushion and seat-back while pulling up on the seat belt.



WRS0763

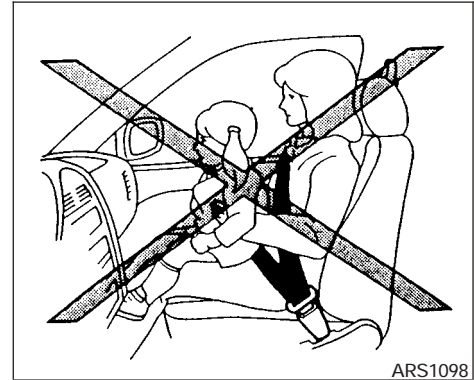
Rear facing – step 6

6. Before placing the child in the child restraint, hold the child restraint near the seat belt path and use force to push the child restraint from side to side, and tug it forward to make sure that it is securely held in place. It should not move more than 1 in (25 mm). If it does move more than 1 in (25 mm), pull again on the shoulder belt to further tighten the child restraint. If you are unable to properly secure the restraint, move the restraint to another rear seating position and try again, or try a different child restraint. Not all child restraints fit in all types of vehicles.

7. Check that the retractor is in the automatic locking mode by trying to pull more seat belt out of the retractor. If you cannot pull any more seat belt webbing out of the retractor, the retractor is in the automatic locking mode.
8. Check to make sure that the child restraint is properly secured prior to each use. If the belt is not locked, repeat steps 3 through 7.

After the child restraint is removed and the seat belt fully retracted, the automatic locking mode (child restraint mode) is canceled.

BOOSTER SEATS



ARS1098

PRECAUTIONS ON BOOSTER SEATS

WARNING

- **Infants and small children should always be placed in an appropriate child restraint while riding in the vehicle. Failure to use a child restraint or booster seat can result in serious injury or death.**

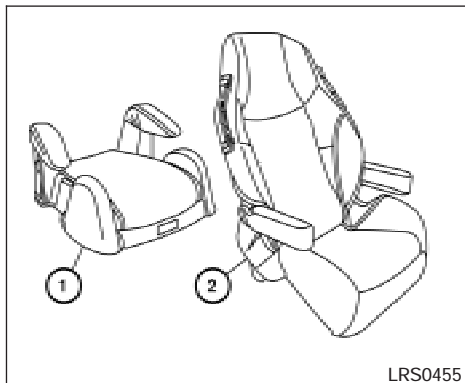
- Infants and small children should never be carried on your lap. It is not possible for even the strongest adult to resist the forces of a severe accident. The child could be crushed between the adult and parts of the vehicle. Also, do not put the same seat belt around both your child and yourself.
- NISSAN recommends that the booster seat be installed in the rear seat. According to accident statistics, children are safer when properly restrained in the rear seat than in the front seat. If you must install a booster seat in the front seat, see “Booster seat installation” in this section.
- A booster seat must only be installed in a seating position that has a lap/shoulder belt. Failure to use a three-point type seat belt with a booster seat can result in a serious injury in sudden stop or collision.
- Improper use or improper installation of a booster seat can increase the risk or severity of injury for both the child and other occupants of the vehicle and can lead to serious injury or death in an accident.

- Do not use towels, books, pillows or other items in place of a booster seat. Items such as these may move during normal driving or a collision and result in serious injury or death. Booster seats are designed to be used with a lap/shoulder belt. Booster seats are designed to properly route the lap and shoulder portions of the seat belt over the strongest portions of a child’s body to provide the maximum protection during a collision.
- Follow all of the booster seat manufacturer’s instructions for installation and use. When purchasing a booster seat, be sure to select one which will fit your child and vehicle. It may not be possible to properly install some types of booster seats in your vehicle.
- If the booster seat and seat belt is not used properly, the risk of a child being injured in a collision or a sudden stop greatly increases.
- Adjustable seatbacks should be positioned to fit the booster seat, but as upright as possible.

- After placing the child in the booster seat and fastening the seat belt, make sure the shoulder portion of the belt is away from the child’s face and neck and the lap portion of the belt does not cross the abdomen.
- Do not put the shoulder belt behind the child or under the child’s arm. If you must install a booster seat in the front seat, see “Booster seat installation” later in this section.
- When your booster seat is not in use, keep it secured with a seat belt to prevent it from being thrown around in case of a sudden stop or accident.

 **CAUTION**

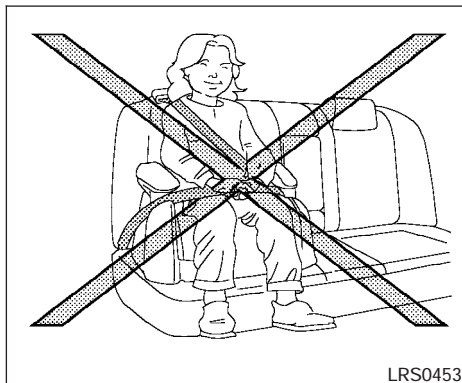
Remember that a booster seat left in a closed vehicle can become very hot. Check the seating surface and buckles before placing your child in the booster seat.



LRS0455

Booster seats of various sizes are offered by several manufacturers. When selecting any booster seat, keep the following points in mind:

- Choose only a booster seat with a label certifying that it complies with Federal Motor Vehicle Safety Standard 213 or Canadian Motor Vehicle Safety Standard 213.
- Check the booster seat in your vehicle to be sure it is compatible with the vehicle's seat and seat belt system.
- Make sure the child's head will be properly supported by the booster seat or vehicle seat. The seat back must be at or above the center of the child's ears. For example, if a

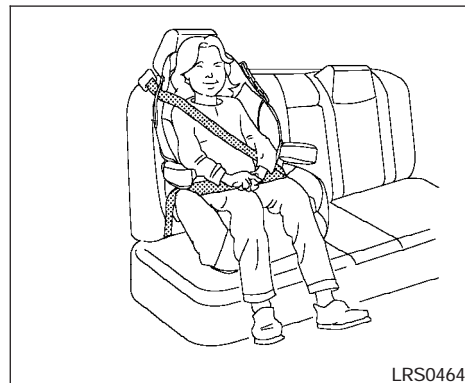


LRS0453

low back booster seat ① is chosen, the vehicle seat back must be at or above the center of the child's ears. If the seat back is lower than the center of the child's ears, a high back booster seat ② should be used.

- If the booster seat is compatible with your vehicle, place your child in the booster seat and check the various adjustments to be sure the booster seat is compatible with your child. Always follow all recommended procedures.

All U.S. states and Canadian provinces or territories require that infants and small



LRS0464

children be restrained in an approved child restraint at all times while the vehicle is being operated.

The instructions in this section apply to booster seat installation in the rear seats or the front passenger seat.

BOOSTER SEAT INSTALLATION

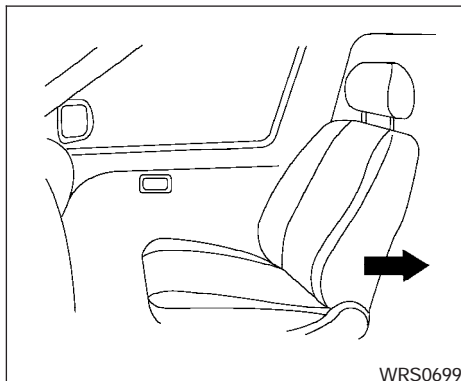
⚠ WARNING

NISSAN recommends that booster seats be installed in the rear seat. However, if you must install a booster seat in the front passenger seat, move the passenger's seat to the rearmost position.

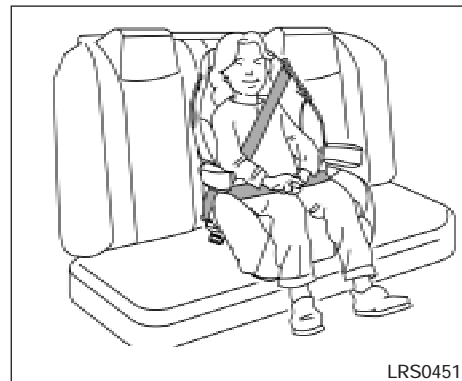
⚠ CAUTION

Do not use the lap/shoulder belt automatic locking mode when using a booster seat with the seat belts.

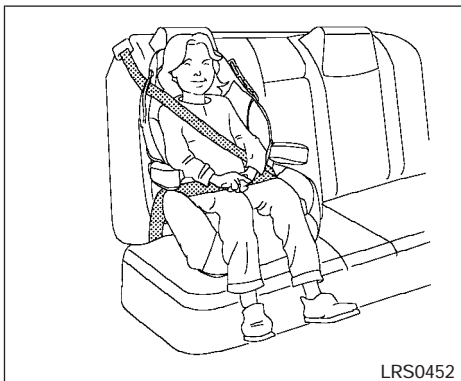
Follow these steps to install a booster seat in the rear seat or in the front passenger seat:



1. **If you must install a booster seat in the front seat, move the seat to the rearmost position.**
2. Position the booster seat on the seat. Only place it in a front facing direction. Always follow the booster seat manufacturer's instructions.



Rear center position



LRS0452

Rear outboard position

3. The booster seat should be positioned on the vehicle seat so that it is stable. If necessary, adjust or remove the head restraint to obtain the correct booster seat fit. See "Head restraint adjustment" earlier in this section. If the head restraint is removed, store it in a secure place. Be sure to install the head restraint when the booster seat is removed. If the seating position does not have an adjustable head restraint and it is interfering with the proper booster seat fit, try another seating position or a different booster seat.

4. Position the lap portion of the seat belt low and snug on the child's hips. Be sure to follow the booster seat manufacturer's instructions for adjusting the belt routing.
5. Pull the shoulder belt portion of the seat belt toward the retractor to take up extra slack. Be sure the shoulder belt is positioned across the top, middle portion of the child's shoulder. Be sure to follow the booster seat manufacturer's instructions for adjusting the belt routing.




LRS0454

Front passenger position

6. Follow the warnings, cautions and instructions for properly fastening a seat belt shown in the "Three-point seat belt with retractor" earlier in this section.

SUPPLEMENTAL RESTRAINT SYSTEM



7. If the booster seat is installed in the front passenger seat, push the ignition switch to the ON position. The passenger air bag status light  may or may not be illuminated, depending on the size of the child and the type of booster seat being used. See “Front passenger air bag and status light” later in this section.

PRECAUTIONS ON SUPPLEMENTAL RESTRAINT SYSTEM

This Supplemental Restraint System (SRS) section contains important information concerning the driver and passenger supplemental front air bags (NISSAN Advanced Air Bag System), supplemental side air bags, curtain side-impact air bags and pre-tensioner seat belts.

Supplemental front impact air bag system:

The NISSAN advanced air bag system can help cushion the impact force to the head and chest of the driver and front passenger in certain frontal collisions.

Supplemental side-impact air bag system:

This system can help cushion the impact force to the chest and pelvic area of the driver and front passenger in certain side impact collisions. The supplemental side air bag is designed to inflate on the side where the vehicle is impacted.

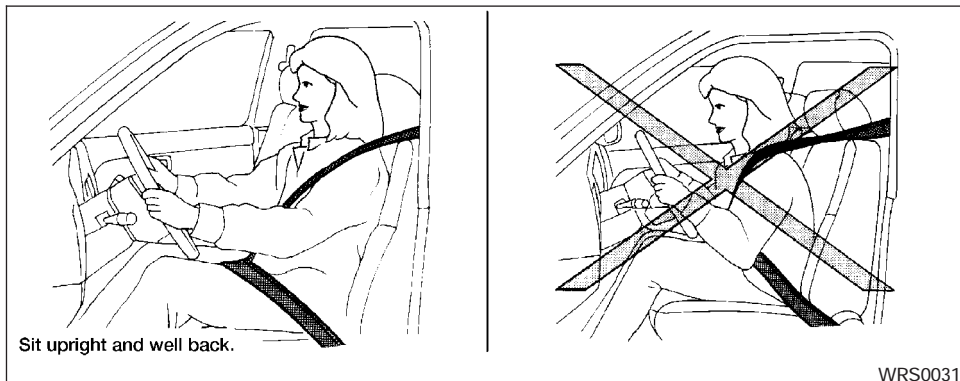
Supplemental curtain side-impact air bag system:

This system can help cushion the impact force to the head of occupants in front and rear outboard seating positions in certain side impact collisions. The curtain side-impact air bags are designed to inflate on the side where the vehicle is impacted.

These supplemental restraint systems are designed to **supplement** the crash protection provided by the driver and front 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. (See “Seat belts” earlier in this section for instructions and precautions on seat belt usage.)

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

After turning the ignition key 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.



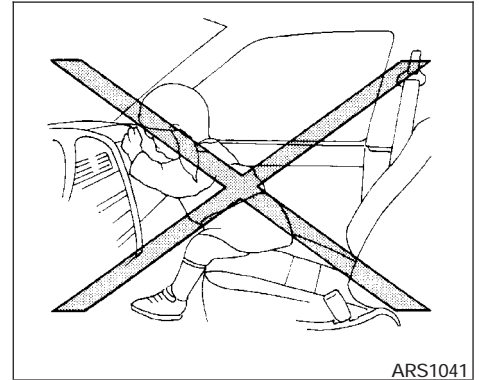
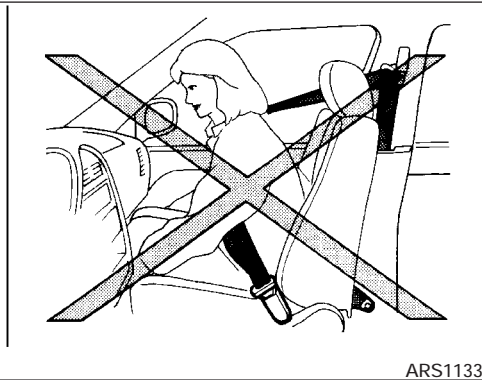
⚠ WARNING

- The supplemental 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. See “Front passenger air bag and status light” later in this section.

- The seat belts and the supplemental front air bags are most effective when you are sitting well back and upright in the seat with both feet on the floor. The front air bags inflate with great force. Even with the NISSAN Advanced Air Bag System, 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 supplemental front air bag if you are up against it when it inflates. Always sit back against the

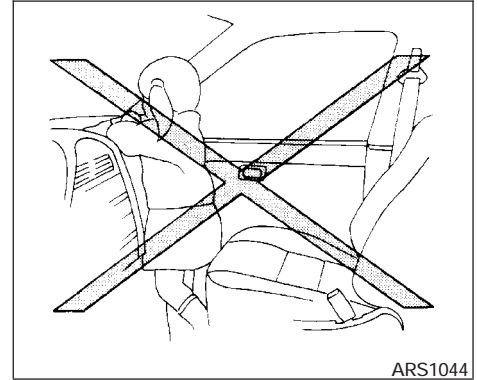
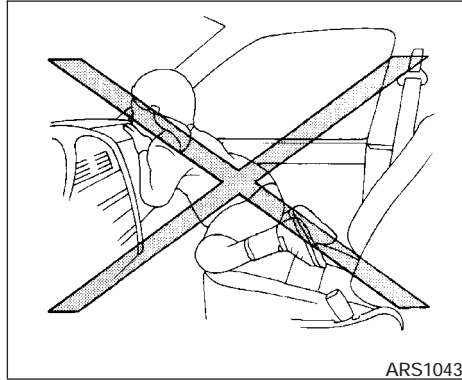
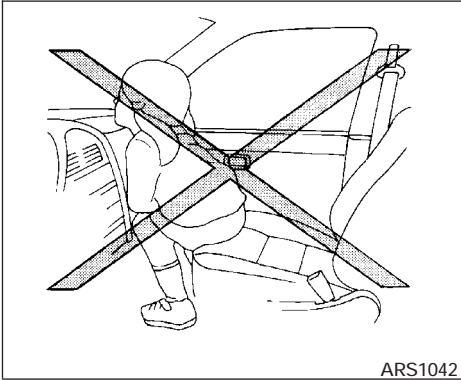
seatback and as far away as practical from the steering wheel or instrument panel. Always use the seat belts.

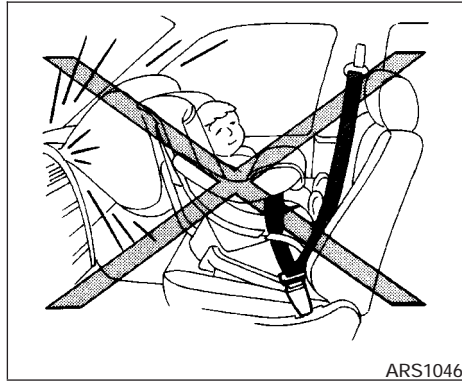
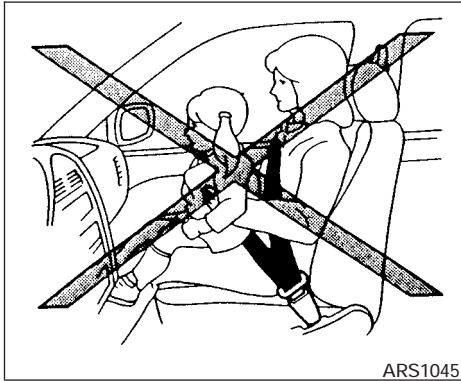
- The driver and front passenger seat belt buckles are equipped with sensors that detect if the seat belts are fastened. The advanced air bag system monitors the severity of a collision and seat belt usage then inflates the air bags. Failure to properly wear seat belts can increase the risk or severity of injury in an accident.
- 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. See “Front Passenger air bag and status light” later in this section.
- Keep hands on the outside of the steering wheel. Placing them inside the steering wheel rim could increase the risk that they are injured when 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.**

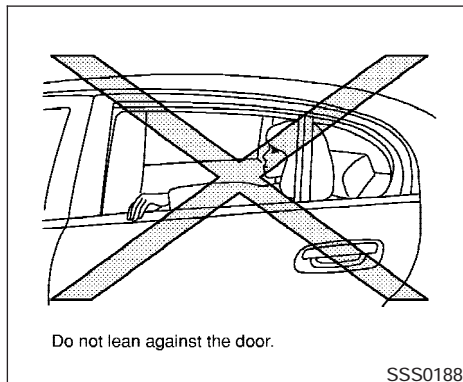
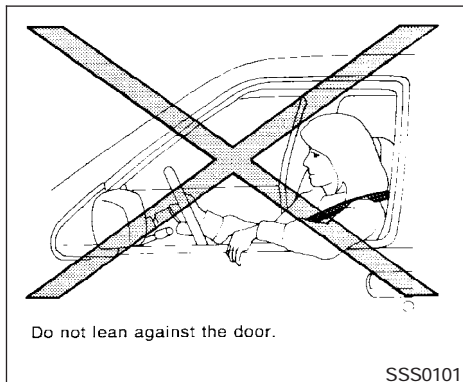




- Even with the NISSAN Advanced Air Bag System, never install a rear-facing child restraint in the front seat. An inflating supplemental front air bag could seriously injure or kill your child. See “Child restraints” earlier in this section for details.

⚠ WARNING

- Children may be severely injured or killed when the supplemental front air bags, side air bags or curtain side-impact air bags inflate if they are not properly restrained. Pre-teens and children should be properly restrained in the rear seat, if possible.



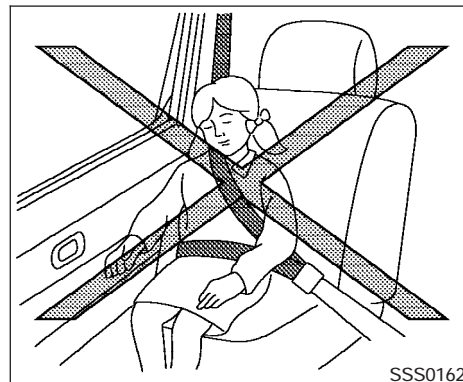
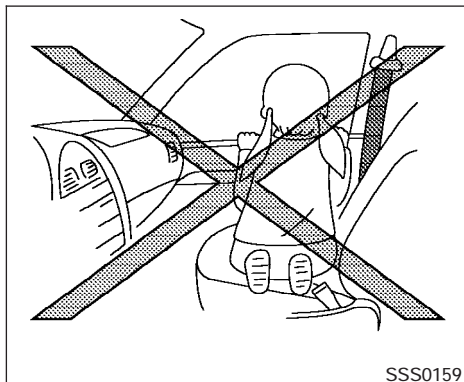
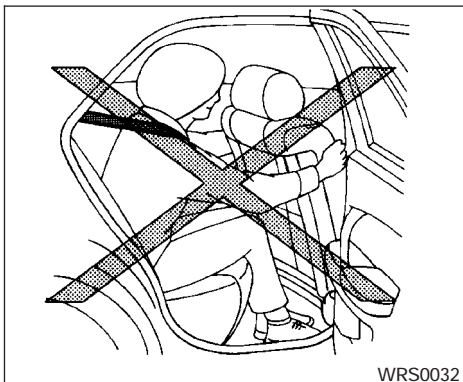
⚠ WARNING

Supplemental side air bag and curtain side-impact air bag (if so equipped):

- The supplemental side air bag and curtain side-impact air bag ordinarily will not inflate in the event of a frontal 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.

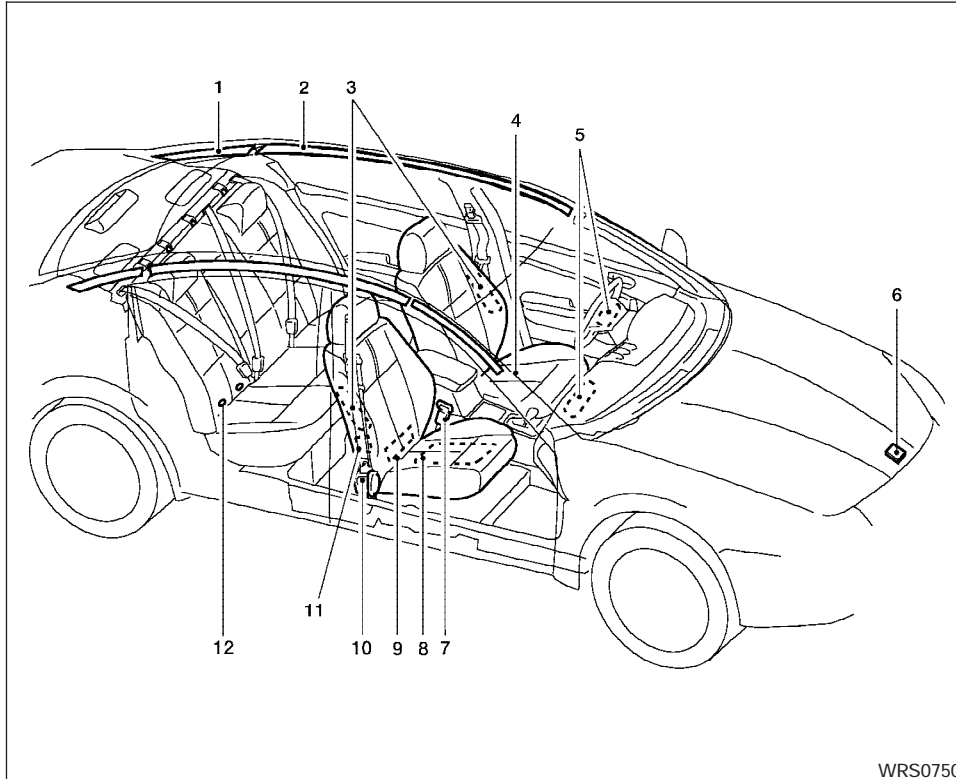
⚠ WARNING

- The seat belts, the supplemental side air bags and curtain side-impact air bags are most effective when you are sitting well back and upright in the seat with both feet on the floor. The side air bag and curtain side-impact air bag 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 seat-back 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.



⚠ WARNING

- When sitting in the rear seat, do not hold onto the seatback of the front seat. If the 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 supplemental side air bag inflation.



1. SRS curtain side-impact air bag modules
2. SRS curtain side-impact air bags
3. Supplemental side air bag modules
4. Diagnosis sensor unit
5. Supplemental front air bag modules
6. Crash zone sensor
7. Seat belt buckle switches on driver's and passenger's side
8. Occupant classification sensor (pattern sensor)
9. Occupant classification system control unit
10. Seat belt pre-tensioner retractor
11. Side satellite sensor
12. LATCH (Lower Anchors and Tethers for Children)

NISSAN Advanced Air Bag System (front seats)

This vehicle is equipped with the NISSAN advanced air bag system for the driver and front passenger seats. This system is designed to meet certification requirements under U.S. regulations. It is also permitted in Canada. **However, all of the information, cautions and warnings in this manual still apply and must be followed.**

WRS0750

The driver supplemental front air bag is located in the center of the steering wheel. The passenger supplemental front air bag is mounted in the dashboard above the glove box. The supplemental 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 supplemental front air bag system operation.

The NISSAN advanced air bag system has dual stage air bag inflators. It also monitors information from the crash zone sensor, the diagnosis sensor unit, 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). See “Front passenger air bag and status light” later in this section for further details. One front air bag inflating does not indicate improper performance of the system.

If you have any questions about your air bag system, please contact NISSAN or your NISSAN dealer. If you are considering modification of your vehicle due to a disability, you may also contact NISSAN. Contact information is contained in the front of this Owner's Manual.

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

Supplemental front air bags, along with the use of seat belts, help to cushion the impact force on the face 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

supplemental 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 front air bag module during inflation.

The front air bags deflate quickly after a collision.

The supplemental 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

⚠ 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.

Status light

The front passenger air bag status light  is located on the instrument panel above the radio controls. The light operates as follows:

- Unoccupied passenger's seat: The  is OFF and the front passenger air bag is OFF and will not inflate in a crash.
- Passenger's seat occupied by a small adult, child or child restraint as outlined in this section: The  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 in accordance with U.S. regulations. If the front passenger air bag is OFF, it will not inflate in a crash. The driver air bag and other air bags in your vehicle are not part of this system.

The purpose of the regulation 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 as required by the regulations. 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. See "Child restraints" earlier in this section for proper use and installation.

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 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 air bag status light is 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). Your NISSAN dealer 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 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 in the center of the instrument panel, will blink. Have the system checked by a NISSAN dealer.

Other supplemental front air bag precautions

WARNING

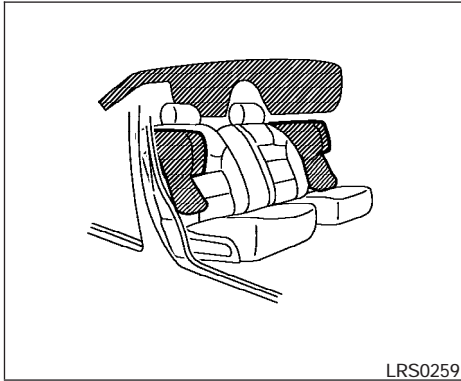
- **Do not place any objects on the steering wheel pad or on the instrument panel. Also, do not place any objects between any occupant and the steering wheel or instrument panel. Such objects may become dangerous projectiles and cause injury if the supplemental front air bag inflates.**

- 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.
- 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 supplemental front air bag system.
- Tampering with the supplemental front 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.
- 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 are 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.

- No unauthorized changes should be made to any components or wiring of the seat belt system. This may affect the supplemental front air bag system. Tampering with the seat belt system may result in serious personal injury.
- Work on and around the supplemental front air bag system should be done by a NISSAN dealer. Installation of electrical equipment should also be done by a NISSAN dealer. The Supplemental Restraint System (SRS) wiring 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 supplemental front air bag system and guide the buyer to the appropriate sections in this Owner's Manual.



Supplemental side-impact air bag and curtain side-impact air bags system

The supplemental side-impact air bags are located in the outside of the seatback of the front seats. The supplemental curtain side-impact air bags are located in the side roof rails. These systems are designed to meet voluntary guidelines to help reduce the risk of injury to out-of-position occupants. **However, all of the information, cautions and warnings in this manual still apply and must be followed.** The supplemental side air bags and curtain side-impact 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 supplemental side air bag and curtain side-impact air bag operation.

When the supplemental side air bag and curtain side-impact air bag 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.

Supplemental side air bags, along with the use of seat belts, help to cushion the impact force on the chest and pelvic area of the front occupants. Curtain side-impact air bags help to cushion the impact force to the head of occupants in the front and rear outboard seating positions. They can help save lives and reduce serious injuries. However, an inflating side air bag and curtain side-impact air bag may cause abrasions or other injuries. Supplemental side air bags and curtain side-impact 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 supplemental side air bag. Rear seat passengers should be seated as far away as practical from the door finishers and side roof rails. The side air bags and curtain side-impact air bag inflate quickly in order to help protect the front occupants. Because of this, the force of the side air bag and curtain side-impact air bag 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 bag and curtain side-impact air bag will deflate quickly after the collision is over.

The supplemental side air bags and curtain side-impact 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.

⚠ WARNING

- Do not place any objects near the seat-back 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 the supplemental side air bag inflates.
- Right after inflation, several side air bag and curtain side-impact 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 bag and curtain side-impact air bag system. This is to prevent accidental inflation of the side air bag and curtain side-impact air bag or damage to the side air bag and curtain side-impact air bag system.
- Do not make unauthorized changes to your vehicle's electrical system, suspension system or side panel. This could affect proper operation of the supplemental side air bag and curtain side-impact air bag system.

- Tampering with the supplemental side air bag system may result in serious personal injury. For example, do not change the front seats by placing material near the seatbacks or by installing additional trim material, such as seat covers, around the side air bag.
- Work around and on the curtain air bag system should be done by a NISSAN dealer. Installation of electrical equipment should also be done by a NISSAN dealer. 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 or curtain 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 supplemental side air bag and curtain side-impact air bag system and guide the buyer to the appropriate sections in this Owner's Manual.

Pre-tensioner seat belt system (Front seats)

⚠ WARNING

- The pre-tensioner seat belt cannot be reused after activation. It must be replaced together with the retractor and buckle as a unit.
- If the vehicle becomes involved in a frontal collision but the pre-tensioner is not activated, be sure to have the pre-tensioner system checked and, if necessary, replaced by your NISSAN dealer.
- No unauthorized changes should be made to any components or wiring of the pre-tensioner seat belt system. This is to prevent accidental activation of the pre-tensioner seat belt or damage to the pre-tensioner seat belt operation. Tampering with the pre-tensioner seat belt system may result in serious personal injury.

- **Work around and on the pre-tensioner system should be done by a NISSAN dealer. Installation of electrical equipment should also be done by a NISSAN dealer. Unauthorized electrical test equipment and probing devices should not be used on the pre-tensioner seat belt system.**
- **If you need to dispose of the pre-tensioner or scrap the vehicle, contact a NISSAN dealer. Correct pre-tensioner disposal procedures are set forth in the appropriate NISSAN Service Manual. Incorrect disposal procedures could cause personal injury.**


The front seat pre-tensioner seat belt system activates in conjunction with the supplemental air bag systems. 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 pre-tensioner is encased with the seat belt's retractor. These seat belts are used the same as conventional seat belts.

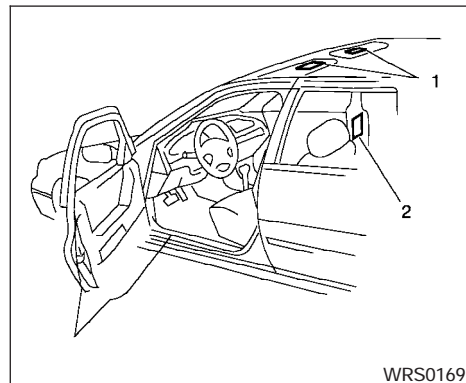
When the pre-tensioner seat belt activates, smoke is released and a loud noise may be heard. This smoke is not harmful and does not indicate a fire. Care should be taken not to inhale it, as it may

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

After the pre-tensioner seat belts have activated, load limiters allow the seat belt to release webbing (if necessary) to reduce forces against the chest.

If any abnormality occurs in the pre-tensioner 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 key has been turned to the ON or START position. In this case, the pre-tensioner seat belt may not function properly. They must be checked and repaired. Take your vehicle to the nearest NISSAN dealer.

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




1. SRS air bag warning labels
2. SRS side air bag warning label

SUPPLEMENTAL AIR BAG WARNING LABELS

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



SUPPLEMENTAL AIR BAG WARNING LIGHT

The supplemental air bag warning light, displaying  in the instrument panel, monitors the circuits of the supplemental front air bag, supplemental side air bag and curtain side-impact air bag and pre-tensioner seat belt systems. The circuits monitored by the supplemental air bag warning light are the diagnosis sensor unit, crash zone sensor, satellite sensors, front air bag modules, side air bag modules, curtain side-impact air bag modules, pre-tensioner seat belts and all related wiring.

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

If any of the following conditions occur, the supplemental front air bag, supplemental side air bag and curtain side-impact air bag and pre-tensioner 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 supplemental front air bag, supplemental side air bags and curtain side-impact air bag or pre-tensioner seat belt systems may not operate properly. It must be checked and repaired. Take your vehicle to the nearest NISSAN dealer.

WARNING

If the supplemental air bag warning light is on, it could mean that the supplemental front air bag, supplemental side air bag, curtain side-impact air bag systems and/or pre-tensioner seat belt systems will not operate in an accident. To help avoid injury to yourself or others, have your vehicle checked by a NISSAN dealer as soon as possible.

Repair and replacement procedure

The supplemental front air bags, supplemental side air bags, curtain side-impact air bags and pre-tensioner seat belts are designed to inflate on a one-time-only basis. As a reminder, unless it is damaged, the supplemental air bag warning light remains illuminated after inflation has occurred. Repair and replacement of these supplemental air bag systems should be done only by a NISSAN dealer.

When maintenance work is required on the vehicle, the supplemental front air bags, supplemental side air bags, curtain side-impact air bags, pre-tensioner seat belts and related parts should be pointed out to the person performing the maintenance. The ignition should always be in the LOCK position when working under the hood or inside the vehicle.

 **WARNING**

- Once a supplemental front air bag, supplemental side air bag or curtain side-impact air bag has inflated, the air bag module will not function again and must be replaced. Additionally, if any of the supplemental front air bags inflate, the activated pre-tensioner seat belts must also be replaced. The air bag module and pre-tensioner seat belt system should be replaced by a NISSAN dealer. The air bag module and pre-tensioner seat belt system cannot be repaired.
- The supplemental front air bag, side air bag and curtain side-impact air bag systems, and the pre-tensioner seat belt system should be inspected by a NISSAN dealer if there is any damage to the front end or side portion of the vehicle.
- If you need to dispose of the supplemental air bag, pre-tensioner seat belt system or scrap the vehicle, contact a NISSAN dealer. Correct supplemental air bag and pre-tensioner seat belt system disposal procedures are set forth in the appropriate NISSAN Service Manual. Incorrect disposal procedures could cause personal injury.

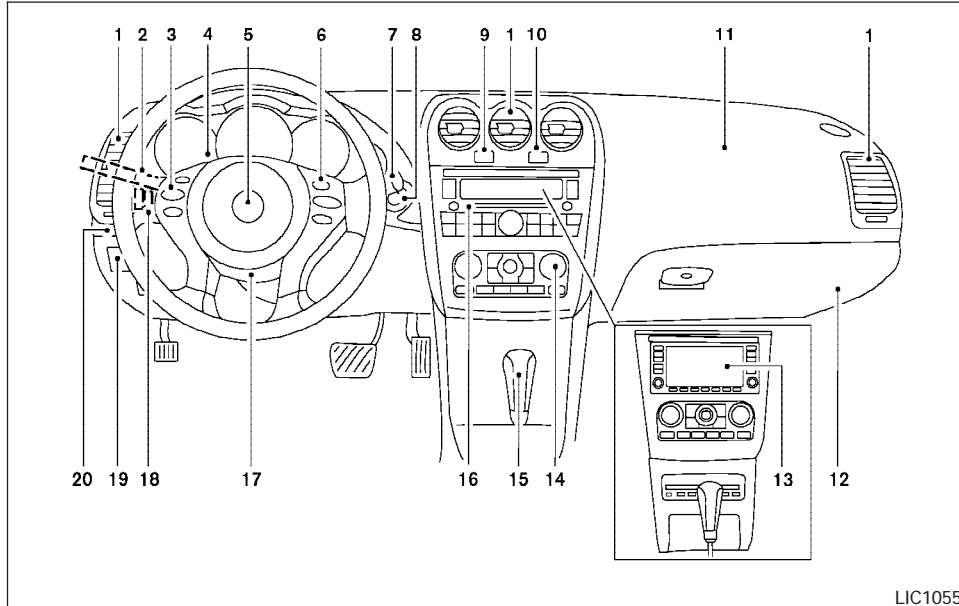
2 Instruments and controls

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INSTRUMENT PANEL



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2. Headlight/fog light (if so equipped)/turn signal switch (P. 2-26)
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4. Meters and gauges (P. 2-3)
5. Driver supplemental air bag/horn (P. 1-35, 2-32)
6. Cruise control main/set switch (if so equipped) (P. 5-17)

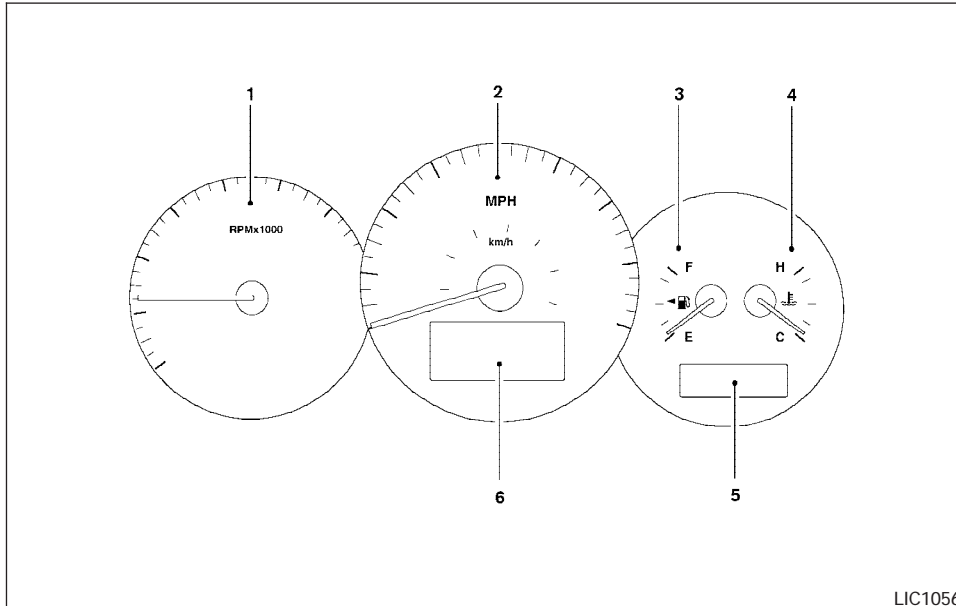
7. Windshield wiper/washer switch (P. 2-25)
8. Push Button Ignition (P. 0-0)
9. Hazard warning flasher switch (P. 2-31)
10. Front passenger air bag status light (P. 1-44)
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*: Refer to the separate Navigation System Owner's Manual.

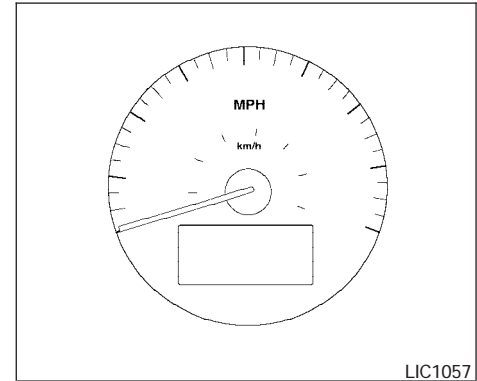
See the page number indicated in parentheses for operating details.

2-2 Instruments and controls

METERS AND GAUGES



1. Tachometer
2. Speedometer
3. Fuel gauge
4. Engine coolant temperature gauge
5. Odometer/twin trip odometer/trip computer
6. Vehicle Information Display



SPEEDOMETER AND ODOMETER

Speedometer

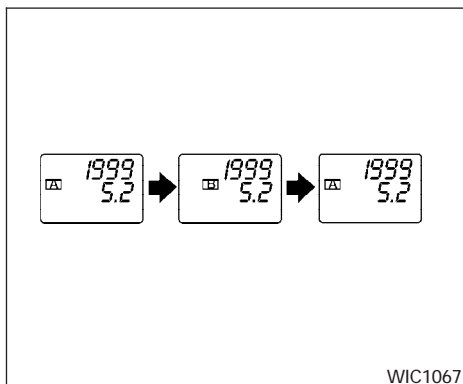
The speedometer indicates vehicle speed in miles per hour (MPH) and kilometers per hour (km/h).

Odometer/Twin trip odometer

The odometer/twin trip odometer is displayed when the ignition key is in the ON position.

The odometer records the total distance the vehicle has been driven.

The twin trip odometer records the distance of individual trips.



Changing the display:

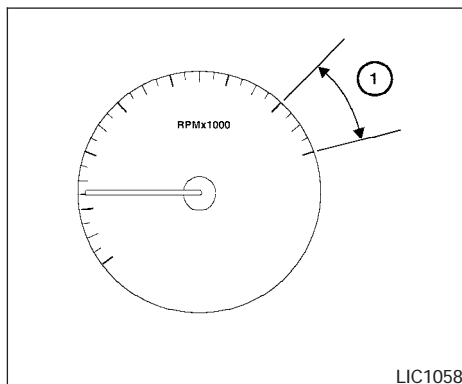
For vehicles equipped with trip computer, pushing the change button changes the display as follows:

Trip **A** → Trip **B** → Trip **A**

For vehicles with navigation system, refer to “How to use the ‘trip’ button” in the “Display screen, heater, air conditioner and audio systems” section later in this manual.

Resetting the trip odometer:

Pushing the change button for more than 1 second resets the trip odometer to zero.

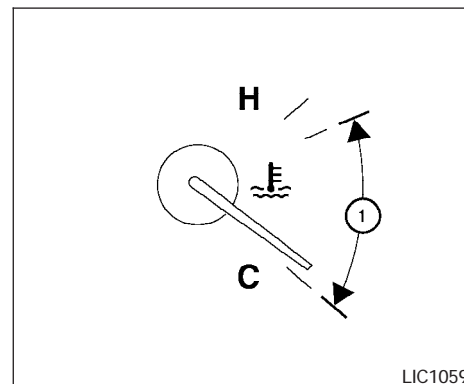


TACHOMETER

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

CAUTION

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



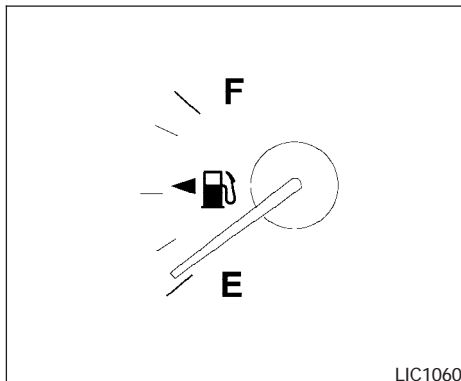
ENGINE COOLANT TEMPERATURE GAUGE

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

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

CAUTION

If the gauge indicates coolant temperature near the hot (H) end of the normal range, reduce vehicle speed to decrease temperature. If the 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. See “If your vehicle overheats” in the “In case of emergency” section for immediate action required.



FUEL GAUGE


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 key is turned to OFF.

The low fuel warning light comes on when the amount of fuel in the tank is getting low.

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


The  indicates that the fuel-filler door is located on the driver's side of the vehicle.


CAUTION

- If the vehicle runs out of fuel, the **SERVICE ENGINE SOON** malfunction indicator light (MIL) may come on. Refuel as soon as possible. After a few driving trips, the **SERVICE ENGINE SOON** light should turn off. If the light remains on after a few driving trips, have the vehicle inspected by a NISSAN dealer.
- For additional information, see “Malfunction indicator light (MIL)” later in this section.

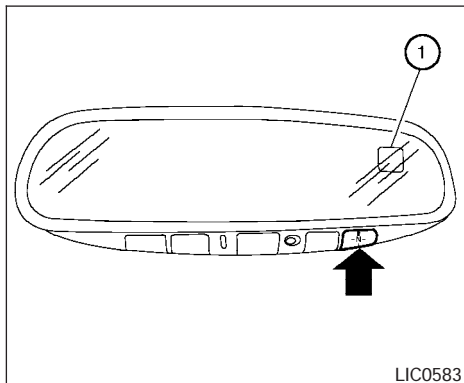
COMPASS DISPLAY (if so equipped)



This unit measures terrestrial magnetism and indicates the direction of the vehicle's heading.

With the ignition switch in the ON position, press the  button as described in the chart below to activate various features of the automatic anti-glare rearview mirror.

| Push and hold the  button for about: | Feature: (Push button again for about 1 second to change settings) |
|---|---|
| 1 second | Compass display toggles on/off |
| 5 seconds | Compass zone can be changed to correct false compass readings |
| 9 seconds | Compass enters calibration mode |

For information about the automatic anti-glare feature, refer to "Automatic anti-glare rearview mirror" in the "Pre-driving checks and adjustments" section.





Push the  button for about 1 second when the ignition key is in the ON position to toggle the compass display  on or off. The display will indicate the direction of the vehicle's heading.

N: North
E: East
S: South
W: West

If the display reads "C", calibrate the compass by driving the vehicle in three complete circles at less than 5 MPH (8 km/h).

You can also calibrate the compass by driving your vehicle on your everyday route. The compass will be calibrated once it has tracked three complete circles.

COMPASS DISPLAY

Push the MODE button  when the ignition key is in the ON position. The direction will be displayed .

Zone variation change procedure

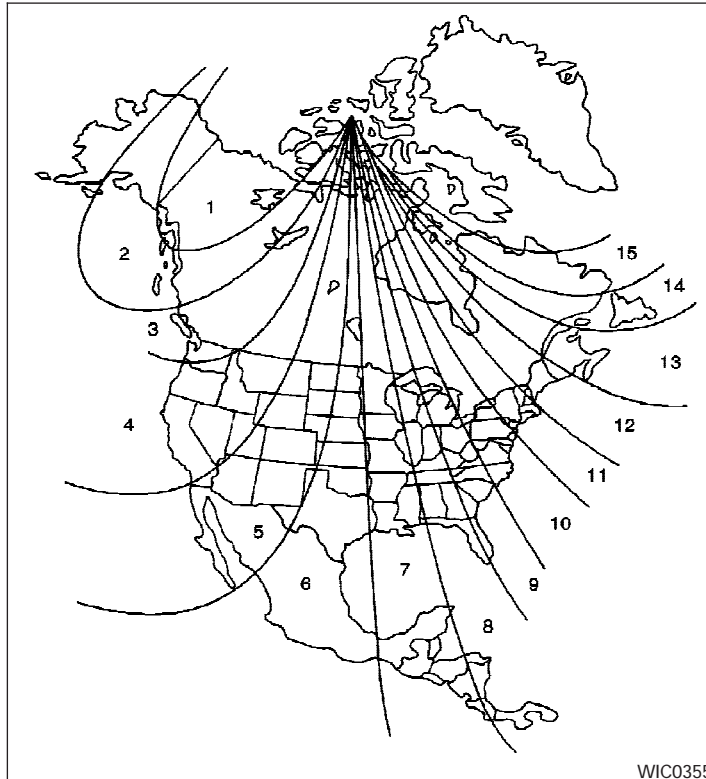
The difference between magnetic north and geographical north is known as variance. In some areas, this difference can sometimes be great enough to cause false compass readings. Follow these instructions to set the variance for your particular location if this happens:

1. Establish your location on the zone map. Refer to the illustration. Record your zone number.
2. Turn the ignition switch to the ON position.
3. Push the MODE button in for 5 seconds until the current zone entry number and the "VAR" icon is displayed.
4. Press the MODE button repeatedly until the desired zone entry number is displayed.

Once the desired zone number is displayed, stop pressing the MODE button and the display will show compass direction within a few seconds.

NOTE:


Use zone number 5 for Hawaii.



- **If a magnet is located near the compass or the vehicle is driven where the terrestrial magnetism is disturbed, the compass display may not indicate the correct direction.**
- **In places where the terrestrial magnetism is disturbed, the correction of the direction starts automatically.**

Inaccurate compass direction:

The compass display is equipped with automatic correction function. If the correct direction is not shown, follow this procedure.














1. With the display turned on, press and hold the  switch for about 9 seconds. The display will read "C."
 2. Calibrate the compass by driving the vehicle in three complete circles at a maximum speed of 5 MPH (8 km/h).
 3. After completing the circles the display should return to normal.
- If the compass deviates from the correct indication soon after repeated adjustment, have the compass checked at an authorized dealer.
 - The compass may not indicate the correct compass point in tunnels or while driving up or down a steep hill. (The compass returns

to the correct compass point when the vehicle moves to an area where the geomagnetism is stabilized.)

CAUTION

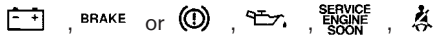
- **Do not install a ski rack, antenna, etc., which are attached to the vehicle by means of a magnet. They affect the operation of the compass.**
- **When cleaning the mirror, use a paper towel or similar material dampened with glass cleaner. Do not spray glass cleaner directly on the mirror as it may cause the liquid cleaner to enter the mirror housing.**

WARNING/INDICATOR LIGHTS AND AUDIBLE REMINDERS

| | | | | | |
|--|----|---|--|---|--|
| ABS | or |  Anti-lock Braking System (ABS) warning light (if so equipped) |  Master warning light | SLIP | Slip indicator light (if so equipped) |
| AT CHECK | | Automatic transmission check warning light (if so equipped) |  Seat belt warning light and chime |  Security indicator light | |
| BRAKE | or |  Brake warning light |  Supplemental air bag warning light | TCS OFF | Traction control system off indicator light (if so equipped) |
|  Charge warning light | | |  Continuously Variable Transmission (CVT) position indicator light (if so equipped) |  Turn signal/hazard indicator lights | |
|  Engine oil pressure warning light | | |  Front passenger air bag status light | VDC OFF | Vehicle dynamic control off indicator light (if so equipped) |
| KEY | | Intelligent Key system warning light |  High beam indicator light (Blue) | | |
|  Low tire pressure warning light | | | SERVICE ENGINE SOON | | Malfunction indicator light (MIL) |

CHECKING BULBS

With all doors closed, apply the parking brake and push the ignition button to the ON position without starting the engine. The following lights will come on:




The following lights come on briefly and then go off:

ABS or , , **TCS OFF**, **VDC OFF**, **SLIP**, 

If any light fails to come on, it may indicate a burned-out bulb or an open circuit in the electrical system. Have the system repaired promptly.

WARNING LIGHTS

ABS or  Anti-lock Braking System (ABS) warning light (if so equipped)

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 dealer.

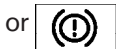
If an ABS malfunction occurs, the anti-lock function is turned off. The brake system then operates normally, but without anti-lock assistance. See "Brake system" in the "Starting and driving" section.

AT
CHECK

Automatic transmission check warning light (if so equipped)

When the ignition switch is turned ON, the light comes on for about 2 seconds. If the light comes on at any other time, it may indicate the automatic transmission system is not functioning properly. Have the system checked by a NISSAN dealer.

BRAKE



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. See "Brake fluid" in the "Maintenance and do-it-yourself" section of this manual.
2. If the brake fluid level is correct, have the warning system checked by a NISSAN dealer.

⚠ 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 a 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 dealer.**



Charge warning light

If this 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 generator belt. If the belt is loose, broken, missing, or if the light remains on, see a NISSAN dealer immediately.

⚠ CAUTION

Do not continue driving if the generator 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 dealer or other authorized repair shop.

The engine oil pressure warning light is not designed to indicate a low oil level. Use the

dipstick to check the oil level. See “Engine oil” in the “Maintenance and do-it-yourself” section of this manual.

CAUTION

Running the engine with the engine oil pressure warning light on could cause serious damage to the engine almost immediately. Such damage is not covered by warranty. Turn off the engine as soon as it is safe to do so.



Intelligent Key system warning light

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

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

If the light comes on while the engine is stopped, it may not be possible 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 dealer for repair as soon as possible.

See “Intelligent Key system” in the “Pre-driving checks and adjustments” section.



Low tire pressure warning light

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

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

After the ignition switch is turned ON, this 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 to the recommended COLD tire pressure shown on the Tire and Loading Information label. The low tire pressure warning light does not automatically turn off when the tire pressure is adjusted. After the tire is inflated to the recommended pressure, the vehicle must be driven over 16 MPH (25 km/h) to activate the TPMS and turn off the low tire pressure warning light. Use a tire pressure gauge to adjust tire pressure to the recommended pressure.

For additional information, see “Tire Pressure Monitoring System (TPMS)” in the “Starting and driving” section and in the “In case of emergency” section.

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 turned ON. The light will remain on after the 1 minute. Have the system checked by a NISSAN dealer.

For additional information, see “Tire Pressure Monitoring System (TPMS)” in the “Starting and driving” section.

WARNING

- **If the light does not illuminate with the ignition switch turned ON, have the vehicle checked by a NISSAN dealer 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. 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 and Loading Information label to turn the low tire pressure warning light OFF. If the light stays on after adjusting the tire pressure and driving over 16 mph, have the system checked by a NISSAN dealer. If you have a flat tire, replace it with a spare tire as soon as possible.
- When a spare tire is mounted or 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. The light will remain on after 1 minute. Contact your NISSAN dealer 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.
- If the vehicle is being driven at speeds of less than 16 MPH (25 km/h), the TPMS may not operate correctly.
- Be sure to install the specified size of tires to the 4 wheels correctly.



Master warning light

This light comes on when various vehicle information display warnings appear.



Seat belt warning light and chime

The light and chime remind you to fasten your seat belts. The light illuminates whenever the push-button ignition switch is pushed to the ON or START position and remains illuminated until the driver's seat belt is fastened. At the same time, the chime sounds for about 6 seconds unless the driver's seat belt is securely fastened.

The seat belt warning light may also illuminate if the front passenger's seat belt is not fastened when the front passenger's seat is occupied. For 7 seconds after the ignition switch is in the ON position, the system does not activate the warning light for the front passenger.

Refer to "Seat belts" in the "Safety-Seats, seat belts and supplemental restraint system" section for precautions on seat belt usage.



Supplemental air bag warning light

When the ignition switch is pushed to ON or START position, the supplemental air bag warning light illuminates for about 7 seconds and then turns off. This means the system is operational.

If any of the following conditions occur, the supplemental front air bag, supplemental side air bag, curtain side-impact air bags, and pretensioner seat belt systems need servicing and your vehicle must be taken to a NISSAN dealer:

- 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 pre-tensioner seat belts may not function properly. For additional details see “Supplemental restraint system” in the “Safety—Seats, seat belts and supplemental restraint system” section of this manual.

WARNING

If the supplemental air bag warning light is on, it could mean that the supplemental front air bag, supplemental side air bag, curtain side-impact air bag systems and/or pre-tensioner seat belt systems will not operate in an accident. To help avoid injury to yourself or others, have your vehicle checked by a NISSAN dealer as soon as possible.

INDICATOR LIGHTS




Continuously Variable Transmission (CVT) position indicator light

When the push-button ignition switch is pushed to the ON position, this indicator light shows the transmission selector lever position. See “Driving the vehicle” in the “Starting and driving” section of this manual.



Front passenger air bag status light

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.

For front passenger air bag status light operation, see “Front passenger air bag and status light” in the “Safety — Seats, seat belts and supplemental restraint system” section of this manual.



High beam indicator light (blue)

This blue light comes on when the headlight high beams are on and goes out when the low beams are selected.

The high beam indicator light also comes on when the passing signal is activated.




Malfunction indicator light (MIL)

If this indicator light comes on steady or blinks while the engine is running, it may indicate a potential emission control 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 3 gallons (11.4 liters) of fuel in the fuel tank.

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

If this indicator light comes on steady for 20 seconds and then blinks for 10 seconds when the engine is not running, it indicates that the vehicle is not ready for an emission control system inspection/maintenance test. See “Readiness for inspection/maintenance (I/M) test” in the “Technical and consumer information” section of this manual.

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  light should turn off after a few driving trips. If the  light does not turn off after a few driving trips, have the vehicle inspected by a NISSAN dealer. You do not need to have your vehicle towed to the dealer.

- 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:
 - do not drive at speeds above 45 MPH (72 km/h).
 - avoid hard acceleration or deceleration.
 - avoid steep uphill grades.
 - if possible, reduce the amount of cargo being hauled or towed.

The malfunction indicator light may stop blinking and come on steady. Have the vehicle inspected by a NISSAN dealer. You do not need to have your vehicle towed to the dealer.

CAUTION

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.

SLIP

Slip indicator light (if so equipped)

This indicator light will blink when the traction control system is limiting wheel spin. Slippery road conditions may exist if the slip indicator blinks on. If this happens, adjust your driving accordingly.

The slip indicator light also comes on when you turn the ignition key to the ON position. The light will turn off after about 2 seconds if the system is operational. If the light does not come on or does not go off, have the traction control system checked by a NISSAN dealer.

TCS OFF

Traction control system off indicator light (if so equipped)

This indicator light comes on when the traction control off switch is pushed to OFF. This indicates the traction control system is not operating.

Push the traction control off switch again or restart the engine and the system will operate normally. See “Traction control system (TCS)” in the “Starting and driving” section of this manual.

The traction control light also comes on when you turn the ignition key to the ON position. The light will turn off after about 2 seconds if the traction control system (TCS) is operational. If the light stays on or comes on along with the SLIP indica-

tor light while you are driving, have the traction control system checked by a NISSAN dealer.

While the traction control system is operating, you might feel slight vibration or hear the system working when starting the vehicle or accelerating, but this is normal.



Turn signal/hazard indicator lights

The appropriate light flashes when the turn signal switch is activated.

Both lights flash when the hazard switch is turned on.



Vehicle dynamic control off indicator light (if so equipped)

This indicator light comes on when the vehicle dynamic control off switch is pushed to OFF. This indicates the vehicle dynamic control system is not operating.

Push the vehicle dynamic control off switch again or restart the engine and the system will operate normally. See “Vehicle dynamic control (VDC) system” in the “Starting and driving” section of this manual.

The vehicle dynamic control light also comes on when you push the push-button ignition switch to the ON position. The light will turn off after about

2 seconds if the system is operational. If the light stays on or comes on along with the SLIP indicator light while you are driving, have the vehicle dynamic control system checked by a NISSAN dealer.

While the vehicle dynamic control system is operating, you might feel slight vibration or hear the system working when starting the vehicle or accelerating, but this is normal.

AUDIBLE REMINDERS

Brake pad wear warning

The disc brake pads have audible wear warnings. When a disc brake pad requires replacement, it makes a high pitched scraping sound when the vehicle is in motion, whether or not the brake pedal is depressed. Have the brakes checked as soon as possible if the warning sound is heard.

Key reminder chime

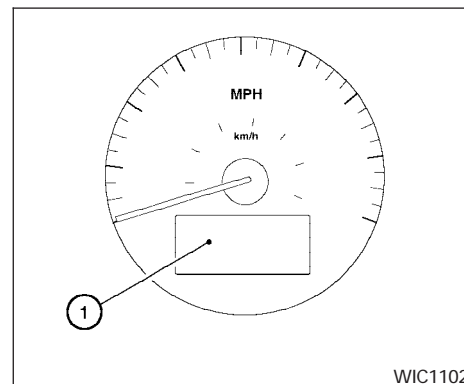
A chime sounds if the driver's door is opened while the ignition switch is pushed to the ACC or OFF position or pushed to the OFF or LOCK position with the Intelligent Key left in the Intelligent Key port. Make sure the ignition switch is pushed to the LOCK position, and take the Intelligent Key with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

Light reminder chime

With the ignition switch in the OFF position, a chime sounds when the driver's door is opened if the headlights or parking lights are on.

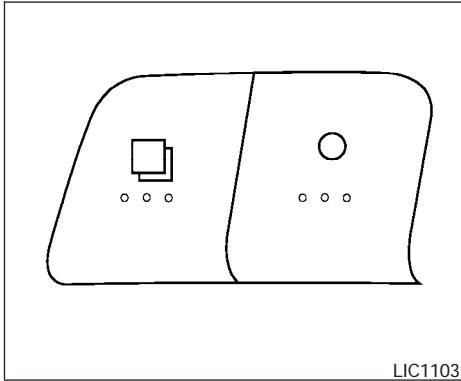
Turn the headlight control switch off before leaving the vehicle.

VEHICLE INFORMATION DISPLAY




The vehicle information display ① is located under the speedometer to display Intelligent Key operation information, maintenance settings/warning, certain trip/fuel consumption readings and outside temperature readings.

For details about the Intelligent Key operation see "Intelligent Key system" in the "Pre-driving checks and adjustments" section.



For more information about this indicator see the “Vehicle Information Display indicator lights and warnings” section later in this chapter.

HOW TO USE THE VEHICLE INFORMATION DISPLAY

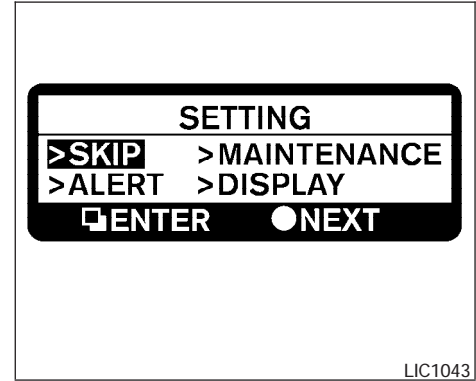
When the  button, located on the instrument panel just behind the steering wheel is pressed, the following modes will display on the screen.

Engine start operation indicator → MPG → MPG/MPH → Time/Miles → Range → Exterior Temperature → Setting → Warning

Engine start operation indicator


This indicator appears when the ignition switch is in the LOCK or ACC position with the selector lever in the “P” position.

2-16 Instruments and controls



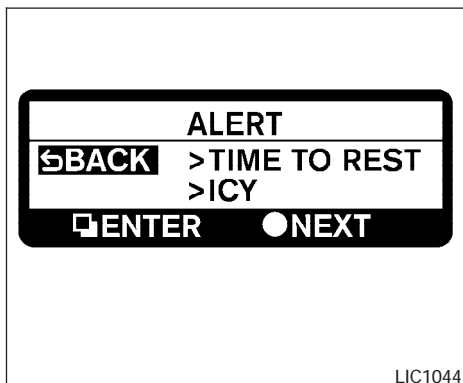
Setting mode

The setting mode allows you to set reminders or preferences for alerts, maintenance intervals or language displays.

In the setting mode screen press  to move to:

- Alert
- Maintenance
- Display

and press  to select the menu.

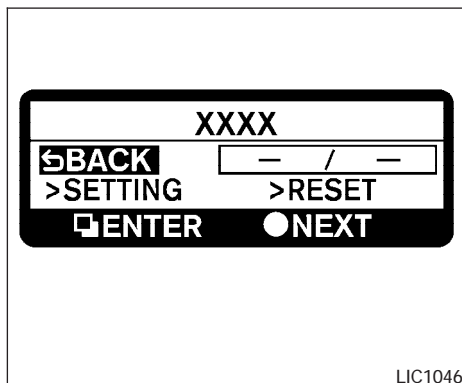


Alert mode

The alert mode allows you to set alerts notifying of time to rest or icy conditions.

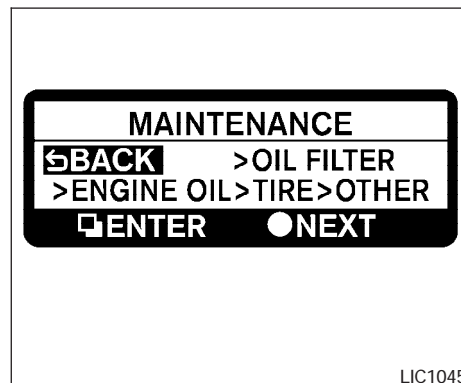
The time to rest alert lets you know when you have been traveling for a long time and may need a break.

The icy alert notifies you that icy driving conditions may exist.



Reset mode



The reset mode can be selected in any screen that allows for preferences to be programmed. Once the screen is selected, you have the option to reset their selected distances or time to a new setting.

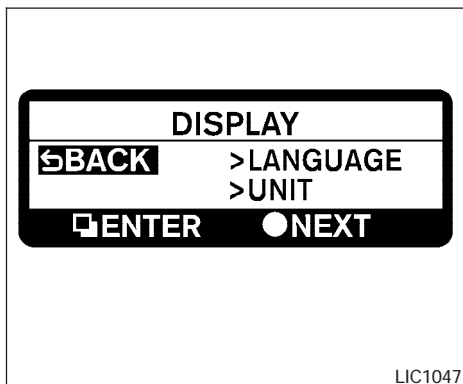


Maintenance mode

The maintenance mode allows you to set alerts for the reminding of maintenance intervals for the following:

- engine oil
- oil filter
- tires
- other.

To set a desired interval by pushing  to the highlight the maintenance field and press . The reset mode will open up and allow you to enter the desired distance.



Display mode

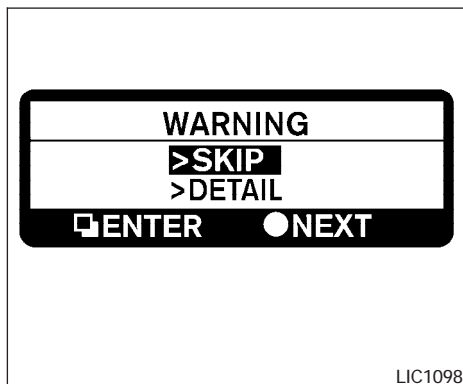
The LANGUAGE/UNIT screen will appear when selecting the “Language/Unit” key and pressing .

Language: English or French

Unit: US — mile, °F, MPG
Metric — km, °C, L/100 km

You can select the language and unit using the button and pressing .

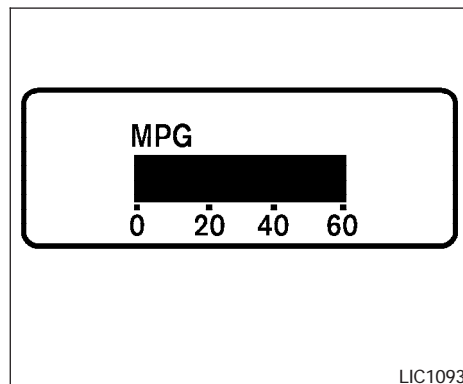
The settings are automatically saved when you exit the menu by pressing the BACK button or any other mode button.



Warning mode

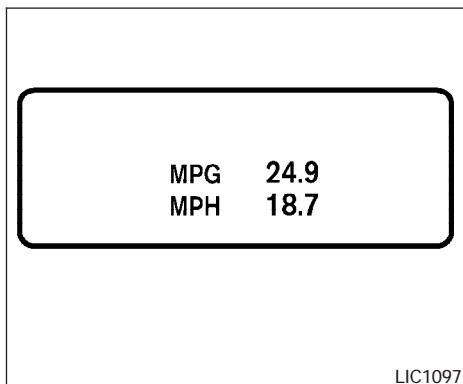
The warning mode can be selected to view any warnings that may be present. Once the screen is selected you have the option of skipping the warning or viewing it in detail.

Warnings can be present for issues such as an open door or low fuel. For more information about potential warnings see “Vehicle Information Display indicator lights and warnings” later in this chapter.



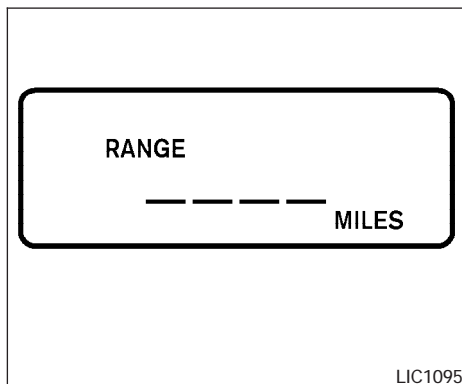
Fuel Economy mode

The fuel economy mode can be selected to display the average fuel economy since the last reset.



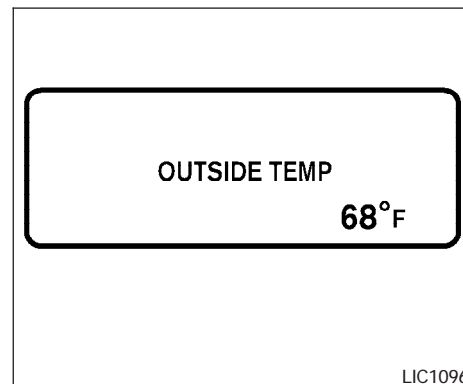
Average speed mode

The average speed mode can be selected how to display the average miles per gallon and miles per hour since the last reset.



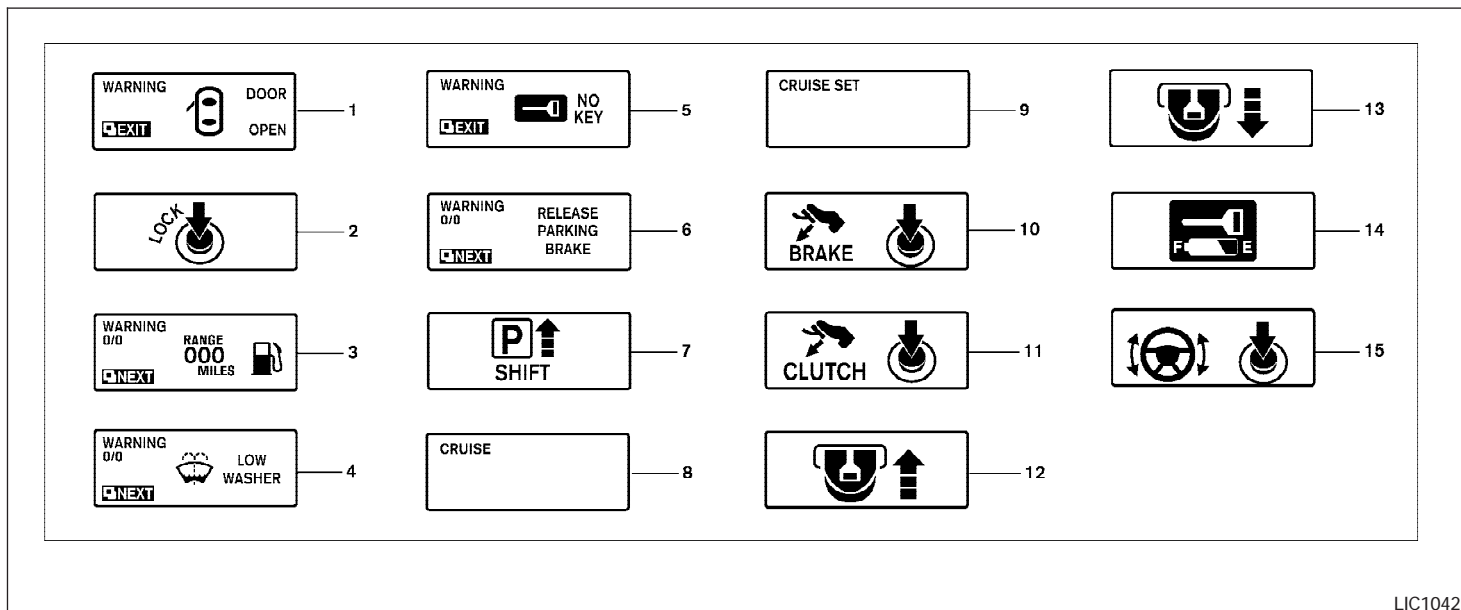
Range mode

The range mode can be selected to give you an estimation of the distance that can be driven before refueling. The range is constantly calculated based on the amount of fuel in the fuel tank and the actual fuel consumption.



Exterior Temperature mode

The exterior temperature mode can be selected to provide you with the temperature outside of your vehicle.



LIC1042

Vehicle Information Display indicator lights and warnings

1. Door ajar warning
2. Lock warning
3. Low fuel warning

4. Low windshield washer fluid warning
5. No key warning
6. Parking brake indicator
7. Shift "P" warning

8. Cruise main switch indicator
9. Cruise set switch indicator
10. Engine start operation indicator (automatic transmission)

11. Engine start operation indicator (manual transmission)
12. Intelligent key insertion indicator
13. Intelligent key removal indicator
14. Intelligent key battery discharge indicator
15. Steering lock release malfunction indicator
16. Engine off indicator

Door Ajar Warning

This warning appears when a door has been opened. The door ajar warning also appears when the trunk has been opened.

“LOCK” warning

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

To push the ignition switch to the OFF position, perform the following procedure:

SHIFT “P” warning → (Move the selector lever to “P”) → **LOCK warning** → (Push the ignition switch → ignition switch position is turned to ON) → **LOCK warning** → (Push the ignition switch → ignition switch position is turned to LOCK)

Low fuel warning light

This light comes on when the fuel level in the fuel tank is getting low. Refuel as soon as it is convenient, preferably before the fuel gauge reaches E (Empty). **There will be a small reserve of fuel in the tank when the fuel gauge needle reaches E (Empty).**

Low windshield washer fluid warning light

This light comes on when the windshield washer fluid is at a low level. Add windshield washer fluid as necessary. See “Window washer fluid” in the “Maintenance and do-it-yourself” section of this manual.

NO KEY warning

This warning appears following 2 conditions:

1. When the ignition switch is pushed and the Intelligent Key cannot be recognized by the system with the ignition switch in the LOCK position. If this indicator appears, you cannot start the engine.

Check for the following causes and perform the assigned remedies:

- The battery of the Intelligent Key carried with you is discharged completely. Replace the battery with a new one.

- The Intelligent Key carried with you is not registered to the system. Use the registered Intelligent Key.

- You do not have an Intelligent Key with you. Carry an Intelligent Key with you.

2. When the door is closed with the Intelligent Key left outside the vehicle and the ignition switch is in the ACC or ON position.

Parking brake indicator

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

SHIFT “P” warning

This warning appears when the ignition switch is pushed to stop the engine with the selector lever in any position except in the “P” position.

If this warning appears, the ignition switch is in the OFF position. Move the selector lever to the “P” position or push the ignition switch to the ON position.

An inside warning chime will also sound. See “Intelligent Key system” in the “3. Pre-driving checks and adjustments” section.

Cruise main switch indicator light

The light comes on when the cruise control main switch is pushed. The light goes out when the

main switch is pushed again. When the cruise main switch indicator light comes 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 dealer.

Engine start operation indicator (ignition switch in the LOCK or ACC position automatic transmission)

This indicator appears when the ignition switch is in the LOCK, OFF, ACC or ON position with the selector lever in the "P" position.

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

Engine start operation indicator (ignition switch in the ON position manual transmission)

This indicator appears when the ignition switch is in the LOCK, OFF, ACC or ON position with the manual transmission gear selector lever in neutral and the parking brake on.

This indicator means that the engine will start by pushing the push-button ignition switch with the clutch and the brake pedal depressed.

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 Keys port in the correct direction. See "Push-button ignition switch" in the "5. Starting and driving" section.

Intelligent Key removal indicator

This indicator appears when the driver's door is opened with ignition switch in the OFF 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.

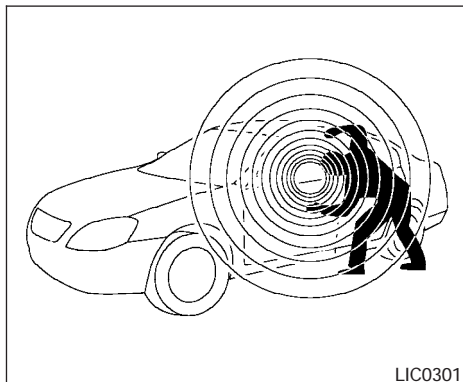
If this indicator appears, replace the battery with a new one. See "Intelligent Key battery replacement" in the "8. Maintenance and do-it-yourself" section.

Steering lock release malfunction indicator

This indicator appears when the steering wheel cannot be released from the LOCK position.

If this indicator appears, push the push-button ignition switch while lightly turning the steering wheel right and left.

SECURITY SYSTEMS



Your vehicle may have two types of security systems:

- Vehicle security system
- NISSAN Vehicle Immobilizer System

VEHICLE SECURITY SYSTEM (if so equipped)

The vehicle security system provides visual and audible alarm signals if someone opens the doors 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 keys in the ignition, and always lock the vehicle 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 dealer 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. Remove the intelligent key from the vehicle.
3. Close all doors, hood and trunk. Lock all doors. The doors can be locked with the intelligent key, door handle request switch, power door lock switch or mechanical key.

For vehicles with navigation system, see "Vehicle electronic systems" in the "Display screen, heater, air conditioner and audio


systems" section later in this manual. For vehicles without navigation system, see "Silencing the horn beep feature" in the "Pre-driving checks and adjustments" section later in this manual.

4. Confirm that the security indicator light comes on. The security 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 3 seconds. If, during the 30-second pre-arm time period, the driver's door is unlocked by the key or the keyfob, 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 the 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 50 seconds. However, the alarm reactivates if the vehicle is tampered with again. The alarm can be shut off by unlocking the driver's door or trunk lid with the key, or by pressing the  button on the intelligent key.

The alarm is activated by:

- opening the door or trunk lid without using the key or intelligent key (even if the door is unlocked by releasing the door inside lock switch).

How to stop an activated alarm

The alarm stops only by unlocking the driver's door or the trunk lid with the key, or by pressing the  button on the intelligent key.

NISSAN VEHICLE IMMOBILIZER SYSTEM

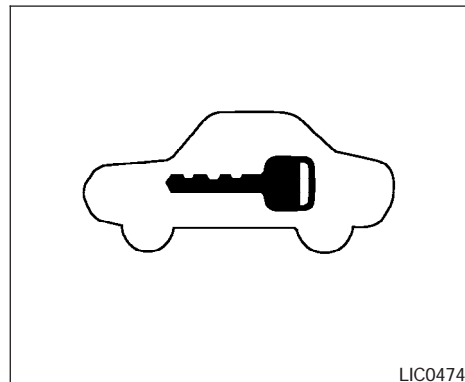
The NISSAN Vehicle Immobilizer System will not allow the engine to start without the use of a registered key.

Statement related to Section 15 of FCC Rules for NISSAN Vehicle Immobilizer System

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.



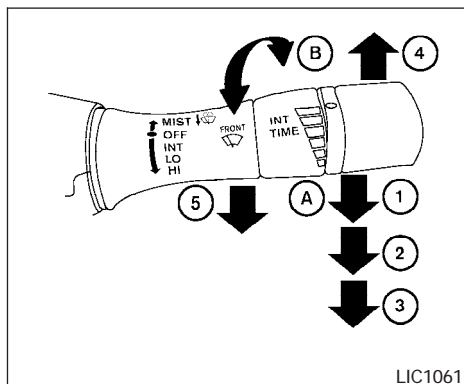
Security indicator light

The security indicator light blinks whenever the ignition switch is in the LOCK, OFF or ACC position. This function indicates the NISSAN Vehicle Immobilizer System is operational.

If the NISSAN Vehicle Immobilizer System is malfunctioning, the light will remain on while the ignition key is in the ON position.

If the light still remains on and/or the engine will not start, see a NISSAN dealer for NISSAN Vehicle Immobilizer System service as soon as possible. Please bring all registered keys that you have when visiting your NISSAN dealer for service.

WINDSHIELD WIPER AND WASHER SWITCH



SWITCH OPERATION

The windshield wiper and washer switch operates when the ignition key is in the ON position.

Push the lever down to operate the wiper at the following speed:

- 1 Intermittent — intermittent operation can be adjusted by turning the knob toward **A** (Slower) or **B** (Faster). Also, for vehicles equipped with speed dependent wipers, the intermittent operation speed varies in accordance with the vehicle speed. (For example, when the vehicle speed is high, the intermittent operation speed will be faster.)

- 2 Low — continuous low speed operation
- 3 High — continuous high speed operation

Push the lever up **4** to have one sweep operation of the wiper.

Pull the lever toward you **5** to operate the washer. The wiper will also operate several times.

⚠ WARNING

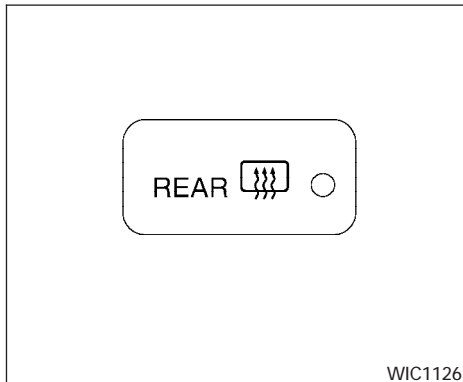
In freezing temperatures the washer solution may freeze on the windshield and obscure your vision which may lead to an accident. Warm the windshield with the defroster before you wash the windshield.

⚠ CAUTION

- 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.

REAR WINDOW AND OUTSIDE MIRROR (if so equipped) DEFROSTER SWITCH



To defrost the rear window glass and outside mirrors (if so equipped), start the engine and push the rear window defroster switch on. The rear window defroster indicator light on the switch comes on. Push the switch again to turn the defroster off.

The rear window defroster automatically turns off after approximately 15 minutes.

CAUTION

When cleaning the inner side of the rear window, be careful not to scratch or damage the rear window defroster.

NOTE:

The top few rows of wires on the rear window are not part of the rear window defroster system. These wires make up the antenna for the audio system.

HEADLIGHT AND TURN SIGNAL SWITCH

XENON HEADLIGHTS (if so equipped)

WARNING HIGH VOLTAGE

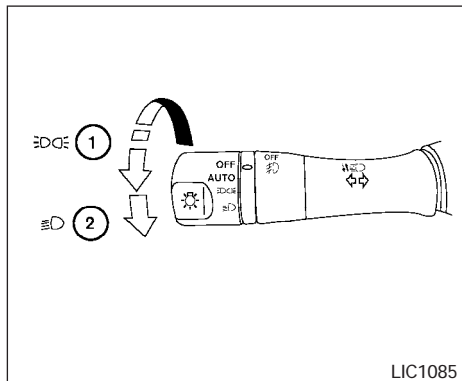
- When xenon headlights are on, they produce a high voltage. To prevent an electric shock, never attempt to modify or disassemble. Always have your xenon headlights replaced at a NISSAN dealer.
- Xenon headlights provide considerably more light than conventional headlights. If they are not correctly aimed, they might temporarily blind an oncoming driver or the driver ahead of you and cause a serious accident. If headlights are not aimed correctly, immediately take your vehicle to a NISSAN dealer and have the headlights adjusted correctly.

When the xenon headlight is initially turned on, its brightness or color varies slightly. However, the color and brightness will soon stabilize.

- The life of xenon headlights will be shortened by frequent on-off operation. It is generally desirable not to turn off the headlights for short intervals

(for example, when the vehicle stops at a traffic signal). Even when the daytime running lights are active (Canada only), the xenon headlights do not turn on. This way the life of the xenon headlights is not reduced.



- If the xenon headlight bulb is close to burning out, the brightness will drastically decrease, the light will start blinking, or the color of the light will become reddish. If one or more of the above signs appear, contact a NISSAN dealer.

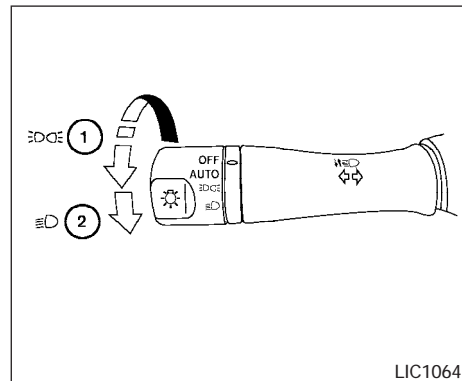


Type A

HEADLIGHT CONTROL SWITCH

Lighting

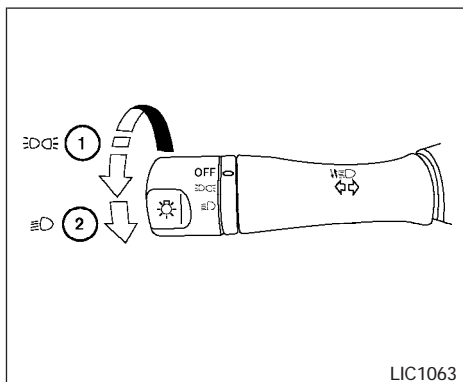
- ① When turning the switch to the  position, the front parking, tail, license plate and instrument panel lights come on.
- ② When turning the switch to the  position, the headlights come on and all the other lights remain on.



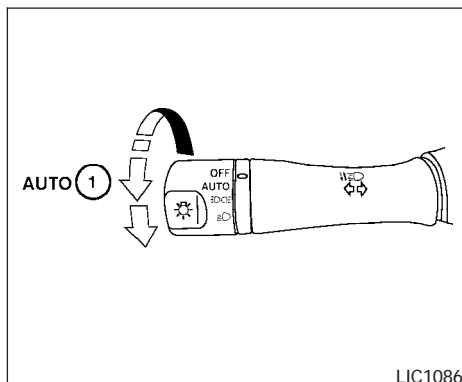
Type B

CAUTION

Use the headlights with the engine running to avoid discharging the vehicle battery.



Type C



Autolight system (if so equipped)

The autolight system allows the headlights to be set so they turn on and off automatically. The autolight system can:

- Turn on the headlights, front parking, tail, license plate and instrument panel lights automatically when it is dark.
- Turn off all the lights when it is light.
- Keep all the lights on for 45 seconds after you turn the key to OFF and all doors are closed.

NOTE:

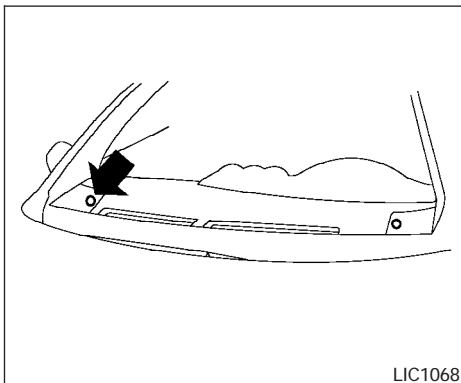
Autolight activation sensitivity and the time delay for autolight shutoff is adjustable for vehicles with navigation system. See “Vehicle electronic systems” in the “Display screen, heater, air conditioner and audio systems” section later in this manual.

To turn on the autolight system:

1. Turn the headlight switch to the AUTO position ①.
2. Turn the ignition key to ON.
3. The autolight system automatically turns the headlights on and off.

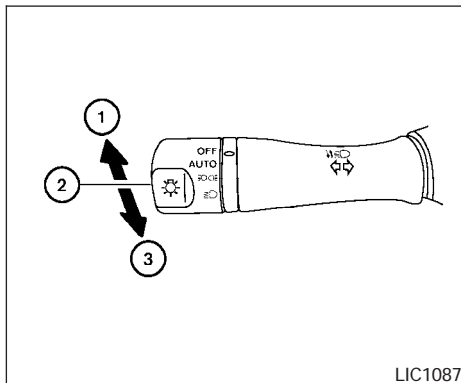
Initially, if the ignition switch is turned OFF and a door is opened and left open, the headlights remain ON for 5 minutes. If another door is opened during the 5 minutes, then the 5 minute timer is reset.

To turn the autolight system off, turn the switch to the OFF, OFF , or OFF position.




LIC1068

Be sure you do not put anything on top of the autolight sensor ① located on the top side of the instrument panel. The autolight sensor controls the autolight; if it is covered, the autolight sensor reacts as if it is dark out and the headlights will illuminate. If this occurs while parked with the engine off and the key in the ON position, your vehicle's battery could become discharged.





LIC1087

Headlight beam select

- ① To select the high beam function, push the lever forward. The high beam lights come on and the  light illuminates.
- ② Pull the lever back to select the low beam.
- ③ Pulling and releasing the lever flashes the headlight high beams on and off.



Battery saver system

If the ignition switch is turned OFF while the headlight switch is in the  or  position, the headlights will turn off after 5 minutes.

CAUTION

Even though the battery saver feature automatically turns off the headlights after a period of time, you should turn the headlight switch to the OFF position when the engine is not running to avoid discharging the vehicle battery.

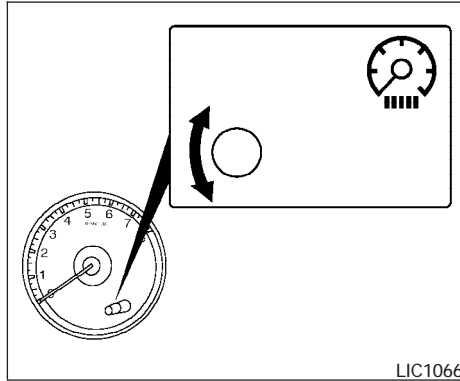
DAYTIME RUNNING LIGHT SYSTEM (Canada only)

The headlights automatically illuminate at a reduced intensity when the engine is started with the parking brake released. The daytime running lights operate with the headlight switch in the OFF position or in the  position. Turn the headlight switch to the  position for full illumination when driving at night.

If the parking brake is applied before the engine is started, the daytime running lights do not illuminate. The daytime running lights illuminate when the parking brake is released. The daytime running lights will remain on until the ignition switch is turned off.

⚠ WARNING

When the daytime running light system is active, tail lights on your vehicle are not on. It is necessary at dusk to turn on your headlights. Failure to do so could cause an accident injuring yourself and others.



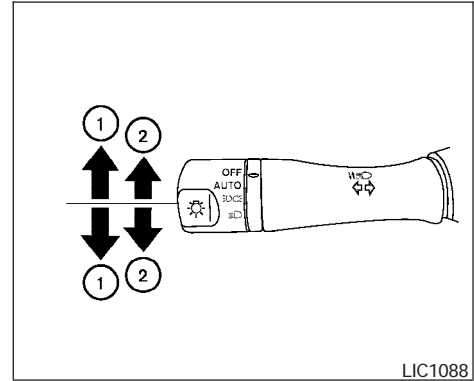
INSTRUMENT BRIGHTNESS CONTROL

The instrument cluster illuminates when the ignition switch is in ON position.

The instrument brightness control operates when the headlight control switch is in the AUTO, D or L position.

Turn the control to adjust the brightness of instrument panel lights when driving at night.

The instrument brightness control will not adjust the brightness when the headlights or parking lights are off.



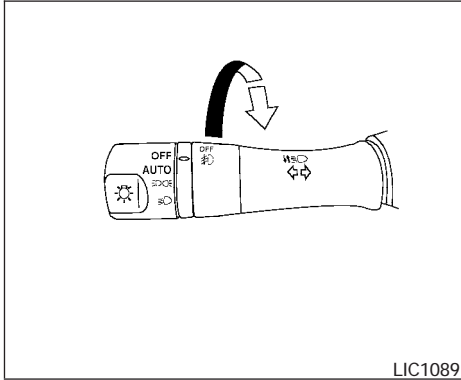
TURN SIGNAL SWITCH

Turn signal

- ① Move the lever up or down to signal the turning direction. When the turn is completed, the turn signals cancel automatically.



Lane change signal


- ② To signal a lane change, move the lever up or down to the point where the indicator light begins to flash, but the lever does not latch.



LIC1089

FOG LIGHT SWITCH (if so equipped)

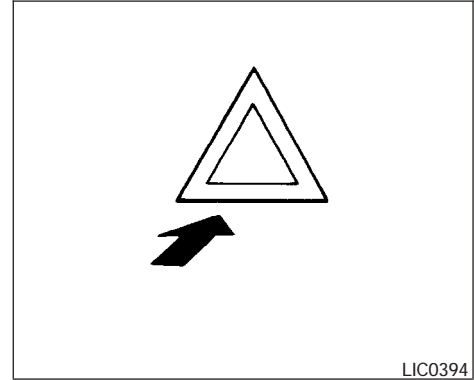
To turn the fog lights on, turn the headlight switch to the  position, then turn the fog light switch to the  position.

To turn the fog lights on with the headlight switch in the AUTO position (if so equipped), the headlights must be on, then turn the fog light switch to the  position.

To turn the fog lights off, turn the fog light switch to the OFF position.

The headlights must be on and the low beams selected for the fog lights to operate. The fog lights automatically turn off when the high beam headlights are selected.

HAZARD WARNING FLASHER SWITCH



LIC0394

Push the switch on to warn other drivers when you must stop or park under emergency conditions. All turn signal lights flash.

WARNING

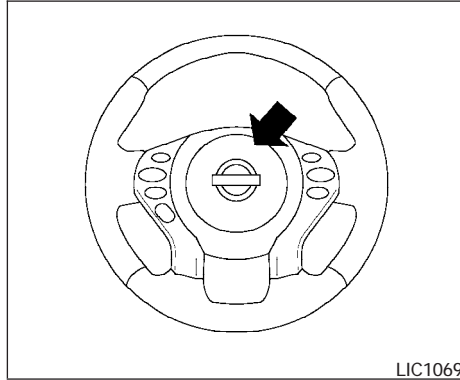
- **If stopping for an emergency, be sure to move the vehicle well off the road.**
- **Do not use the hazard warning flashers while moving on the highway unless unusual circumstances force you to drive so slowly that your vehicle might become a hazard to other traffic.**

HORN

- **Turn signals do not work when the hazard warning flasher lights are on.**

The flashers will operate with the ignition switch in any position.

Some state laws may prohibit the use of the hazard warning flasher switch while driving.

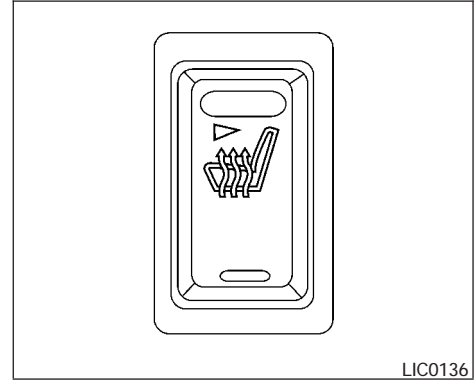


To sound the horn, push the center pad area of the steering wheel.

⚠ 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 SEAT (if so equipped)



The front seats are warmed by built-in heaters (if so equipped). The switches are located on the center console.

1. Start the engine.
2. Push the low or high position of the switch, as desired, depending on the temperature. The indicator light in the switch will illuminate.

The heater is controlled by a thermostat, automatically turning the heater on and off. The indicator light will remain on as long as the switch is on.

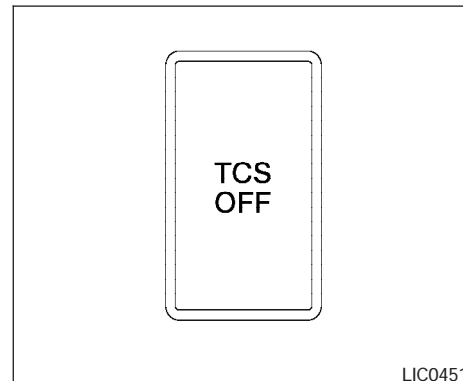
3. When the seat is warmed or before you leave the vehicle, be sure to turn the switch off.

⚠ CAUTION

- **Do not use the seat heater for extended periods or when no one is using the seat.**
- **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.**
- **When cleaning the seat, never use gasoline, benzine, thinner, or any similar materials.**
- **If any abnormalities are found or the heated seat does not operate, turn the switch off and have the system checked by your NISSAN dealer.**

- **The battery could run down if the seat heater is operated while the engine is not running.**

TRACTION CONTROL SYSTEM (TCS) OFF SWITCH (if so equipped)



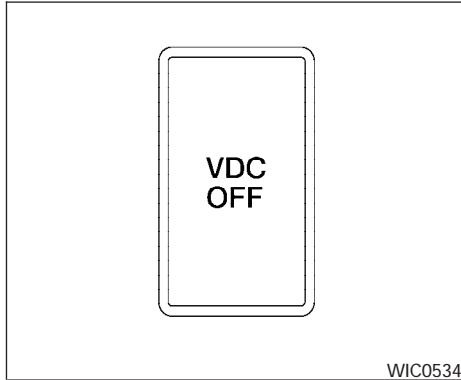
The vehicle should be driven with the Traction Control System (TCS) on for most driving conditions.

If the vehicle is stuck in mud or snow, the TCS reduces the engine output to reduce wheel spin. The engine speed will be reduced even if the accelerator is depressed to the floor. If maximum engine power is needed to free a stuck vehicle, turn the TCS off.

To turn off the TCS, push the TCS OFF switch. The **TCS OFF** indicator will come on.


Push the "TCS OFF" switch again or restart the engine to turn ON the system. See "Traction control system (TCS)" in the "Starting and driving" section.

VEHICLE DYNAMIC CONTROL (VDC) OFF SWITCH (if so equipped)



The vehicle should be driven with the Vehicle Dynamic Control (VDC) system on for most driving conditions.

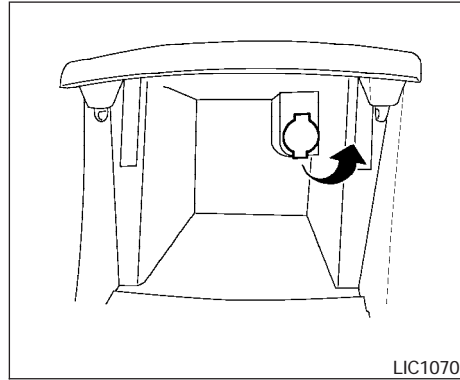
If the vehicle is stuck in mud or snow, the VDC system reduces the engine output to reduce wheel spin. The engine speed will be reduced even if the accelerator is depressed to the floor. If maximum engine power is needed to free a stuck vehicle, turn the VDC system off.

To turn off the VDC system, push the VDC OFF switch. The  indicator will come on.

Push the VDC OFF switch again or restart the engine to turn on the system. See “Vehicle dynamic control (VDC) system” in the “Starting and driving” section.

2-34 Instruments and controls

POWER OUTLET

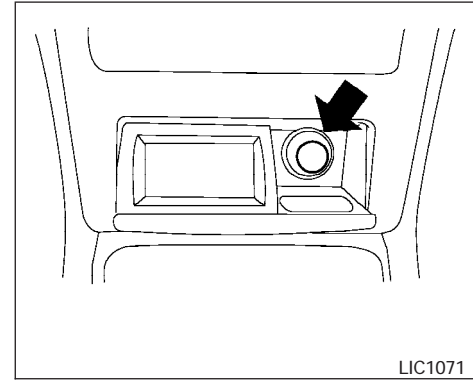


Instrument panel Type A (if so equipped)

The power outlets are for powering electrical accessories such as cellular telephones. They are rated at 12 volt, 120W (10A) maximum. The console outlet is powered directly by the vehicle's battery.

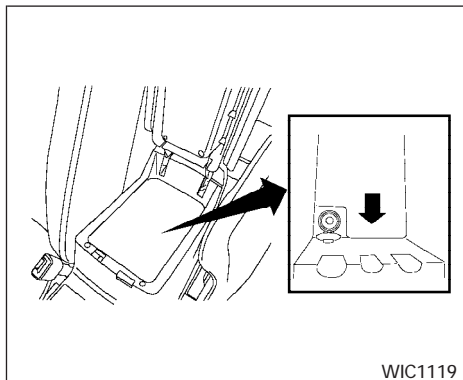
CAUTION

- **The outlet and plug may be hot during or immediately after use.**



Instrument panel Type B (if so equipped)

- **Only certain power outlets are designed for use with a cigarette lighter unit. Do not use any other power outlet for an accessory lighter. See your NISSAN dealer for additional information.**
- **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.**
- **Use power outlets with the engine running to avoid discharging the vehicle battery.**



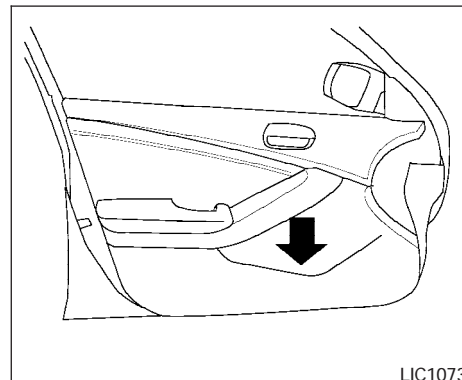
WIC1119

Console

- Avoid using power outlets when the air conditioner, headlights or rear window defroster is on.
- Before inserting or disconnecting a plug, be sure the electrical accessory being used is turned OFF.
- 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.

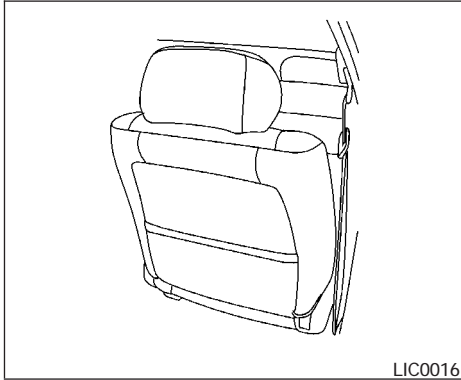
- When not in use, be sure to close the cap. Do not allow water to contact the outlet.
- Do not leave devices plugged in the outlet for an extended period of time because the constant supply of power will drain the battery

STORAGE



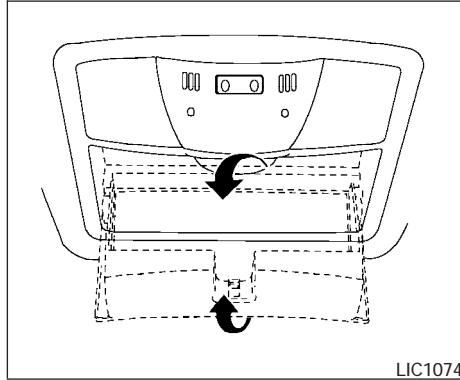
LIC1073

MAP POCKETS



SEATBACK POCKETS

The seatback pockets are located on the back of the driver's and passenger's seats. The pockets can be used to store maps.



SUNGLASSES HOLDER

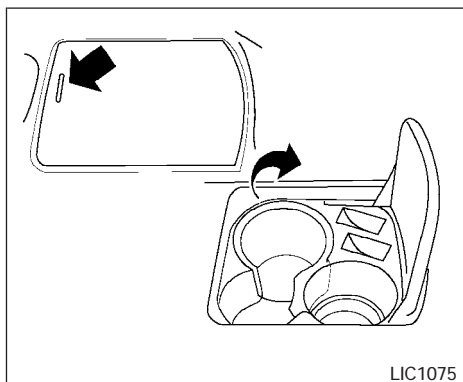
To open the sunglasses holder, push and release. Only store one pair of sunglasses in the holder.

⚠ WARNING

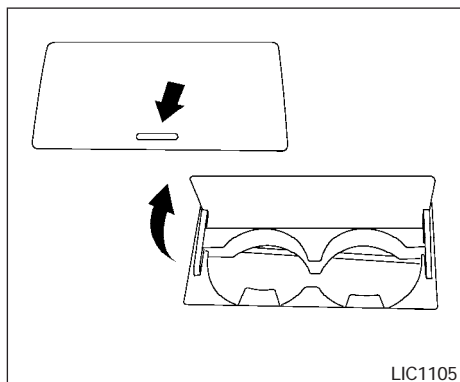
Keep the sunglasses holder closed while driving to prevent an accident.

⚠ CAUTION

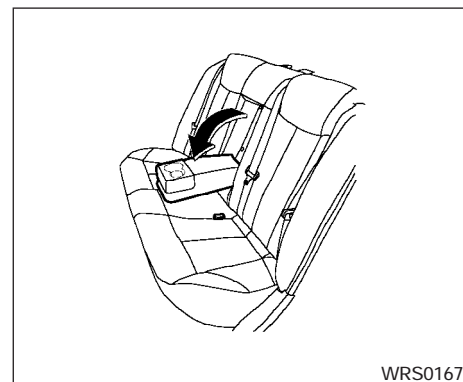
- Do not use for anything other than sunglasses.
- Do not leave sunglasses in the sunglasses holder while parking in direct sunlight. The heat may damage the sunglasses.



Front - Type A



Front - Type B



Rear

CUP HOLDERS

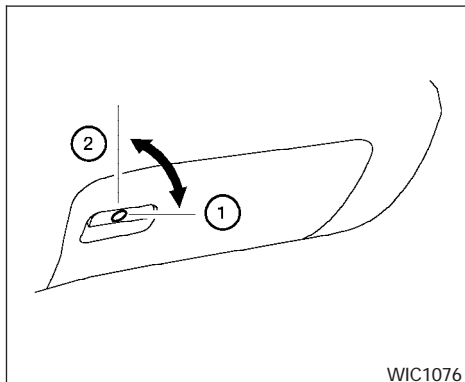
To open the front cup holders, push the cup holder lid. To close, lower the cup holder lid and push down until it clicks in place.

The plastic insert may be removed to accommodate a larger cup size or for cleaning.

The rear cup holders are located in the fold-down armrest in the rear seat back.

⚠ 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.**

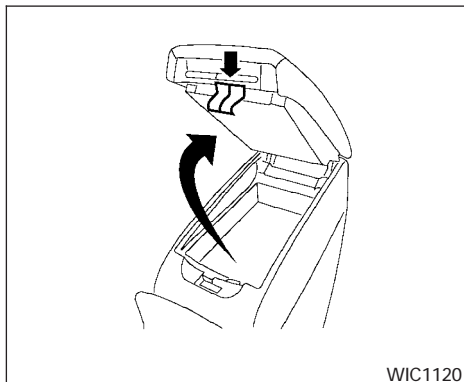


GLOVE BOX

Open the glove box by pulling the handle. When locking ① or unlocking ② the glove box, use the master key.

⚠ WARNING

Keep glove box lid closed while driving to help prevent injury in an accident or a sudden stop.



CONSOLE BOX

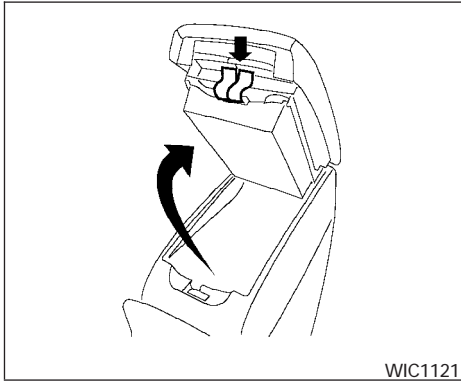
Upper half

Pull up on the driver's side latch to open the upper half of the console box. The felt mat may be removed for cleaning.

The upper half of the console box may be used for storage of cellular phones. An access hole is provided at the rear of the upper half of the console box for phone cord routing to the power outlet.

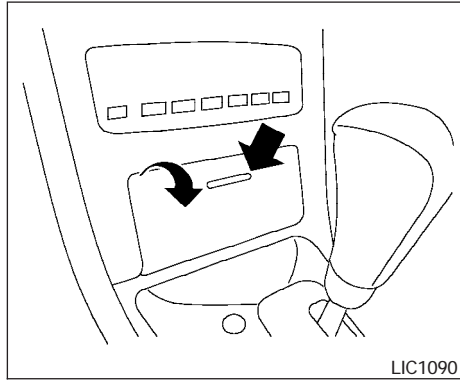
To route a phone cord to the power outlet:

1. Open the upper half of the console box.
2. Remove the felt mat, and then remove the cutout area from the mat.
3. Remove the access hole cover.
4. Install the felt mat.
5. Route the phone cord through the access hole and plug into the power outlet.



Lower half

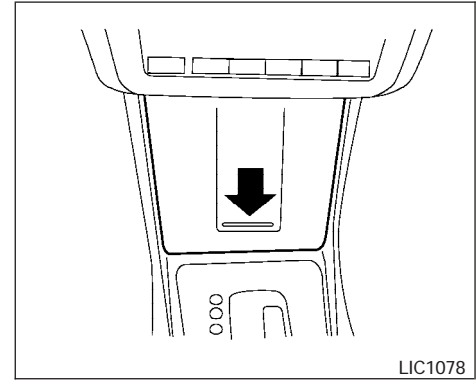
Pull up on the passenger's side latch to open the lower half of the console box. A power outlet is located inside the console box and there is storage for compact discs.



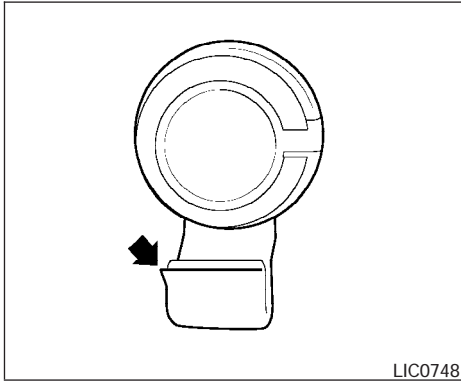
Type A

COVERED STORAGE BOX

Push the center of the lid to open.



Type B

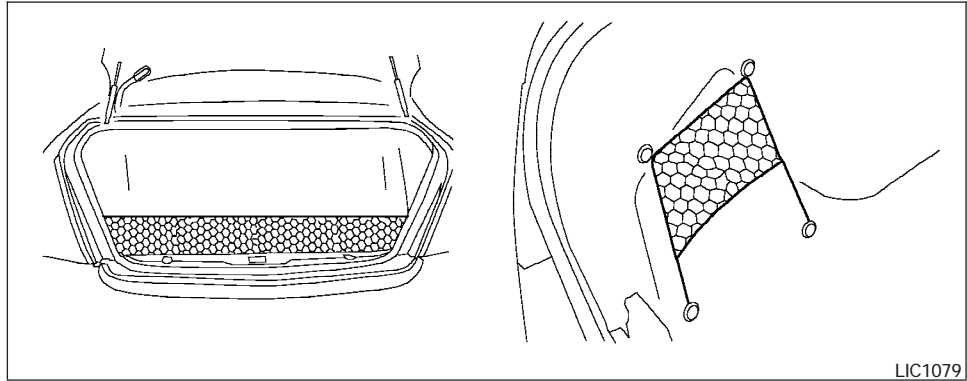


GROCERY HOOKS (if so equipped)

The grocery hooks are located in the trunk and can be used to hang a standard size plastic grocery bag.

⚠ CAUTION

Do not apply a total load of more than 20 lbs (9 kg) to a single grocery hook.



CARGO NET (if so equipped)

⚠ WARNING

- **Properly secure all cargo with ropes or straps to help prevent it from sliding or shifting. In a sudden stop or collision, unsecured cargo could cause personal injury.**
- **Be sure to secure all four hooks into the retainers. The cargo restrained in the net must not exceed 30 lbs. (13.6 kg) or the net may not stay secured.**

The cargo net helps keep packages in the cargo area from moving around while the vehicle is in motion.

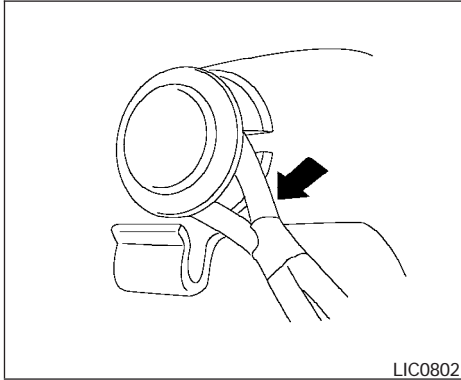
WINDOWS

POWER WINDOWS

⚠ WARNING

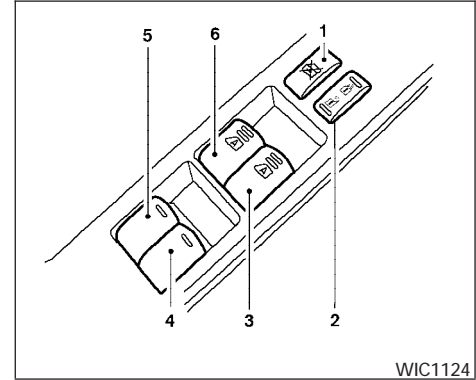
- **Make sure that all passengers have their hands, etc. inside the vehicle while it is in motion and before closing the windows. Use the window lock switch to prevent unexpected use of the power windows.**
- **Do not leave children unattended inside the vehicle. They could unknowingly activate switches or controls and become trapped in a window. Unattended children could become involved in serious accidents.**

The power windows operate when the ignition switch is in the ON position, or for about 45 seconds after the ignition switch is turned to the OFF position. If the driver's or passenger's door is opened during this period of about 45 seconds, power to the windows is canceled.



To install the cargo net, attach the net to the retainers.

To remove the cargo net, detach the net from the cargo net retainers.

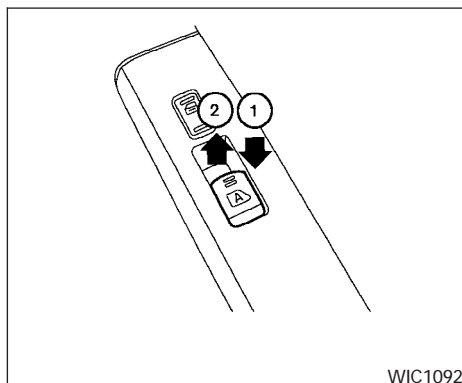


1. Window lock button
2. Power door lock switch
3. Front passenger side (automatic switch, if so equipped)
4. Right rear passenger side
5. Left rear passenger side
6. Driver side automatic switch

Driver's side power window switch

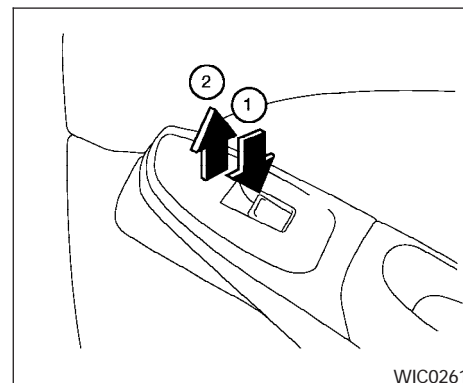
The driver's side control panel is equipped with switches to open or close all of the windows.

To open a window, push the switch to the first detent and continue to hold down until the desired window position is reached. To close a window, pull the switch to the first detent and continue to hold down until the desired window position is reached.



Front passenger's power window switch

The passenger's window switch operates only the corresponding passenger's window. To open the window, push the switch and hold it down ①. To close the window, pull the switch up ②.

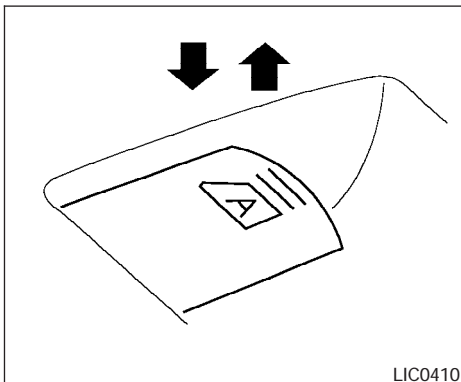


Rear power window switch

The rear power window switches open or close only the corresponding windows. To open the window, push the switch and hold it down ①. To close the window, pull the switch up ②.

Locking passengers' windows

When the window lock button is depressed, only the driver's side window can be opened or closed. Push it again to cancel the window lock function.



Automatic operation

To fully open a window equipped with automatic operation, press the window switch down (only driver's side shown) to the second detent and release it; it need not be held. The window automatically opens all the way. To stop the window, lift the switch up while the window is opening.

To fully close a window equipped with automatic operation, pull the switch up to the second detent and release it; it need not be held.

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 turned 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.

WARNING

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.

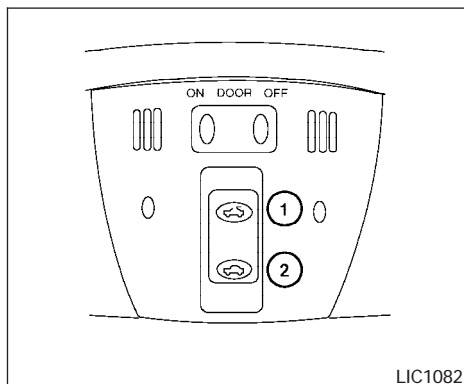
When power window switch does not operate

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 the ON position.
2. Open the window more than halfway by operating the power window switch.
3. Pull the power window switch and hold it to close the window, and then hold the switch more than 3 seconds after the window is closed.
4. Release the power window switch. Operate the window by the automatic function to confirm the initialization is complete.
5. Perform steps 2 through 4 above for other windows.

If the power window function does not operate properly after performing the above procedure, see a NISSAN dealer for assistance.

SUNROOF (if so equipped)





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AUTOMATIC SUNROOF

The sunroof will only operate when the ignition switch is in the ON position. The automatic sunroof is operational for about 45 seconds, even if the ignition switch is turned to the ACC or OFF position. If the driver's door or the front passenger's door is opened during this period of about 45 seconds, power to the sunroof is canceled.

Sliding the sunroof



To fully open the sunroof, push the switch toward  ①.

To fully close the sunroof, push the switch toward  ②.

2-44 Instruments and controls

To open or close the sunroof part way, push the switch in any direction while the sunroof is sliding to stop it in the desired position.

Tilting the sunroof

Close the sunroof by pushing the switch toward  ②. Release the switch, then push the switch toward  ② again to tilt the sunroof up.

To tilt the sunroof down, push the switch toward  ①.

⚠ WARNING

- **In an accident you could be thrown from the vehicle through an open sunroof. Always use seat belts and child restraints.**
- **Do not allow anyone to stand up or extend any portion of their body out of the sunroof opening while the vehicle is in motion or while the sunroof is closing.**

⚠ CAUTION





- **Remove water drops, snow, ice or sand from the sunroof before opening.**
- **Do not place heavy objects on the sunroof or surrounding area.**

Restarting the sunroof switch



The sunroof switch may not operate properly and need to be restarted if any of the following conditions have occurred:

- the battery terminal has been disconnected,
- the sunroof has been manually moved,
- the sunroof motor has been removed and reinstalled after the sunroof has been repositioned or adjusted,
- the sunroof glass panel has been adjusted or changed, or
- the electrical supply interrupted and/or some malfunction has been detected.


Use the following reset procedure to return sunroof operation to normal.

1. Press , until it stops and then release the switch.
2. Push and hold . The sunroof panel will begin to move in about 10 seconds.
3. Continue to hold  while the panel moves in a jogging motion to the full tilt position. When the panel reaches the full tilt position it will back up a little and stop.
4. Release .

INTERIOR LIGHT

5. Within 5 seconds of completing step 4, press and continuously hold . After a delay of 5 seconds, the panel will move from the tilt position to the open position and back to the close position.
6. Release . Do not disconnect the power for at least 2 seconds. The sunroof is now restarted.

NOTE:

If  is released anytime during the re-starting process, all learned profile data will be discarded and the procedure will have to be started over.

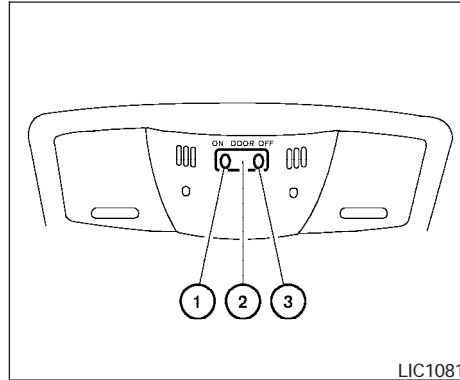
If the sunroof still does not operate properly, have the sunroof system checked, and if necessary repaired, by a NISSAN dealer.

Sunshade

Open and close the sunshade by sliding it forward or backward.

If the sunroof does not close

Have your NISSAN dealer check and repair the sunroof.



The interior light has a three-position switch and operates regardless of ignition switch position.

- When the switch is in the ON position ①, the interior light illuminates, regardless of door position. The light will go off after 30 minutes unless the ignition switch is in the ACC or ON position.
- When the switch is in the center DOOR position ②, the front and rear personal lights will illuminate under the following conditions:
 - Driver's door is opened.
 - Lights remain on for a maximum of 30 seconds after driver's door is closed.

The lights will go off when the ignition switch is in the ON position, or the driver's door is closed and locked.

The lights will also go off after 30 minutes when doors are open.

- When the switch is in the OFF position ③, the interior light does not illuminate, regardless of door position.

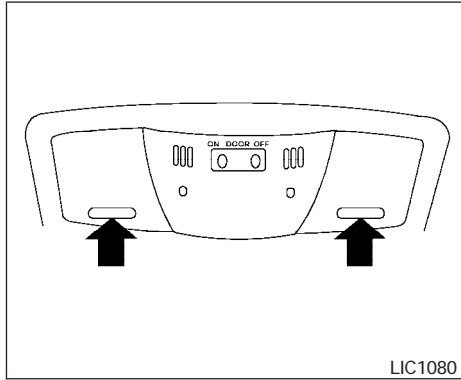
NOTE:

The doorstep lights illuminate when the driver and passenger doors are opened regardless of the interior light switch position. These lights will turn off automatically after 30 minutes while doors are open to prevent the battery from becoming discharged.

CAUTION

Do not use for extended periods of time with the engine stopped. This could result in a discharged battery.

MAP LIGHTS

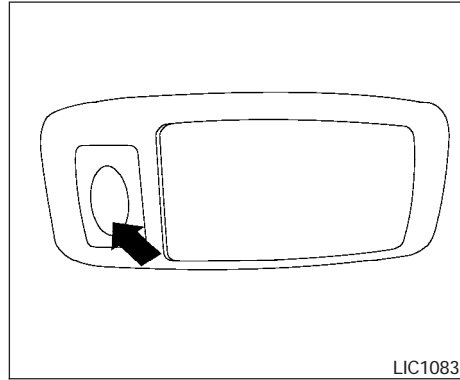


Front map lamps

To turn the map lights on, press the light lens. To turn them off, press the lens again.

CAUTION

Do not use for extended periods of time with the engine stopped. This could result in a discharged battery.



Rear map lamps

To turn the rear map lights on, press the switch. To turn them off, press the switch again.

TRUNK LIGHT

The light illuminates when the trunk lid is opened. When the trunk lid is closed, the light goes off.

The light will go off after about 30 minutes if the trunk lid is left open, unless the ignition switch is in the ACC or ON position.

For bulb replacement procedures, refer to “Exterior and interior lights” in the “Maintenance and do-it-yourself” section of this manual.

HOMELINK® UNIVERSAL TRANSCEIVER (if so equipped)

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.

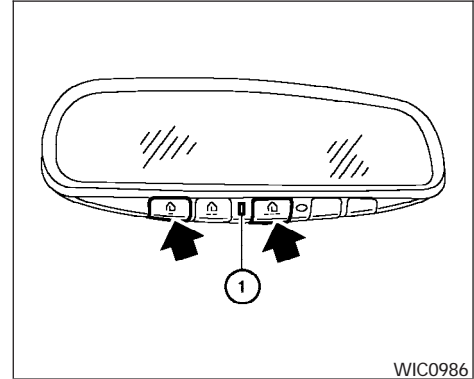
HomeLink® Universal Transceiver:

- 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.

Once 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®” later in this section.

WARNING

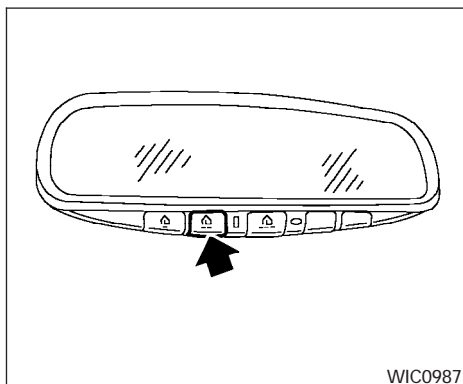
- **Do not use the HomeLink® Universal Transceiver with any garage door opener that lacks safety stop and reverse features as required by federal safety standards. (These standards became effective for opener models manufactured after April 1, 1982). A garage door opener which cannot detect an object in the path of a closing garage door and then automatically stop and reverse, does not meet current federal safety standards. Using a garage door opener without these features increases the risk of serious injury or death.**
- **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.**



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PROGRAMMING HOMELINK®

1. To begin, press and hold the two outer HomeLink® buttons (to clear the memory) until the indicator light ① blinks (after 20 seconds). Release both buttons.
2. Position the end of the hand-held transmitter 1 - 3 inches (26 - 76 mm) away from the HomeLink® surface.



- Using both hands, simultaneously press and hold both the HomeLink® button you want to program and the hand-held transmitter button.

DO NOT release the buttons until step 4 has been completed.

- Hold down both buttons until the indicator light on the HomeLink® flashes, changing from a “slow blink” to a “rapidly flashing blink”. This could take up to 90 seconds. When the indicator light flashes rapidly, both buttons may be released. The rapidly flashing light indicates successful programming. To activate the garage door or other programmed device, press and hold the programmed HomeLink® button — releasing when the device begins to activate.
- If the indicator light on the HomeLink® blinks rapidly for 2 seconds and then turns solid, HomeLink® has picked up a “rolling code” garage door opener signal. You will need to proceed with the next steps to train the HomeLink® to complete the programming which may require a ladder and another person for convenience.
- Press and release the “smart” or “learn” program button located on the garage door opener’s motor to activate the “training mode”. This button is usually located near the antenna wire that hangs down from the motor. If the wire originates from under a light lens, you will need to remove the lens to access the program button.

NOTE:

Once you have pressed and released the program button on the garage door opener’s motor and the “training light” is lit, you have 30 seconds in which to perform step 7. Use the help of a second person for convenience to assist when performing this step.

- Within 30 seconds of pressing and releasing the garage door opener program button, quickly and firmly press and release the HomeLink® button you’ve just programmed. Press and release the HomeLink® button up to 3 times to complete the training.
- Your HomeLink® button should now be programmed. (To program the remaining HomeLink® buttons for additional door or gate openers, follow steps 2-8 only.)

NOTE:

Do not repeat step 1 unless you want to “clear” all previously programmed HomeLink® buttons.

If you have any questions or are having difficulty programming your HomeLink® buttons, refer to the HomeLink® web site at: www.homelink.com or call 1-800-355-3515.

PROGRAMMING HOMELINK® FOR CANADIAN CUSTOMERS

Prior to 1992, D.O.C. regulations required hand-held transmitters to stop transmitting after 2 seconds. To program your hand-held transmitter to HomeLink®, continue to press and hold the HomeLink® button (note steps 2 - 4 under “Programming HomeLink®”) while you press and repress (“cycle”) your hand-held transmitters every 2 seconds until the indicator light flashes rapidly (indicating successful programming).

NOTE:

When programming a garage door opener, etc., it is advised to unplug the device during the “cycling” process to prevent possible damage to the garage door opener components.

OPERATING THE HOMELINK® UNIVERSAL TRANSCIVER

The HomeLink® Universal Transceiver (once programmed) may now be used to activate the garage door, etc. To operate, simply press the appropriate programmed HomeLink® Universal Transceiver button. The red indicator light will illuminate while the signal is being transmitted.

PROGRAMMING TROUBLE-DIAGNOSIS

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 1 - 3 inches (26 - 76 mm) 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 continue to have programming difficulties, please contact the NISSAN Consumer Affairs Department. The phone numbers are located in the Foreword of this manual.

CLEARING THE PROGRAMMED INFORMATION

Individual buttons cannot be cleared. However, to clear all programming, press and hold the two outside buttons and release when the indicator light begins to flash (approximately 20 seconds).

ROLLING CODE PROGRAMMING

Rolling code garage door openers (or other rolling code devices) which are “code protected” and manufactured after 1996, may be determined by the following:

- Reference the garage door opener Owner’s Manual for verification.
- The hand-held transmitter appears to program the HomeLink® Universal Transceiver but does not activate the garage door.
- Press and hold the trained HomeLink® button. If the garage door opener has the rolling code feature, the HomeLink® indicator light will flash rapidly, then remains on after 2 seconds.

To program the HomeLink® Universal Transceiver to a garage door opener with the rolling code feature, follow these instructions after completing the “Programming HomeLink” (the aid of a second person may make the following procedures quicker and easier).

1. Locate the training button on the garage door opener motor unit. Exact location and color of the button may vary by garage door opener brand. If there is difficulty locating the training button, reference the garage door opener Owner's Manual.
2. Press the training button on the garage door opener motor unit (which may activate a training light).

NOTE:

Following step 2, there are 30 seconds in which to initiate step 3.

3. Firmly press and release the programmed HomeLink® button a second time to complete the training process. (Some garage door openers may require you to do this procedure a third time to complete the training.)

The garage door opener should now recognize the HomeLink® Universal Transceiver and activate when the HomeLink® button is pressed. The remaining two buttons may now be programmed (if not yet programmed, follow steps 2 through 4 in the "Programming HomeLink®" procedures earlier in this section).

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 until step 4 has been completed.
2. When the indicator light begins to flash slowly (after 20 seconds), position the hand-held transmitter 1 - 3 inches (26 - 76 mm) away from the HomeLink® surface.
3. Press and hold the hand-held transmitter button.
4. The HomeLink® indicator light will flash, first slowly and then rapidly. When the indicator light begins to flash rapidly, release both buttons.

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.

FCC Notice:

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

This transmitter has been tested and complies with FCC and DOC/MDC rules. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

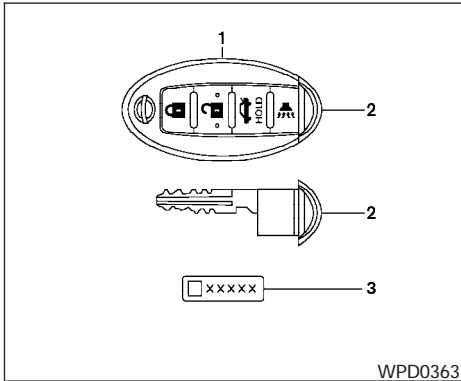
DOC: ISTC 1763K1313

FCC I.D. CV2V67690

3 Pre-driving checks and adjustments

| | | | |
|---|------|--|------|
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KEYS



1. Two Intelligent Keys
2. Mechanical keys (inside Intelligent Keys)
3. Key number plate

INTELLIGENT KEYS

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 dealer prior to use with the Intelligent Key system and NISSAN Vehicle Immobilizer System of your vehicle. Since the reg-

3-2 Pre-driving checks and adjustments

istration 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 the NISSAN dealer.

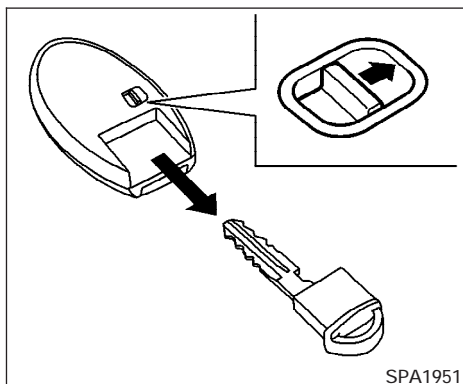
A key number plate is supplied with your keys. Record the key number and keep it in a safe place (such as your wallet), not in the vehicle. If you lose your keys, see a NISSAN dealer for duplicates by using the key number. NISSAN does not record key numbers so it is very important to keep track of your 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, your NISSAN dealer can duplicate it.

CAUTION

- Do not allow the Intelligent Key, which contains electrical components, to come into contact with water or salt water. This could affect the system function.
- Do not drop the Intelligent Key.
- Do not strike the Intelligent Key sharply against another object.

- Do not place the Intelligent Key for an extended period in an area where temperatures exceed 140°F (60°C).
- Do not attach the Intelligent Key with a key holder that contains a magnet.
- Do not place the Intelligent Key near equipment that produces a magnetic field, such as a TV, audio equipment and personal computers.



Mechanical key

The Intelligent Key contains the mechanical key.

To remove the mechanical key, release the lock knob on 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, trunk lid, glove box and rear seatback lock.

See “Doors” and “Trunk lid” later in this section, “Storage” in the “Instruments and controls” section and “Seats” in the “Safety — Seats, seat belts and supplemental restraint system” section.

⚠ CAUTION

Always carry the mechanical key installed in the Intelligent Key slot.

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.

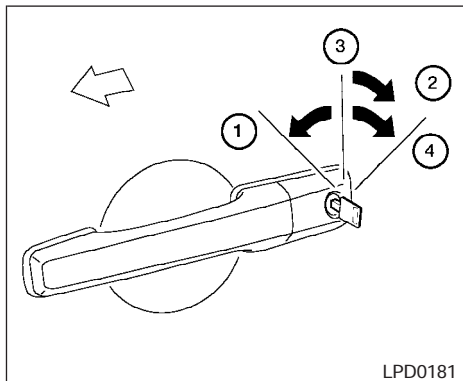
1. Push the trunk cancel switch to the OFF position.
2. Remove the mechanical key from the Intelligent Key.
3. Lock the glove box and the rear seats with the mechanical key.
4. Hand the Intelligent Key to the valet and keep the mechanical key with you.

See “Trunk lid” later in this section, “Storage” in the “Instruments and controls” section and “Seats” in the “Safety — seats, seat belts and supplemental restraint system” section.

⚠ WARNING

- Always have the doors locked while driving. Along with the use of seat belts, this provides greater safety in the event of an accident by helping to prevent persons from being thrown from the vehicle. This also helps keep children and others from unintentionally opening the doors, and will help keep out intruders.
- Before opening any door, always look for and avoid oncoming traffic.
- Do not leave children unattended inside the vehicle. They could unknowingly activate switches or controls. Unattended children could become involved in serious accidents.

DOORS



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Driver's side

LOCKING WITH KEY

The power door lock system allows you to lock or unlock all doors at the same time.

Turning the key toward the front ① of the vehicle locks all doors.

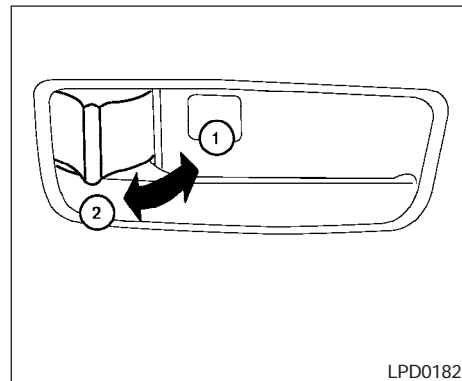
Turning the key one time toward the rear ② of the vehicle unlocks that door. From that position, returning the key to neutral ③ (where the key can only be removed and inserted) and turning it toward the rear again within 5 seconds unlocks all doors ④.

Opening and closing windows (if so equipped)

The driver's door key operation allows you to open and close windows equipped with automatic operation at the same time.

- To open the windows, turn the driver's door key toward the rear of the vehicle for **longer than 1 second** after the door is unlocked.
- To close the windows, turn the driver's door key toward the front of the vehicle for **longer than 1 second** after the door is locked.

Windows stop when the key cylinder is released.



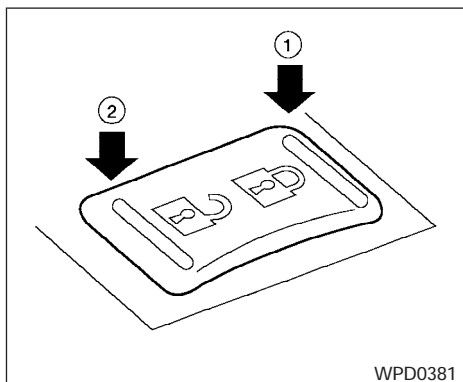
LPD0182

Inside lock

LOCKING WITH INSIDE LOCK KNOB

To lock the door without the key, move the inside lock knob to the lock position ①, then close the door.

To unlock the door without the key, move the inside lock knob to the unlock position ②.



Door lock switch

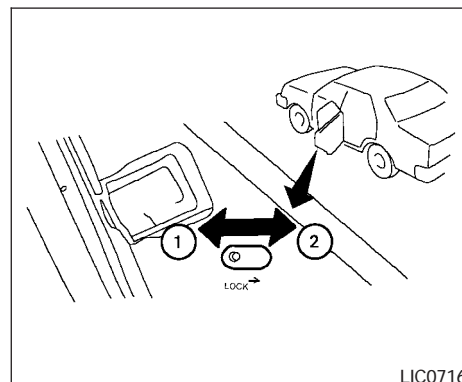
LOCKING WITH POWER DOOR LOCK SWITCH

To lock all the doors without a key, push the door lock switch (driver's or front passenger's side), to the lock position ①. When locking the door this way, be certain not to leave the key inside the vehicle.

To unlock all the doors without a key, push the door lock switch (driver's or front passenger's side) to the unlock position ②.

Lockout protection

When the power door lock switch (driver's or front passenger's side) is moved to the lock position with the Intelligent Key in the port and any door open, all doors will lock and unlock automatically. With the Intelligent Key left in the vehicle (not in the Intelligent Key port) and any door open, all doors will unlock automatically and a chime will sound after the door is closed.



CHILD SAFETY REAR DOOR LOCK

Child safety locks help prevent the rear doors from being opened accidentally, especially when small children are in the vehicle.

The child safety lock levers are located on the edge of the rear doors.

When the lever is in the unlock position ①, the door can be opened from the outside or the inside.

When the lever is in the lock position ②, the door can be opened only from the outside.

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.

- 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.

In such cases, correct the operating conditions before using the Intelligent Key function or use the mechanical key.

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.

When the Intelligent Key battery is almost discharged, insert the Intelligent Key into the Intelligent Key port to start the engine. Replace the discharged battery with a new one as soon as

possible. For more details, see "Push-button ignition switch" in the "Starting and driving" section.

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.

For information regarding replacement of a battery, see "Battery" in the "Maintenance and do-it-yourself" section.

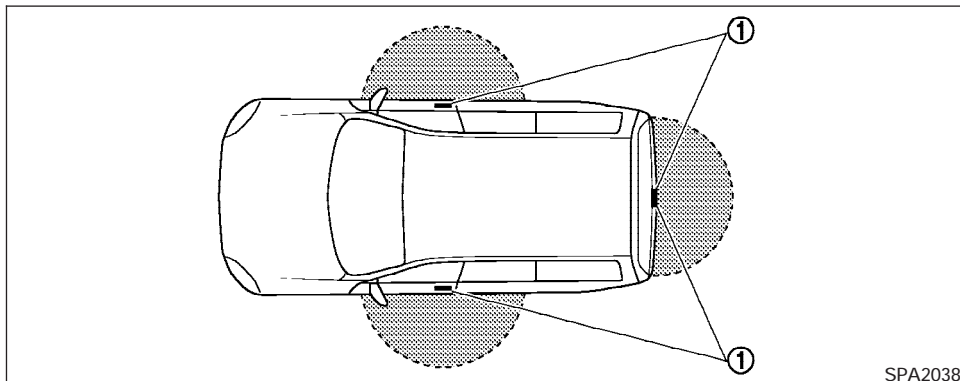
Because the steering wheel is locked electrically, unlocking the steering wheel with the ignition switch in the LOCK position is impossible when the vehicle battery is completely discharged. Unlocking the steering wheel is impossible even if the Intelligent Key is inserted into the Intelligent Key port. Pay special attention that the vehicle battery is not completely discharged.

As many as 4 Intelligent Keys can be registered and used with one vehicle. For information about the purchase and use of additional Intelligent Keys, contact a NISSAN dealer.

⚠ CAUTION

- **Do not allow the Intelligent Key, which contains electrical components, to come into contact with water or salt water. This could affect the system function.**
- **Do not drop the Intelligent Key.**
- **Do not strike the Intelligent Key sharply against another object.**
- **Do not change or modify the Intelligent Key.**
- **Wetting may damage the Intelligent Key. If the Intelligent Key gets wet, immediately wipe until it is completely dry.**
- **Do not place the Intelligent Key for an extended period in an area where temperatures exceed 140°F (60°C).**
- **Do not attach the Intelligent Key with a key holder that contains a magnet.**
- **Do not place the Intelligent Key near equipment that produces a magnetic field, such as a TV, audio equipment and personal computers.**

If an Intelligent Key is lost or stolen, NISSAN recommends erasing the ID code of that Intelligent Key from the vehicle. This may prevent the unauthorized use of the Intelligent Key to operate the vehicle. For information regarding the erasing procedure, contact a NISSAN dealer.



SPA2038

OPERATING RANGE

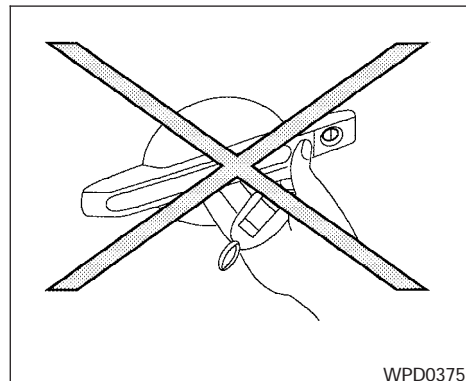
The Intelligent Key functions can only be used when the Intelligent Key is within the specified operating range from the request switch ①.

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.

The operating range is within 31.50 in (80 cm) from each request switch ①.

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, even someone who does not carry the Intelligent Key, to push the request switch to lock/unlock the doors.

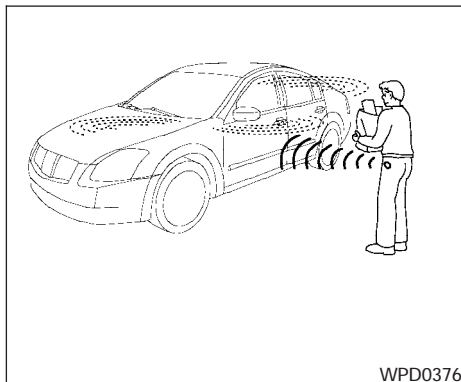


WPD0375

DOOR LOCKS/UNLOCKS PRECAUTION

- Do not push the door handle request switch with the Intelligent Key held in your hand as illustrated. 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 with the door handle request switch, verify 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.

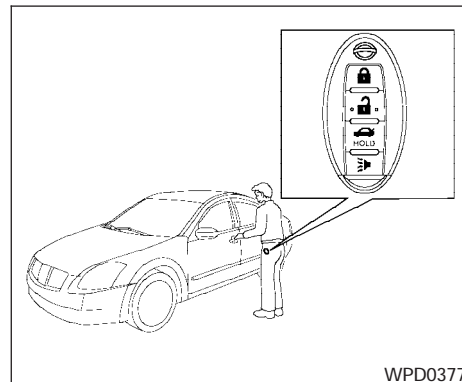
- Do not pull the door handle before pushing the door handle request switch. The door will be unlocked but will not open. Release the door handle once and pull it again to open the door.



INTELLIGENT KEY OPERATION

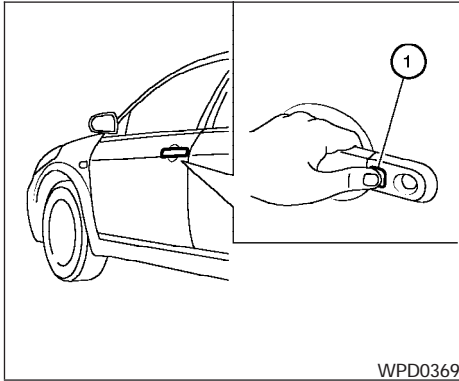
You can lock or unlock the doors without taking the key out of your pocket or bag.

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.



Locking doors

1. Move the selector to the "P" position, push the ignition switch to the LOCK position and make sure you carry the Intelligent Key with you.
2. Close all doors.
3. Push any door handle request switch ① while carrying the Intelligent Key with you.
4. All doors and the trunk will lock.
5. The hazard warning lights flash twice and the outside buzzer sounds twice.



WPD0369

NOTE:

- Doors lock with the door handle request switch while the ignition switch is not in the LOCK position.
- Doors do not lock by pushing the door handle request switch while any door is open. However, doors lock with the mechanical key even if any door is open.
- Doors do not lock with the door handle request switch with the Intelligent Key inside the vehicle and a beep sounds to warn you. However, when an Intelligent Key is inside the vehicle, doors can be locked with another Intelligent Key.

⚠ CAUTION

- After locking the doors using the request switch, make sure that the doors have been securely locked by operating the door handles or the trunk opener switch.
- When locking the doors using the request switch, make sure to have the Intelligent Key in your possession before operating the request switch to prevent the Intelligent Key from being left in the vehicle.
- The request switch is operational only when the Intelligent Key has been detected by the Intelligent Key system.

Lockout protection

To prevent the Intelligent Key from being accidentally locked in the vehicle, lockout protection is equipped with the Intelligent Key system.

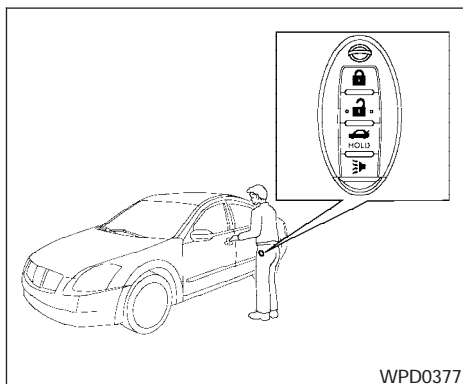
When the driver's side door is open, the doors are locked, and then the Intelligent Key is put inside the vehicle and all the doors are closed; the lock will automatically unlock and the door buzzer sounds.

⚠ 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 top of the rear parcel shelf.
- When the Intelligent Key is placed inside the glove box or a storage bin.
- When the Intelligent Key is placed inside the door pockets.
- When the Intelligent Key is placed on or under the spare tire area.
- When the Intelligent Key is placed inside or near metallic materials.

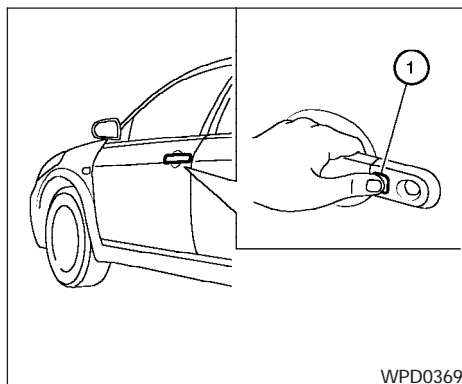
The lockout protection may function when the Intelligent Key is outside the vehicle but it is too close to the vehicle.



Unlocking doors

1. Carry the Intelligent Key.
2. Push the door handle request switch ①.
3. The hazard warning lights flash once and the outside buzzer sounds once.
4. Push the door handle request switch ① again within 5 seconds to unlock all doors.

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.



All doors will be locked automatically unless one of the following operations is performed within 1 minute after pushing the request switch.

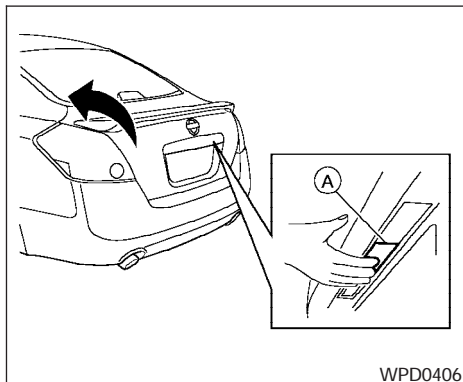
- Opening any door.
- Pushing the ignition switch.

The interior light timer illuminates for 30 seconds when a door is unlocked and the room light switch is in the DOOR position.

The interior light can be turned off without waiting for 30 seconds by performing one of the following operations.

- Placing the ignition switch in the ON position.

- Locking the doors with the remote controller.
- Switching the room light switch to the OFF position.



Opening the trunk lid

1. Push the trunk opener request switch (A) for more than 1 second while carrying the Intelligent Key with you.
2. The trunk will unlatch. A chime will sound four times.
3. Raise the trunk lid to open the trunk.

Lockout protection

To prevent the Intelligent Key from being accidentally locked in the trunk, lockout protection is equipped with the Intelligent Key system.

When all doors are locked and the trunk lid is closed with the Intelligent Key inside the trunk, the outside buzzer will sound and the trunk will open.

HOW TO USE THE REMOTE KEYLESS ENTRY FUNCTION

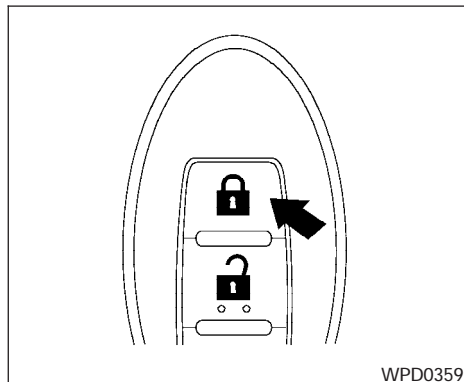
The remote keyless entry function can operate all door locks using the remote keyless function of the Intelligent Key. The remote keyless function can operate at a distance of 33 ft (10 m) away from the vehicle. The operating distance depends upon the conditions around the vehicle.

The remote keyless entry function will not function under the following conditions:


- When the Intelligent Key is not within the operational range.
- When the doors or the trunk are open or not closed securely.
- When the Intelligent Key battery is discharged.

CAUTION

When locking the doors using the Intelligent Key, be sure not to leave the key in the vehicle.

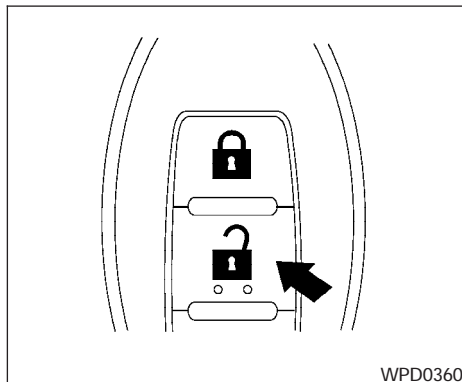


Locking doors



1. Place the ignition switch in the LOCK position.
2. Close all doors.
3. Push the  button on the Intelligent Key.
4. The hazard warning lights flash twice and the horn beeps once.
5. All doors will be locked.


CAUTION

After locking the doors using the Intelligent Key, be sure that the doors have been securely locked by operating the door handles.



Unlocking doors

1. Push the  button on the Intelligent Key.
2. The hazard warning lights flash once.
3. Push the  button again within 5 seconds to unlock all doors.

All doors will be locked automatically unless one of the following operations is performed within 1 minute after pushing the  button.

- Opening any doors.
- Pushing the ignition switch.


The interior light illuminates for 30 seconds when a door is unlocked and the room light switch is in the DOOR position.


The light can be turned off without waiting for 30 seconds by performing one of the following operations.

- Placing the ignition switch in the ON position.
- Locking the doors with the remote controller.
- Switching the room light switch to the OFF position.

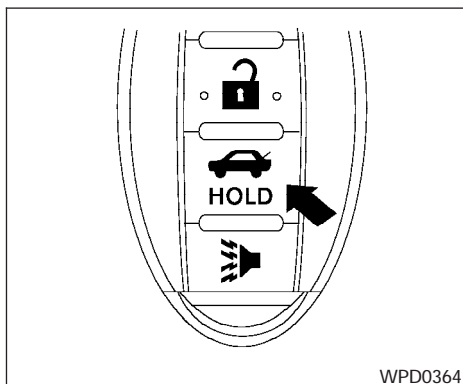
Opening windows (if so equipped)

The Intelligent Key allows you to open windows equipped with automatic operation simultaneously.


- To open the windows, press the  button on the keyfob for **longer than 3 seconds** after all doors are unlocked.

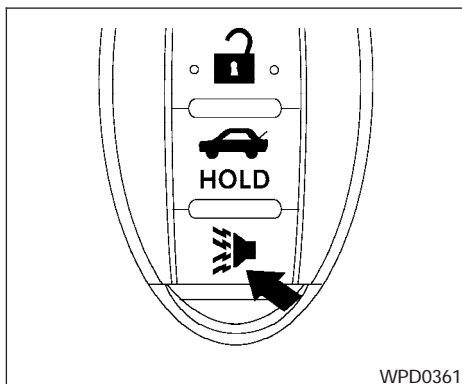
The door windows will open while pressing the  button on the keyfob.

The door windows cannot be closed by using the keyfob.




Releasing the trunk lid

Push the  button for longer than 0.5 second to open the trunk lid. The trunk release button will not operate when the ignition switch is in the ON position or when the trunk cancel switch is in the OFF position. See “Cancel switch” in the “Pre-driving checks and adjustments” section.



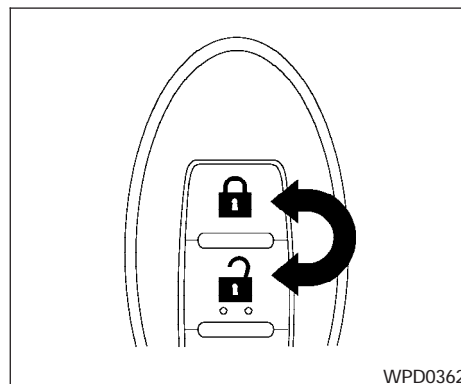
Using the panic alarm

If you are near your vehicle and feel threatened, you may activate the panic alarm to call attention by pushing and holding the  button on the Intelligent Key for **longer than 0.5 second**.

The panic alarm and headlights will stay on for 25 seconds.

The panic alarm stops when:

- it has run for 25 seconds, or
- any button is pushed on the Intelligent Key.





Silencing the horn beep feature

If desired, the horn beep feature can be deactivated using the Intelligent Key.

To deactivate: Press and hold the  and  buttons **for at least 2 seconds**.

The hazard warning lights will flash three times to confirm that the horn beep feature has been deactivated.

To activate: Press and hold the  and  buttons **for at least 2 seconds once more**.

The hazard warning lights will flash once and the horn will sound once to confirm that the horn beep feature has been reactivated.

Deactivating the horn beep feature does not silence the horn if the alarm is triggered.

WARNING SIGNALS

To help prevent the vehicle from moving unexpectedly by erroneous operation of the Intelligent Key or to help prevent the vehicle from being

stolen, a chime or buzzer sounds from inside and outside the vehicle and a warning is displayed in the instrument panel.

When a chime or beep sounds or a warning is displayed, be sure to check the vehicle and the Intelligent Key.

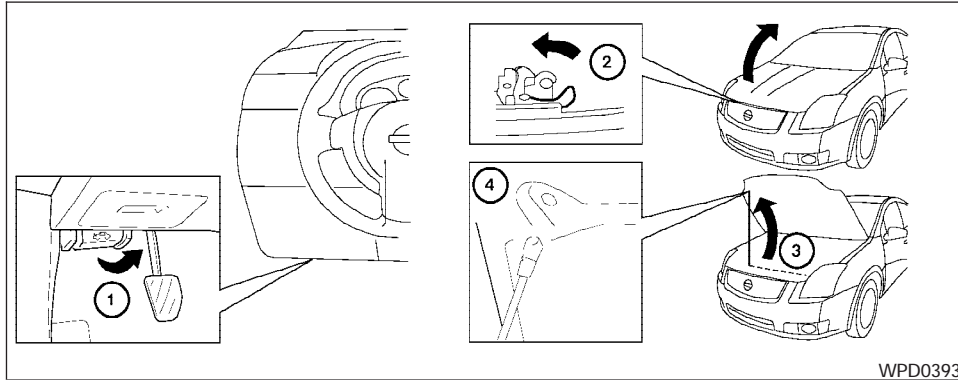
See the troubleshooting guide that follows and “Vehicle information display indicator lights and warnings” in the “Instruments and controls” section.

TROUBLESHOOTING GUIDE

Verify the location of all Intelligent Keys that are programmed for the vehicle. If another Intelligent Key is in range or inside the vehicle, the vehicle system may respond differently than expected.

| Symptom | | Possible Cause | Remedy |
|--|--|--|--|
| 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 selector lever is not in the P position. | Shift the selector 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 NO KEY warning appears on the display and the outside chime sounds continuously. | The ignition switch is in the ACC position and the selector lever is not in the "P" (Park) position. | Move the selector lever to the "P" (Park) 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

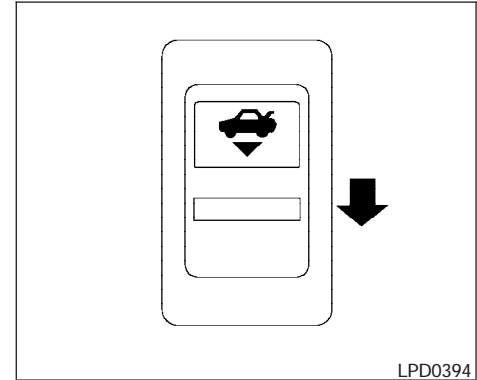


- 1 Pull the hood lock release handle located below the driver's side instrument panel; the hood springs up slightly.
- 2 Lift the lever at the front of the hood with your fingertips and raise the hood.
- 3 Remove the support rod from the clamp.
- 4 Insert the support rod into the hole on the passenger's side of the hood.
5. When closing the hood, return the support rod to its original position, lower the hood to approximately 12 inches above the latch and release it. This allows proper engagement of the hood latch.

⚠ WARNING

- **Make sure the hood is completely closed and latched before driving. Failure to do so could cause the hood to fly open and result in an accident.**
- **If you see steam or smoke coming from the engine compartment, to avoid injury do not open the hood.**

TRUNK LID



OPENER OPERATION

⚠ WARNING

- **Do not drive with the trunk lid open. This could allow dangerous exhaust gases to be drawn into the vehicle. See "Exhaust gas" in the "Starting and driving" section of this manual.**

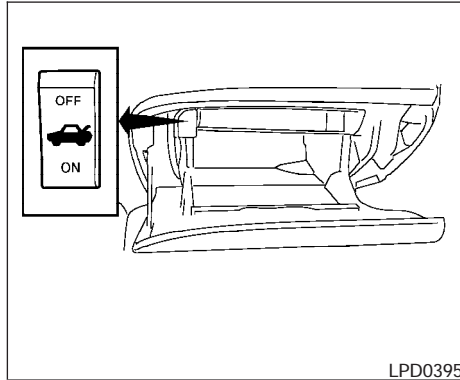
- **Closely supervise children when they are around cars to prevent them from playing and becoming locked in the trunk where they could be seriously injured. Keep the car locked, with the rear seatback and trunk lid securely latched when not in use, and prevent children's access to car keys.**

To open the trunk lid, push the opener lever down.

To close the trunk lid, lower and push the trunk lid down securely.

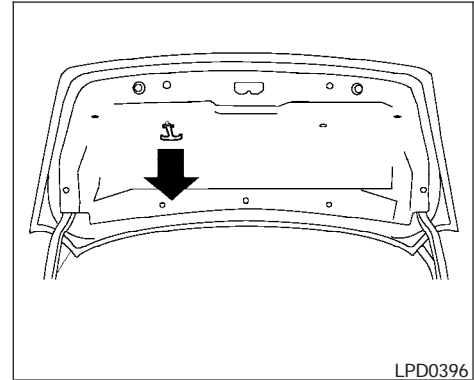
NOTE:

You can open the trunk lid with the Intelligent Key. Refer to "Intelligent Key system" earlier in this section.



Cancel switch (if so equipped)

When the cancel switch located inside the glove box is OFF, the trunk lid cannot be opened with the trunk lid release switch. It can be opened with the master key or keyfob.



INTERIOR TRUNK LID RELEASE

⚠ WARNING

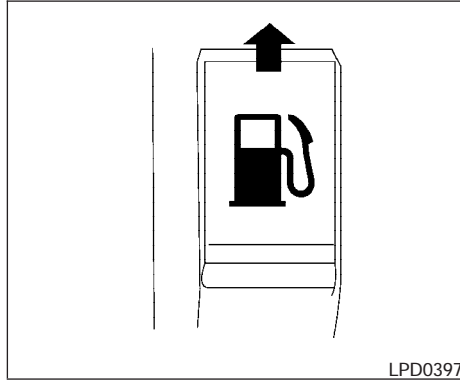
Closely supervise children when they are around cars to prevent them from playing and becoming locked in the trunk where they could be seriously injured. Keep the car locked, with the rear seatback and trunk lid securely latched when not in use, and prevent children's access to car keys.

The interior trunk lid release mechanism provides a means of escape for children and adults in the event they become locked inside the trunk.

FUEL-FILLER DOOR

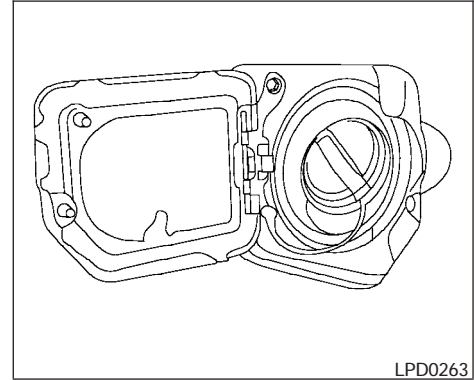
To open the trunk from the inside, pull the illuminated release handle until the lock releases and push up on the trunk lid. The release handle is made of a material that glows in the dark after a brief exposure to ambient light.

The handle is located inside the trunk compartment on the interior of the trunk lid.



OPENER OPERATION

The fuel-filler door release is located on the floor to the left of the driver's seat. To open the fuel-filler door, pull up the release. To lock, close the fuel-filler door securely.



FUEL-FILLER CAP

The fuel-filler cap is a ratcheting type. Turn the cap counterclockwise to remove. To tighten, turn the cap clockwise until ratcheting clicks are heard.

Put the fuel-filler cap on the cap holder ① while refueling.

⚠ 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 the engine and do not smoke or allow open flames or sparks near the vehicle when refueling.
- Fuel may be under pressure. Turn the cap a third of a turn, and wait for any “hissing” sound to stop to prevent fuel from spraying out and possibly causing personal injury. Then remove the cap.
- 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:

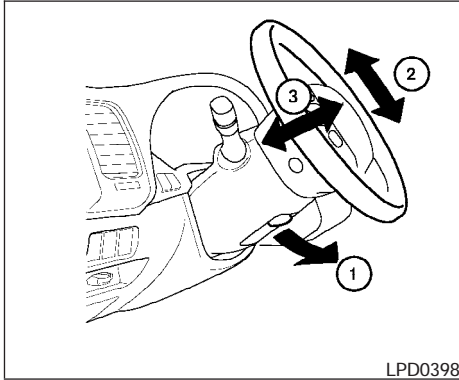
- Always place the container on the ground when filling.
- Do not use electronic devices when filling.
- Keep the pump nozzle in contact with the container while you are filling it.
- Use only approved portable fuel containers for flammable liquid.

⚠ CAUTION

- If fuel is spilled on the vehicle body, flush it away with water to avoid paint damage.

- Tighten until the fuel-filler cap clicks. Failure to tighten the fuel-filler cap properly may cause the SERVICE ENGINE SOON malfunction indicator light (MIL) to illuminate. If the 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 SERVICE ENGINE SOON light should turn off after a few driving trips. If the SERVICE ENGINE SOON light does not turn off after a few driving trips, have the vehicle inspected by a NISSAN dealer.
- For additional information, see the “Malfunction indicator light (MIL)” in the “Instruments and Controls” section earlier in this manual.

TILTING TELESCOPIC STEERING COLUMN



LPD0398

TILT OPERATION

Pull the lever ① all the way towards you and adjust the steering wheel up or down in direction ② to the desired position. Release the lever after the desired tilt position is achieved.

⚠ WARNING

Do not adjust the steering wheel while driving. You could lose control of your vehicle and cause an accident.

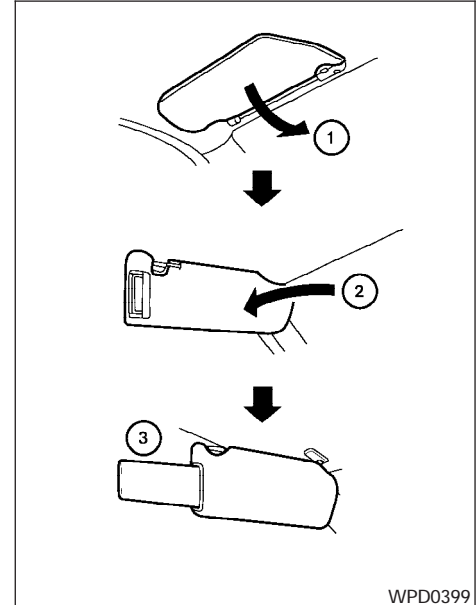
TELESCOPIC OPERATION

Pull the lever ① all the way towards you and adjust the steering wheel forward or backward in direction ③, to the desired position. Release the lever after the desired telescopic position is achieved.

⚠ WARNING

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.

SUN VISORS



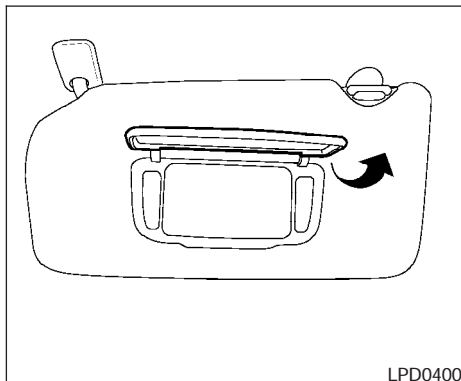
WPD0399

- ① To block glare from the front, swing down the main sun visor.
- ② To block glare from the side, remove the sun visor from the center mount and swing the sun visor to the side.

- ③ Slide the extension sun visor (if so equipped) in or out as needed.

CAUTION

Do not store the sun visor before returning the extension to its original position.

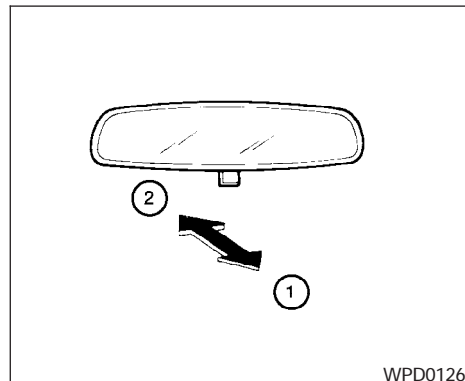


LPD0400

VANITY MIRRORS

To access the vanity mirror, pull the sun visor down and flip open the mirror cover. Some vanity mirrors are illuminated and turn on when the mirror cover is open.

MIRRORS



WPD0126

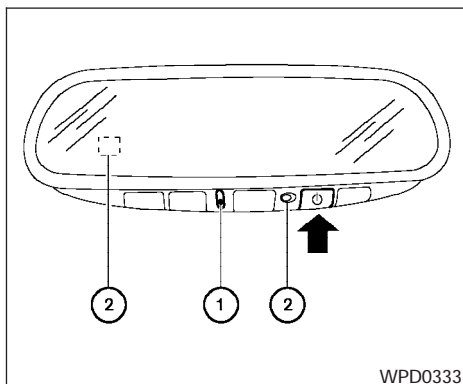
REARVIEW MIRROR (if so equipped)

The night position ① reduces glare from the headlights of vehicles behind you at night.

Use the day position ② when driving in daylight hours.

WARNING


Use the night position only when necessary, because it reduces rear view clarity.




AUTOMATIC ANTI-GLARE REARVIEW MIRROR (if so equipped)

The inside mirror is designed so that it automatically dims according to the intensity of the headlights of the vehicle following you. The automatic anti-glare feature operates only when the ignition switch is in the ON position.

The indicator light ① will illuminate when the automatic anti-glare feature is operating.

To turn off the automatic anti-glare feature, press the  button. The indicator light will turn off.

To turn on the automatic anti-glare feature, press the  button again. The indicator light will turn on.

For information on HomeLink® Universal Transceiver operation, see “HomeLink® Universal Transceiver” in the “Instrument and controls” section of this manual.

For information on the compass and outside temperature display, see “Compass and outside temperature display” in the “Instrument and controls” section of this manual.

NOTE:

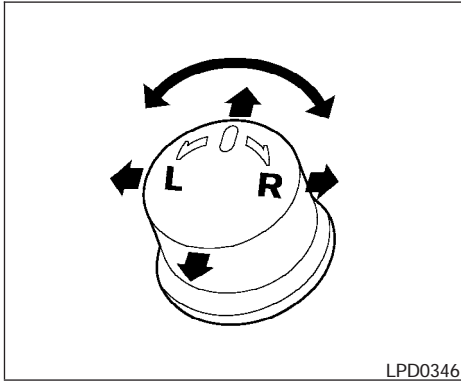
Do not hang any objects over the sensors ② or apply glass cleaner to the sensors. Doing so will reduce the sensitivity of the sensors, resulting in improper operation.

OUTSIDE MIRRORS

WARNING

- **Objects viewed in the outside mirror on the passenger side are closer than they appear. Be careful when moving to the right. Using only this mirror could cause an accident. Use the inside mirror or glance over your shoulder to properly judge distances to other objects.**

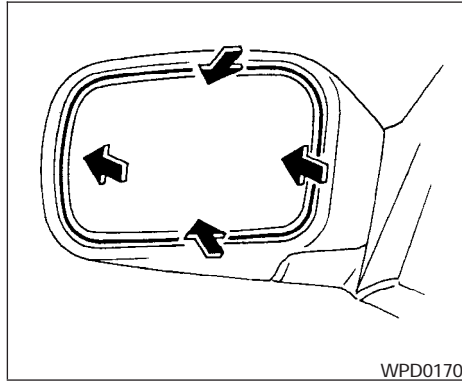
- **Do not adjust the mirrors while driving. You could lose control of your vehicle and cause an accident.**



Electric control type (if so equipped)

The outside mirror remote control only operates when the ignition switch is in the ACC or ON position.

Rotate the control lever to select the right or left mirror. Adjust the mirror to the desired position by moving the control lever.

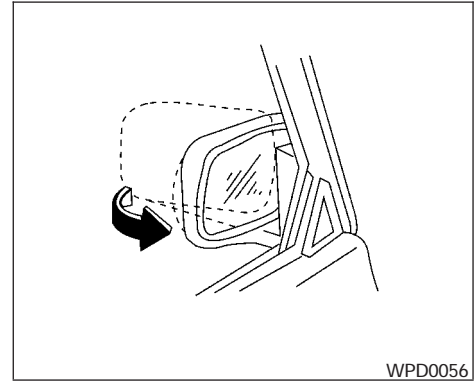


Manual control type (if so equipped)

The outside mirror can be moved in any direction for a better rear view.

Heated mirrors (if so equipped)

Some outside mirrors can be heated to defrost, defog, or de-ice for improved visibility. For additional information, see "Rear window and outside mirror (if so equipped) defroster switch" in the "Instrument and controls" section of this manual.



Manual folding outside mirrors (if so equipped)

Push the mirrors backward to fold them.

MEMO

4 Monitor, climate, audio, phone and voice recognition systems

| | | | |
|--|------|--|------|
| Control panel buttons (if so equipped) | 4-2 | FM radio reception | 4-21 |
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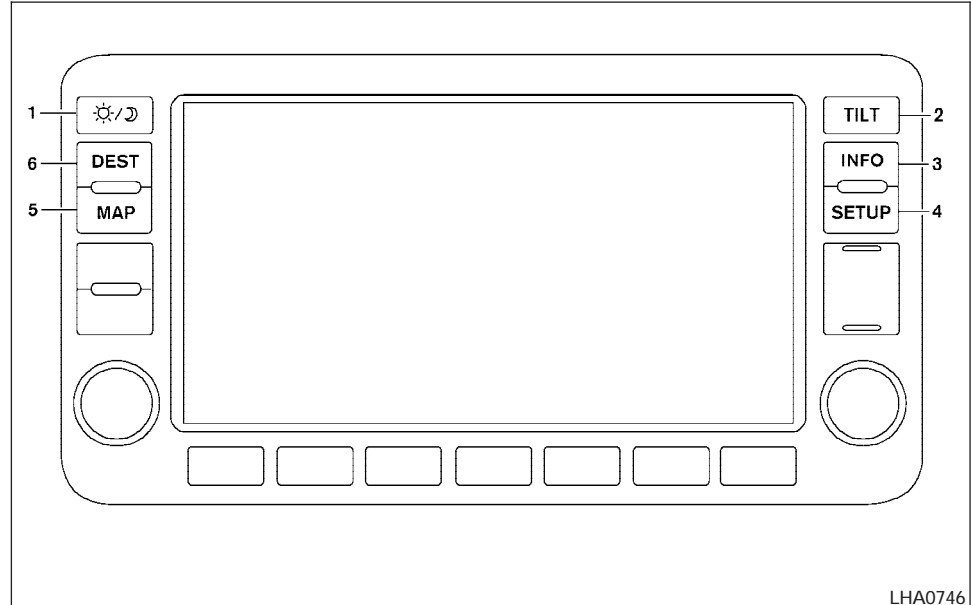
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


CONTROL PANEL BUTTONS (if so equipped)

WARNING

- Do not disassemble or modify this system. If you do, it may result in accidents, fire, or electrical shock.
- Do not use this system if you notice any abnormality, such as a frozen screen or lack of sound. Continued use of the system may result in accident, fire or electric shock.
- In case you notice any foreign object in the system hardware, spill liquid on it, or notice smoke or smell coming from it, stop using the system immediately and contact your nearest NISSAN dealer. Ignoring such conditions may lead to accidents, fire or electrical shock.



1.  brightness control button (P. 4-6)
2. TILT button*
3. INFO button*
4. SETUP button (P. 4-3)
5. MAP button*

6. DEST button*

*For Navigation system control buttons, refer to the separate Navigation System Owner's Manual.

When you use this system, make sure the engine is running.

If you use the system with the engine not running (ignition ON or ACC) for a long time, it will use up all the battery power, and the engine will not start.

Reference symbols:

SETUP button — This is a button on the control panel.

“Display” key — This is a select key on the touch-screen. By touching this key you can proceed to the next function.

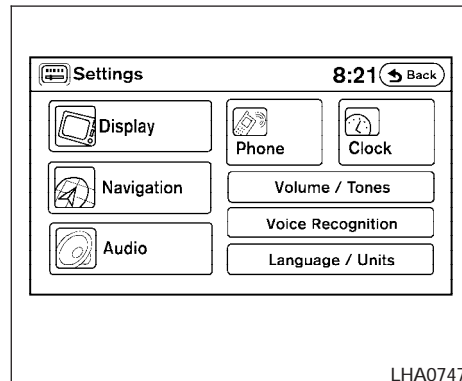
SETTING UP THE START-UP SCREEN

With the ignition to ACC or ON, the SYSTEM START-UP warning is displayed on the screen. Read the warning and touch the “I agree” key (English) or the “Enter” (Français) key.

If you do not touch the “I agree” key, the Navigation system will not proceed to the next step display.

If you do not press a button or touch a screen key for more than 1 minute on the START-UP screen, the screen will change to the audio screen automatically.

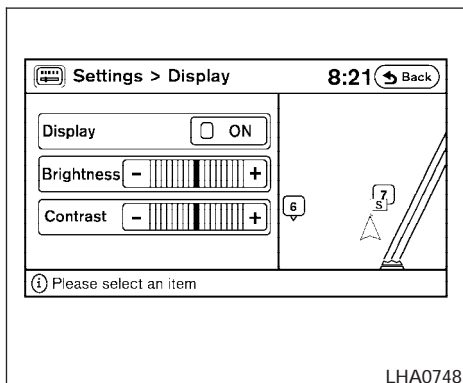
To proceed to the next step, refer to the separate Navigation System Owner’s Manual.



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HOW TO USE THE SETUP BUTTON

When the SETUP button is pressed, the settings screen will appear on the display. You can select and/or adjust several functions, features and modes that are available for your vehicle. Touch one of the setting item keys to select each item to be set.



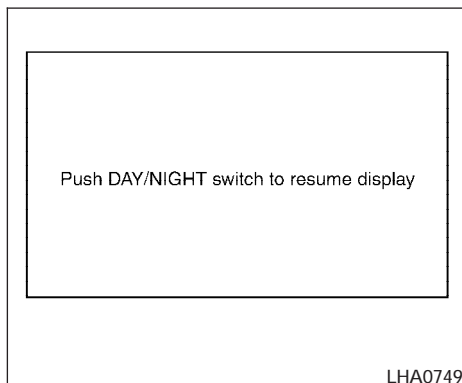
Display settings

Touch the “Display” key. The display screen will appear.

Display/brightness/contrast:

Touch the “-” key or the “+” key to adjust the brightness and contrast of the screen.

The new settings are automatically saved when you exit the setting screen by touching the “Back” key or pressing any other mode button.




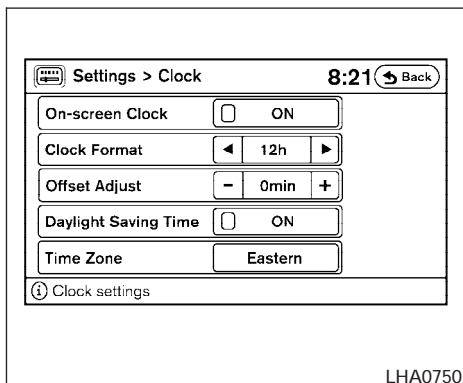
Display off:

Touch the Display “ON” key. The indicator of the display turns off; touch the “Back” key to accept the change. The message above will be displayed briefly. When the audio, or any mode button on the control panel is operated, the display turns on for that operation. If one of the control panel buttons is pressed, the display will automatically turn off after 5 seconds.

To turn the screen on,

- Press the SETUP button and then touch the display “ON” key, or

- Press the  button. The message “Resuming display” will appear and the Display “ON” key will be automatically turned on, the amber indicator will illuminate.



Clock

Adjusting the time:

The following display will appear when pressing the SETUP button, then touching the "Clock" key.

On-screen Clock:

When this item is turned on, a clock is always displayed in the upper right corner of the screen. This clock will indicate the time almost exactly because it is always adjusted by the GPS system. To turn off the clock in the upper right corner of the screen touch the On-screen Clock "ON" key, touch it again to display the clock.

Clock Format:

Touch the ◀ key or the ▶ key to choose either the 12-hour clock display or the 24-hour clock display.

Offset Adjust:

Touch the "–" key or the "+" key to adjust the time by increasing or decreasing per minute.

Daylight Saving Time:

When this item is turned on, the daylight saving time, application is enabled. To turn off daylight saving time, touch the Daylight Saving Time "ON" key; touch it again to enable daylight saving.

Time Zone:

Touch the "Time Zone" key, the Time Zone screen will appear.

Select one of the following zones, depending on the current location. Touch the "ON" key for the particular time zone.

- Pacific zone
- Mountain zone
- Central zone
- Eastern zone
- Atlantic zone
- Newfoundland zone

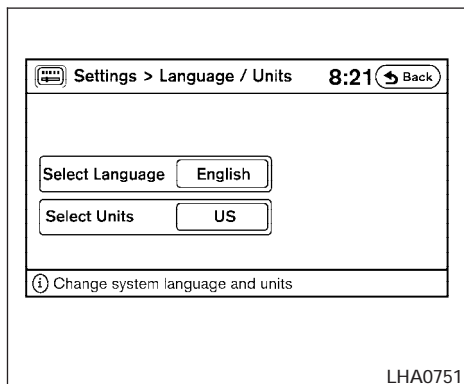
After selection, touch the "Back" key the Clock screen will appear.

Pacific zone has been set as the initial (default) setting.

Beep setting

Touch the "Volumes/Tones" key. Scroll to the bottom of the list by touching the ⌵ key. Touch the Button Beeps "ON" key to turn on or turn off the beep sound. To accept the changes touch the "Back" key.

With this option on, a beep will sound if any button is pressed or any key is touched. The amber indicator will be illuminated.



Language/units

The following display will appear when pressing the **SETUP** button, then touching the “Language/Units” key.

Select Language:

Touch the “Select Language” key. From the following display, select the English “ON” key or the Français “ON” key for your language preference.

Select Units:

Touch the “Select Units” key. From the following display, select the US “ON” key or the Metric “ON” key for your units preference.

Unit: US — mile, °F, MPG
Metric: — km, °C, L/100 km

The settings are automatically saved when you exit the menu by touching the “Back” key.

Phone settings

For information on the phone settings, see “Bluetooth® Hands-Free Phone System with Navigation (if so equipped)” later in this section.

Voice recognition settings

For information on the voice recognition settings, see “Voice Recognition System (if so equipped)” later in this section.






Audio settings

For information on the audio settings, see “Audio System” later in this section.

Navigation settings

Refer to the separate Navigation System Owner’s Manual for information regarding these settings.

BUTTON

To change the display brightness, press the  button. Pressing the button again will change the display to the day  or the night  display. Then, adjust the brightness by touching the  key or the  key.

If no operation is done within 10 seconds, the display will return to the previous display.

REARVIEW MONITOR (if so equipped)

When the selector lever is shifted into the R (Reverse) position, the monitor display shows view directly to the rear of the vehicle.

⚠ WARNING

- 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.
- The rearview camera is a convenience but it is not a substitute for proper backing. Always turn and check that it is safe to do so before backing up. Always back up slowly.
- Objects viewed in the rearview monitor differ from actual distance because a wide-angle lens is used.
- Make sure that the trunk is securely closed when backing up.
- Do not put anything on the rearview camera. The rearview camera is installed beside the license plate light.

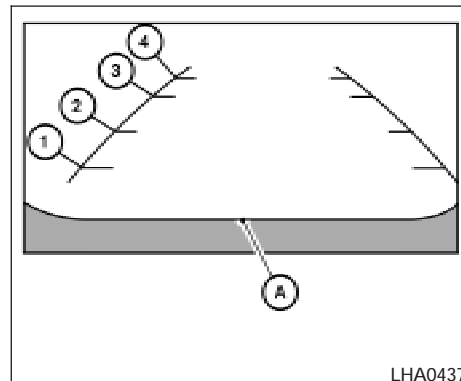
- When washing the vehicle with high-pressure water, be sure not to spray it around the camera. Otherwise, water may enter the camera unit causing water condensation on the lens, a malfunction, fire or an electric shock.
- Do not strike the camera. It is a precision instrument. Otherwise, it may malfunction or cause damage resulting in a fire or an electric shock.

⚠ CAUTION

There is a plastic cover over the camera. Do not scratch the cover when cleaning dirt or snow from the cover.

HOW TO READ THE DISPLAYED LINES

Lines which indicate the vehicle clearance and distances to objects with reference to the bumper line **(A)** are displayed on the monitor.



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They are indicated as reference distances to objects. The lines and colors in the display indicate distances from the back bumper line **(A)** in the illustration.

- ① 1.5 feet (0.5 m) red
- ② 3 feet (1 m) yellow
- ③ 7 feet (2 m) green
- ④ 10 feet (3 m) green

The vehicle clearance lines are wider than the actual clearance.

ADJUSTING THE SCREEN

To adjust the quality of the screen, press the SETUP button.

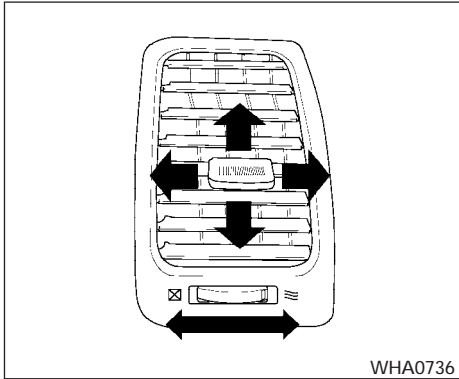
- To adjust the Brightness, Tint, Contrast, Display ON/OFF and Color of the rearview monitor, press the SETUP button with the rearview monitor on, then touch the “-” or “+” key on the item and adjust the level.
- Do not adjust the Brightness, Contrast, Tint and Color of the rearview monitor while the vehicle is moving.

OPERATING TIPS

- When the selector lever is shifted to R (Reverse), the monitor screen automatically changes to the rearview monitor mode. However, the radio can be heard.
- It may take some time until the rearview monitor is displayed after the selector lever has been shifted to R (Reverse). Objects may be distorted momentarily until the rearview monitor screen is displayed completely. When the selector lever is returned to a position other than R (Reverse), it may take some time until the screen changes. Objects on the screen may be distorted until they are completely displayed.



- When the temperature is extremely high or low, the screen may not clearly display objects. This is not a malfunction.
- When strong light directly enters the camera, objects may not be displayed clearly.
- 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 rearview monitor may differ somewhat from those of the actual object.
- When the contrast of objects is low at night, pressing the SETUP button may not change the brightness.
- Objects on the monitor may not be clear in a dark place or at night.
- If dirt, rain or snow attaches to the camera, the rearview monitor may not display objects. 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 a 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 body wax on the camera window. Wipe off the wax with a clean cloth dampened with mild detergent diluted with water.

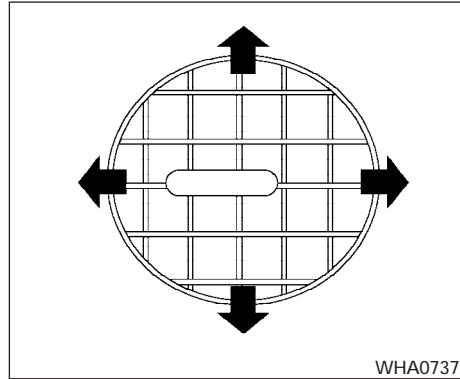
VENTILATORS



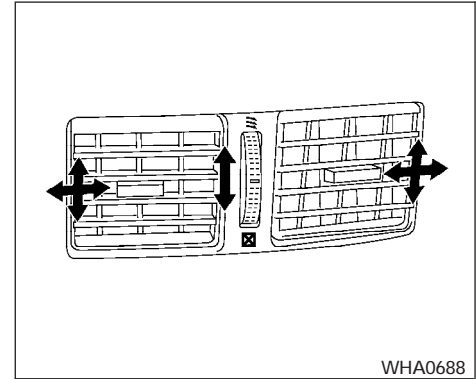
Right and Left

Adjust air flow direction by moving the ventilator slides.

Open or close the ventilators by using the dial. Move the dial toward the  to open the ventilators or toward the  to close them.



Center

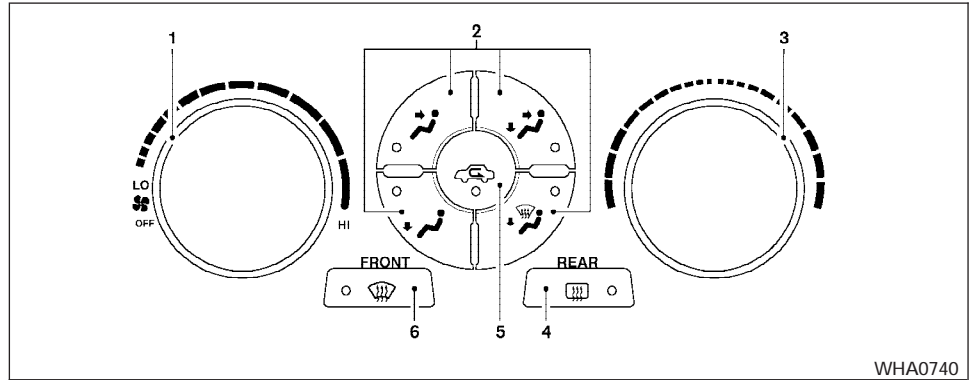


Rear (if so equipped)

HEATER AND AIR CONDITIONER (manual)

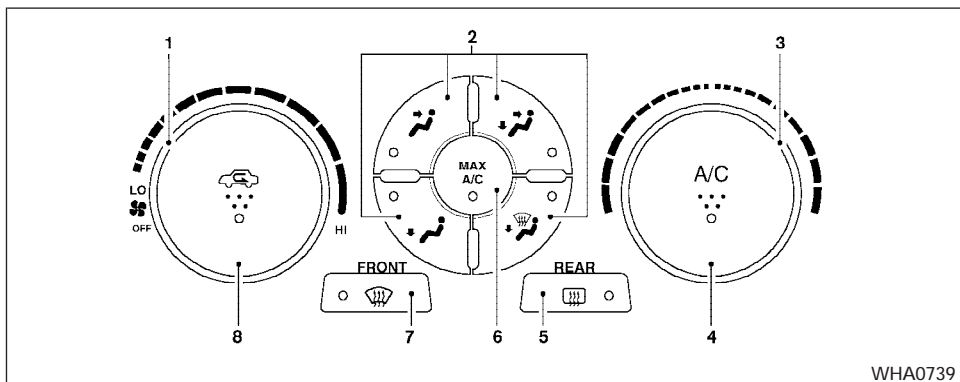
⚠ WARNING

- The air conditioner cooling function operates only when the engine is running.
- Do not leave children or adults who would normally require the assistance of others alone in your vehicle. Pets should also not be left alone. 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.
- 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.



Type A

1. Fan speed control/system OFF dial
2. Air flow control buttons
3. Temperature control dial
4. Rear window defroster
5. Air recirculation button
6. Front window defrost button



1. Fan speed control/system OFF dial
2. Air flow control buttons
3. Temperature control dial
4. Air conditioner button (if so equipped)
5. Rear window defroster
6. MAX A/C button
7. Front window defrost button
8. Air recirculation button

CONTROLS

Fan control dial

The fan control dial turns the fan on and off, and controls fan speed.

Air flow control buttons

The air flow control buttons allow you to select the air flow outlets.

MAX A/C — Air flows from center and side vents with maximum cooling (air conditioning if so equipped).

- Air flows from center and side ventilators.
- Air flows from center and side ventilators and foot outlets.
- Air flows mainly from foot outlets.
- Air flows from defroster outlets and foot outlets.
- Air flows mainly from defroster outlets.

Temperature control dial

The temperature control dial allows you to adjust the temperature of the outlet air. To lower the temperature, turn the dial to the left. To increase the temperature, turn the dial to the right.



Air recirculation button

NOTE:

The air recirculation feature is available only on those vehicles equipped with air conditioning.

On position (Indicator light on):

Interior air is recirculated inside the vehicle.

Press the button to the on position when:


- driving on a dusty road.
- to prevent traffic fumes from entering passenger compartment.

- for maximum cooling when using the air conditioner.



Off position (Indicator light off):

Outside air is drawn into the passenger compartment and distributed through the selected outlet.

Use the off position for normal heater or air conditioner operation.

 Air conditioner button (if so equipped)

The button is provided only on vehicles equipped with an air conditioner.

Start the engine, turn the fan control dial to the desired position and push the  button to turn on the air conditioner. The indicator light comes on when the air conditioner is operating. To turn off the air conditioner, push the  button again.

The air conditioner cooling function operates only when the engine is running.



Rear window defroster switch

For more information about the rear window defroster switch, see “Rear window and outside mirror (if so equipped) defroster switch” in the “Instruments and controls” section of this manual.

HEATER OPERATION



Heating

This mode is used to direct heated air to the foot outlets. Some air also flows from the defrost outlets.

1. Press the  button to the OFF position for normal heating.
2. Press the  air flow control button.
3. Turn the fan control dial to the desired position.
4. Turn the temperature control dial to the desired position between the middle and the hot position.





Ventilation

This mode directs outside air to the side and center ventilators.

1. Press the  button to the OFF position.
2. Press the  air flow control button.
3. Turn the fan control dial to the desired position.
4. Turn the temperature control dial to the desired position.



Defrosting or defogging

This mode directs the air to the defrost outlets to defrost/defog the windows.

1. Press the defrost/defog button .
 2. Turn the fan control dial to the desired position.
 3. Turn the temperature control dial to the desired position between the middle and the hot position.
- To quickly remove ice or fog from the windows, turn the fan control dial to the highest setting and the temperature control to the full HOT position.
 - When the  position is selected, the air conditioner automatically turns on if the outside temperature is more than 36°F (2°C). The air conditioning system will continue to operate until the fan control dial is turned to OFF or the vehicle is shut off, even if an air flow control button other than  is selected. This dehumidifies the air which helps defog the windshield. The  mode automatically turns off, allowing outside air to be drawn into the passenger compartment to further improve the defogging performance.



Bi-level heating



The bi-level mode directs warmed air to the side and center vents and to the front and rear floor outlets.

1. Press the  button to the OFF position.
2. Press the  air flow control button.
3. Turn the fan control dial to the desired position.
4. Turn the temperature control dial to the desired position.

Heating and defogging

This mode heats the interior and defogs the windshield.


1. Press the  air flow control button.
 2. Turn the fan control dial to the desired position.
 3. Turn the temperature control dial to the desired position between the middle and the hot position.
- When the  position is selected, the air conditioner automatically turns on if the outside temperature is more than 36°F (2°C). The air conditioning system will continue to operate until the fan control dial is turned to OFF or the vehicle is shut off, even if an air

flow control button other than  is selected. This dehumidifies the air which helps defog the windshield. The  mode automatically turns off, allowing outside air to be drawn into the passenger compartment to further improve the defogging performance.

Operating tips

Clear snow and ice from the wiper blades and air inlet in front of the windshield. This improves heater operation.



AIR CONDITIONER OPERATION (if so equipped)




Start the engine, turn the fan control dial to the desired position, and push in the  button to activate the air conditioner. When the air conditioner is on, cooling and dehumidifying functions are added to the heater operation.

The air conditioner cooling function operates only when the engine is running.

Cooling




This mode is used to cool and dehumidify the air.

1. Press the  button to the OFF position.
2. Press MAX A/C or  air flow control button.

3. Turn the fan control dial to the desired position.
 4. Push the  button. the indicator light comes on.
 5. Turn the temperature control dial to the desired position.
- For quick cooling when the outside temperature is high, push the  button to the ON position. Be sure to return the  to the OFF position for normal cooling. MAX A/C may be used for quick cooling.



Dehumidified heating





This mode is used to heat and dehumidify the air.

1. Press the  button to the OFF position.
2. Press the  air flow control button.
3. Turn the fan control dial to the desired position.
4. Push the  button. The indicator light comes on.
5. Turn the temperature control dial to the desired position.

Dehumidified defogging

This mode is used to defog the windows and dehumidify the air.

1. Press the  air flow control button.
2. Turn the fan control dial to the desired position.
3. Press the  button. The indicator light comes on.

When the  or  are selected, the air conditioner automatically turns on (however, the indicator light will not illuminate) if the outside temperature is more than 36°F (2°C). The air conditioning system will continue to operate until the fan control is turned to OFF or the vehicle is shut off, even if an air flow control button other than  is selected. This dehumidifies the air which helps defog the windshield. The  mode automatically turns off, allowing outside air to be drawn into the passenger compartment to further improve the defogging performance.

4. Turn the temperature control dial to the desired position.

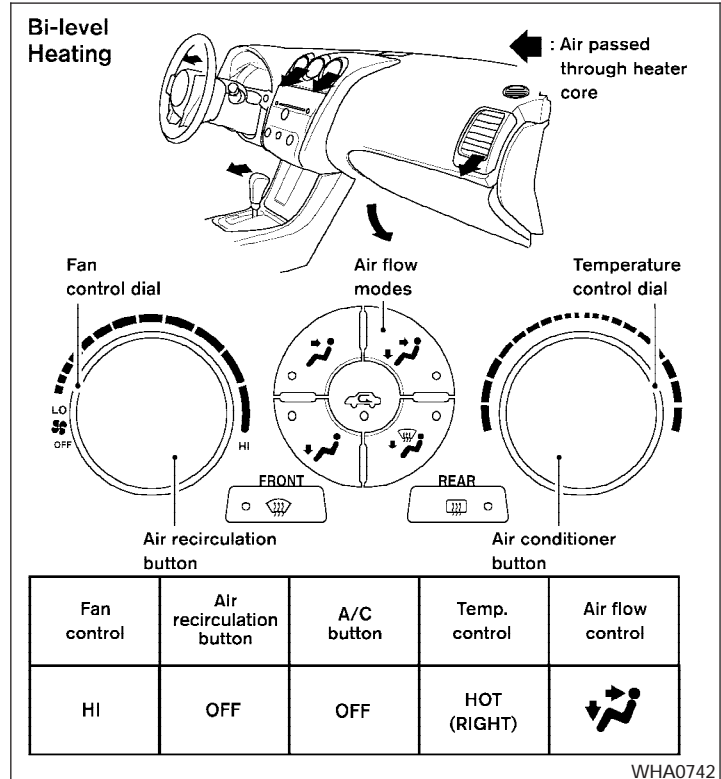
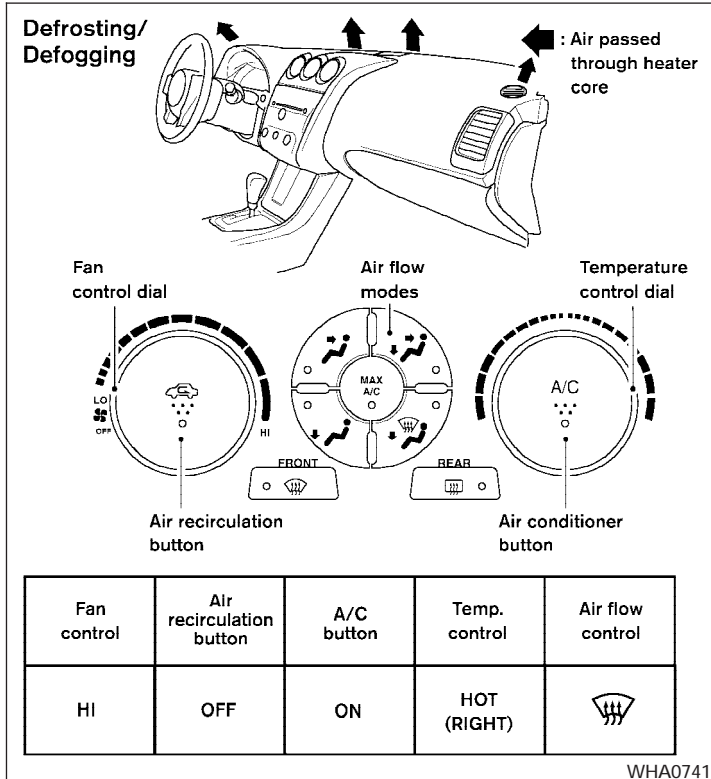
Operating tips

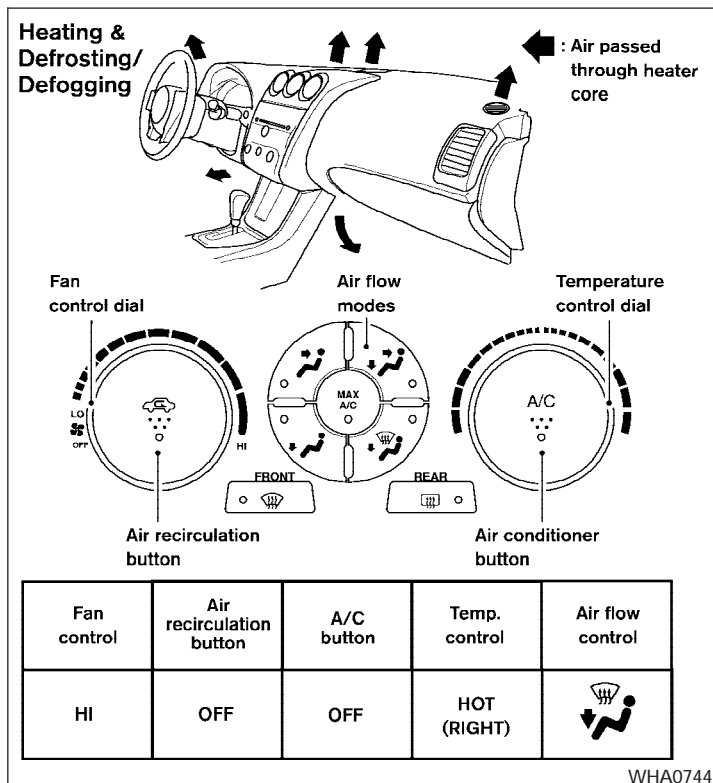
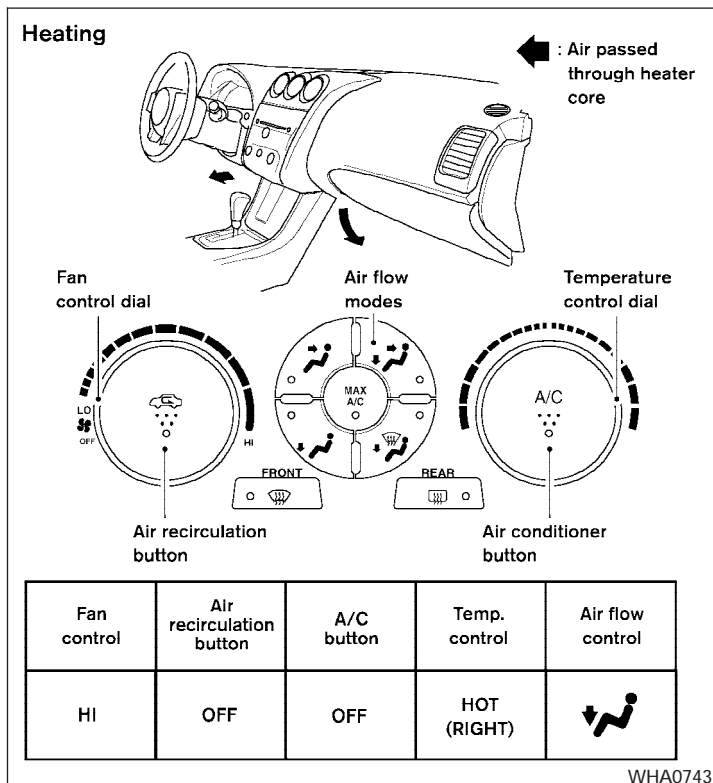
- Keep the windows and sunroof closed while the air conditioner is in operation.
- After parking in the sun, drive for 2 or 3 minutes with the windows open to vent hot air from the passenger compartment. Then, close the windows. This allows the air conditioner to cool the interior more quickly.

- **The air conditioning system should be operated for approximately 10 minutes at least once a month. This helps prevent damage to the system due to lack of lubrication.**
- A visible mist may be seen coming from the ventilators in hot, humid conditions as the air is cooled rapidly. This does not indicate a malfunction.
- **If the engine coolant temperature gauge indicates engine coolant temperature over the normal range, turn the air conditioner off. See “If your vehicle overheats” in the “In case of emergency” section of this manual.**

AIR FLOW CHARTS

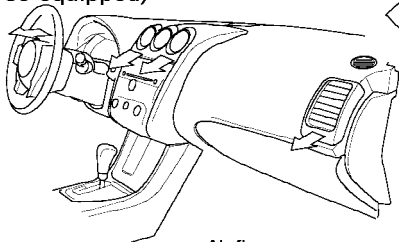
The following charts show the button and dial positions for **MAXIMUM AND QUICK** heating, cooling or defrosting. **The air recirculation button should always be in the OFF position for heating and defrosting.**



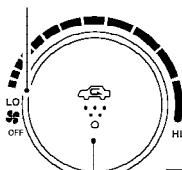


Cooling (if so equipped)

← : Air not passed through heater core



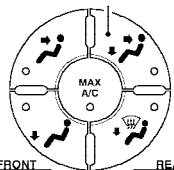
Fan control dial



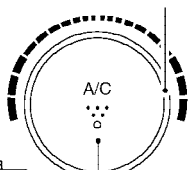
Air recirculation button



Air flow modes



Temperature control dial



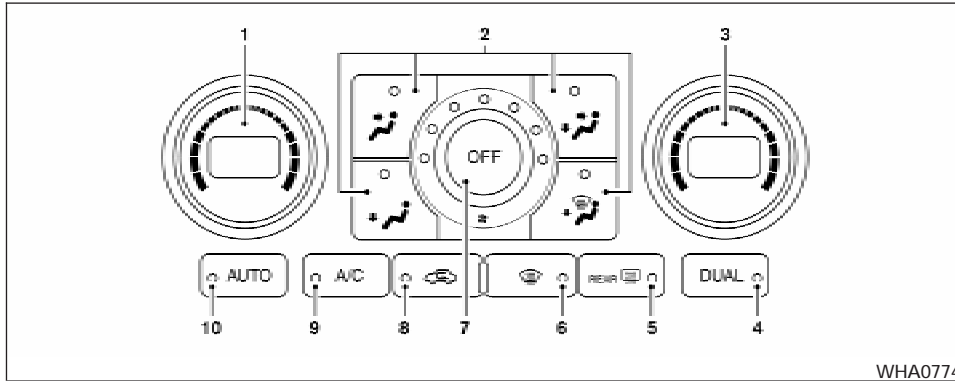
Air conditioner button



| Fan control | Air recirculation button | A/C button | Temp. control | Air flow control |
|-------------|--------------------------|------------|---------------|------------------|
| HI | ON | ON | COLD (LEFT) | MAX A/C |

WHA0745

HEATER AND AIR CONDITIONER (automatic) (if so equipped)



WHA0774

1. Driver temperature control dial
2. Air flow control buttons
3. Passenger temperature control dial
4. DUAL button
5. Rear defrost button
6. Front window defrost button
7. Fan speed dial/system OFF button
8. Air recirculation button
9. A/C ON/OFF button
10. AUTO button

● **Do not leave children or adults who would normally require the assistance of others alone in your vehicle. Pets should also not be left alone. 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.**

⚠ WARNING

- **The air conditioner cooling function operates only when the engine is running.**

- **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.**

Start the engine and operate the controls to activate the air conditioner.

AUTOMATIC OPERATION




Cooling or heating (auto)

This mode may be normally 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.
 2. Turn the driver's side temperature control dial to the left or right to set the desired temperature. Driver and passenger temperatures can be set independently. Press DUAL or turn the passenger temperature control dial to the left or right to activate dual climate control functions. Turn the passenger's side temperature control dial to the left or right to set the desired passenger's temperature.
- Adjust the temperature dial to about 75°F (24°C) for normal operation.

- The temperature of the passenger compartment will be maintained automatically. Air flow distribution, fan speed and A/C on/off are also controlled automatically.
- A visible mist may be seen coming from the ventilators in hot, humid conditions as the air is cooled rapidly. This does not indicate a malfunction.


Dehumidified defrosting or defogging


1. Push the defroster control button  to turn the system on. The indicator light in the button will illuminate.
 2. Turn the temperature dial to the left or right to set the desired temperature.
- To quickly remove ice from the outside of the windows, turn the manual fan control to HI.
 - As soon as possible after the windshield is clean, push the AUTO button to return to the auto mode.
 - When the  control is activated, the air conditioner will automatically be turned on at outside temperatures above 36°F (2°C). If in defrost mode for more than one minute, the air conditioning system will continue to operate until the fan control is turned OFF or the vehicle is shut off, even if an air flow button other than  is selected. This

dehumidifies the air which helps defog the windshield. The air recirculation mode automatically turns off, allowing outside air to be drawn into the passenger compartment to further improve the defogging performance.

MANUAL OPERATION


Fan speed control


Turn the fan control dial  left or right to manually control the fan speed.

Press the  /OFF button to turn the system off.

Push the AUTO button to return to automatic control of the fan speed.


Air recirculation





Push the air recirculation button  to recirculate interior air inside the vehicle. The indicator light on the switch will come on.

The air recirculation button will not be activated when the air conditioner is in DEF or  mode.

Air flow control

Push the air flow control buttons to manually control air flow and select the air outlet:

-  — Air flows from center and side ventilators.

-  — Air flows from center and side ventilators and foot outlets.
-  — Air flows mainly from foot outlets.
-  — Air flows from defroster and foot outlets.
-  — Air flows from defroster outlets.

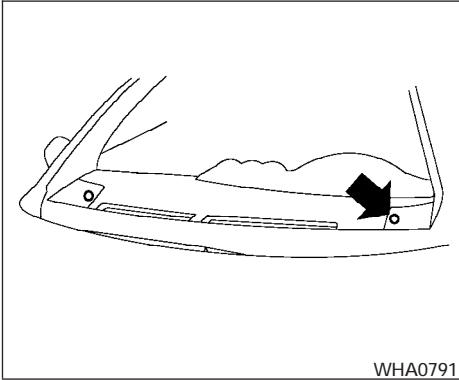
To turn system off

Press the  /OFF button.

OPERATING TIPS

- When the engine coolant temperature and outside air temperature are low, the air flow from the foot outlets may not operate for a maximum of 150 seconds. However, this is not a malfunction. After the coolant temperature warms up, air flow from the foot outlets will operate normally.

SERVICING AIR CONDITIONER



The sunload sensor, located on the top of the instrument panel on the driver's side, helps the system maintain a constant temperature. Do not put anything on or around this sensor.

The air conditioner system in your NISSAN vehicle is charged with a refrigerant designed with the environment in mind.

This refrigerant does not harm the earth's ozone layer.

Special charging equipment and lubricant is required when servicing your NISSAN air conditioner. Using improper refrigerants or lubricants will cause severe damage to your air conditioner system. See "Air conditioner system refrigerant and lubricant recommendations" in the "Technical and consumer information" section of this manual.

A NISSAN dealer is able to service your "environmentally friendly" air conditioning system.

! WARNING

The air conditioner system contains refrigerant under high pressure. To avoid personal injury, any air conditioner service should be done only by an experienced technician with proper equipment.

AUDIO SYSTEM

RADIO

With the ignition to ACC or ON position, press the PWR (power)/VOL (volume) knob to turn the radio on. If you listen to the radio with the engine not running, the switch should be turned to the ACC position.

Radio reception is affected by station signal strength, distance from radio transmitter, buildings, bridges, mountains and other external influences. Intermittent changes in reception quality normally are caused by these external influences.

Using a cellular phone in or near the vehicle may influence radio reception quality.

Radio reception

Your NISSAN radio system is equipped with state-of-the-art electronic circuits to enhance radio reception. These circuits are designed to extend reception range, and to enhance the quality of that reception.

However there are some general characteristics of both FM and AM radio signals that can affect radio reception quality in a moving vehicle, even when the finest equipment is used. These characteristics are completely normal in a given reception area, and do not indicate any malfunction in your NISSAN radio system.

Reception conditions will constantly change because of vehicle movement. Buildings, terrain, signal distance and interference from other vehicles can work against ideal reception. Described below are some of the factors that can affect your radio reception.

FM RADIO RECEPTION

Range: FM range is normally limited to 25 – 30 miles (40 – 48 km), with monaural (single channel) FM having slightly more range than stereo FM. External influences may sometimes interfere with FM station reception even if the FM station is within 25 miles (40 km). The strength of the FM signal is directly related to the distance between the transmitter and receiver. FM signals follow a line-of-sight path, exhibiting many of the same characteristics as light. For example, they will reflect off objects.

Fade and drift: As your vehicle moves away from a station transmitter, the signals will tend to fade and/or drift.

Static and flutter: During signal interference from buildings, large hills or due to antenna position (usually in conjunction with increased distance from the station transmitter) static or flutter can be heard. This can be reduced by adjusting the treble control to reduce treble response.

Multipath reception: Because of the reflective characteristics of FM signals, direct and reflected signals reach the receiver at the same time. The signals may cancel each other, resulting in momentary flutter or loss of sound.

AM RADIO RECEPTION

AM signals, because of their low frequency, can bend around objects and skip along the ground. In addition, the signals can be bounced off the ionosphere and bent back to earth. Because of these characteristics, AM signals are also subject to interference as they travel from transmitter to receiver.

Fading: Occurs while the vehicle is passing through freeway underpasses or in areas with many tall buildings. It can also occur for several seconds during ionospheric turbulence even in areas where no obstacles exist.

Static: Caused by thunderstorms, electrical power lines, electric signs and even traffic lights.

SATELLITE RADIO RECEPTION (if so equipped)

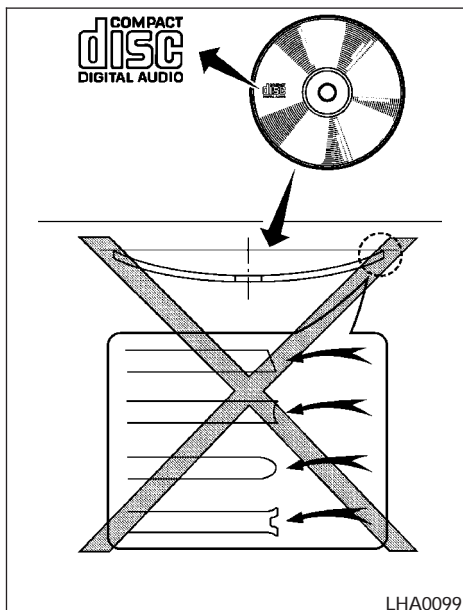
When the satellite radio is first installed or the battery has been replaced, the satellite radio may not work properly. This is not a malfunction. Wait more than 10 minutes with satellite radio ON and

the vehicle outside of any metal or large building for satellite radio to receive all of the necessary data.

No satellite radio reception is available and “NO SAT” is displayed when the SAT band option is selected unless optional satellite receiver and antenna are installed and an XM® or SIRIUS™ satellite radio service subscription is active. Satellite radio is not available in Alaska, Hawaii and Guam.

Satellite radio performance may be affected if cargo carried on the roof blocks the satellite radio signal.

If possible, do not put cargo over the satellite antenna.



AUDIO OPERATION PRECAUTIONS

Compact disc (CD) player

⚠ CAUTION

- Do not force a compact disc into the CD insert slot. This could damage the CD and/or CD changer/player.
 - Trying to load a CD with the CD door closed could damage the CD and/or CD changer.
 - Only one CD can be loaded into the CD player at a time.
 - Only use high quality 4.7 inches (12 cm) round discs that have the “COMPACT disc DIGITAL AUDIO” logo on the disc or packaging.
 - During cold weather or rainy days, the player may malfunction due to the humidity. If this occurs, remove the CD and dehumidify or ventilate the player completely.
 - The player may skip while driving on rough roads.
 - The CD player sometimes cannot function when the compartment temperature is extremely high or low. Decrease/increase the temperature before use.
- Do not expose the CD to direct sunlight.
 - CDs that are in poor condition or are dirty, scratched or covered with fingerprints may not work properly.
 - The following CDs may not work properly:
 - Copy control compact discs (CCCD)
 - Recordable compact discs (CD-R)
 - Rewritable compact discs (CD-RW)
 - Do not use the following CDs as they may cause the CD player to malfunction:
 - 3.1 in (8 cm) discs with an adapter
 - CDs that are not round
 - CDs with a paper label
 - CDs that are warped, scratched, or have abnormal edges
 - This audio system can only play pre-recorded CDs. It has no capability to record or burn CDs.
 - If the CD cannot be played, one of the following messages will be displayed.

1. MP3 or WMA file not supported → “UNPLAYABLE TRACK” → Go to next track
2. CD ROM → “No Audio Track” → Eject disc and go to the last mode (CD player only) / Go to next disc (CD changer only)
3. TEMP/MECH ERROR → “PRESS EJECT”
4. READ/FOCUS ERROR → “CHECK DISC”

CHECK DISC:

- **Confirm that the CD is inserted correctly (the label side is facing up, etc.).**
- **Confirm that the CD is not bent or warped and it is free of scratches.**

PRESS EJECT:

This is an error due to excessive temperature inside the player. Remove the CD by pressing the EJECT button. After a short time, reinsert the CD. The CD can be played when the temperature of the player returns to normal.

UNPLAYABLE:

The file is unplayable in this audio system (only MP3 or WMA CD).

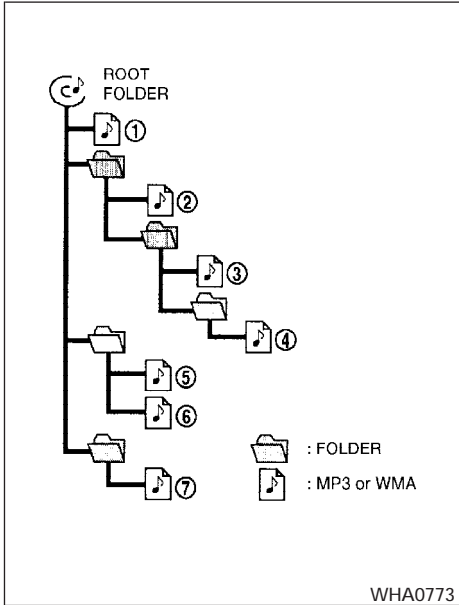
Compact Disc with MP3 or WMA

Terms:

- **MP3** — MP3 is short for Moving Pictures Experts Group Audio Layer 3. MP3 is the most well-known compressed digital audio file format. This format allows for near “CD quality” sound, but at a fraction of the size of normal audio files. MP3 conversion of an audio track from CD-ROM can reduce the file size by approximately a 10:1 ratio with virtually no perceptible loss in quality. MP3 compression removes the redundant and irrelevant parts of a sound signal that the human ear doesn’t hear.
- **WMA** — Windows Media Audio (WMA)* is a compressed audio format created by Microsoft as an alternative to MP3. The WMA codec offers greater file compression than the MP3 codec, enabling storage of more digital audio tracks in the same amount of space when compared to MP3s at the same level of quality.
- **Bit rate** — Bit rate denotes the number of bits per second used by a digital music file. The size and quality of a compressed digital audio file is determined by the bit rate used when encoding the file.

- **Sampling frequency** — Sampling frequency is the rate at which the samples of a signal are converted from analog to digital (A/D conversion) per second.
- **Multisession** — Multisession is one of the methods for writing data to media. Writing data once to the media is called a single session, and writing more than once is called a multisession.
- **ID3/WMA Tag** — The ID3/WMA tag is the part of the encoded MP3 or WMA file that contains information about the digital music file such as song title, artist, encoding bit rate, track time duration, etc. ID3 tag information is displayed on the Artist/song title line on the display.

* Windows® and Windows Media® are registered trademarks and trademarks in the United States of America and other countries of Microsoft Corporation of the USA.



Playback order chart

Playback order:

Music playback order of a CD with MP3 or WMA files is as illustrated.

- The names of folders not containing MP3 or WMA files are not shown in the display.

- If there is a file in the top level of the disc, "Root Folder" is displayed.
- The playback order is the order in which the files were written by the writing software. Therefore, the files might not play in the desired order.

Specification chart:

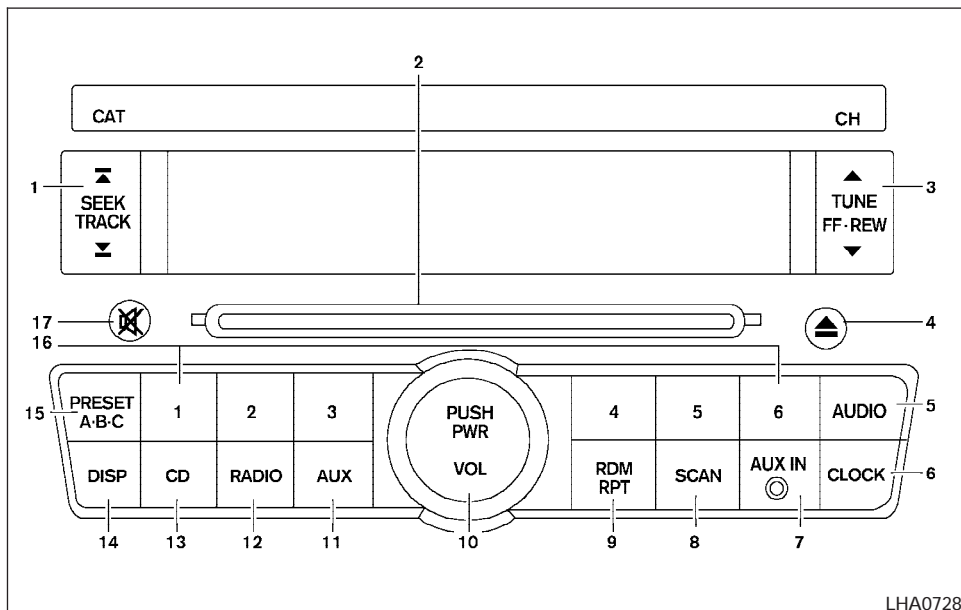
| | | | |
|----------------------------------|-----|--|-------------------------|
| Supported media | | CD, CD-R, CD-RW | |
| Supported file systems | | ISO9660 LEVEL1, ISO9660 LEVEL2, Apple ISO, Romeo, Joliet * ISO9660 Level 3 (packet writing) is not supported. | |
| Supported versions*1 | MP3 | Version | MPEG1, MPEG2, MPEG2.5 |
| | | Sampling frequency | 8 kHz - 48 kHz |
| | | Bit rate | 8 kbps - 320 kbps, VBR |
| | WMA | Version | WMA7, WMA8, WMA9 |
| | | Sampling frequency | 32 kHz - 48 kHz |
| | | Bit rate | 48 kbps - 192 kbps, VBR |
| Tag information | | ID3 tag VER1.0, VER1.1, VER2.2, VER2.3 (MP3 only) | |
| Folder levels | | Folder levels: 8, Max folders: 255 (including root folder), Files: 512 (Max. 255 files for one folder) | |
| Text character number limitation | | 128 characters | |
| Displayable character codes*2 | | 01: ASCII, 02: ISO-8859-1, 03: UNICODE (UTF-16 BOM Big Endian), 04: UNICODE (UTF-16 Non-BOM Big Endian), 05: UNICODE (UTF-8), 06: UNICODE (Non-UTF-16 BOM Little Endian) | |

*1 Files created with a combination of 48 kHz sampling frequency and 64 kbps bit rate cannot be played.

*2 Available codes depend on what kind of media, versions and information are going to be displayed.

Troubleshooting guide:

| Symptom | Cause and Countermeasure |
|--|--|
| Cannot play | Check if the disc was inserted correctly. |
| | Check if the disc is scratched or dirty. |
| | Check if there is condensation inside the player. If there is, wait until the condensation is gone (about 1 hour) before using the player. |
| | If there is a temperature increase error, the CD player will play correctly after it returns to the normal temperature. |
| | Files with extensions other than ".MP3", ".mp3" or ".wma" cannot be played. In addition, the character codes and number of characters for folder names and file names should be in compliance with the specifications. |
| | Check if the finalization process, such as session close and disc close, is done for the disc. |
| | Check if the disc is protected by copyright. |
| Poor sound quality | Check if the disc is scratched or dirty. |
| | Bit rate may be too low. |
| It takes a relatively long time before the music starts playing. | If there are many folders or file levels on the MP3/WMA disc, or if it is a <u>multisession disc</u> , some time may be required before the music starts playing. |
| Music cuts off or skips | The writing software and hardware combination might not match, or the writing speed, writing depth, writing width, etc., might not match the specifications. Try using the slowest writing speed. |
| Skipping with high bit rate files | Skipping may occur with large quantities of data, such as for high bit rate data. |
| Moves immediately to the next song when playing | When a non-MP3/WMA file has been given an extension of ".MP3", ".WMA", ".mp3" or ".wma", or when play is prohibited by copyright protection, there will be approximately 5 seconds of no sound and then the player will skip to the next song. |
| Songs do not play back in the desired order | The playback order is the order in which the files were written by the writing software. Therefore, the files might not play in the desired order. |



- | | |
|--|--------------------------|
| 1. SEEK/TRACK button | 6. CLOCK button |
| 2. CD insert slot | 7. AUX IN jack |
| 3. TUNE/FF-REW button | 8. SCAN button |
| 4. ▲ CD eject button | 9. RDM/RPT button |
| 5. AUDIO button (BASS, TREBLE, FADE and BALANCE) | 10. PWR/VOL control knob |
| | 11. AUX button |

- | |
|------------------------------------|
| 12. RADIO button |
| 13. CD button |
| 14. DISP button |
| 15. PRESET A·B·C button |
| 16. Station select (1 - 6) buttons |
| 17. ☒ pause/mute button |

FM/AM RADIO WITH COMPACT DISC (CD) PLAYER (if so equipped)

Audio main operation

PWR/VOL control knob

Place the ignition switch in the ACC or ON position, then press the PWR/VOL control knob. If you listen to the radio with the engine not running, place the ignition in the ACC position. The mode (radio or CD) that was playing immediately before the system was turned off resumes playing.

When no CD is loaded, the radio comes on. Pressing the PWR/VOL control knob again turns the system off.

Turn the PWR/VOL control knob to the right to increase volume or to the left to decrease volume.

LHA0728

AUDIO button (Bass, Treble, Fade and Balance)

Press the AUDIO button to change the mode as follows:

Bass → Treble → Fade → Balance → Beep ON/OFF → Audio or off → Bass

To adjust Bass, Treble, Fade and Balance press the AUDIO button until the desired mode appears in the display. Press the TUNE/FF-REW ▲ or ▼ to adjust Bass and Treble to the desired level. You can also use the TUNE/FF-REW button to adjust Fade and Balance mode. Fade adjusts the sound level between the front and rear speakers and Balance adjusts the sound between the right and left speaker.

To turn the Beep sound off or on, press the AUDIO button until Beep is displayed. Press the TUNE/FF-REW button ▲ or ▼ until the desired mode is displayed. This turns on or turns off the beep sound when audio buttons are pressed.

Once you have adjusted the sound quality to the desired level, press the AUDIO button repeatedly until the radio or CD display reappears. Otherwise, the radio or CD display will automatically reappear after about 10 seconds.

4-28 Monitor, climate, audio, phone and voice recognition systems

DISP (display) button:

Pressing the DISP (display) button will show text about CD information in the audio display.

If the text information is too long to fully be displayed on the screen; press and hold the DISP button for longer than 1.5 seconds to scroll through the rest of the text.

CD display mode

To change the text displayed while playing a CD with text, press the DISP button. The DISP button will allow you to scroll

through CD text as follows: Track number and Track time → Album title → Song title.

- Track number displays the track number selected on the disc.
- Track time displays the amount of time the track has played.
- Album title displays the title of the CD being played.
- Song title displays the title of the selected CD track.

Clock operation

Pressing the CLOCK button displays the clock with the radio on or off. Press the CLOCK button again to turn off the clock display.



Clock set

1. Press and hold the CLOCK button for approximately 2 seconds.
2. The display will show "H-Seek M-Tune".
3. Press the SEEK/TRACK button ▲ or ▼ to adjust the hours.
4. Press the TUNE/FF-REW button ▲ or ▼ to adjust the minutes.
5. Press the CLOCK button again to exit the clock set mode.

The display will return to the regular clock display after 10 seconds, or you may press the CLOCK button again to return to the regular clock display.



pause/mute button:

To mute or pause the audio sound, press the  pause/mute button. Press the  button again to resume the audio sound.

FM/AM radio operation

FM/AM band select:

Pressing the RADIO button will change the band as follows:

AM ↔ FM

When the RADIO button is pressed while the ignition switch is in the ACC or ON position, the radio will come on at the station last played.

If a compact disc is playing when the RADIO button is pressed, the compact disc will automatically be turned off and the last radio station played will come on.

The FM stereo indicator, ST, illuminates during FM stereo reception. When the stereo broadcast signal is weak, the radio automatically changes from stereo to monaural reception.



TUNE/FF-REW (tuning) button:

Press the TUNE/FF-REW button ▲ or ▼ for manual tuning. To move quickly through the channels, hold the tuning buttons down.



SEEK (tuning) button:

Press the SEEK/TRACK button ▲ or ▼ to tune from high to low or low to high frequencies and stop at the next broadcasting station.

SCAN (tuning) button:

Press the SCAN button. SCAN illuminates in the display window. Scan tuning begins from low to high frequencies. Scan tuning stops for 5 seconds at each broadcasting station that has sufficient signal strength. When scanning, SCAN

blinks in the display. Pressing the SCAN button again during this 5 second period stops scan tuning and the radio remains tuned to that station.

Station memory operations:

18 stations can be set for the FM and AM radio to the A, B and C preset button in any combination of AM or FM stations.

1. Press the PRESET A·B·C button to change between storage banks. The radio displays the icon A, B or C to indicate which set of presets are active.
2. Tune to the desired station using manual TUNE or SEEK tuning. Press and hold any of the desired station memory buttons (1 – 6) until a beep sound is heard. (The radio mutes when the select button is pressed.)
3. The channel indicator will then come on and the sound will resume. Programming is now complete.
4. Other buttons can be set in the same manner.

If the battery cable is disconnected, or if the fuse opens, the radio memory will be canceled. In that case, reset the desired stations.

Compact disc (CD) player operation

Place the ignition switch in the ACC or ON position, and carefully insert the compact disc into the slot with the label side up. The compact disc is automatically pulled into the slot and starts to play.

If the radio is already operating, it automatically turns off and the compact disc begins to play.

CD button:

When the CD button is pressed with a compact disc loaded and the radio playing, the radio turns off and the last used compact disc starts to play.



TUNE/FF-REW (Fast Forward, Rewind) button:



When the TUNE/FF-REW button ▲ or ▼ is pressed while the compact disc is playing, the compact disc plays at an increased speed while fast forwarding or rewinding. When the button is released, the compact disc returns to normal play speed.



SEEK/TRACK button:

When ▲ is pressed while the compact disc is playing, the next track following the present one starts to play from the beginning. Press ▲ several times to skip several tracks. Each time the button is pressed, the CD ad-

vances 1 additional track. The track number appears in the display window. (When the last track on the compact disc is skipped, the first track is played.)

When  is pressed, the track being played returns to the beginning. Press  several times to skip back several tracks. Each time the button is pressed the CD moves back 1 track.

RDM/RPT button:

When the RDM/RPT button is pressed while the compact disc is being played, the play pattern can be changed as follows:

Random Disc  Repeat Track  Normal

Random Disc: The order of the tracks on the disc will be mixed during play.

Repeat Track: The track that is currently playing will be repeated.


SCAN (CDs) button:


Press the SCAN button less than 1.5 seconds to scan all tracks of the current disc for 10 seconds per track. The SCAN icon is flashed during scan mode.

The scan mode is canceled once it scans through all tracks on the disc, or if the SCAN button is pressed during scan mode.



CD EJECT:

When the  button is pressed with a compact disc loaded, the compact disc will be ejected.

When the  button is pressed while the compact disc is playing, the compact disc will eject and the system will turn off.

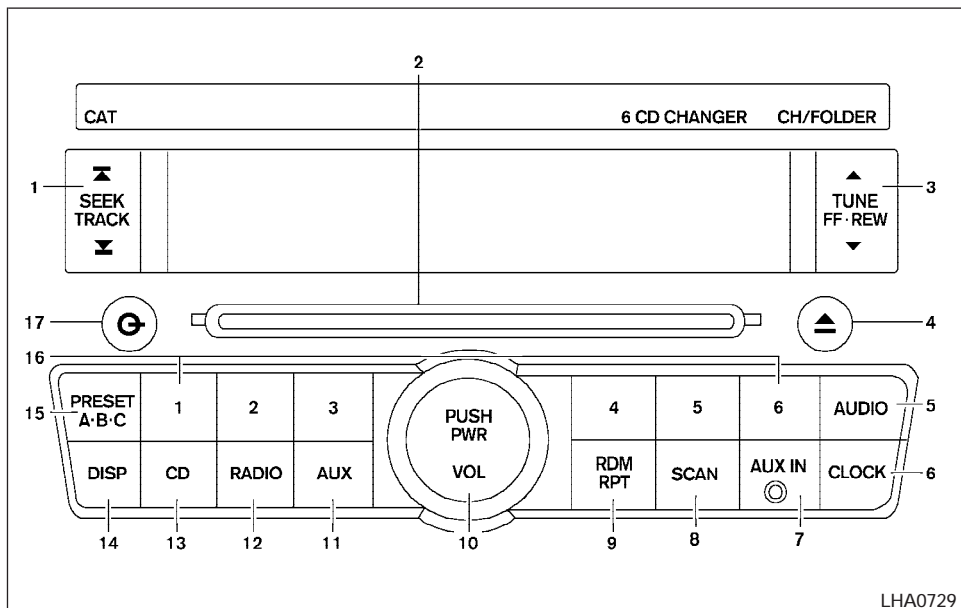
CD IN indicator:

A CD icon indicator appears on the display when a CD is loaded with the system on.

AUX (Auxiliary) button:

The AUX IN jack is located on the CD player. The AUX IN audio input jack accepts any standard analog audio input such as from a portable cassette tape/CD player, MP3 player or laptop computers.

Press the AUX button to play a compatible device when it is plugged into the AUX IN jack.



Type A

1. SEEK/TRACK button
2. CD insert slot
3. TUNE/FF-REW button
4. ▲ CD eject button
5. AUDIO button (BASS, TREBLE, FADE, SSV, BALANCE and BEEPS)
6. CLOCK button
7. AUX IN jack
8. SCAN button

9. RDM/RPT button
10. PWR/VOL control knob
11. AUX button
12. RADIO* button
13. CD button
14. DISP button
15. PRESET A-B-C button
16. Station and CD select (1 - 6) buttons
17. Ⓞ CD load button

*No satellite radio reception is available unless there is an active XM® or SIRIUS™ satellite radio service subscription. Satellite radio is not available in Alaska, Hawaii and Guam. If satellite radio is not operational then pressing the RADIO button will switch between FM and AM bands.

FM/AM/SAT RADIO WITH COMPACT DISC (CD) CHANGER (if so equipped)

No satellite radio reception is available and "NO SAT" is displayed when the RADIO button is pressed unless optional satellite receiver and antenna are installed and an XM® or SIRIUS™ satellite radio service subscription is active. Satellite radio is not available in Alaska, Hawaii and Guam.

Audio main operation

PWR/VOL control knob

Place the ignition switch in the ACC or ON position, and then press the PWR/VOL control knob while the system is off to call up the mode (radio or CD) which was playing immediately before the system was turned off.

To turn the system off, press the PWR/VOL control knob.

Turn the PWR/VOL control knob to adjust the volume.

This vehicle may be equipped with Speed Sensitive Volume (SSV) for audio. The audio volume changes as the driving speed changes.

AUDIO button (Bass, Treble, Fade, SSV, Balance and Beeps)

Press the AUDIO button to change the mode as follows:

Bass → Treble → Fade → Spd Sen Vol → Balance → Beep ON/OFF → Audio or off → Bass

To adjust Bass, Treble, Fade and Balance press the AUDIO button until the desired mode appears in the display. Press the TUNE/FF-REW ▲ or ▼ to adjust Bass and Treble to the desired level. You can also use the TUNE/FF-REW button to adjust Fade and

Balance mode. Fade adjusts the sound level between the front and rear speakers and Balance adjusts the sound between the right and left speaker.

To turn the Beep sound off or on, press the AUDIO button until Beep is displayed. Press the TUNE/FF-REW button ▲ or ▼ until the desired mode is displayed. This turns on or turns off the beep sound when audio buttons are pressed.

To change the Speed Sensitive Volume mode to OFF, LOW, MID or HIGH, press the TUNE/FF-REW button.

Once you have adjusted the sound quality to the desired level, press the AUDIO button repeatedly until the radio or CD display reappears. Otherwise, the radio or CD display will automatically reappear after about 10 seconds.

Clock operation

Pressing the CLOCK button displays the clock with the radio on or off. Press the CLOCK button again to turn off the clock display.

Clock set

1. Press and hold the CLOCK button for approximately 2 seconds.
2. The display will show "H-Seek M-Tune".

3. Press the SEEK/TRACK button ▲ or ▼ to adjust the hours.
4. Press the TUNE/FF-REW button ▲ or ▼ to adjust the minutes.
5. Press the CLOCK button again to exit the clock set mode.

The display will return to the regular clock display after 10 seconds, or you may press the CLOCK button again to return to the regular clock display.

DISP (display) button:

Pressing the DISP (display) button will show text information about CD, MP3 and SAT (satellite, if so equipped) in the audio display.

If the text information is to long to fully be displayed on the screen; press and hold the DISP button for longer than 1.5 seconds to scroll through the rest of the text.

CD display mode

To change the text displayed while playing a CD with text, press the DISP button. The DISP button will allow you to scroll through CD text as follows: Track number and Track time ↔ Album title ↔ Song title.

- Track number displays the track number selected on the disc.

- Track time displays the amount of time the track has played.
- Album title displays the title of the CD being played.
- Song title displays the title of the selected CD track.

MP3 display mode

To change the text displayed when listening to a CD with MP3s and ID3 tags, press the DISP button. The DISP button will scroll through the CD text as follows: Track number and Track time ←→ Folder title ←→ Album title ←→ Artist name ←→ Song title.

- Track time displays the amount of time the current track has been playing.
- Track number displays the number of the track playing on the selected disc.
- Folder title displays the title of the folder.
- Album title displays the title of the album of the song playing.
- Artist name displays the name of the artist of the song playing.
- Song title displays the title of the song playing.

Satellite radio display mode (if so equipped)

To change the text displayed when listening to satellite radio (if so equipped) press the DISP button. The DISP button will scroll through the broadcast information as follows: Channel number → Category name → Channel name → Artist name → Song title.

- Channel number displays the channel number of the selected satellite radio station.
- Category name displays the category name of the selected satellite radio station.
- Channel name displays the channel name the selected satellite radio station.
- Artist name displays the name of the artist, host or weather condition of the selected satellite radio station.
- Song title displays the song title, show name, or temperature of the selected satellite radio station.

FM/AM/SAT radio operation

FM/AM/SAT band select:

Pressing the RADIO button will change the band as follows:

AM ←→ FM ←→ SAT (satellite, if so equipped)

When the RADIO button is pressed while the ignition switch is in the ACC or ON position, the radio will come on at the station last played.

No satellite radio reception is available unless there is an active XM® or SIRIUS™ satellite radio service subscription. Satellite radio is not available in Alaska, Hawaii and Guam. If satellite radio is not operational then pressing the RADIO button will switch between FM and AM bands.

If a compact disc is playing when the RADIO button is pressed, the compact disc will automatically be turned off and the last radio station played will come on.

The FM stereo indicator ST will glow during FM stereo reception. When the stereo broadcast signal is weak, the radio will automatically change from stereo to monaural reception.



TUNE/FF-REW (tuning) button:

Press the TUNE/FF-REW button ▲ or ▼ for manual tuning. To move quickly through the channels, hold the tuning buttons down.



SEEK (tuning) button:

Press the SEEK/TRACK button ▲ or ▼ to tune from high to low or low to high frequencies and stop at the next broadcasting station.

SCAN (tuning) button:

Press the SCAN button. SCAN illuminates in the display window. Scan tuning begins from low to high frequencies. Scan tuning stops for 5 seconds at each broadcasting station that has sufficient signal strength. When scanning, SCAN blinks in the display. Pressing the SCAN button again during this 5 second period stops scan tuning and the radio remains tuned to that station.

Station memory operations:

18 stations can be set for the FM and AM radio to the A, B and C preset button in any combination of AM or FM stations.

1. Press the PRESET A-B-C button to change between storage banks. The radio displays the icon A, B or C to indicate which set of presets are active.
2. Tune to the desired station using manual TUNE or SEEK tuning. Press and hold any of the desired station memory buttons (1 – 6) until a beep sound is heard. (The radio mutes when the select button is pressed.)
3. The channel indicator will then come on and the sound will resume. Programming is now complete.
4. Other buttons can be set in the same manner.

If the battery cable is disconnected, or if the fuse opens, the radio memory will be canceled. In that case, reset the desired stations.

Radio data system (RDS):


RDS stands for Radio Data System, and is a data information service transmitted by some radio stations on the FM band (not AM band) and/or SAT radio encoded within a regular radio broadcast. Currently, most RDS stations are in large cities, but many stations are now considering broadcasting RDS data.

RDS can display:

- Station call sign, such as "WHFR 98.3".
- Station name, such as "The Groove".
- Music or programming type such as "Classical", "Country", or "Rock".

If the station broadcasts RDS information, the RDS icon is displayed.

Compact disc (CD) changer operation

Place the ignition switch in the ACC or ON position and insert the compact disc into the slot with the label side facing up. The compact disc will be guided automatically into the slot and start playing. To insert the disc, first press the  button.


If the radio is already operating, it will automatically turn off and the compact disc will play.


If the system has been turned off while the compact disc was playing, pressing the PWR button will start the compact disc.

Do not use 3.1 in (8 cm) diameter compact discs in the CD changer.



CD load button:

To insert a CD in the CD changer, press the  load button for less than 1.5 seconds. Select the loading slot by pressing the CD insert select button (1 – 6), then insert the CD.

To insert 6 CDs to the CD changer, press the  load button for more than 1.5 seconds.

The slot numbers (1 – 6) will illuminate on the display when CDs are loaded into the changer.

CD button:

When the CD button is pressed with the system off and the compact disc loaded, the system will turn on and the compact disc will start to play.

When the CD button is pressed with the compact disc loaded but the radio playing, the radio will automatically be turned off and the compact disc will start to play.

**TUNE/FF-REW (fast forward, rewind) button:**

When the TUNE/FF-REW button ▲ or ▼ button is pressed while the compact disc is playing, the compact disc plays at an increased speed while fast forwarding or rewinding. When the button is released, the CD returns to normal play speed.

**MP3 TUNE/FF-REW button:**

While playing an MP3, press the TUNE/FF-REW button ▲ or ▼ to scan forward or backward through available folders.

To fast forward or rewind through an MP3 audio track, press the TUNE/FF-REW button ▲ or ▼ for more than 1.5 seconds.

**SEEK/TRACK button:**

When ▲ is pressed while the compact disc is playing, the track following the present one starts to play from the beginning. Press ▲ several times to skip several tracks. Each time the button is pressed, the CD advances 1 additional track. The track number appears in the display window. (When the last track on the compact disc is skipped, the first track is played.)

When ▼ is pressed, the track being played returns to the beginning. Press ▼ several times to skip back several tracks. Each time the button is pressed, the CD moves back 1 track.

CD select buttons:

To play another CD that has been loaded, press a CD select button (1 – 6).

RDM/RPT button:

When the RDM/RPT button is pressed while a compact disc is being played, the play pattern can be changed as follows:

Random All Discs* → Random Disc → Repeat Disc → Repeat Track → normal → Random All Discs

Random All Discs: The loaded discs will be played randomly, not in sequence of how they are loaded.

Random Disc: The tracks on the current selected disc will be played randomly.

Repeat Disc: The disc that is currently playing will be repeated.

Repeat Track: The current track will be repeated.

*This mode is only available when multiple CDs are loaded into the CD changer.

MP3 RDM/RPT button:

When the RDM/RPT button is pressed while an MP3 compact disc is being played, the play pattern can be changed as follows:

Random All Discs* → Random Disc → Repeat Disc → Random Folder → Repeat Folder → Repeat Track → normal → Random All Discs

Random All Discs: The loaded discs will be played randomly, not in sequence of how they are loaded.

Random Disc: The tracks on the current selected disc will be played randomly.

Repeat Disc: The disc that is currently playing will be repeated.

Random Folder: The folders on the current MP3 disc will be played randomly.

Repeat Folder: The current folder being played will be repeated.

Repeat Track: The current track will be repeated.

*This mode is only available when multiple CDs are loaded into the CD changer.

SCAN button:

1 Disc, All Tracks

While listening to a CD, press the SCAN button to preview the first 10 seconds of each track on the CD playing. Pressing the SCAN button again during this 10 second period stops the scan and the CD remains on that track.

All Discs, 1 Track

While listening to a CD with other CDs loaded into the CD changer, press and hold the SCAN button for approximately 2 seconds, to preview the first 10 seconds of the first track on the CDs loaded. Pressing the SCAN button again during this 10 second period stops the scan and the current loaded CD will remain playing.

MP3 SCAN mode:

1 Disc All Folders

While listening to an MP3 CD, press the SCAN button to preview the first 10 seconds of each track in each folder on the MP3 CD playing. Pressing the SCAN button again during this 10 second period stops the scan and the CD remains on that track and folder.

All Discs, 1 Track, 1 Folder

While listening to an MP3 CD with other CDs loaded into the CD changer, press and hold the

SCAN button for approximately 2 seconds, to preview the first 10 seconds of the first track in the first folder on the MP3 CDs loaded. Pressing the SCAN button again during this 10 second period stops the scan and the current loaded CD will remain playing.



CD Eject:

Current/Selected disc:

- Press the ▲ button, then press the slot number (1 – 6) for the desired disc. The compact disc will be ejected. If no slot number (1 – 6) is pressed the current loaded disc will be ejected. Also, if the ejected disc is not removed within 15 seconds, the disc will reload.

All discs:

- Press and hold the ▲ button for more than 1.5 seconds. The compact discs will be ejected one by one. If a disc is not removed within 15 seconds, or the button is pressed again during the eject sequence, the entire disc eject sequence will be canceled. When this button is pressed while the compact disc is being played, the compact disc will eject and the last source will be played.

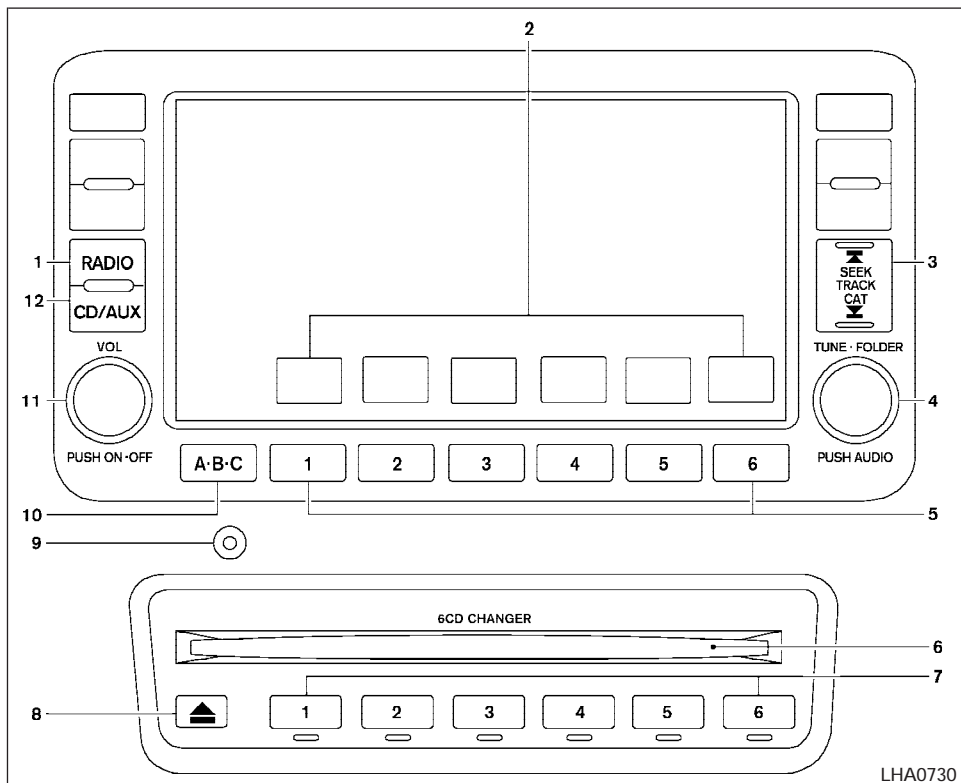
CD IN indicator:

A CD icon indicator appears on the display when a CD is loaded with the system on.

AUX (Auxiliary) button:

The AUX IN jack is located on the CD player. The AUX IN audio input jack accepts any standard analog audio input such as from a portable cassette tape/CD player, MP3 player or laptop computers.

Press the AUX button to play a compatible device when it is plugged into the AUX IN jack.



1. RADIO* button
2. Touch-screen keys (vary depending on what function is selected)
3. SEEK/TRACK button
4. TUNE-FOLDER and AUDIO control knob (BASS, TREBLE, BALANCE, FADE and SSV (if so equipped))
5. Station and CD select (1 - 6) buttons
6. CD insert slot
7. CD changer select (1 - 6) buttons
8. ▲ CD eject button
9. AUX jack
10. A·B·C button
11. ON-OFF/VOL control knob
12. CD/AUX button

*No satellite radio reception is available unless there is an active XM® satellite radio service subscription. Satellite radio is not available in Alaska, Hawaii and Guam. If satellite radio is not operational then pressing the RADIO button will switch between FM and AM bands.

LHA0730

Type B

FM/AM/SAT RADIO WITH COMPACT DISC (CD) CHANGER (if so equipped)

No satellite radio reception is available unless there is an active XM® satellite radio service subscription. Satellite radio is not available in Alaska, Hawaii and Guam. If satellite radio is not operational then pressing the RADIO button will switch between FM and AM bands.

Reference symbols:

RADIO button — This is a button on the radio. By pressing this button you can select the item or perform this action.

“Display” key — This is a select key on the touchscreen. By touching this key you can proceed to the next function.

Audio main operation

ON-OFF/VOL control:

Place the ignition switch to the ACC or ON position, then press the ON-OFF/VOL control knob while the audio system is off to call up the mode (radio or CD) which was playing immediately before the system was turned off.

To turn the system off, press the ON-OFF/VOL control knob.

4-38 Monitor, climate, audio, phone and voice recognition systems

Turn the ON-OFF/VOL control knob to adjust the volume.

This vehicle may be equipped with Speed Sensitive Volume (SSV) for audio. The audio volume changes as the driving speed changes.

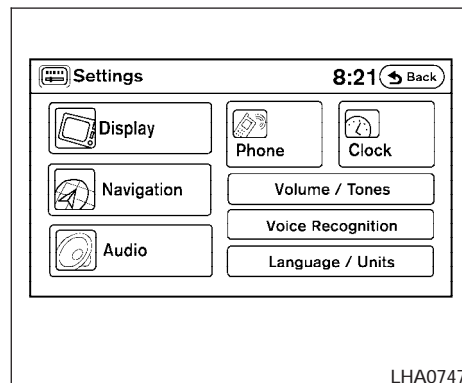
AUDIO knob (Bass, Treble, Balance, Fade, and SSV):

Press the AUDIO knob to change the mode as follows:

Bass → Treble → Balance → Fade → Audio or off → Bass

To adjust Bass, Treble, Balance, and Fade press the AUDIO knob until the desired mode appears in the display. Turn the Tuning knob to adjust Bass and Treble to the desired level. You can also use the Tuning knob to adjust Fade and Balance modes. Fade adjusts the sound level between the front and rear speakers and Balance adjusts the sound between the right and left speakers.

Once you have adjusted the sound quality to the desired level, press the AUDIO knob repeatedly until the radio or CD display reappears. Otherwise, the radio or CD display will automatically reappear after about 10 seconds.



To change the SSV mode from 0 to 5, press the SETUP button. Then touch the “Audio” key, the audio settings screen will be displayed. Touch the “-” or “+” key to change the SSV.

While in this screen you can also adjust the other audio settings by touching the corresponding key.

Once you have adjusted the sound quality to the desired level, touch the “Back” key repeatedly until the radio or the CD display reappears.

Clock set

For setting the clock, see “Adjusting the time” earlier in this section.

CD display mode

While listening to a CD or an MP3/WMA CD certain text might be displayed (when CD encoded with text is being used).

Depending on how the CD or MP3/WMA CD is encoded the following text might be displayed during CD playback:

- Disc number displays which disc is playing
- Folder number displays the folder number on the CD that is being played.
- Track number displays the number of the track that is being played.
- Track time displays the amount of time the current track has been playing.
- Title displays the name of the song playing.
- Artist displays the name of the artist.
- Album displays the name of the album.

Satellite radio display (if so equipped)

Some satellite stations might broadcast information that shows up in the display.

Depending on what the station decides to broadcast the following text might be displayed:

- Channel number displays the channel number of the selected satellite radio station.

- Category name displays the category name of the selected satellite radio station.
- Channel name displays the channel name of the selected satellite radio station.
- Artist name displays the name of the artist, host or weather condition of the selected satellite radio station.
- Song title displays the song title, show name, or temperature of the selected satellite radio station.

FM/AM/SAT radio operation

FM/AM/SAT band select:

Pressing the RADIO button will change the band as follows:

AM ↔ FM ↔ SAT (Satellite, if so equipped)

When the RADIO button is pressed with the ignition switch in the ACC or ON position, the radio will come on at the station last played.

No satellite radio reception is available unless there is an active XM® satellite radio service subscription. Satellite radio is not available in Alaska, Hawaii and Guam. If satellite radio is not operational then pressing the RADIO button will switch between FM and AM bands.

If a compact disc is playing when the RADIO button is pressed, the compact disc will automatically be turned off and the last radio station played will come on.



The FM stereo indicator ST will glow during FM stereo reception. When the stereo broadcast signal is weak, the radio will automatically change from stereo to monaural reception.

TUNE-FOLDER (tuning) knob:

To manually tune the radio, turn the TUNE-FOLDER tuning knob to the right or left.



SEEK/TRACK (tuning) button:

Press the SEEK/TRACK button  or  for less than 1.5 seconds to tune from high to low or low to high frequencies and stop at the next broadcasting station.

“Scan” (tuning) key:

Touch the “Scan” key. SCAN illuminates in the display window. Scan tuning begins from low to high frequencies. Scan tuning stops for 5 seconds at each broadcasting station that has sufficient signal strength. Touching the “Scan” key again during this 5 second period stops scan tuning and the radio remains tuned to that station.

Station memory operations:

18 stations can be set for the FM, AM or SAT (Satellite if so equipped) radio to the A, B and C preset button in any combination of FM, AM or SAT stations.

1. Press the A·B·C button or the "Preset" key to select preset channel A, B or C.
2. Press the RADIO button to select the desired FM, AM or SAT station band.
3. Tune to the desired station using manual tuning, seek tuning or scan tuning. Press and hold any of the desired station memory (1 – 6) buttons until a beep sound is heard (the station will now appear in one of the 1 – 6 keys on the screen)
4. The channel indicator will then come on and the sound will resume. Memorizing is now complete.
5. Other buttons can be set in the same manner.

If the battery cable is disconnected, or if the fuse blows, the radio memory will be canceled. In that case, reset the desired stations.

Radio data system (RDS):

RDS stands for Radio Data System, and is a data information service transmitted by some radio

stations on the FM band (not AM band) and/or SAT radio encoded within a regular SAT broadcast. Currently, most RDS stations are in large cities, but many stations are now considering broadcasting RDS data.

RDS can display:

- Station call sign, such as "WHFR 98.3".
- Station name, such as "The Groove".
- Music or programming type such as "Classical", "Country" or "Rock".

If the station broadcasts RDS information, the RDS icon is displayed.

Compact disc (CD) changer operation

With the ignition switch in the ACC or ON position, press one of the CD changer (1 – 6) buttons. Once the CD slot has open insert the compact disc into the slot with the label side facing up. The compact disc will be guided automatically into the slot and start playing.

If the radio is already operating, it will automatically turn off and the compact disc will play.

If the system has been turned off while the compact disc was playing, pressing the ON-OFF/VOL control knob will start the compact disc.

Loading buttons:

1 Disc Load:

- Press one of the CD changer (1 – 6) select buttons for less than 1.5 seconds, then insert the CD.
- While in CD mode press one of the station and CD select (1 – 6) buttons on the radio, then insert the CD.
- While in CD mode press one of the CD (1 – 6) keys on the screen, then insert the CD.

All Disc Load:

- Press and hold one of the CD changer (1 – 6) buttons for more than 1.5 seconds.

The slot numbers (1 – 6) will illuminate on the display when CDs are loaded into the changer.

When one of the CD changer (1 – 6) buttons is pressed with the compact disc loaded but the radio playing, the radio will automatically be turned off and the compact disc will start to play.

CD/AUX button:

When the CD/AUX button is pressed with the system off and the compact disc loaded, the system will turn on and the compact disc will start to play.

When the CD/AUX button is pressed with the compact disc loaded but the radio playing, the radio will automatically be turned off and the compact disc will start to play.

TUNE-FOLDER knob:

While playing an MP3 CD to skip through folders turn the TUNE-FOLDER knob right or left to skip forward or backward through the available folders.


This function will only operate on an MP3 CD with multiple folders.


“Folder” key:



While playing an MP3 CD you can select a track inside a folder. Touch the “Folder” key; a list screen displays. Touch one of the folder select keys; another list screen displays. Touch one of the file select keys; the system will start playing that track in the selected folder.



SEEK/TRACK button:

When the SEEK/TRACK  button is pressed for less than 1.5 seconds while a compact disc is playing, the track being played returns to its beginning. Press several times to skip back through tracks. The compact disc will go back the number of times the button is pressed.

When the SEEK/TRACK  button is pressed for less than 1.5 seconds while the compact disc is playing, the next track will start to play from its beginning. Press several times to skip through tracks. The compact disc will advance the number of times the button is pressed. (When the last track on the compact disc is skipped through, the first track will be played.)

When pressing the SEEK/TRACK  (fast forward) or  (rewind) button for more than 1.5 seconds, the CD being played will fast forward or rewind. When the button is released, the CD will return to normal play speed.

“Track” key:

While playing a CD or an MP3 CD you can select a track or file on the disc. Touch the “Track” key, a list screen displays. Touch one of the track or file select keys, the system will start playing that track or file.

CD select buttons:

To play another CD that has been loaded:

- Touch one of the CD select (1–6) keys on the touch-screen or
- Press one of the station and CD select (1 – 6) buttons on the radio or
- Press one of the CD changer (1 – 6) select buttons.

“Scan” key:

While listening to a CD, touch the “Scan” key to preview the first 10 seconds of each track on the current CD playing. Touching the “Scan” key during this 10 second period stops the scan and the CD remains on that track.

“Repeat” key:

When the “Repeat” key is touched while a compact disc is played, the play pattern can be changed as follows:

CD:

1 DISC RPT → 1 TRACK RPT

MP3 CD:

1 DISC RPT → 1 FOLDER RPT → 1 TRACK RPT

1 DISC RPT: The disc that is currently playing will be repeated.

1 TRACK RPT: The track that is currently playing will be repeated

1 FOLDER RPT: The folder that is currently playing will be repeated.

“Random” key:

When the “Random” key is touched while a compact disc is played, the play pattern can be changed as follows:

CD:

ALL DISC RDM → 1 DISC RDM

MP3 CD:

ALL DISC RDM → 1 DISC RDM → 1 FOLDER RDM

ALL DISC RDM: Tracks from all discs will be played randomly.

1 DISC RDM: Tracks from the disc that is currently playing will be played randomly.

1 FOLDER RDM: Folders from that disc that is currently playing will be played randomly.



CD EJECT:

Current/Selected disc:

- Press the ▲ button. The loaded compact disc will be ejected. Also, if the ejected disc is not removed within 15 seconds, the disc will reload.

All discs:

- Press and hold the ▲ button for more than 1.5 seconds. The compact discs will be ejected one by one. If a disc is not removed within 15 seconds, or the ▲ button is pressed again during the eject sequence, the entire disc eject sequence will be canceled.

When this button is pressed while the compact disc is being played, the compact disc will eject and the next compact disc will be loaded. If no disc is loaded, the system will stay on the compact disc screen.

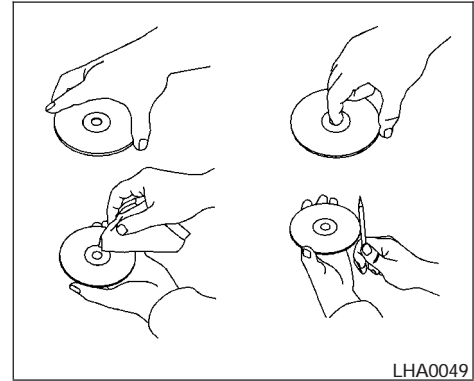
CD IN indicator:

The slot numbers (1 – 6) will illuminate if CDs have been loaded into the changer in CD mode only.

CD/AUX (Auxiliary) button:

The AUX jack is located above the CD changer. The AUX audio input jack accepts any standard analog audio input such as from a portable cassette tape/CD player, MP3 player or laptop computers.

Press the CD/AUX button to play a compatible device when it is plugged into the AUX jack.



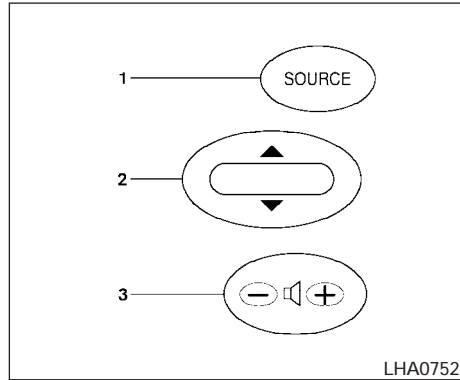
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CD CARE AND CLEANING

- Handle a CD by its edges. Do not bend the disc. Never touch the surface of the disc.
- Always place the discs in the storage case when they are not being used.
- To clean a disc, wipe the surface from the center to the outer edge using a clean, soft cloth. Do not wipe the disc using a circular motion.
- Do not use a conventional record cleaner or alcohol intended for industrial use.

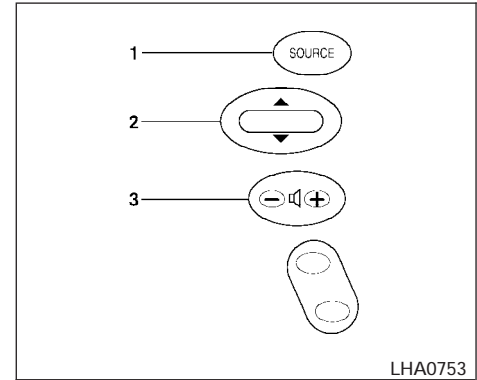
- A new disc may be rough on the inner and outer edges. Remove the rough edges by rubbing the inner and outer edges with the side of a pen or pencil as illustrated.

STEERING WHEEL SWITCH FOR AUDIO CONTROL (if so equipped)



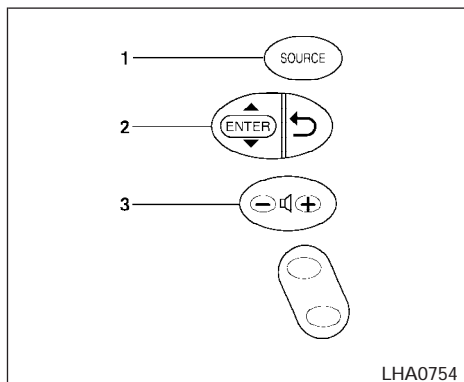
Type A

1. Source select and Power on switch
2. Tuning switch
3. Volume control switch



Type B

1. Source select and Power on switch
2. Tuning switch
3. Volume control switch



Type C

1. Source select and Power on switch
2. Tuning switch
3. Volume control switch

POWER on switch

With the ignition switch in the ACC or ON position, push the SOURCE switch to turn the audio system on.

SOURCE select switch:

Push the SOURCE select switch to change the mode in the following sequence: PRESET A → PRESET B → PRESET C → CD* → AUX** → PRESET A

*This mode is only available when a CD is loaded.

**This mode is only available when a compatible auxiliary device is plugged into the AUX jack.

While in one of the preset radio station banks (A, B or C), use the tuning switch ▼ or ▲ to select one of the preset radio stations (1 – 6).

Volume control switch

Push the volume control switch to increase or decrease the volume.



Tuning

Memory change (radio):

While in one of the preset radio station banks (A, B or C), push the tuning switch ▼ or ▲ for less than 1.5 seconds to change to the next preset station in memory.

Seek tuning (radio):

Push the tuning switch ▼ or ▲ for more than 1.5 seconds to seek the next or previous radio station.

Next/Previous track (CD):

Push the tuning switch ▼ or ▲ for less than 1.5 seconds to return to the beginning of the present track or skip to the next track. Push several times to skip back or skip through tracks.

Change disc (CD) (if so equipped):

Push the tuning switch ▼ or ▲ for more than 1.5 seconds to change the playing disc up or down.

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.

CAR PHONE OR CB RADIO

When installing a CB, ham radio or car phone in your NISSAN, be sure to observe the following precautions, otherwise the new equipment may adversely affect the engine control system and other electronic parts.

WARNING

- A cellular telephone should not be used while driving so full attention may be given to vehicle operation. Some jurisdictions prohibit the use of cellular telephones while driving.
- If you must make a call while your vehicle is in motion, the hands free cellular phone operational mode (if so equipped) is highly recommended. Exercise extreme caution at all times so full attention may be given to vehicle operation.
- If a conversation in a moving vehicle requires you to take notes, pull off the road to a safe location and stop your vehicle before doing so.

CAUTION

- Keep the antenna as far away as possible from the electronic control modules.
- Keep the antenna wire more than 8 in (20 cm) away from the electronic control system harnesses. Do not route the antenna wire next to any harness.
- Adjust the antenna standing-wave ratio as recommended by the manufacturer.
- Connect the ground wire from the CB radio chassis to the body.
- For details, consult a NISSAN dealer.

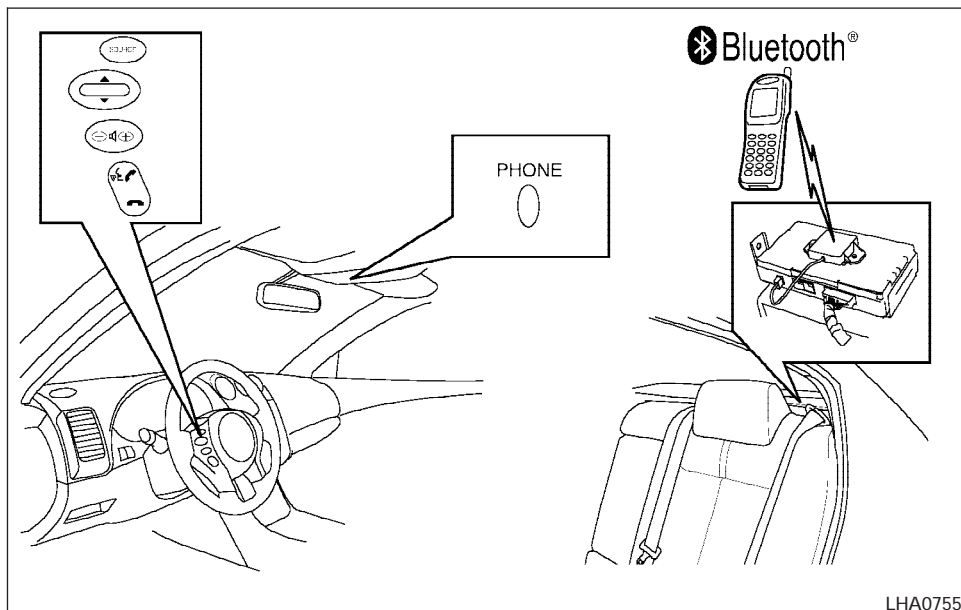
BLUETOOTH® HANDS-FREE PHONE SYSTEM (if so equipped)

WARNING

- Use a phone after stopping your vehicle in a safe location. If you have to use a phone while driving, exercise extreme caution at all times so full attention may be given to vehicle operation.
- If a conversation in a moving vehicle requires you to take notes, pull off the road to a safe location and stop your vehicle before doing so.

CAUTION

To avoid draining the vehicle battery, use a phone after starting the engine.



Your NISSAN is equipped with the Bluetooth® Hands-Free Phone System. If you are an owner of a Bluetooth® enabled cellular phone, you can set up the wireless connection between your cellular phone and the in-vehicle phone module. With Bluetooth® wireless technology, you can

make or receive a hands-free telephone call with your cellular phone in the vehicle.

Once your cellular phone is paired to the in-vehicle phone module, no other phone connecting procedure is required. Your phone is automatically connected with the in-vehicle phone

module when the ignition switch is turned to the ON position with the paired cellular phone turned on and carried in the vehicle.

You can register up to 5 different Bluetooth® cellular phones to the in-vehicle phone module. However, you can talk on only one cellular phone at a time.

Before using the Bluetooth® Hands-Free Phone System, refer to the following notes.

- Set up the wireless connection between a cellular phone and the in-vehicle phone module before using the hands-free phone system.
- Some Bluetooth® enabled cellular phones may not be recognized by the in-vehicle phone module. Please visit www.nissanusa.com/bluetooth for a recommended phone list.
- You will not be able to use a hands-free phone under the following conditions:
 - Your vehicle is outside of the cellular service area.
 - Your vehicle is in an area where it is difficult to receive cellular signal; such as in a tunnel, in an underground parking garage, near a tall building or in a mountainous area.

- Your cellular phone is locked to prevent it from being dialed.

When the radio wave condition is not ideal or ambient sound is too loud, it may be difficult to hear the other person's voice during a call.

Do not place the cellular phone in an area surrounded by metal or far away from the in-vehicle phone module to prevent tone quality degradation and wireless connection disruption.

While a cellular phone is connected through the Bluetooth® wireless connection, the battery power of the cellular phone may discharge quicker than usual. The Bluetooth® Hands-Free Phone System cannot charge cellular phones.

If the hands-free phone system seems to be malfunctioning, please refer to "Troubleshooting guide" later in this section. You can also visit www.nissanusa.com/bluetooth for troubleshooting help.

Refer to the cellular phone Owner's Manual regarding the telephone charges, cellular phone antenna and body, etc.

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 re-

ceived, including interference that may cause undesired operation.

FCC Radiation Exposure Statement:


This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 8 inches (20 cm) between the radiator and your body. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

USING THE SYSTEM

The NISSAN Voice Recognition system allows hands-free operation of the Bluetooth® Phone System.

If the vehicle is in motion, some commands may not be available so full attention may be given to vehicle operation.

Initialization

When the ignition switch is placed in the ON position, NISSAN Voice Recognition is initialized, which takes a few seconds. When completed, the amber light on the overhead console illuminates and the system is ready to accept voice commands. If the  button is pressed before the initialization completes, the system will an-


nounce "Hands-free phone system not ready" and will not react to voice commands.

Operating tips


To get the best performance out of the NISSAN Voice Recognition system, observe the following:

- Keep the interior of the vehicle as quiet as possible. Close the windows to eliminate surrounding noises (traffic noises, vibration sounds, etc.), which may prevent the system from recognizing voice commands correctly.
- Wait until the tone sounds before speaking a command. Otherwise, the command will not be received properly.
- Start speaking a command within 5 seconds after the tone sounds.
- Speak in a natural voice without pausing between words.

Giving voice commands

To operate NISSAN Voice Recognition, press and release the  button located on the steering wheel. The light on the overhead console flashes to signal you have entered a voice recognition (VR) session. After the tone sounds, speak a command.

The command given is picked up by the microphone, and voice feedback is given when the command is accepted.

- If you need to hear the available commands for the current menu again, say “Help” and the system will repeat them.
- If a command is not recognized, the system announces, “Command not recognized. Please try again.” Repeat the command in a clear voice.
- If you want to go back to the previous command, you can say “Go back” or “Correction” any time the system is waiting for a response.
- You can cancel a command when the system is waiting for a response by saying, “Cancel” or “Quit.” The system announces “Cancel” and ends the VR session. You can also press the  button on the steering wheel at any time. Whenever the VR session is cancelled, a double beep sounds to indicate you have exited the system.
- If you want to adjust the volume of the voice feedback, press the volume control switches (+ or -) on the steering wheel while being provided with feedback. You can also use the radio volume control knob.

How to say numbers

NISSAN Voice Recognition requires a certain way to speak numbers in voice commands. Refer to the following rules and examples.

- Either “zero” or “oh” can be used for “0”.
Example: 1-800-662-6200
 - “One eight oh oh six six two six two oh oh”, or
 - “One eight zero zero six six two six two oh oh”
- Words can be used for the first 4 digits places only.
Example: 1-800-662-6200
 - “One eight hundred six six two six two oh oh”,
 - NOT “One eight hundred six six two sixty two hundred, and
 - NOT “One eight oh oh six six two sixty two hundred.
- Numbers can be spoken in small groups. The system will prompt you to continue entering digits, if desired.
Example: 1-800-662-6200
 - “One eight oh oh”

The system repeats the numbers and prompts you to enter more.

– “six six two”

The system repeats the numbers and prompts you to enter more.

– “six two oh oh”

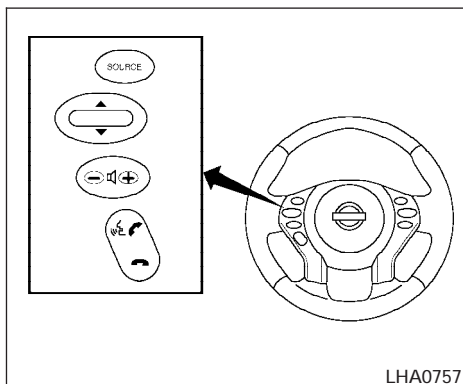
- You can say “Star” for * and “Pound” for # at any time in any position of the phone number.

Example: 1-555-1212 *123

– “One five five five one two one two star one two three”

NOTE:


For best results, say phone numbers as single digits.




CONTROL BUTTONS


The control buttons for the Bluetooth® Hands-Free Phone System are located on the steering wheel.

PHONE/SEND

Press the  button to initiate a VR session or answer an incoming call.

You can also use the  button to skip through system feedback and to enter commands during a call. See “List of voice commands” and “During a call” later in this section for more information.

PHONE/END

Press the  button to cancel a VR session or end a call.





GETTING STARTED

The following procedures will help you get started using the Bluetooth® Hands-Free Phone System with NISSAN Voice Recognition. For additional command options, refer to “List of voice commands” later in this section.

Choosing a language

You can interact with the Bluetooth® Hands-Free Phone System using English, Spanish or French.



To change the language, perform the following.



1. Press and hold the  button for more than 5 seconds.
2. The system announces: “Press the PHONE/SEND () button for the hands-free phone system to enter the speaker adaptation mode or press the PHONE/END () button to select a different language.”
3. Press the  button.

For information on speaker adaptation, see “Speaker adaptation (SA) mode” later in this section.

4. The system announces the current language and gives you the option to change the language to Spanish (in Spanish) or French (in French). Use the following chart to select the language.

NOTE:

Note: You must press the  button or the  button within 5 seconds to change the language.

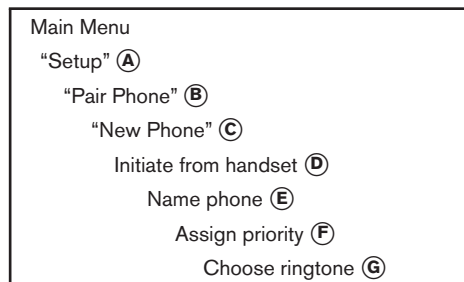
| Current language | Press  (PHONE/SEND) to select | Press  (PHONE/END) to select |
|------------------|--|---|
| English | Spanish | French |
| Spanish | English | French |
| French | English | Spanish |


5. If you decide not to change the language, do not press either button. After 5 seconds, the VR session will end, and the language will not be changed.

Pairing procedure

NOTE:

The pairing procedure must be performed when the vehicle is stationary. If the vehicle starts moving during the procedure, the procedure will be cancelled.



1. Press the  button on the steering wheel. The system announces the available commands.
2. Say: "Setup" (A). The system acknowledges the command and announces the next set of available commands.
3. Say: "Pair phone" (B). The system acknowledges the command and announces the next set of available commands.

4. Say: "New phone" (C). The system acknowledges the command and asks you to initiate pairing from the phone handset (D).

The pairing procedure of the cellular phone varies according to each cellular phone model. See the cellular phone Owner's Manual for details. You can also visit www.nissanusa.com/bluetooth for instructions on pairing NISSAN recommended cellular phones.

When prompted for a PIN code, enter "1234" from the handset. The PIN code "1234" has been assigned by NISSAN and cannot be changed.

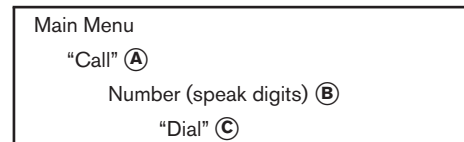
5. The system asks you to say a name for the phone (E).


If the name is too long or too short, the system tells you, then prompts you for a name again.

Also, if more than one phone is paired and the name sounds too much like a name already used, the system tells you, then prompts you for a name again.

6. The system asks you to assign a priority level (F). The priority level determines which phone is active when more than one paired Bluetooth® phone is in the vehicle. Follow the instructions provided by the system or refer to "Setup" later in this section for more information on changing priorities.
7. The system will ask if you would like to select a custom ring tone (G). Follow the instructions provided by the system or refer to "Setup" later in this section for more information on selecting ringtones.

Making a call by entering a phone number





1. Press the  button on steering wheel. A tone will sound.
2. Say: "Call" (A). The system acknowledges the command and announces the next set of available commands.

- Say the number you wish to call **(B)**. For example, 555-1212 can be said as “five five five one two one two.” See “How to say numbers” earlier in this section for more information.
- When you have finished speaking the phone number, the system repeats it back and announces the available commands.
- Say: “Dial” **(C)**. The system acknowledges the command and makes the call.


For additional command options, see “List of voice commands” later in this section.

Receiving a call

When you hear the ring tone, press the  button on the steering wheel.

Once the call has ended, press the  button on the steering wheel.


NOTE:

If you do not wish to take the call when you hear the ring tone, press the  button on the steering wheel.

For additional command options, see “List of voice commands” later in this section.

LIST OF VOICE COMMANDS

| |
|--------------|
| Main Menu |
| “Call” |
| “Phone Book” |
| “Memo Pad” |
| “Setup” |

When you press and release the  button on the steering wheel, you can choose from the commands on the Main Menu. The following pages describe these commands and the commands in each sub-menu.



Remember to wait for the tone before speaking.

You can say “Help” to hear the list of commands currently available any time the system is waiting for a response.

If you want to end an action without completing it, you can say “Cancel” or “Quit” at any time the system is waiting for a response. The system will end the VR session. Whenever the VR session is cancelled, a double beep is played to indicate you have exited the system.

If you want to go back to the previous command, you can say “Go back” or “Correction” any time the system is waiting for a response.

When you get used to the menus in the system, you can talk ahead by saying more than one command at a time. For example, say, “Call five five five one two one two” or “Memo pad record.”

Also, when you get used to the system responses, you can skip ahead to the tone by pressing the  button on the steering wheel. However, if you press the  button when the system is waiting for a response from you it will end the VR session.

“Call”

| |
|----------------------------------|
| Main Menu |
| “Call” |
| Name (speak name) (A) |
| Number (speak digits) (B) |
| “Redial” (C) |
| “Call Back” (D) |

Name (speak name) **(A)**

If you have stored entries in the Phone Book, you can dial a number associated with a name and location.

See “Phone book” later in this section to learn how to store entries.

When prompted by the system, say the name of the phone book entry you wish to call. The system acknowledges the name.

If there are multiple locations associated with the name, the system asks you to choose the location.

Once you have confirmed the name and location, the system begins the call.

Number (speak digits)

When prompted by the system, say the number you wish to call. Refer to “How to say numbers” and “Making a call by entering a phone number” earlier in this section for more details.

“Redial”

Use the Redial command to call the last number that was dialed within the vehicle.

NOTE:

The system will not redial the last number dialed by the handset keypad.

The system acknowledges the command, repeats the number and begins dialing.

If a redial number does not exist, the system announces, “There is no number to redial” and ends the VR session.


“Call back”

Use the Call Back command to dial the number of the last incoming call within the vehicle.

The system acknowledges the command, repeats the number and begins dialing.

If a call back number does not exist, the system announces, “There is no number to call back” and ends the VR session.

During a call

During a call there are several command options available. Press the  button on the steering wheel to mute the receiving voice and enter commands.

- “Help” — The system announces the available commands.
- “Go back/Correction” — The system announces “Go back,” ends the VR session and returns to the call.
- “Cancel/Quit” — The system announces “Cancel,” ends the VR session and returns to the call.
- “Send/Enter/Call/Dial” — Use the Send command to enter numbers during a call. For example, if you were directed to dial an extension by an automated system:
Say: “Send one two three four.”

The system acknowledges the command and sends the tones associated with the numbers. The system then ends the VR session and returns to the call.

- “Transfer call” — Use the Transfer Call command to transfer the call from the Bluetooth® Hands-Free Phone System to the cellular phone when privacy is desired.

The system announces, “Transfer call. Call transferred to privacy mode.” The system then ends the VR session.

You can also issue the Transfer Call command again to return to a hands-free call through the vehicle.

- “Mute” — Use the Mute command to mute your voice so the other party cannot hear it. Use the mute command again to unmute your voice.

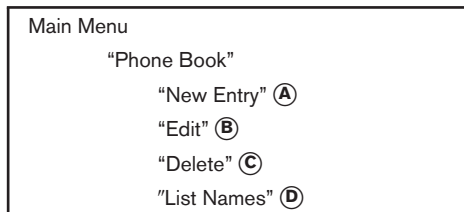
NOTE:

If a call is ended or the cellular phone network connection is lost while the Mute feature is on, the Mute feature will be reset to “off” for the next call so the other party can hear your voice.

“Phone book”

NOTE:

Phone book commands are not available when the vehicle is moving.



The Phone Book stores up to 40 names for each phone paired with the system. Each name can have up to 4 locations/phone numbers associated with it.

NOTE:

Each phone has its own separate phone book. You cannot access Phone A's phone book if you are currently connected with Phone B.

“New entry” (A)

Use the New Entry command to store a new name in the system.

When prompted by the system, say the name you would like to give the new entry.

For example, say: “Mary.”

If the name is too long or too short, the system tells you, then prompts you for a name again.

Also, if the name sounds too much like a name already stored, the system tells you, then prompts you for a name again.

Once the system accepts the name and you confirm it is correct, the system asks for a location (Home, Office, Mobile or Other).

For example, say: “Home.”

The system acknowledges the location.

The system will ask you to say a phone number or to transfer a phone number stored in the cellular phone's memory.

Enter a phone number by voice command:

For example, say: “five five five one two one two.” See “How to say numbers” earlier in this section for more information.

To transfer a phone number stored in the cellular phone's memory:

Say “Transfer entry.” The system acknowledges the command and asks you to initiate the transfer from the phone handset. The new contact phone

number will be transferred from the cellular phone via the Bluetooth® communication link.

The transfer procedure varies according to each cellular phone. See the cellular phone Owner's Manual for details. You can also visit www.nissanusa.com/bluetooth for instructions on transferring phone numbers from NISSAN recommended cellular phones.

The system repeats the number and prompts you for the next command. When you have finished entering numbers or transferring an entry, choose “Store.”

The system confirms the name, location and number. The system then asks if you would like to store another location for the same name. If you do not wish to store another location, the system ends the VR session.

“Edit” (B)

Use the Edit command to alter an existing phone book entry or to add a 2nd, 3rd or 4th phone number to an existing entry.

When prompted by the system, say the name of the entry you wish to edit.

The system acknowledges the name and asks you for the location you would like to edit.

Say the name of the location.

The system acknowledges the location.

The system will ask you to say a phone number or to transfer a phone number stored in the cellular phone's memory.

Enter a phone number by voice command:

For example, say: "five five five one two one two." See "How to say numbers" earlier in this section for more information.

To transfer a phone number stored in the cellular phone's memory:

Say "Transfer entry." The system acknowledges the command and asks you to initiate the transfer from the phone handset. The new contact phone number will be transferred from the cellular phone via the Bluetooth® communication link.

The transfer procedure varies according to each cellular phone. See the cellular phone Owner's Manual for details. You can also visit www.nissanusa.com/bluetooth for instructions on transferring phone numbers from NISSAN recommended cellular phones.

The system repeats the number and prompts you for the next command. When you have finished entering numbers, choose "Store."

The system confirms the name, location and number, then announces that the entry has been stored. The system then ends the VR session.

"Delete"

Use the Delete command to erase one entry from the phone book, all entries from the phone book, the current redial number or the current call back number.

To delete entries from the phone book, say a name or "All entries" when prompted by the system.

The system acknowledges the command and asks you to confirm the deletion.

To delete the current redial number or call back number, say "redial number" or "call back number" when prompted by the system.


If a redial number or a call back number exists, the system deletes them without asking for confirmation.

If there is no number for the entry you are trying to delete, the system says so and ends the VR session.

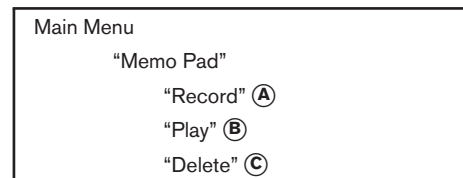
"List names"

Use the List Names command to hear all the names and locations in the phone book.

The system recites the phone book entries but does not include the actual phone numbers. When the playback of the list is complete the system goes back to the main menu.

You can stop the playback of the list at any time by pressing the  button on the steering wheel. The system ends the VR session.



"Memo pad"



The Memo Pad records a maximum of 6 voice memos, each up to 20 seconds long.

"Record"

The system announces "Recording" and a tone sounds signaling you to begin.

Speak the information you wish to record clearly. When you are done, press the  or  button on the steering wheel.

A tone sounds and the system announces "Memo recorded." Another tone sounds to end the VR session.

If the memo pad is full, the system asks if you wish to record over the oldest memo.

“Play” **(B)**

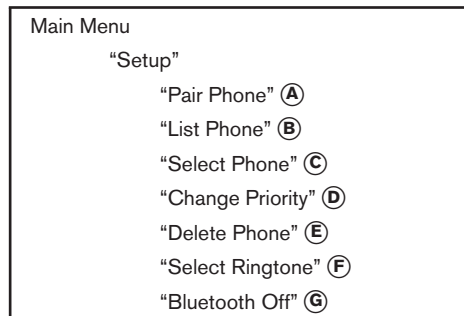
The system plays back all the memos in the order of newest to oldest. The system ends the VR session.

If there are no memos recorded, the system announces “No messages to play.” The system ends the VR session.

“Delete” **(C)**

The Delete command erases all memos. The system asks you to confirm this action before deleting all memos.

“Setup”



Use the Setup command to change options associated with the Bluetooth® Hands-Free Phone System.

“Pair phone” **(A)**

Use the Pair Phone command to pair a phone to the Bluetooth® Hands-Free Phone System.

NOTE:

The pairing procedure must be performed when the vehicle is stationary. If the vehicle starts moving during the procedure, the procedure will be cancelled. Also, see “Pairing procedure” earlier in this section for additional information.

Up to 5 phones can be paired. If you try to pair a sixth phone, the system announces that you must first delete one phone or replace an existing phone.

If you try to pair a phone that has already been paired to your vehicle’s system, the system announces the name the phone is already using. The pairing procedure will then be cancelled.

When prompted by the system, choose from the following commands:

- “New phone” — Refer to “Pairing a phone” earlier in this section.

- “Replace phone” — The system announces the names of the phones already paired and asks which you would like to replace.

Once you say the name of the phone you wish to replace, the pairing procedure will begin. Refer to “Pairing procedure” earlier in this section.

- “List phone” — See the description below.

“List phone” **(B)**

Use the List Phone command to hear the names of the phones currently paired. If no phones are paired, the system announces, “No paired phones to list.” The system then ends the VR session.

“Select phone” **(C)**

Use the Select Phone command to select a phone of lesser priority when two or more phones paired with Bluetooth® Hands-Free Phone System are in the vehicle at the same time.

The system asks you to name the phone and confirm the selection.

Once the selection is confirmed, the selected phone remains active until the ignition switch is turned OFF or you select a new phone.

“Change priority” **(D)**

Use the Change Priority command to change the priority level of the active phone.

The priority level determines which phone is active when more than one paired Bluetooth® phone is in the vehicle.

The system states the priority level of the active phone and asks for a new priority level (1, 2, 3, 4, 5).

If the new priority level is already being used for another phone, the two phones will swap priority levels.

For example, if the current priority levels are:

Priority Level 1 = Phone A
Priority Level 2 = Phone B
Priority Level 3 = Phone C

and you change the priority level of Phone C to Level 1, then:

Priority Level 1 = Phone C
Priority Level 2 = Phone B
Priority Level 3 = Phone A

“Delete phone” **(E)**

Use the Delete Phone command to delete a specific phone or all phones from the Bluetooth® Hands-Free Phone System.

The system announces the names of the phones already paired with the system and their priority level. The system then gives you the option to delete a specific phone, all phones or listen to the list again.

Once you chose to delete a phone or all phones, the system asks you to confirm this action.

NOTE:

When you delete a phone, the associated phone book for that phone will also be deleted.

“Select ringtone” **(F)**

Use the Select Ringtone command to select the tone heard in the vehicle when an incoming call is received.

The system announces the name of the active phone and asks you to choose from the following commands:

- “Ringtone” — The system plays a ringtone and asks if you would like to select that tone. If you say no, the system plays the next ringtone available and continues to cycle through the ringtones until you select one or quit.
- “Silent” — The system asks you to confirm your wish to disable the ringtone.

“Bluetooth off” **(G)**

Use the Bluetooth Off command to turn off the Bluetooth® Hands-Free Phone System.

When the Bluetooth® Hands-Free Phone System is off, you will not be able to make or receive calls using NISSAN Voice Recognition. Also, you will not have access to the Phone Book.

You can still use the Memo Pad and access Setup.





SPEAKER ADAPTATION (SA) MODE

Speaker Adaptation allows up to two out-of-dialect users to train the system to improve recognition accuracy. By repeating a number of commands, the users can create a voice model of their own voice that is stored in the system. The system is capable of storing a different speaker adaptation model for memory A and memory B.

If memory A is available, the system will use memory A to store the model. If memory A is in use and memory B is available, the system will use memory B to store the model. If both of the memory locations are in use, the system will ask the user to select which memory location should be overwritten.


Training procedure

The procedure for training a voice is as follows.


1. Position the vehicle in a reasonably quiet outdoor location.
2. Sit in the driver's seat with the engine running, the parking brake on, and the transmission in P (Park) (AT and CVT models) or N (Neutral) (MT models).
3. Press and hold the  button for more than 5 seconds.
4. The system announces: "Press the PHONE/SEND () button for the hands-free phone system to enter the speaker adaptation mode or press the PHONE/END () button to select a different language."
5. Press the  button.

For information on selecting a different language, see "Choosing a language" earlier in this section.

6. Voice memory A or memory B is selected automatically. If both memory locations are already in use, the system will prompt you to overwrite one. Follow the instructions provided by the system.

7. When preparation is complete and you are ready to begin, the press the  button.
8. The SA mode will be explained. Follow the instructions provided by the system.
9. When training is finished, the system will tell you an adequate number of phrases have been recorded.
10. The system will ask you to say your name. Follow the instructions to register your name.
11. The system will announce that speaker adaptation has been completed and the system is ready.

The SA mode will stop if:

- The  button is pressed for more than 5 seconds in SA mode.
- The vehicle begins moving during SA mode.
- The ignition switch is turned to the OFF or LOCK position.

Training phrases

During the SA mode, the system instructs the trainer to say the following phrases. (The system will prompt you for each phrase.)

- phone book new entry

- dial three oh four two nine
- delete call back number
- setup pair phone
- memo pad play
- eight pause nine three two pause seven
- delete all entries
- call seven two four zero nine
- phone book delete entry
- memo pad record
- dial star two one seven oh
- Yes
- No
- select ring tone
- dial eight five six nine two
- Bluetooth on
- setup change priority
- call three one nine oh two
- nine seven pause pause three oh eight
- Cancel
- call back number

- call star two zero nine five
- delete phone
- dial eight three zero five one
- Home
- four three pause two nine pause zero
- delete redial number
- phone book list names
- call eight oh five four one

- Correction
- setup change ring tone
- dial seven four oh one eight
- setup main menu
- Delete
- dial nine seven two six six
- memo pad delete
- call seven six three oh one
- go back

- call five six two eight zero
- dial six six four three seven

TROUBLESHOOTING GUIDE

The system should respond correctly to all voice commands without difficulty. If problems are encountered, try the following solutions.

Where the solutions are listed by number, try each solution in turn, starting with number 1, until the problem is resolved.

| Symptom | Solution |
|--|--|
| System fails to interpret the command correctly. | 1. Ensure that the command is valid. See "List of voice commands" earlier in this section. |
| | 2. Ensure that the command is spoken after the tone. |
| | 3. Speak clearly without pausing between words and at a level appropriate to the ambient noise level in the vehicle. |
| | 4. Ensure that the ambient noise level is not excessive (for example, windows open or defroster on). NOTE: If it is too noisy to use the phone, it is likely that the voice commands will not be recognized. |
| | 5. If more than one command was said at a time, try saying the commands separately. |
| | 6. If the system consistently fails to recognize commands, the voice training procedure should be carried out to improve the recognition response for the speaker. See "Speaker adaptation (SA) mode" earlier in this section. |
| The system consistently selects the wrong entry from the phone book. | 1. Ensure that the phone book entry name requested matches what was originally stored. This can be confirmed by using the "List Names" command. See "Phone book" earlier in this section. |
| | 2. Replace one of the names being confused with a new name. |

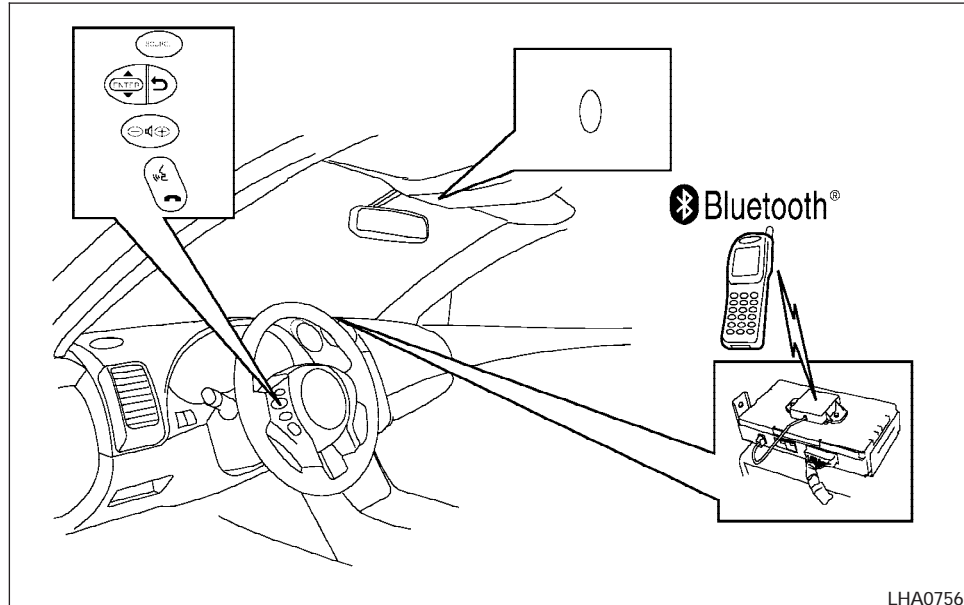
BLUETOOTH® HANDS-FREE PHONE SYSTEM WITH NAVIGATION SYSTEM (if so equipped)

⚠ WARNING

- Use a phone after stopping your vehicle in a safe location. If you have to use a phone while driving, exercise extreme caution at all times so full attention may be given to vehicle operation.
- If a conversation in a moving vehicle requires you to take notes, pull off the road to a safe location and stop your vehicle before doing so.

⚠ CAUTION

To avoid draining the vehicle battery, use a phone after starting the engine.



LHA0756

Your NISSAN is equipped with the Bluetooth® Hands-Free Phone System. If you are an owner of a Bluetooth® enabled cellular phone, you can set up the wireless connection between your cellular phone and the in-vehicle phone module. With Bluetooth® wireless technology, you can

make or receive a hands-free telephone call with your cellular phone in the vehicle.

Once your cellular phone is paired to the in-vehicle phone module, no other phone connecting procedure is required. Your phone is automatically connected with the in-vehicle phone

module when the ignition switch is turned to the ON position with the paired cellular phone turned on and carried in the vehicle.

You can register up to 5 different Bluetooth® cellular phones to the in-vehicle phone module. However, you can talk on only one cellular phone at a time.

NISSAN Voice Recognition system supports the phone commands, so dialing a phone number using your voice is possible. For more details, see NISSAN Voice Recognition System later in this section.

Before using the Bluetooth® Hands-Free Phone System, refer to the following notes.

- Set up the wireless connection between a cellular phone and the in-vehicle phone module before using the hands-free phone system.
- Some Bluetooth® enabled cellular phones may not be recognized by the in-vehicle phone module. Please visit www.nissanusa.com/bluetooth for a recommended phone list.
- You will not be able to use a hands-free phone under the following conditions:
 - Your vehicle is outside of the cellular service area.

- Your vehicle is in an area where it is difficult to receive cellular signal; such as in a tunnel, in an underground parking garage, near a tall building or in a mountainous area.

- Your cellular phone is locked to prevent it from being dialed.

- When the radio wave condition is not ideal or ambient sound is too loud, it may be difficult to hear the other person's voice during a call.
- Immediately after the ignition switch is pushed to the ON position or the DVD-ROM for the navigation system is inserted into the player, it may be impossible to receive a call for a short period of time.
- Do not place the cellular phone in an area surrounded by metal or far away from the in-vehicle phone module to prevent tone quality degradation and wireless connection disruption.
- While a cellular phone is connected through the Bluetooth® wireless connection, the battery power of the cellular phone may discharge quicker than usual. The Bluetooth® Hands-Free Phone System cannot charge cellular phones.

- If the hands-free phone system seems to be malfunctioning, please refer to “Troubleshooting guide” later in this section. You can also visit www.nissanusa.com/bluetooth for troubleshooting help.

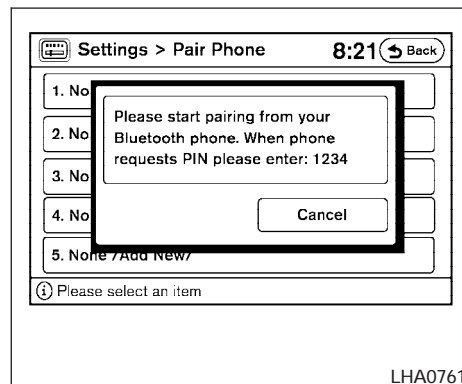
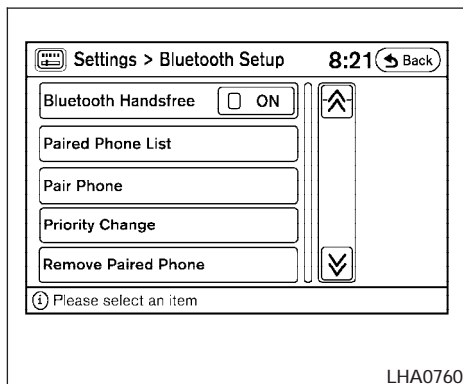
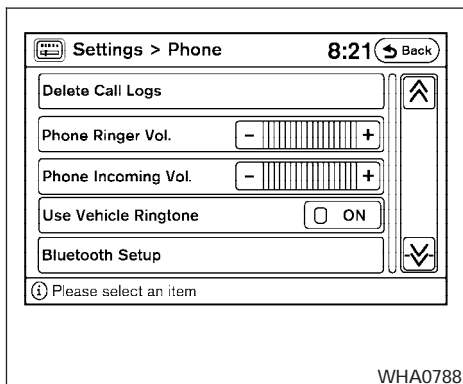
- Refer to the cellular phone Owner's Manual regarding the telephone charges, cellular phone antenna and body, etc.

- The signal strength display on the monitor will not coincide with the signal strength display of some cellular phones.

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.

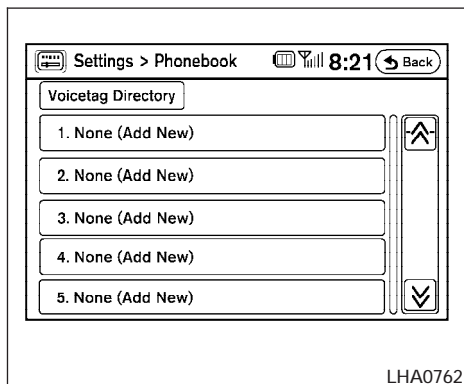
FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 8 inches (20 cm) between the radiator and your body. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.



PAIRING PROCEDURE

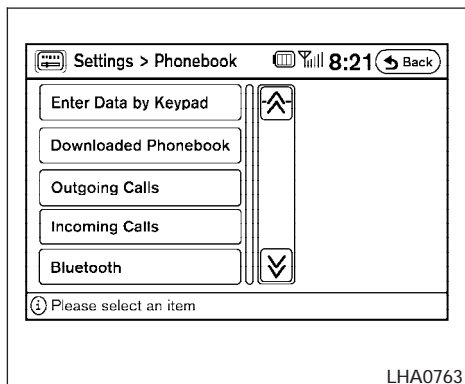
1. Press the SETUP button, then touch the "Phone" key.
2. Scroll to the bottom of the list and touch the "Bluetooth Setup" key.
3. Touch the "Pair Phone" key, then touch one of the "None (Add New)" keys.
4. When a PIN code appears on the screen, operate the Bluetooth® cellular phone to enter the PIN code. The pairing procedure of the cellular phone varies according to each cellular phone manufacturer. See the cellular phone Owner's Manual for the details.
5. When the pairing is completed, the screen will return to the Bluetooth® setup display.



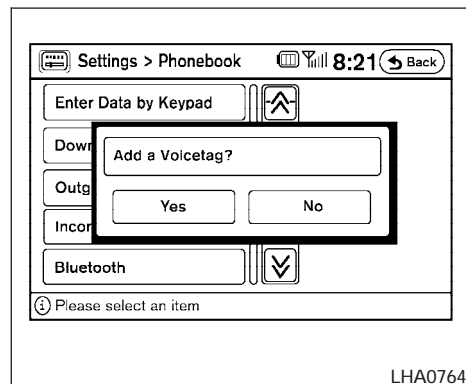
PHONE DOWNLOAD

Up to 70 phone numbers can be stored in the phonebook.

1. Press the SETUP button, then touch the "Phone" key.
2. Touch the "Phonebook" key.
3. Touch one of the "None (Add New)" keys from the name list of the phonebook.
4. Touch the "Bluetooth" key in order to transfer a phonebook entry from your cellular phone to your phonebook in your car.



5. Operate the cellular phone to send a person's name and phone number from the memory of the cellular phone. The memory sending procedure from the cellular phone varies according to each cellular phone manufacturer. See the cellular phone Owner's Manual for more details.



6. If you want to add a voice tag, touch the "Yes" key on the Add a voice tag? screen. For example, if the partner's name is David, speak "David" while the Store voice tag screen is on the display. The David voice tag is stored in the phonebook. Voice tag is a useful function for easy dialing supported by the voice recognition system. For more information, see "NISSAN Voice Recognition System" later in this section.
7. When the phonebook download is completed, the screen will return to the name list of the phonebook.

There are different methods to input a phone number. Select one of the following options instead of the “Bluetooth” key in step 4 above.

Enter Data by Keypad:

Input the name and phone number manually.

Downloaded Phonebook:

Select an entry from a list of phone numbers you have already transferred from your phone to your vehicle.

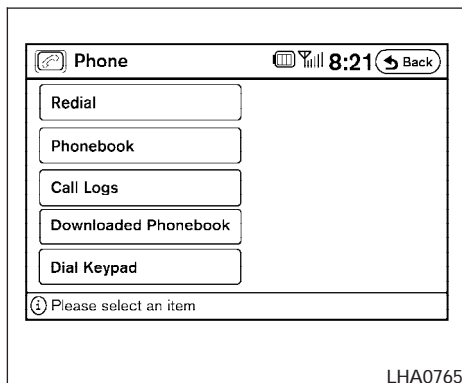
Outgoing Calls:

Store the name and phone number from the outgoing call list.

Incoming Calls:


Store the name and phone number from the incoming call list.

To delete an item, touch the “Delete item” key.



MAKING A CALL

To make a call, follow the procedures below.

1. Press the phone  button on the steering wheel switches. The phone screen will appear on the display.
2. Touch the “Phonebook” key.
3. Touch one of the downloaded person’s key from the list. Dialing will start.
4. After the call is over, perform one of the following to finish the call.
 - a. Touch the “Hang Up” key.

- b. Press and hold the phone  button on the steering wheel switches.

There are different methods to make a call. Select one of the following options instead of the “Phonebook” key in step 2 above.

Redial:

Dial the previously dialed number again.

Call Logs - Outgoing Calls:

Select the name and phone number from the outgoing call logs.

Call Logs - Incoming Calls:

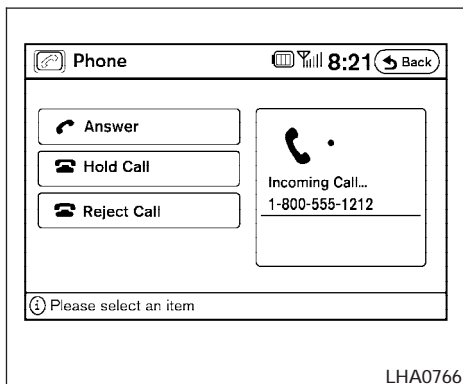
Store the name and phone number from the outgoing call list.

Downloaded Phonebook:

Choose from a list of stored numbers that have been transferred from your phonebook to your vehicle.


Dial Keypad:

Input the phone number manually.



RECEIVING A CALL

When you hear a phone ring, the display will change to phone mode. To receive a call, follow the two procedures listed below.

- Touch the "Answer" key on the display.
- Press the phone  button on the steering wheel switches.

There are some options available when receiving a call. Select one of the following displayed on the screen.

Answer:

Accept an incoming call to talk.


Hold Call:

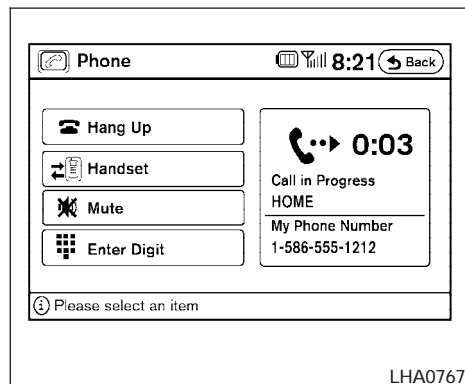
Continue to hold call.

Reject Call:

Reject an incoming call.

To finish the call, follow the three procedures listed below.

- Touch the "Reject Call" key on the display.
- Press and hold the phone  button on the steering wheel switches.



DURING A CALL

There are some options available during a call. Select one of the following displayed on the screen if necessary.

Hang up:

Finish the call.

Handset:

Transfer the call to the cellular phone.

Mute:

Mute your voice to the person.

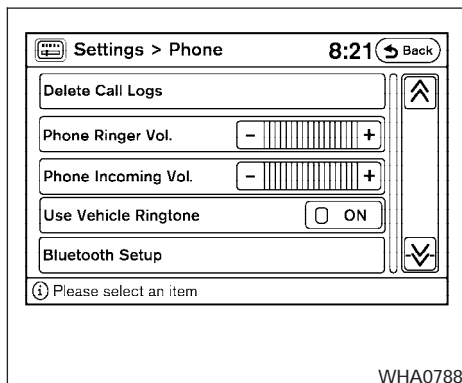
Enter Digit :

Brings up a keypad, enter digits when needed. For example, entering your PIN number for voice-mail.

Cancel Mute:

This will appear after the “Mute” key is touched. Mute will be cancelled.

To adjust the person’s voice to be louder or quieter, press the volume control switch located on the steering wheel switches or turn the volume control knob on the instrument panel while talking on the phone. This adjustment is also available in the SETUP mode.

**PHONE SETTING**

To set up the hands-free phone system to your preferred settings, press the SETUP button, then touch the “Phone” key on the display.

Phonebook:

See “Phonebook download” earlier in this section.

Downloaded Phonebook:

See the following information for each item.

- **Download All:**

Transfer phonebook entries from your cellular phone to the vehicle’s phonebook. For more information, see “Phonebook download” earlier in this section.

- **Delete Downloaded Phonebook:**

Delete all of the downloaded phonebook entries.

- **Delete an Entry of Downloaded Phonebook:**

Delete a single entry from the downloaded phonebook. Touch the corresponding letter key, then touch on the name key you wish to delete. Touch the “Yes” key to delete the entry.

Delete Call Logs:

Delete all the outgoing or incoming call logs from the list.

Phone Ringer Vol:

Adjust the ring volume to be quieter “-” or louder “+”.

Phone Incoming Vol:

Adjust the phone incoming volume to be quieter “-” or louder “+”.

Use Vehicle Ringtone:

If this item is turned on, a specific ringtone that is different from the cellular phone’s will sound when receiving a call.

Bluetooth Setup:

See the following information for each item.

NISSAN VOICE RECOGNITION SYSTEM (if so equipped)

- **Bluetooth Hands-Free:**

If this item is turned off, the connection between the cellular phone and the in-vehicle phone module will be canceled.

- **Paired Phone List:**

Up to 5 registered cellular phones are shown on the list.

- **Pair Phone:**

See “Pairing Procedure” in this section.

- **Priority Change**

If multiple phones are registered to the system, you can change the priority of the phones on the shown list.

- **Remove Paired Phone:**

Delete a registered cellular phone from the paired list.


- **Bluetooth Info:**

Check information about the device name, vehicle name, device address device PIN and connection status.

- **Edit Phone Name:**


If you would like to change the way your phone’s name is displayed select this key, a character input screen will be displayed.

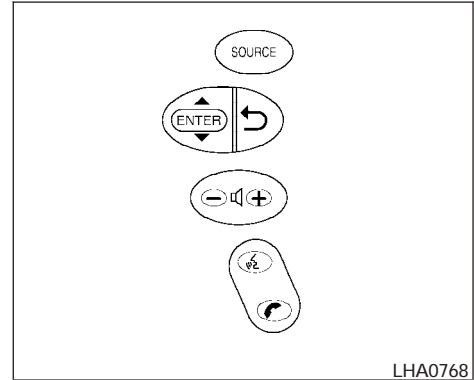
The NISSAN Voice Recognition system allows hands-free operation of the systems equipped on this vehicle, such as the phone and navigation systems.

To operate NISSAN Voice Recognition, press the  button located on the steering wheel. Then speak the command for the system you wish to activate. The command given is picked up by the microphone, and it is performed when it is properly recognized. At this time NISSAN Voice Recognition will provide a voice and message (in the center display) to inform you of the command results.


USING THE SYSTEM


Initialization

When the ignition switch is in the ON position, NISSAN Voice Recognition is initialized, which takes a few seconds. When completed, the system is ready to accept voice commands. If the  button is pressed before the initialization completes, the display will show the message: “Phonetic data downloaded. Please wait.”



Giving voice commands

1. Press the  button.
 2. The system announces: “Please say a command after a tone.”
 3. After the tone sounds and the face icon of the display changes, speak a command. For additional information, see “List of voice commands” later in this section.
 4. Voice and message feedback will be provided when the command is accepted.
- If the command is not recognized, the system announces: “Please say again.” Repeat the command in a clear voice.

- If you want to cancel the command, press and hold the  button for 2 seconds during feedback. The system will announce: "Voice canceled."
- If you want to adjust the volume of the voice feedback, press the volume control buttons (– or +) on the steering wheel while being provided with the feedback.

Operating tips

To get the best performance out of NISSAN Voice Recognition, observe the following:

- Keep the interior of the vehicle as quiet as possible. Close the windows to eliminate the surrounding noises (traffic noises, vibration sounds, etc.), which may prevent the system from recognizing the voice commands correctly.
- Wait until a tone sounds before speaking a command. Otherwise, the command will not be received properly.
- Start speaking a command within 3.5 seconds after the tone sounds.
- Speak in a natural voice without pausing between words.

SYSTEM FEATURES

NISSAN Voice Recognition can activate the following systems:

- Navigation (if so equipped)
- Bluetooth® Hands-Free Phone

For additional information on the navigation system, see the separate Navigation System Owner's Manual.

How to say numbers

NISSAN Voice Recognition requires a certain way to speak numbers in voice commands. Refer to the following examples.

General rule: Either "zero" or "oh" can be used for "0".

Phone numbers:

Speak phone numbers according to the following examples:

- 1-800-662-6200
- say "Dial" or "Phone dial" the system will respond with "Please say the first group of numbers", then say:
 - "one eight oh oh six six two six two oh oh",
 - "one eight hundred six six two six two oh oh", or

- "one eight zero zero six six two oh oh".

Note 1: For the best voice recognition phone dialing results, say phone numbers as single digits.

Note 2: You cannot say 555-6000 as "five five five six thousand".

Personal vocabulary (voicetags)

NISSAN Voice Recognition provides the function called "voicetags", which can be associated with the phone and the navigation system (if so equipped). Using your own voice, 70 voicetags can be registered in the "Phonebook" (phone) and 20 locations can be registered in the "Address Book" (navigation system).

For additional information, see "Bluetooth® Hands-Free Phone System" earlier in this section and/or the separate Navigation System Owner's Manual (if so equipped) for the method of "voicetag" registration.

LIST OF VOICE COMMANDS

Depending on the commands, some different phrases are available. Optional words are shown in brackets []. A few words, identified with a slash /, indicate the alternate words that you can select when speaking the command. Data items that you need to enter, such as phone numbers, are indicated in italics with brackets < >.

How to say commands

Example: “[PHONE] DIAL/CALL <phone number digits> ” stands for the following possible commands.

DIAL <1 to 32 phone number digits>

CALL <1 to 32 phone number digits>

PHONE DIAL <1 to 32 phone number digits>

Help commands

- “COMMAND LIST”, “VOICE HELP” or “HELP”
Gives spoken information about NISSAN Voice Recognition and displays the list of help commands.

Phone commands

- “[PHONE] DIAL <phone number digits> ” or “CALL <phone number digits> ”
Dials the phone number given in the command. Speak the phone number in one sequence. The number is automatically dialed.

- “[PHONE] DIAL <voicetag> ” or “CALL <voicetag> ”
Dials the phone number registered in the specified “voicetag”.
- “[PHONE] REDIAL”
Redials the phone number last dialed.
- “OUTGOING CALLS”
Shows the outgoing call history (1 to 5).
- “INCOMING CALLS”
Shows the incoming call history (1 to 5).
- “PHONE SELECT <phone priority number 1 to 5> ” or “SELECT/CHOOSE PHONE <phone priority number 1 to 5> ”
If multiple phones are registered to the system, you can change which phone to connect to the system (as long as that phone is present in the vehicle).
- “PHONEBOOK”
Shows the first page of the “phone book” list.
- “PHONEBOOK <voicetag> ”
Shows the specified “voicetag” entry in the “phone book”.

- “ PHONEBOOK [PLAY] DIRECTORY” or “PLAY PHONEBOOK [DIRECTORY]”
Dials the phone number registered in the phone book.

Navigation system commands (if so equipped)

For additional information, see the separate Navigation System Owner’s Manual for the voice commands available and operations.

TROUBLESHOOTING GUIDE

The system should respond correctly to all voice commands without difficulty. If problems are encountered, follow the solutions given in this guide for the appropriate error.

Where the solutions are listed by number, try each solution in turn, starting with number one, until the problem is resolved.

| Symptom/error message | Solution |
|--|---|
| Displays "COMMAND NOT RECOGNIZED" or he system fails to interpret the command correctly. | 1. Ensure that the command format is valid, see Command list in this section. |
| | 2. Speak clearly without pausing between words and at a level appropriate to the ambient noise level. |
| | 3. Ensure that the ambient noise level is not excessive, for example, windows open or defrost on. NOTE: If it is too noisy to use the phone, it is likely that voice commands will not be recognized. |
| | 4. If optional words of the command have been omitted, then the command should be tried with these in place. |
| The system consistently selects the wrong voicetag. | 1. Ensure that the voicetag requested matches what was originally stored. This can be confirmed by giving the Address Book Directory or Phone Directory command. |
| | 2. Replace one of the voicetags being confused with a different voicetag. |

MEMO

5 Starting and driving

| | | | |
|---|------|---|------|
| Precautions when starting and driving..... | 5-2 | Increasing fuel economy..... | 5-19 |
| Exhaust gas (carbon monoxide)..... | 5-2 | Parking/parking on hills..... | 5-20 |
| Three-way catalyst..... | 5-2 | Power steering..... | 5-21 |
| Tire Pressure Monitoring System (TPMS)..... | 5-3 | Brake system..... | 5-21 |
| Avoiding collision and rollover..... | 5-5 | Brake precautions..... | 5-21 |
| Drinking alcohol/drugs and driving..... | 5-5 | Anti-lock braking system (ABS) (if so equipped)..... | 5-22 |
| Push-Button Ignition Switch..... | 5-6 | Traction control system (TCS) (if so equipped)..... | 5-23 |
| Push-button ignition switch positions..... | 5-7 | Vehicle dynamic control (VDC) system (if so equipped)..... | 5-24 |
| Intelligent key battery discharge..... | 5-7 | Cold weather driving..... | 5-25 |
| Before starting the engine..... | 5-8 | Freeing a frozen door lock..... | 5-25 |
| Starting the engine..... | 5-9 | Anti-freeze..... | 5-25 |
| Driving the vehicle..... | 5-10 | Battery..... | 5-25 |
| Continuously Variable Transmission (CVT) (if so equipped)..... | 5-10 | Draining of coolant water..... | 5-26 |
| Manual transmission (if so equipped)..... | 5-14 | Tire equipment..... | 5-26 |
| Parking brake..... | 5-16 | Special winter equipment..... | 5-26 |
| Cruise control..... | 5-17 | Driving on snow or ice..... | 5-26 |
| Precautions on cruise control..... | 5-17 | Engine block heater (if so equipped)..... | 5-27 |
| Cruise control operations..... | 5-17 | | |
| Break-in schedule..... | 5-19 | | |

PRECAUTIONS WHEN STARTING AND DRIVING


WARNING

- Do not leave children or adults who would normally require the assistance of others alone in your vehicle. Pets should also not be left alone. 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.

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:
 1. Open all the windows.
 2. Set the  air recirculation button to off and the fan control dial to high to circulate the air.
- If electrical wiring or other cable connections must pass to a trailer through the seal on the trunk lid or the body, follow the manufacturer's recommendation to prevent carbon monoxide entry into the vehicle.
- The exhaust system and body should be inspected by a qualified mechanic whenever:

- a. The vehicle is raised for service.
- b. You suspect that exhaust fumes are entering into the passenger compartment.
- c. You notice a change in the sound of the exhaust system.
- d. 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.

CAUTION

- **Do not use leaded gasoline. Deposits from leaded gasoline will 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 dealer.**
- **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, including the spare (if provided), should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tire inflation pressure label. (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.

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 does not monitor the tire pressure of the spare tire.

- The TPMS will activate only when the vehicle is driven at speeds above 16 MPH (25 km/h). 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 does not automatically turn off when the tire pressure is adjusted. After the tire is inflated to the recommended pressure, the vehicle must be driven at speeds above 16 MPH (25 km/h) to activate the TPMS and turn off the low tire pressure warning light. Use a tire pressure gauge to check the tire pressure.
- Tire pressure rises and falls depending on the heat caused by the vehicle's operation and the outside temperature. Low outside temperature can lower the temperature of the air inside the tire which can cause a lower tire inflation pressure. This may cause the low tire pressure warning light to illuminate. If the warning light illuminates in low ambient temperature, check the tire pressure for all four tires.

For additional information, see “Low tire pressure warning light” in the “Instruments and controls” section and “Tire Pressure Monitoring System (TPMS)” in the “In case of emergency” section.

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. 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 and Loading Information label to turn the low tire pressure warning light OFF. If you have a flat tire, replace it with a spare tire as soon as possible. (See “Flat tire” in the “In case of emergency” section for changing a flat tire.)**
- **When a spare tire is mounted or 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 dealer 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.**

CAUTION

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.

FCC Notice:

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

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.

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, loss of control could result in a**

collision with other vehicles or objects, or cause the vehicle to roll over, 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 the "Safety – Seats, seat belts and supplemental restraint system" section of this manual, and also instruct your passengers to do so.

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.**

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.

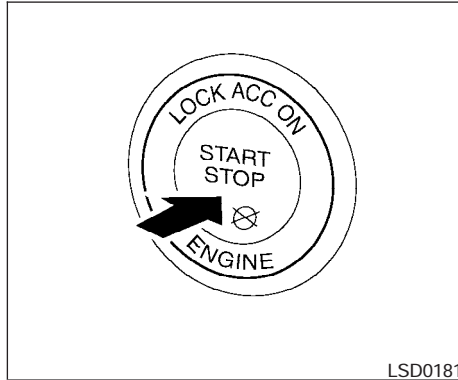
NISSAN is committed to safe driving. However, you must choose not to drive under the influence of alcohol. Every year thousands of people are injured or killed in alcohol-related accidents. Although the local laws vary on what is considered to be legally intoxicated, the fact is that alcohol affects 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.

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 3 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.
- When the battery of the Intelligent Key runs down, insert the Intelligent Key into the Intelligent Key port until a click sounds. And then, push the ignition switch to start the engine.
- If the steering lock release malfunction indicator appears on the vehicle information display, push the push-button ignition switch again while lightly turning the steering wheel right and left. See “Vehicle information display” in the “Instruments and controls” section.



When the ignition switch is pushed without depressing the brake pedal (CVT) or the clutch pedal (MT), the ignition switch position will illuminate as follows:

Push center

- once to change to ACC.
- two times to change to ON.
- three times to return to OFF.

The ignition switch is equipped with an anti-theft steering lock device.

The ignition lock is designed so that the ignition switch position cannot be switched to OFF until

the selector lever is moved to the P (Park) position (CVT) or N (Neutral) position (MT).

When the ignition switch cannot be pushed toward the OFF position, proceed as follows:

1. Move the selector lever into the P (Park) position (CVT) or N (Neutral) position (MT).
2. Push the ignition switch. The ignition switch position will change to the ON position.
3. Push the ignition switch again to the OFF position.

The selector lever can be moved from the P (Park) position if the ignition switch is in the ON position and the brake pedal is depressed.

In order for the steering wheel to be locked, it must be turned about 1/8 of a right or left turn from the straight up position.

To lock the steering wheel, push the ignition switch to the LOCK position. To unlock the steering wheel, push the ignition switch while slightly turning the steering wheel right and left.

If the battery of the vehicle is discharged, the push-button ignition switch cannot be turned from the LOCK position.

Some indicators and warnings for operation are displayed on the vehicle information display. See “Vehicle information display” in the “Instruments and controls” section.

PUSH-BUTTON 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.

The ignition switch will lock when any door is opened or closed with the ignition switched off.

OFF:

The ignition switch is in the off position when the engine is turned off using the ignition switch. No lights will illuminate on the ignition switch.

ACC (Accessories):

This position activates electrical accessories such as the radio, when the engine is not running.

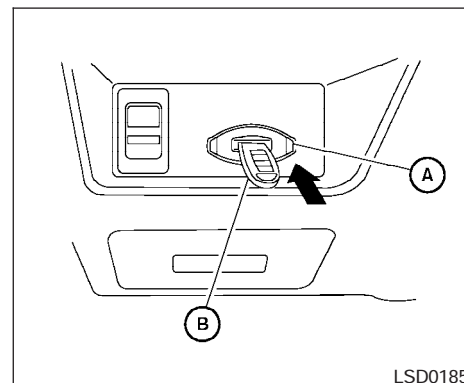
ON (Normal operating position):

This position turns on the ignition system and electrical accessories.

⚠ CAUTION

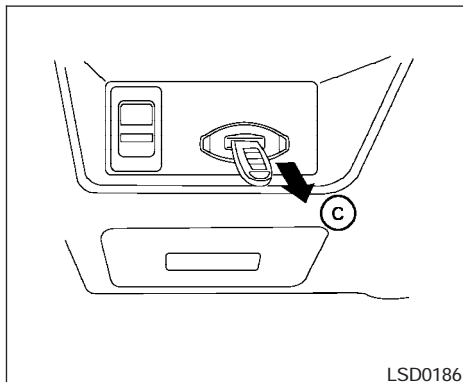
Do not leave the vehicle with the ignition switch in ACC or ON positions when the engine is not running for an extended period. This can discharge the battery.

INTELLIGENT KEY BATTERY DISCHARGE



If the battery of the Intelligent Key is almost discharged, the guide light (A) of the Intelligent Key port blinks and the indicator appears on the vehicle information display. See “Vehicle information display” in the “Instruments and controls” section.

In this case, inserting the Intelligent Key into the port (B) allows you to start the engine. Make sure the Intelligent Key is placed in the correct direction: The front side faces upward and the key ring side faces backward as illustrated.



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To remove the Intelligent Key from the port, push the ignition switch to the LOCK position and pull the Intelligent Key out of the port (C).

NOTE:

The Intelligent Key port does not charge the Intelligent Key battery. If you see the low battery indicator, replace the battery as soon as possible. See “Intelligent Key battery replacement” in the “Maintenance and do-it-yourself” section.

⚠ CAUTION

- **Never place anything except the Intelligent Key in the Intelligent Key port. Doing so may cause damage to the equipment.**
- **Make sure the Intelligent Key is in the correct direction when inserting it to the Intelligent Key port. The engine may not start if it is in the wrong direction.**
- **Remove the Intelligent Key from the Intelligent Key port after the ignition switch is pushed to the LOCK position.**

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.
- Lock all doors.
- Position seat and adjust head restraints.
- 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. See “Warning/indicator lights and audible reminders” in the “Instruments and controls” section of this manual.

STARTING THE ENGINE

1. Apply the parking brake.
2. **Continuously Variable Transmission (CVT) model:**

Move the shift selector lever to P (Park) or N (Neutral). P (Park) is recommended.

The starter is designed not to operate if the shift selector lever is in any of the driving positions.

Manual transmission:

Move the shift lever to N (Neutral). Depress the clutch pedal to the floor.

The starter is designed not to operate unless the clutch pedal is fully depressed.

3. Push the ignition switch to the ON position. Depress the brake pedal and the clutch pedal (if so equipped) and push the ignition switch to start the engine.

To start the engine immediately, push and release the ignition switch while depressing the brake pedal with the ignition switch in any position.

- If the engine is very hard to start in extremely cold weather or when restarting, depress the accelerator pedal a little (approximately 1/3 to the floor) and while holding, crank the engine. Release the accelerator pedal when the engine starts.
- If the engine is very hard to start because it is flooded, depress the accelerator pedal all the way to the floor and hold it. Push the ignition switch to the ON position to start cranking the engine. After 5 or 6 seconds, stop cranking by pushing the ignition switch to LOCK. After cranking the engine, release the accelerator pedal. Crank the engine with your foot off the accelerator pedal by depressing the brake pedal and pushing the push-button ignition switch to start the engine. If the engine starts, but fails to run, repeat the above procedure.

CAUTION

Do not operate the starter for more than 15 seconds at a time. If the engine does not start, push the ignition switch to the OFF position and wait 10 seconds before cranking again, otherwise the starter could be damaged.

4. **Warm-up**

Allow the engine to idle for at least 30 seconds after starting. Do not race the engine while warming it up. Drive at moderate speed for a short distance first, especially in cold weather. In cold weather, keep the engine running for a minimum of 2 - 3 minutes before shutting it off. Starting and stopping the engine over a short period of time may make the vehicle more difficult to start.

5. To stop the engine, shift the selector lever to the P (Park) position (CVT) or to N (Neutral) and apply the parking brake (MT) and push the ignition switch to the OFF position.

DRIVING THE VEHICLE

CONTINUOUSLY VARIABLE TRANSMISSION (CVT) (if so equipped)

WARNING

- **Do not depress the accelerator pedal while shifting from P (Park) or N (Neutral) to R (Reverse), D (Drive) or manual shift mode. Always depress the brake pedal until shifting is completed. Failure to do so could cause you to lose control and have 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.**
- **Do not downshift abruptly on slippery roads. This may cause a loss of control.**
- **Never shift to P (Park) or R (Reverse) while the vehicle is moving. This could cause an accident.**

CAUTION

When stopping the vehicle on an uphill grade, do not hold the vehicle by depressing the accelerator pedal. The foot brake should be used for this purpose.

The CVT in your vehicle is electronically controlled to produce maximum power and smooth operation.

The recommended operating procedures for this transmission are shown on the following pages. Follow these procedures for maximum vehicle performance and driving enjoyment.

NOTE:

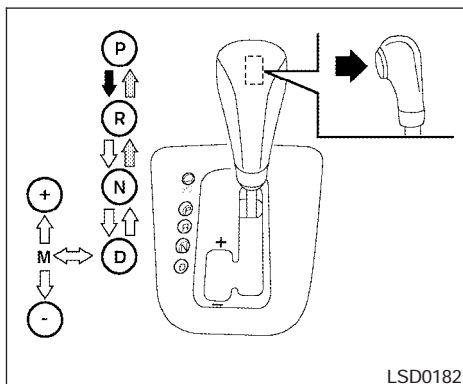
Engine power may be automatically reduced to protect the CVT if the engine speed increases quickly when driving on slippery roads or while being tested on some dynamometers.

Starting the vehicle




1. After starting the engine, fully depress the foot brake pedal before moving the shift selector lever out of the P (Park) position.
2. Keep the foot brake pedal depressed and move the shift selector lever into a driving gear.
3. Release the foot brake, then gradually start the vehicle in motion.
4. Stop the vehicle completely before shifting the selector lever to the P (Park) position.

The CVT is designed so the foot brake pedal MUST be depressed before shifting from P (Park) to any drive position while the ignition switch is in the ON position.

The shift selector lever cannot be moved out of P (Park) and into any of the other gear positions if the ignition switch is pushed to the LOCK or ACC position.



To move the selector lever:

-  Push the button while depressing the brake pedal
-  Push the button to shift
-  Shift without pushing button

Shifting

After starting the engine, fully depress the brake pedal and move the shift selector lever from P (Park) to any of the desired shift positions.

WARNING

Apply the parking brake if the selector lever is in any position while the engine is not running. Failure to do so could cause the vehicle to move unexpectedly or roll away and result in serious personal injury or property damage.

If the ignition switch is pushed to the OFF or ACC position for any reason while the vehicle is in N (Neutral), or any drive position, the shift selector lever cannot be moved to P (Park). Additionally, the ignition switch cannot be pushed to the LOCK position. If this occurs, perform the following steps:

1. Apply the parking brake when the vehicle is stopped.
2. Push the ignition switch to the ON position.
3. Depress the foot brake pedal.
4. Move the shift selector lever to P (Park) or N (Neutral) to restart the vehicle (P is preferred). Move the shift selector lever to P (Park) to park the vehicle and push the ignition switch to OFF.

P (Park):

Use this selector position when the vehicle is parked or when starting the engine. Make sure

the vehicle is completely stopped. **The brake pedal must be depressed to move the selector lever from N (Neutral) or any drive position to P (Park).** Apply the parking brake. When parking on a hill, apply the parking brake first, then shift the selector lever into the P (Park) position.

R (Reverse):

CAUTION

Use this position only when the vehicle is completely stopped.

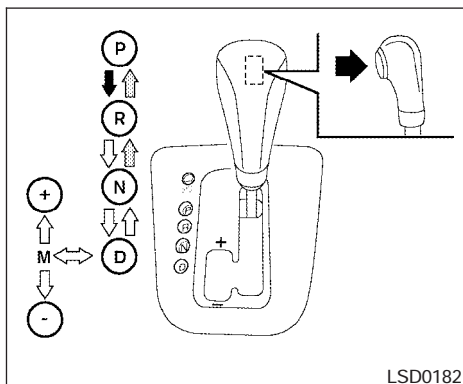
Use this position to back up. Make sure the vehicle is completely stopped before selecting the R (Reverse) position. **The brake pedal must be depressed to move the selector lever from P (Park), N (Neutral) or any drive position to R (Reverse).**

N (Neutral):

Neither forward nor reverse gear is engaged. The engine can be started in this position. You may shift to N (Neutral) and restart a stalled engine while the vehicle is moving.

D (Drive):

Use this position for all normal forward driving.



Manual shift mode

When the selector lever is shifted from D to the manual shift gate with the vehicle stopped or while driving, the transmission enters the manual shift mode. Shift ranges can be selected manually.

In the manual shift mode, the shift range is displayed on the position indicator in the meter. When shifting the shift lever to the manual shift gate, the position indicator displays 1 (first) up to 6 (sixth) depending on vehicle speed.

Shift ranges up or down one by one as follows:

1 ⇔ 2 ⇔ 3 ⇔ 4 ⇔ 5 ⇔ 6

5-12 Starting and driving

6 (Sixth):

Use this position for all normal forward driving at highway speeds.

5 (Fifth):

For driving up or down long slopes where engine braking would be advantageous.

4 (fourth), 3 (Third) and 2 (Second):

Use for hill climbing or engine braking on downhill grades.

M1 (First):

Use this position when climbing steep hills slowly or driving slowly through deep snow, sand or mud, or for maximum engine braking on steep downhill grades.

- Remember not to drive at high speeds for extended periods of time in lower than 4 range. This reduces fuel economy.

When shifting up:

Move the selector lever to the + (up) side. (Shifts to higher range.)

When shifting down:

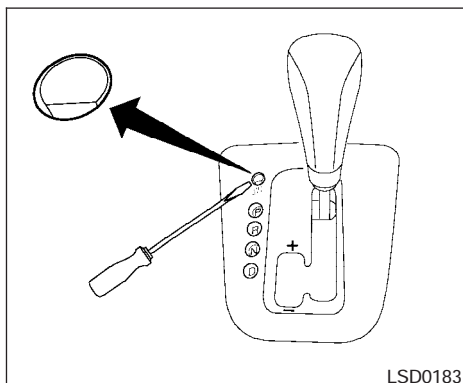
Move the selector lever to the – (down) side. (Shifts to lower range.)

- The transmission will automatically down-shift the gears. (For example, if you select the 3rd range, the transmission will shift down between the 3rd and 1st gears.)
- Moving the selector lever rapidly to the same side twice will shift the ranges in succession.

When canceling the manual shift mode:

Return the selector lever to the D position to return the transmission to the normal driving mode.

- In the manual shift mode, the transmission may not shift to the selected gear. This helps maintain driving performance and reduces the chance of vehicle damage or loss of control.**
- In the manual shift mode, the transmission may shift up automatically to a higher range than selected if the engine speed is too high. When the vehicle speed decreases, the transmission automatically shifts down and shifts to 1st gear before the vehicle comes to a stop.**



Shift lock release

If the battery charge is low or discharged, the shift selector lever may not be moved from the P (Park) position even with the brake pedal depressed and the selector lever button pushed.

If the battery is discharged completely, the steering wheel cannot be locked or unlocked. Do not move the vehicle with the steering wheel locked. It will be necessary to jump start or have your battery charged, see “Jump starting” in the “In case of emergency” section. Contact your NISSAN dealer or a professional towing service.

To move the shift selector lever, complete the following procedure:

1. Push the ignition switch to the LOCK position.
2. Apply the parking brake.
3. Remove the shift lock release cover as shown.
4. Insert a small screwdriver in the shift lock release slot and push down.
5. Move the shift selector lever to the N (Neutral) position while holding down the shift lock release.
6. 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 shift selector lever cannot be moved out of P (Park), have a NISSAN dealer check the transmission as soon as possible.

⚠ WARNING

If the selector lever cannot be moved from the P (Park) position while the engine is running and the brake pedal is depressed, the stop lights may not work. Malfunctioning stop lights could cause an accident injuring yourself and others.

Accelerator downshift — in D position —

For passing or hill climbing, depress the accelerator pedal to the floor. This shifts the transmission down into a lower gear, depending on the vehicle speed.

High fluid temperature protection mode

This transmission has a high fluid temperature protection mode. If the fluid temperature becomes too high (for example, when climbing steep grades in high temperature with heavy loads, such as when towing a trailer), engine power and, under some conditions, vehicle speed will be decreased automatically to reduce the chance of transmission damage. Vehicle speed can be controlled with the accelerator pedal, but the engine and vehicle speed may be limited.

Fail-safe

If the vehicle is driven under extreme conditions, such as excessive wheel spinning and subsequent hard braking, the fail-safe system may be activated. The MIL may come on to indicate the fail-safe mode is activated, see “Malfunction indicator light (MIL)” in the “Instrument and controls” sec-

tion. This will occur even if all electrical circuits are functioning properly. In this case, push the ignition switch to the OFF position and wait for 10 seconds. Then push the switch back to the ON position. The vehicle should return to its normal operating condition. If it does not return to its normal operating condition, have a NISSAN dealer check the transmission and repair if necessary.

⚠ WARNING

When the high fluid temperature protection mode or fail-safe operation occurs, vehicle speed may be gradually reduced. The reduced speed may be lower than other traffic, which could increase the chance of a collision. Be especially careful when driving. If necessary, pull to the side of the road at a safe place and allow the transmission to return to normal operation, or have it repaired if necessary.

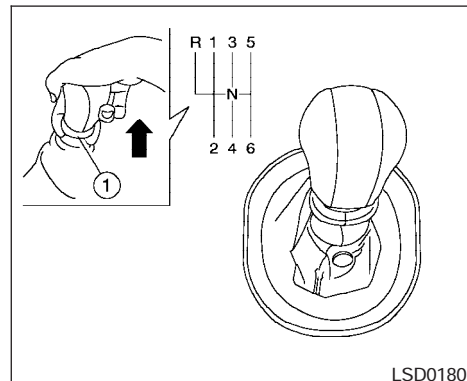
MANUAL TRANSMISSION (if so equipped)

⚠ WARNING

- Do not downshift abruptly on slippery roads. This may cause a loss of control.
- Do not over-rev the engine when shifting to a lower gear. This may cause a loss of control or engine damage.

⚠ CAUTION

- Do not rest your foot on the clutch pedal while driving. This may cause clutch damage.
- Fully depress the clutch pedal before shifting to help prevent transmission damage.
- Stop your vehicle completely before shifting into R (Reverse).
- When the vehicle is stopped with the engine running (for example, at a stop light), shift to N (Neutral) and release the clutch pedal with the foot brake applied.



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Shifting

To change gears, or when upshifting or downshifting, depress the clutch pedal fully, shift into the appropriate gear, then release the clutch slowly and smoothly.

To ensure smooth gear changes, fully depress the clutch pedal before operating the shift lever. If the clutch pedal is not fully depressed before the transmission is shifted, a gear noise may be heard. Transmission damage may occur.

Start the vehicle in 1st gear and shift to 2nd, 3rd, 4th and 5th up to 6th gear in sequence according to vehicle speed.

To back up, lift up on the shift lever ring ① and then move it to the R (Reverse) position after stopping the vehicle completely.

The shift lever ring returns to its original position when the shift lever is moved to the N (Neutral) position.

If it is difficult to move the shift lever into R (Reverse) or 1 (1st), shift into N (Neutral), then release the clutch pedal. Depress the clutch pedal again and shift into R (Reverse) or 1 (1st).

Suggested upshift speeds

The following are suggested vehicle speeds for shifting into a higher gear. These suggestions relate to fuel economy and vehicle performance. Actual upshift speeds will vary according to road conditions, the weather and individual driving habits.

For normal acceleration in low altitude areas (less than 4,000 ft [1219 m]):

For QR25DE:

| GEAR CHANGE | ACCEL shift point MPH (km/h) | CRUISE shift point MPH (km/h) |
|-------------|------------------------------|-------------------------------|
| 1st to 2nd | 15 (24) | 8 (24) |
| 2nd to 3rd | 25 (40) | 17 (27) |
| 3rd to 4th | 33 (53) | 25 (40) |
| 4th to 5th | 44 (71) | 36 (58) |
| 5th to 6th | 51 (82) | 51 (82) |

For VQ35DE:

| GEAR CHANGE | ACCEL shift point MPH (km/h) | CRUISE shift point MPH (km/h) |
|-------------|------------------------------|-------------------------------|
| 1st to 2nd | 15 (25) | 9 (14) |
| 2nd to 3rd | 25 (40) | 19 (30) |
| 3rd to 4th | 31 (50) | 26 (42) |
| 4th to 5th | 36 (58) | 31 (50) |
| 5th to 6th | 43 (69) | 37 (59) |

For quick acceleration in low altitude areas and high altitude areas (over 4,000 ft [1219 m]):

For QR25DE:

| Gear change | MPH (km/h) |
|-------------|------------|
| 1st to 2nd | 8 (13) |
| 2nd to 3rd | 17 (27) |
| 3rd to 4th | 25 (40) |
| 4th to 5th | 36 (58) |
| 5th to 6th | 51 (82) |

For VQ35DE:

| Gear change | MPH (km/h) |
|-------------|------------|
| 1st to 2nd | 15 (24) |
| 2nd to 3rd | 25 (40) |
| 3rd to 4th | 40 (64) |
| 4th to 5th | 45 (72) |
| 5th to 6th | 50 (80) |

PARKING BRAKE

Suggested maximum speed in each gear

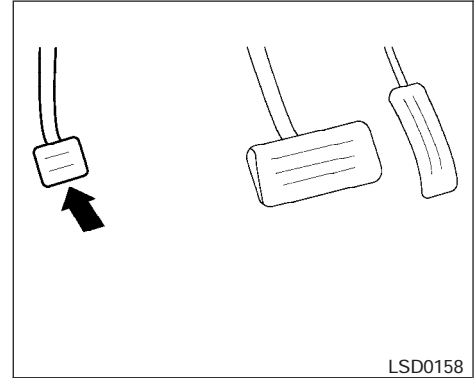
Downshift to a lower gear if the engine is not running smoothly, or if you need to accelerate.

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, which 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 | QR25DE MPH (km/h) | VQ35DE MPH (km/h) |
|------|----------------------|----------------------|
| 1st | 32 (53) | 36 (58) |
| 2nd | 59 (95) | 58 (93) |
| 3rd | 82 (133) | 81 (131) |
| 4th | — | — |
| 5th | — | — |
| 6th | — | — |

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.**
- **Do not leave children unattended in a vehicle. They could release the parking brake and cause an accident.**



Type A

To engage: Type A, firmly depress the parking brake. Type B, pull the lever up .

To release:

1. Firmly apply the foot brake.

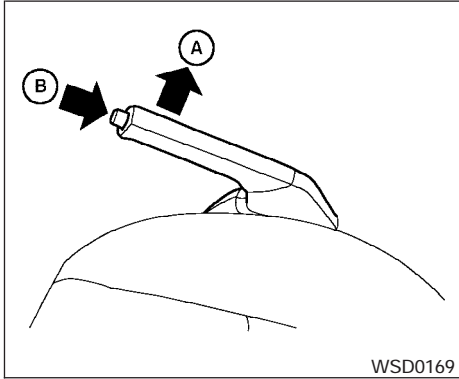
2. Manual transmission models:

Place the shift lever in the N (Neutral) position.

Automatic transmission models:

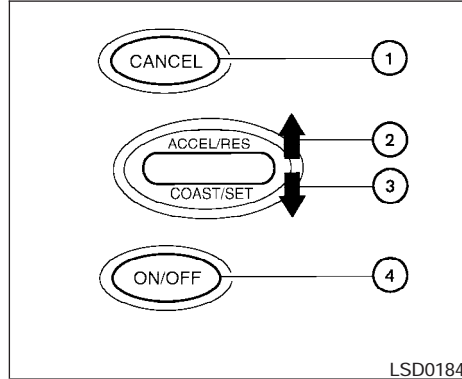
Move the shift selector lever to the P (Park) position.

CRUISE CONTROL



Type B

3. Type A, firmly depress the parking brake pedal and it will release. Type B, while pulling up on the parking brake lever slightly, push the button and lower completely (B).
4. Before driving, be sure the brake warning light goes out.



1. CANCEL switch
2. ACCEL/RES switch
3. COAST/SET switch
4. ON/OFF switch

PRECAUTIONS ON CRUISE CONTROL

- If the cruise control system malfunctions, it cancels automatically. The SET indicator light in the instrument panel then blinks to warn the driver.
- If the SET indicator light blinks, turn the cruise control switch off and have the system checked by a NISSAN dealer.

- The SET indicator light may blink when the cruise control switch is turned ON while pushing the ACCEL/RES, COAST/SET, or CANCEL switch. To properly set the cruise control system, use the following procedures.

⚠ WARNING

Do not use the cruise control when driving under the following conditions:

- **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.**

Doing so could cause a loss of vehicle control and result in an accident.

CRUISE CONTROL OPERATIONS

The cruise control allows driving at a speed between 25 - 89 MPH (40 - 144 km/h) without keeping your foot on the accelerator pedal.

To turn on the cruise control, push the main switch. The CRUISE indicator light in the instrument panel comes on.

To set cruising speed, accelerate the vehicle to the desired speed, push the COAST/SET switch and release it. The SET indicator light in the instrument panel comes on. Take your foot off the accelerator pedal. Your vehicle maintains the set speed.

- **To pass another vehicle**, depress the accelerator pedal. When you release the pedal, the vehicle returns to the previously set speed.
- The vehicle may not maintain the set speed when going up or down steep hills. If this happens, drive without the cruise control.

To cancel the preset speed, use one of the following three methods.

- Push the CANCEL button; the SET indicator light in the instrument panel goes out.
- Tap the brake pedal; the SET indicator light goes out.
- Turn the main switch off. Both the CRUISE indicator light and SET indicator light in the instrument panel go out.

The cruise control is automatically canceled and the SET light in the instrument panel goes out if:

- you depress the brake or clutch pedal while pushing the ACCEL/RES or SET/COAST switch. The preset speed is deleted from memory.
- the vehicle slows down more than 8 MPH (13 km/h) below the set speed.
- you depress the clutch pedal (manual transmission), or move the shift selector lever to N (Neutral) (CVT).

To reset at a faster cruising speed, use one of the following three methods.

- Depress the accelerator pedal. When the vehicle attains the desired speed, push and release the COAST/SET switch.
- Push and hold the ACCEL/RES switch. When the vehicle attains the speed you desire, release the switch.
- Push and release the ACCEL/RES switch. Each time you do this, the set speed increases by about 1 MPH (1.6 km/h).

To reset at a slower cruising speed, use one of the following three methods.

- Lightly tap the brake pedal. When the vehicle attains the desired speed, push the COAST/SET switch and release it.
- Push and hold the COAST/SET switch. Release the switch when the vehicle slows to the desired speed.
- Push and release the COAST/SET switch. Each time you do this, the set speed decreases by about 1 MPH (1.6 km/h).

To resume the preset speed, push and release the ACCEL/RES switch. The vehicle returns to the last set cruising speed when the vehicle speed is over 25 MPH (40 km/h).

BREAK-IN SCHEDULE

CAUTION

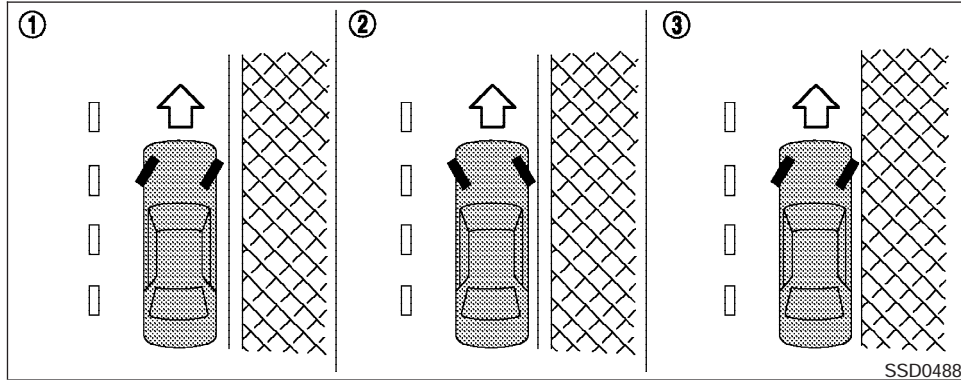
During the first 1,200 miles (2,000 km), follow these recommendations to obtain maximum engine performance and ensure the future reliability and economy of your new vehicle. Failure to follow these recommendations may result in shortened engine life and reduced engine performance.

- Avoid driving for long periods at constant speed, either fast or slow, and do not run the engine over 4,000 rpm.
- Do not accelerate at full throttle in any gear.
- Avoid quick starts.
- Avoid hard braking as much as possible.
- Do not tow a trailer for the first 500 miles (800 km). Your engine, axle or other parts could be damaged.

INCREASING FUEL ECONOMY

- Accelerate slowly and smoothly. Maintain cruising speeds with a constant accelerator position.
- Drive at moderate speeds on the highway. Driving at high speed lowers fuel economy.
- Avoid unnecessary stopping and braking. Maintain a safe distance behind other vehicles.
- Use a proper gear range which suits road conditions. On level roads, shift into high gear as soon as possible.
- Avoid unnecessary engine idling.
- Keep your engine tuned up.
- Follow the recommended periodic maintenance schedule.
- 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.
- Air conditioner operation lowers fuel economy. Use the air conditioner only when necessary.
- When cruising at highway speeds, it is more economical to use the air conditioner and leave the windows closed to reduce drag.
- Use the recommended viscosity engine oil. See "Engine oil and oil filter recommendation" in "Technical and consumer information" later in this manual.

PARKING/PARKING ON HILLS



⚠ 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.
- Safe parking procedures require that both the parking brake be set and the transmission placed into P (Park) for CVT models or in an appropriate gear for manual transmission models. 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.

- 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.

1. Firmly apply the parking brake.

2. **Manual transmission models:**

Place the shift lever in the R (Reverse) position. When parking on an uphill grade, place the shift lever in 1st gear.

Continuously Variable Transmission (CVT) models:

Move the shift selector lever to the P (Park) position.

3. To help prevent the vehicle from rolling into traffic when parked on an incline, 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. Turn the ignition key to the LOCK position and remove the key.

POWER STEERING

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.

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.

BRAKE SYSTEM

The brake system has two separate hydraulic circuits. If one circuit malfunctions, you will still have braking at two wheels.

BRAKE PRECAUTIONS

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 stopping distance will be longer.

Using the brakes

Avoid resting your foot on the brake pedal while driving. This will overheat the brakes, wear out the brakes 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 drum/rotors are replaced, in order to assure the best brake performance.

This procedure is described in the vehicle service manual and can be performed by a NISSAN dealer.

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 the brakes, drive the vehicle at a safe speed while lightly pressing 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.

ANTI-LOCK BRAKING SYSTEM (ABS) (if so equipped)

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.**
- **When installing a spare tire, make sure that it is the proper size and type as specified on the Tire and Loading Information label. See “Tire and Loading Information label” in the “Technical and consumer information” section of this manual.**
- **For detailed information, see “Wheels and tires” in the “Maintenance and do-it-yourself” section of this manual.**

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 is normal and does not indicate 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 dealer.

TRACTION CONTROL SYSTEM (TCS) (if so equipped)

Normal operation

The ABS operates at speeds above 3 - 6 MPH (5 - 10 km/h).

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.

When accelerating on slippery surfaces the tire may spin or slip. With the vehicle traction control system (TCS), sensors detect these movements and control the braking and engine output to help improve vehicle stability while accelerating.



- When the traction control system is operating, the slip indicator in the instrument panel blinks.
- If the slip indicator blinks, the vehicle is under slippery conditions. Be sure to drive carefully. See "Slip indicator light" and "Traction control system (TCS) off indicator light" in the "Instruments and controls" section of this manual.
- If a malfunction occurs in the system, the **SLIP** and **TCS OFF** indicator lights come on in the instrument panel.

As long as these lights are on, the traction control function is canceled. The vehicle will behave like a vehicle without the system.


WARNING

- **The traction control system is designed to help improve driving 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.**
- **If brake related parts such as brake pads, rotors and calipers are not standard equipment or are extremely deteriorated, the traction control system may not operate properly and the **TCS OFF** indicator light may come on.**
- **Do not modify the vehicle's suspension. If suspension parts such as shock absorbers, struts, springs and bushings are not standard equipment or are extremely deteriorated, the traction control system may not operate properly and the **TCS OFF** indicator light may come on.**

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

- **When driving on extremely inclined surfaces such as higher banked corners, the traction control system may not operate properly and the  indicator light may come on. Do not drive on these types of roads.**
- **If wheels or tires other than the recommended ones are used, the traction control system may not operate properly and the  indicator light may come on.**
- **The traction control system is not a substitute for winter tires or tire chains on a snow covered road.**

When accelerating or driving on slippery surfaces, the tires may spin or slide. With the Vehicle Dynamic Control (VDC) system, sensors detect these movements and control the braking and engine output to help improve vehicle stability.

- When the vehicle dynamic control (VDC) system is operating, the slip indicator in the instrument panel blinks.
- If the slip indicator blinks, the road conditions are slippery. Be sure to adjust your speed and driving to these conditions. See “Slip indicator light”, and “Vehicle dynamic control (VDC) off indicator light” in the “Instruments and controls” section.
- Indicator light
If malfunction occurs in the system, the **SLIP** and  indicator lights come on in the instrument panel.
As long as these indicator lights are on, the traction control function is canceled.

If the vehicle is operated with the vehicle dynamic control system OFF using the VDC OFF switch, VDC functions will be turned off. The VDC system will still try to transfer power from a slipping drive wheel to one with more traction when the VDC system switch is OFF. The Slip indicator will flash if wheel spin is detected. The ABS will still operate with the VDC system off.

When the VDC system is operating, 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 system is working properly.

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 vehicle dynamic control system is designed to help improve driving 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.**

- If brake related parts such as brake pads, rotors and calipers are not standard equipment or are extremely deteriorated, the vehicle dynamic control system may not operate properly and the vehicle dynamic control off indicator light may come on.
- Do not modify the vehicle's suspension. If suspension parts such as shock absorbers, struts, springs, stabilizer bars and bushings are not NISSAN approved for your vehicle or are extremely deteriorated the vehicle dynamic control system may not operate properly. This could adversely affect vehicle handling performance, and the VDC OFF indicator light may come on.
- When driving on extremely inclined surfaces such as higher banked corners, the vehicle dynamic control system may not operate properly and the VDC OFF indicator light may come on. Do not drive on these types of roads.
- When driving on an unstable surface such as a turntable, ferry, elevator or ramp, the vehicle dynamic control off indicator light may illuminate. This is not a malfunction. Restart the engine after driving onto a stable surface.

- If wheels or tires other than the recommended ones are used, the vehicle dynamic control system may not operate properly and the vehicle dynamic control off indicator light may come on.
- The vehicle dynamic control system is not a substitute for winter tires or tire chains on a snow covered road.

COLD WEATHER DRIVING

FREEDING 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 remote keyless entry keyfob (if so equipped).

ANTI-FREEZE

In the winter when it is anticipated that the temperature will drop below 32°F (0°C), check the anti-freeze to assure proper winter protection. For details, see "Engine cooling system" in the "Maintenance and do-it-yourself" section of this manual.

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. For details, see "Battery" in the "Maintenance and do-it-yourself" section of this manual.

DRAINING OF COOLANT WATER

If the vehicle is to be left outside without anti-freeze, drain the cooling system, including the engine block. Refill before operating the vehicle. For details, see “Changing engine coolant” in the “Maintenance and do-it-yourself” section of this manual.

TIRE EQUIPMENT

1. SUMMER tires have a tread designed to provide superior performance on dry pavement. However, the performance of these tires will be substantially reduced in snowy and icy conditions. If you operate your vehicle on snowy or icy roads, NISSAN recommends the use of MUD & SNOW or ALL SEASON TIRES on all four wheels. Please consult a NISSAN dealer for the tire type, size, speed rating and availability information.
2. For additional traction on icy roads, studded tires may be used. However, some U.S. states and Canadian provinces prohibit their use. Check local, state and provincial laws before installing studded tires.

Skid and traction capabilities of studded snow tires on wet or dry surfaces may be poorer than that of non-studded snow tires.

3. Tire chains may be used. For details see “Tire chains” in the “Maintenance and do-it-yourself” section of this manual.

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 (32°F, 0°C 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.**

ENGINE BLOCK HEATER (if so equipped)

Engine block heaters are available through NISSAN dealers to assist in cold temperature starting. The engine block heater should be used when the outside temperature is 20° F (-7° C) or lower.

To use the engine block heater:

1. Turn the engine off.
2. Open the hood and unwrap the engine block heater cord.
3. Plug the engine block heater cord into a grounded 3-wire, 3-pronged extension cord.
4. Plug the extension cord into a Ground Fault Interrupt (GFI) protected, grounded 110-volt AC (VAC) outlet.
5. The engine block heater must be plugged in for at least 2 - 4 hours, depending on outside temperatures, to properly warm the engine coolant. Use an appropriate timer to turn the engine block heater on.
6. Before starting the engine, unplug and properly store the cord to keep it away from moving parts.

WARNING

- **Do not use your engine block heater with an ungrounded electrical system or a 2-pronged adapter. You can be seriously injured by an electrical shock if you use an ungrounded connection.**
- **Disconnect and properly store the engine block heater cord before starting the engine. Damage to the cord could result in an electrical shock and can cause serious injury.**
- **Use a heavy-duty 3-wire, 3-pronged extension cord rated for at least 10 A. Plug the extension cord into a Ground Fault Interrupt (GFI) protected, grounded 110-VAC outlet. Failure to use the proper extension cord or a grounded outlet can result in a fire or electrical shock and cause serious personal injury.**

MEMO

6 In case of emergency

Flat tire 6-2
 Tire Pressure Monitoring System (TPMS) 6-2
 Changing a flat tire 6-2
Jump starting 6-6
Push starting 6-8

If your vehicle overheats 6-9
Towing your vehicle 6-10
 Towing recommended by NISSAN 6-10
 Vehicle recovery (freeing a stuck vehicle) 6-12



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 except the spare. 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. This system will activate only when the vehicle is driven at speeds above 16 MPH (25 km/h). For more details, refer to “Warning/indicator lights and audible reminders” in the “Instruments and controls” section, and “Tire Pressure Monitoring System (TPMS)” in the “Starting and driving” section.

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. 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 and Loading Information label to turn the low tire pressure warning light OFF. If you have a flat tire, replace it with a spare tire as soon as possible.**
- **When a spare tire is mounted or 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 dealer 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.**

CHANGING A FLAT TIRE

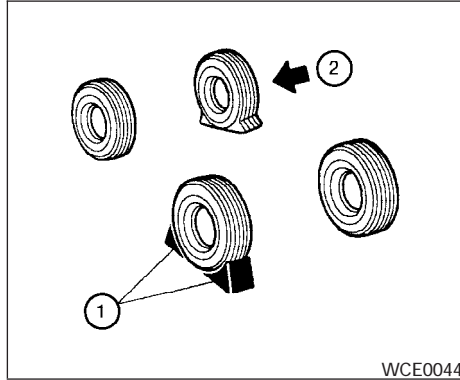
If you have a flat tire, follow the instructions below.

Stopping the vehicle

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. Shift the manual transmission into R (Reverse), or the CVT into P (Park).
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.

⚠ WARNING

- Make sure the parking brake is securely applied and the manual transmission is shifted into R (Reverse), or the CVT is shifted into P (Park).
- 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.

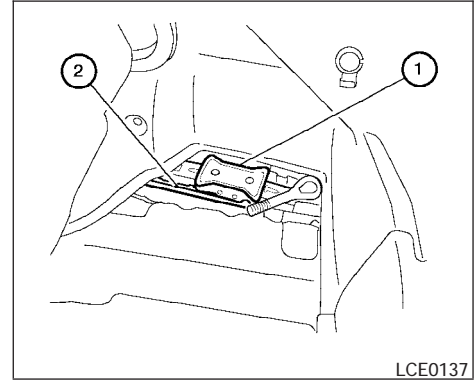


Blocking wheels

Place suitable blocks **①** at both the front and back of the wheel diagonally opposite the flat tire **②** to prevent the vehicle from moving when it is jacked up.

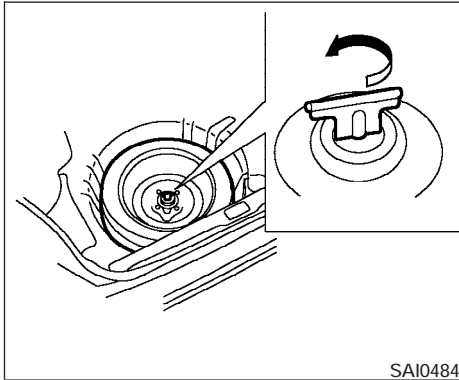
⚠ WARNING

Be sure to block the wheel as the vehicle may move and result in personal injury.



Getting the spare tire and tools

Open the trunk. Lift the trunk floor carpeting and spare tire cover. Remove the jack **①** and wheel nut wrench **②** from the tool box. Remove the spare tire.

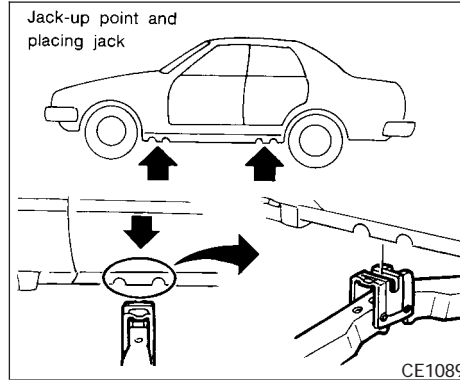


Removing the bolt-on wheel cover (if so equipped)

CAUTION

Do not use your hands to pry off wheel caps or wheel covers. Doing so could result in personal injury.

The wheel covers are held on by the wheel nuts. The wheel cover will be removed along with the wheel when the nuts are removed.

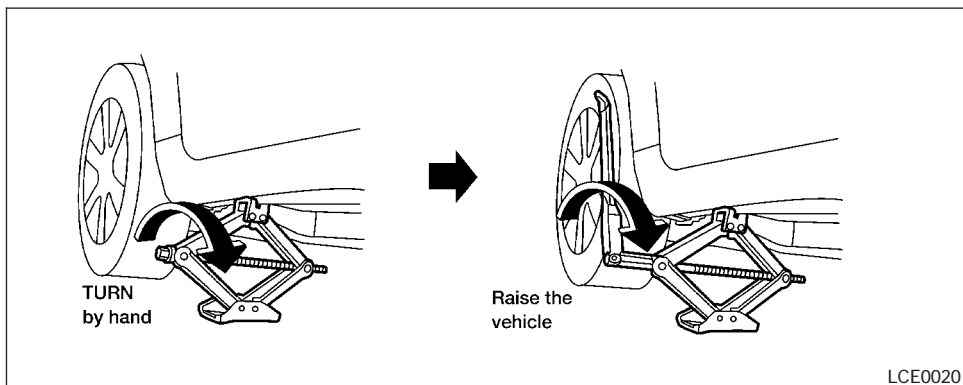


Jacking up vehicle and removing the damaged tire

WARNING

- Never get under the vehicle while it is supported only by the jack. If it is necessary to work under the vehicle, support it with safety stands.
- Use only the jack provided with your vehicle to lift the vehicle. Do not use the jack provided with your vehicle on other vehicles. The jack is designed for lifting only your vehicle during a tire change.

- 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. It may cause the vehicle to move. This is especially true for vehicles with limited slip differentials.
- Do not allow passengers to stay in the vehicle while it is on the jack.
- Never run the engine with a wheel(s) off the ground. It may cause the vehicle to move.



Always refer to the proper illustrations for the correct placement and jack-up points for your specific vehicle model and jack type.

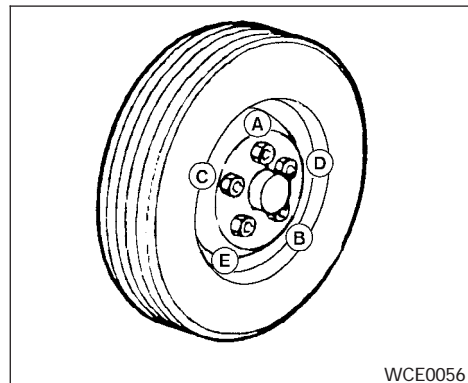
Carefully read the caution label attached to the jack body and the following instructions.

1. 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.**

2. 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. Align the jack head between the two notches in the front or the rear as shown. Also fit the groove of the jack head between the notches as shown.

The jack should be used on firm and level ground.

3. To lift the vehicle, securely hold the jack lever and rod with both hands. Carefully raise the vehicle until the tire clears the ground. Remove the wheel nuts, and then remove the tire.



Installing the spare tire

The spare tire is designed for emergency use. See specific instructions under the heading “Wheels and tires” in the “Maintenance and do-it-yourself” section of this manual.

1. Clean any mud or dirt from the surface between the wheel and hub.
2. Carefully put the spare tire on and tighten the wheel nuts finger tight.
3. With the wheel nut wrench, tighten wheel nuts alternately and evenly as illustrated until they are tight.

- Lower the vehicle slowly until the tire touches the ground. Then, with the wheel nut wrench, tighten the wheel nuts securely in the sequence illustrated (A), (B), (C), (D), (E). 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 600 miles (1,000 km) (also in cases of a flat tire, etc.).**

As soon as possible, tighten the wheel nuts to the specified torque with a torque wrench.

Wheel nut tightening torque:

83 ft-lb (112 N·m)

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.

6-6 In case of emergency

Adjust tire pressure to the COLD pressure.

COLD pressure: After vehicle has been parked for three hours or more or driven less than 1 mile (1.6 km).

COLD tire pressures are shown on the tire and loading information label affixed to the driver side center pillar.

- Securely store the flat tire and jacking equipment in the vehicle.
- Place the spare tire cover and the trunk floor carpeting over the damaged tire.
- Close the trunk.

WARNING

- **Always make sure that the spare tire and jacking equipment are properly secured after use. Such items can become dangerous projectiles in an accident or sudden stop.**
- **The spare tire is designed for emergency use. See specific instructions under the heading “Wheels and tires” in the “Maintenance and do-it-yourself” section of this manual.**

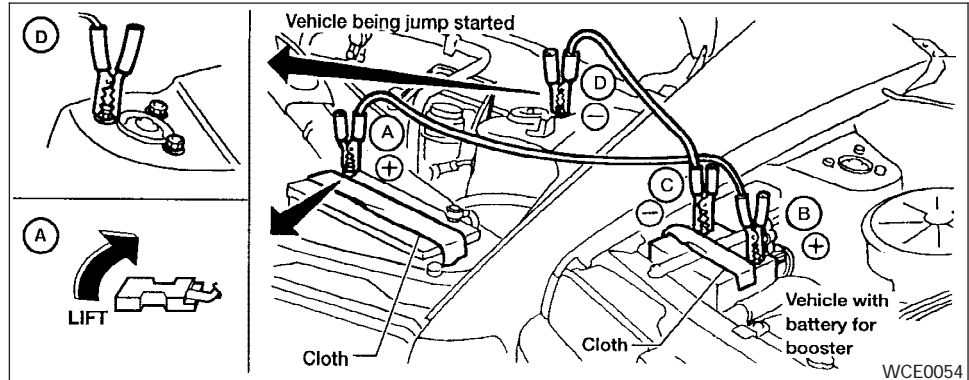
JUMP STARTING

To start your engine with a booster battery, the instructions and precautions below must be followed.

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 sulfuric acid solution which can cause severe burns. If the fluid should come into contact with anything, immediately flush the contacted area with water.**
- **Keep 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 to bring their batteries near each other.

Do not allow the two vehicles to touch.

2. Apply the parking brake. Move the shift lever to N (Neutral) (manual transmission) or to P (Park) (Continuously Variable Transmission). Switch off all unnecessary electrical systems (lights, heater, air conditioner, etc.).
3. Remove vent caps on the battery (if so equipped). Cover the battery with an old cloth to reduce explosion hazard.
4. Connect jumper cables in the sequence illustrated (A, B, C, D).

⚠ CAUTION

- **Always connect positive (+) to positive (+) and negative (–) to body ground (for example, strut mounting bolt, engine lift bracket, etc.) — not to the battery.**
- **Make sure the jumper cables do not touch moving parts in the engine compartment and that the cable 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.

⚠ CAUTION

Do not keep the starter motor engaged for more than 10 seconds. If the engine does not start right away, turn the key off and wait 3 to 4 seconds before trying again.

7. After starting the engine, carefully disconnect the negative cable and then the positive cable.

8. Replace the vent caps (if so equipped). Be sure to dispose of the cloth used to cover the vent holes as it may be contaminated with corrosive acid.

PUSH STARTING

⚠ CAUTION

- **Three-way catalyst equipped models should not be started by pushing. The three-way catalyst may be damaged.**
- **Continuously Variable Transmission (CVT) models cannot be push-started or tow-started. Attempting to do so may cause transmission damage.**
- **For manual transmission models, never try to start the vehicle by towing it. When the engine starts, the forward surge could cause the vehicle to collide with the tow vehicle.**

IF YOUR VEHICLE OVERHEATS

If your vehicle is overheating (indicated by an extremely high temperature gauge reading), or if you feel a lack of engine power, detect abnormal noise, etc. take the following steps.

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 cap while the engine is still hot. When the radiator cap is removed, pressurized hot water will spurt out, possibly causing serious injury.**
- **Do not open the hood if steam is coming out.**

1. Move the vehicle safely off the road, apply the parking brake and move the shift lever to N (Neutral) (manual transmission) or to P (Park) (CVT).

Do not stop the engine.

2. Turn off the air conditioner (if so equipped). Open all the windows, move the heater or air conditioner temperature control to maximum hot and fan control to high speed.

3. 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.

4. Open the engine hood.

WARNING

If steam or water is coming from the engine, stand clear to prevent getting burned.

5. 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 water pump belt is 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 when the coolant temperature is high.

6. After the engine cools down, check the coolant level in the engine coolant reservoir tank with the engine running. Add coolant to the engine coolant reservoir tank if necessary. Have your vehicle repaired at a NISSAN dealer.

TOWING YOUR VEHICLE

When towing your vehicle, all State (Provincial in Canada) and local regulations for towing must be followed. Incorrect towing equipment could damage your vehicle. Towing instructions are available from a NISSAN dealer. Local service operators are generally familiar with the applicable laws and procedures for towing. To assure proper towing and to prevent accidental damage to your vehicle, NISSAN recommends having a service operator tow your vehicle. It is advisable to have the service operator carefully read the following precautions:

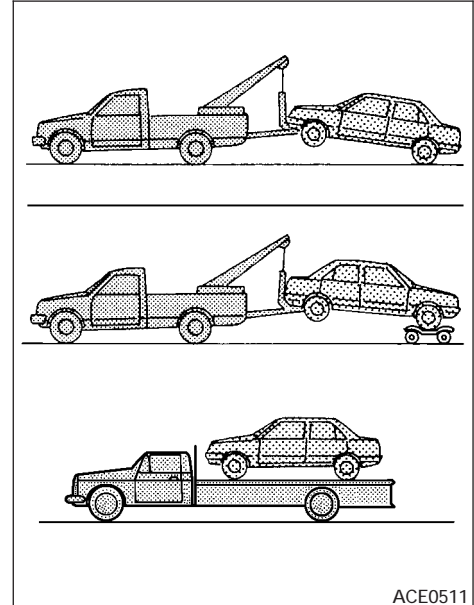
WARNING

- **Never ride in a vehicle that is being towed.**
- **Never get under your vehicle after it has been lifted by a tow truck.**

CAUTION

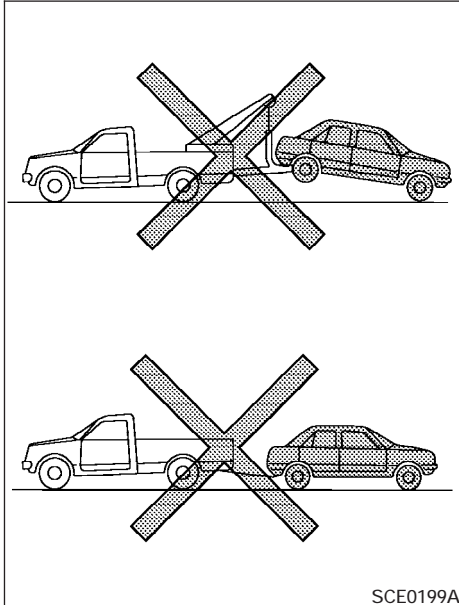
- **When towing, make sure that the transmission, axles, steering system and powertrain are in working condition. If any unit is damaged, dollies must be used.**
- **Always attach safety chains before towing.**

For information about towing your vehicle behind a recreational vehicle (RV), refer to “Flat towing” in the “Technical and consumer information” section of this manual.



TOWING RECOMMENDED BY NISSAN

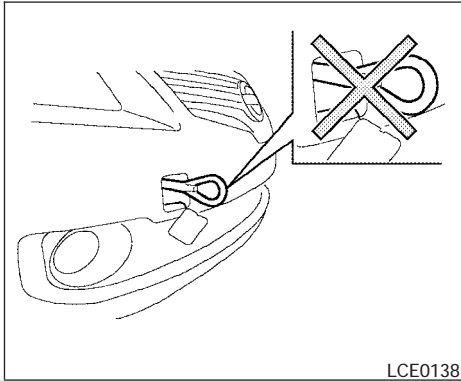
NISSAN recommends that your vehicle be towed with the driving (front) wheels off the ground or place the vehicle on a flat bed truck as illustrated.



⚠ CAUTION

- **Never tow Continuously Variable Transmission (CVT) models with the front wheels on the ground or four wheels on the ground (forward or backward), as this may cause serious and expensive damage to the transmission. If it is necessary to tow the vehicle with the rear wheels raised always use towing dollies under the front wheels.**
- **When towing Continuously Variable Transmission (CVT) models with the front wheels on towing dollies, or when towing manual transmission models with the front wheels on the ground:**
 - Turn the ignition key to the OFF position, and secure the steering wheel in a straight-ahead position with a rope or similar device. Never secure the steering wheel by turning the ignition key to the LOCK position. This may damage the steering lock mechanism.
 - Move the gearshift lever to the N (Neutral) position.

- **When towing Continuously Variable Transmission (CVT) or manual transmission models with the rear wheels on the ground (if you do not use towing dollies): Always release the parking brake.**



VEHICLE RECOVERY (freeing a stuck vehicle)

Front or Rear

Do not use the hook to tow the vehicle.

⚠ 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.**

⚠ CAUTION

- **Tow chains or cables must be attached only to the main structural members of the vehicle or the towing hooks (if so equipped). Otherwise, the vehicle body will be damaged.**
- **Do not use the vehicle tie downs to free a vehicle stuck in sand, snow, mud, etc. Never tow the vehicle using the vehicle tie downs or recovery hooks.**
- **Always pull the cable straight out from the front or rear of the vehicle. Never pull the vehicle at an angle.**
- **Pulling devices should be routed so they do not touch any part of the suspension, steering, brake or cooling systems.**
- **Pulling devices such as ropes or canvas straps are not recommended for use in vehicle towing or recovery.**

If your vehicle is stuck in sand, snow, mud, etc., use the following procedure:

1. Make sure the area in front and behind the vehicle is clear of obstructions.
2. Turn the steering wheel right and left to clear an area around the front tires.

3. Slowly rock the vehicle forward and backward.
 - Shift back and forth between R (Reverse) and D (Drive) (CVT models) or 1st (Low) and R (Reverse) (MT models).
 - Apply the accelerator as little as possible to maintain the rocking motion.
 - Release the accelerator pedal before shifting between R and D (CVT models) or 1st and R (MT models).
 - Do not spin the tires above 35 mph (55 km/h).
4. If the vehicle can not be freed after a few tries, contact a professional towing service to remove the vehicle.

7 Appearance and care

| | | | |
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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, please 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

Wash dirt off 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.

7-2 Appearance and care

CAUTION

- **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.**

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 cleaned regularly. 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.

A damp chamois can be used to dry the vehicle to avoid water spots.

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 re-applying wax.

A NISSAN dealer 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.

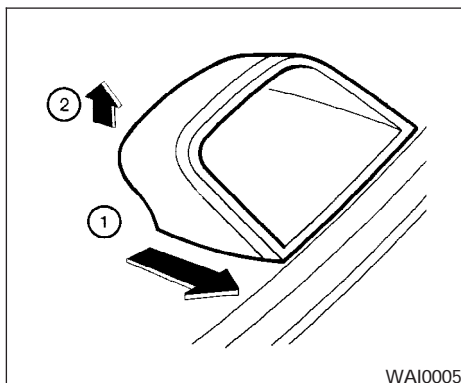
Machine compounding or aggressive polishing on a base coat/clear coat paint finish may dull the finish or leave swirl marks.

REMOVING SPOTS

Remove tar and oil spots, industrial dust, insects, and tree sap as quickly as possible from the surface of the paint to avoid lasting damage or staining. Special cleaning products are available at a NISSAN dealer or any automotive accessory store.

UNDERBODY

In areas where road salt is used in winter, it is necessary to clean the underbody regularly in order to 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, retreated.



GLASS

When cleaning the rear window, it may be easier to clean if the high-mounted stop light is removed first.

Be careful when removing the high-mounted stop light to reduce the risk of damaging the high-mounted stop light wires.

To remove the high-mounted stop light:

- ① Push toward rear of vehicle.
- ② Lift to remove.

The high-mounted stop light must be properly reinstalled before driving your vehicle.

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.

⚠ CAUTION

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.

ALUMINUM ALLOY WHEELS

Wash the wheels regularly with a sponge dampened in a mild soap solution, especially during winter months in areas where road salt is used. If not removed, road salt can discolor the wheels.

⚠ CAUTION

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 all chrome parts regularly with a non-abrasive chrome polish to maintain the finish.

TIRE DRESSINGS

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.

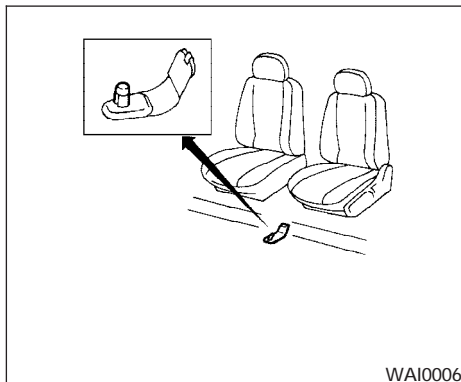
CAUTION

- **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.**

- Small dirt particles can be abrasive and damaging to 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.

FLOOR MATS

The use of genuine 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 (driver's side only)

This vehicle includes a front floor mat bracket to act as a floor mat positioning aid. NISSAN floor mats have been specially designed for your vehicle model. The driver's side floor mat has a grommet hole incorporated in it. 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 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. See "Seat belt maintenance" in the "Safety – Seats, seat belts and supplemental restraint system" section of this manual.

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.

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 and where atmospheric pollution exists and road salt is used.

Temperature

High temperatures 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 accelerates the corrosion process. Road salt also accelerates 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 or broom.**

- **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 de-icing 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 dealer.

8 Maintenance and do-it-yourself

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MAINTENANCE REQUIREMENTS

Your new NISSAN has been designed to have minimum maintenance requirements with longer service intervals to save you both time and money. However, some day-to-day and regular maintenance is essential to maintain your NISSAN's 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 proper maintenance. You are a vital link in the maintenance chain.

Scheduled maintenance

For your convenience, both required and optional scheduled maintenance items are described and listed in your "NISSAN Service and Maintenance Guide." You must refer to that guide to ensure that necessary maintenance is performed on your NISSAN at regular intervals.

General maintenance

General maintenance includes those items which should be checked during normal day-to-day operation. They are essential for proper vehicle operation. It is your responsibility to perform these maintenance procedures regularly as prescribed.

8-2 Maintenance and do-it-yourself

Performing general maintenance checks requires minimal mechanical skill and only a few general automotive tools.

These checks or inspections can be done by you, a qualified technician, or, if you prefer, a NISSAN dealer.

Where to go for service

If maintenance service is required or your vehicle appears to malfunction, have the systems checked and corrected by a NISSAN dealer.

NISSAN technicians are well-trained specialists who are kept up-to-date with the latest service information through technical bulletins, service tips, and in-dealership training programs. They are completely qualified to work on NISSAN vehicles **before** they work on your vehicle, rather than after they have worked on it.

You can be confident that a NISSAN dealer's service department performs the best job to meet the maintenance requirements on your vehicle — in a reliable and economical way.

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 smells, be sure to check for the cause or have a NISSAN dealer do it promptly. In addition, you should notify a NISSAN dealer if you think that repairs are required.

When performing any checks or maintenance work, closely observe the "Maintenance precautions" later in this section.

EXPLANATION OF GENERAL 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 the doors and engine hood operate properly. Also ensure that all latches lock securely. Lubricate hinges, latches, latch pins, rollers and links as 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* When checking the tires, make sure no wheel nuts are missing, and check for any loose wheel nuts. Tighten if necessary.

Tire rotation* Tires should be rotated every 7,500 miles (12,000 km).

Tires* Check the pressure with a gauge often and always prior to long distance trips. If necessary, adjust the pressure in all tires, including the spare, to the pressure specified. Check carefully for damage, cuts or excessive wear.

Tire Pressure Monitoring System (TPMS) transmitter components Replace the grommet seal, valve core and cap of the transmitter in vehicles equipped with TPMS at every tire replacement or when reaching the wear limit of the tires.

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.

- For additional information regarding tires, refer to “Important Tire Safety Information” (US) or “Tire Safety Information” (Canada) in the Warranty Information Booklet .

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 periodic maintenance, cleaning the vehicle, etc.

Additional information on the following items with an “*” is found later in this section.

Accelerator pedal Check the pedal for smooth operation and make sure the pedal does not bind or require uneven effort. Keep the floor mat away from the pedal.

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 dealer immediately. Keep the floor mat away from the pedal.

Brakes Check that the brakes do not pull the vehicle to one side when applied.

Continuously Variable Transmission (CVT) P (Park) position mechanism On a fairly steep hill check that the vehicle is held securely with the selector lever in the P (Park) position without applying any brakes.

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 adjustment, see a NISSAN dealer.

Seats Check seat position controls such as seat adjusters, seatback recliner, etc. to ensure they operate smoothly and all latches lock securely in every position. Check that the head restraints move up and down smoothly and the locks (if so equipped) hold securely in all latched positions.

Seat belts Check that all parts of the seat belt system (for example, buckles, anchors, adjusters and retractors) operate properly and smoothly,

and are installed securely. Check the belt webbing for cuts, fraying, wear or damage.

Steering wheel Check for changes in the steering system, such as excessive freeplay, hard steering or strange noises.

Warning lights and chimes Make sure all warning lights and chimes are operating properly.

Windshield wiper and washer* Check that the wipers and washer operate properly and that the wipers do not streak.

Windshield defroster Check that the air comes out of the defroster outlets properly and in sufficient quantity when operating the heater or air conditioner.

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 conditions require frequent checks of the battery fluid level.

Brake and clutch fluid levels* Make sure that the brake and clutch fluid level is between the MIN and MAX lines on the reservoir.

8-4 Maintenance and do-it-yourself

Engine coolant level* Check the coolant level when the engine is cold.

Engine drive belts* Make sure the drive belts are not frayed, worn, cracked or oily.

Engine oil level* Check the level after parking the vehicle on a level surface with the engine off. Wait more than 10 minutes for the oil to drain back into the oil pan.

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, immediately have the exhaust system inspected by a NISSAN dealer. See the carbon monoxide warning in the "Starting and driving" section of this manual.

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 when the fluid is cold, 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 from the underbody, otherwise rust may form on the floor pan, frame, fuel lines and exhaust system. At the end of winter, the underbody should be thoroughly flushed with plain water, in those areas where mud and dirt may have accumulated. See the "Appearance and care" section of this manual.

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. For manual transmission models, move the shift lever to N (Neutral). For CVT models, move the selector lever to P (Park).**
- **Be sure the ignition key is in the OFF or LOCK position when performing any parts replacement or repairs.**
- **Never leave the engine or the CVT related component harness connector disconnected while the ignition switch is in the ON position.**
- **Never connect or disconnect the battery or any transistorized component while the ignition switch is in the ON position.**

- **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.**
- **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 only by a jack. If it is necessary to work under the vehicle, support it with safety stands.**
- **Keep smoking materials, flame and sparks away from the fuel tank and battery.**

- **On gasoline engine models with the multiport fuel injection (MFI) system, the fuel filter or fuel lines should be serviced by a NISSAN dealer because the fuel lines are under high pressure even when the engine is off.**

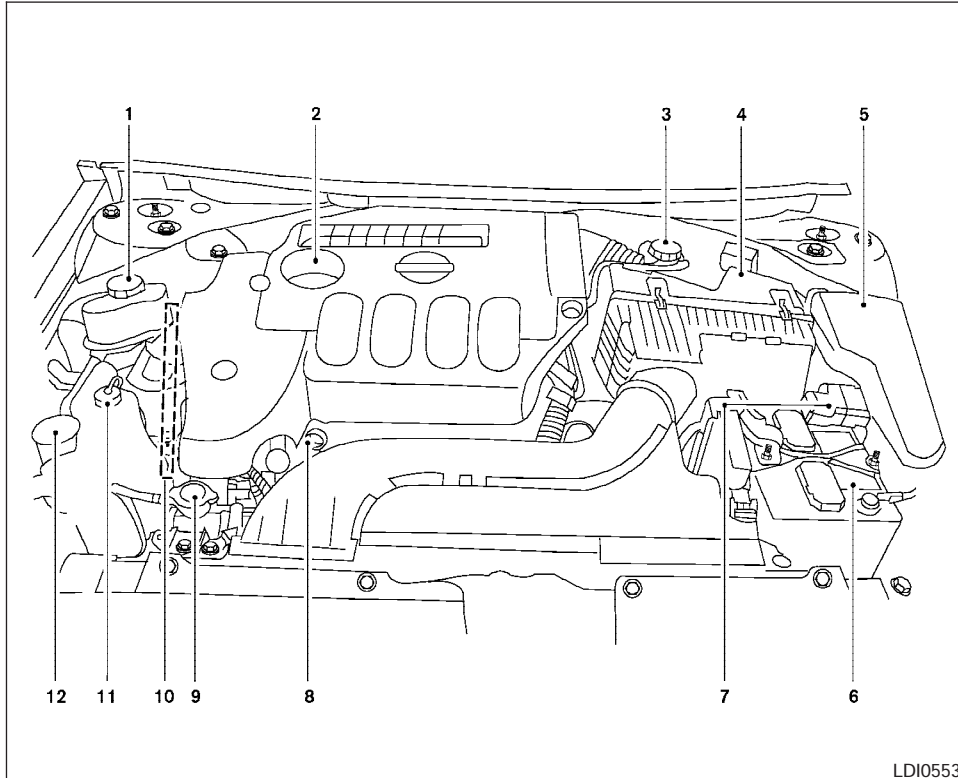
CAUTION

- **Do not work under the hood while the engine is hot. Turn the engine off and wait until it cools down.**
- **Avoid contact with used engine oil and coolant. Improperly disposed engine oil, engine coolant and/or other vehicle fluids can damage the environment. Always conform to local regulations for disposal of vehicle fluid.**

This “Maintenance and do-it-yourself” section gives instructions regarding only those items which are relatively easy for an owner to perform. A genuine NISSAN service manual is also available. See “Owner’s Manual/Service Manual order information” in the “Technical and consumer information” section of this manual.

You should be aware that incomplete or improper servicing may result in operating difficulties or excessive emissions, and could affect warranty coverage. **If in doubt about any servicing, have it done by a NISSAN dealer.**

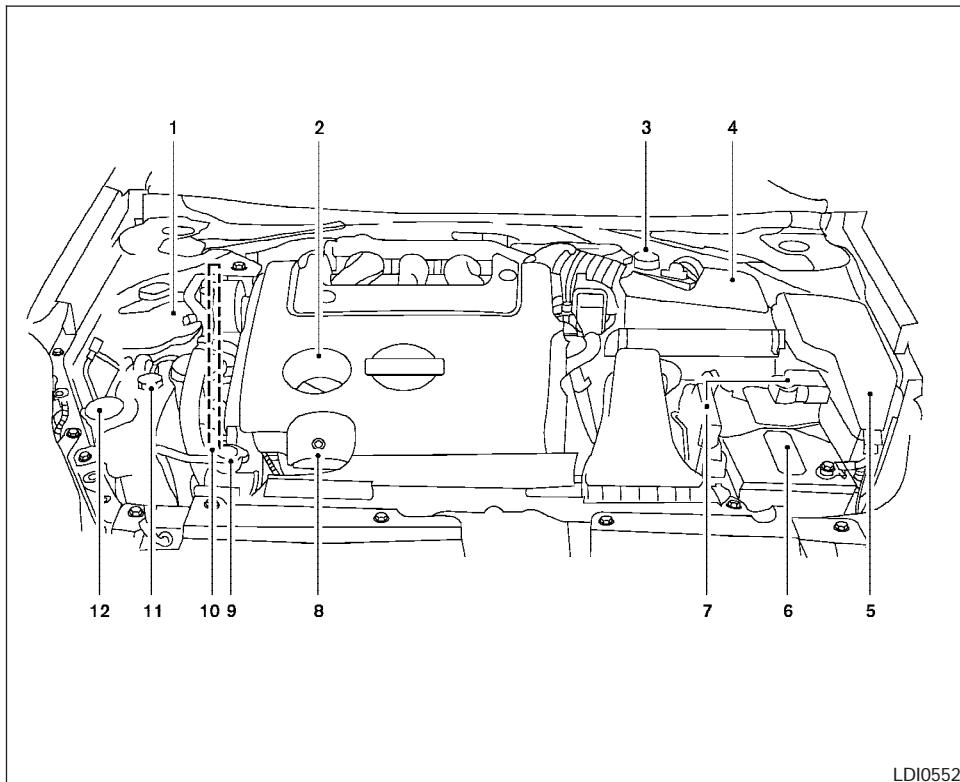
ENGINE COMPARTMENT CHECK LOCATIONS



QR25DE engine

1. Power steering fluid reservoir
2. Engine oil filler cap
3. Brake fluid reservoir/Clutch fluid reservoir (M/T model)
4. Air cleaner
5. Fuse block
6. Battery
7. Fuse/Fusible link box
8. Engine oil dipstick
9. Radiator cap
10. Drive belt location
11. Engine coolant reservoir
12. Windshield washer fluid reservoir

LDI0553



VQ35DE engine

1. Power steering fluid reservoir
2. Engine oil filler cap
3. Brake fluid reservoir/Clutch fluid reservoir (M/T model)
4. Air cleaner
5. Fuse block
6. Battery
7. Fuse/Fusible link box
8. Engine oil dipstick
9. Radiator cap
10. Drive belt location
11. Engine coolant reservoir
12. Windshield washer fluid reservoir

LDI0552

ENGINE COOLING SYSTEM

The engine cooling system is filled at the factory with Genuine NISSAN Long Life Antifreeze/Coolant to provide year-round anti-freeze and coolant protection. The anti-freeze solution contains rust and corrosion inhibitors. Additional engine cooling system additives are not necessary.

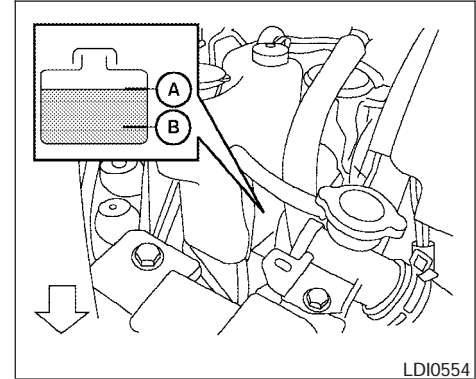
⚠ WARNING

- **Never remove the radiator or 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. See precautions in “If your vehicle overheats” found in the “In case of emergency” section of this manual.**
- **The radiator is equipped with a pressure type radiator cap. To prevent engine damage, use only a genuine NISSAN radiator cap.**

⚠ CAUTION

When adding or replacing coolant, be sure to use only a Genuine NISSAN Long Life Antifreeze/Coolant (green) or equivalent with the proper mixture ratio of 50% anti-freeze and 50% demineralized or distilled water. The use of other types of coolant solutions or coolant colors, such as orange, may damage the engine cooling system.

| Outside temperature down to | | Genuine NISSAN Long Life Antifreeze/Coolant or equivalent | Demineralized or distilled water |
|-----------------------------|-----|---|----------------------------------|
| °C | °F | | |
| -35 | -30 | 50% | 50% |



CHECKING ENGINE COOLANT LEVEL

Check the coolant level **in the reservoir when the engine is cold**. If the coolant level is below the MIN level (B), add coolant to the MAX level (A). If the reservoir is empty, 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 the MAX level (A).

If the cooling system frequently requires coolant, have it checked by a NISSAN dealer.

ENGINE OIL

CHANGING ENGINE COOLANT

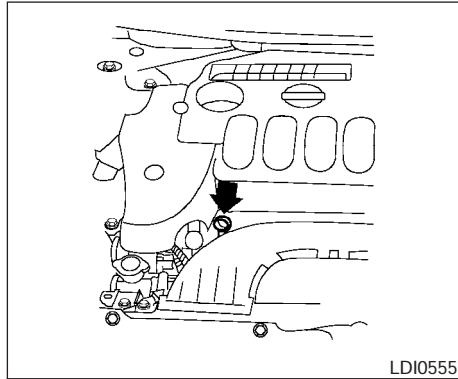
A NISSAN dealer can change the engine coolant. The service procedure can be found in the NISSAN Service Manual.

Improper servicing can result in reduced heater performance and engine overheating.

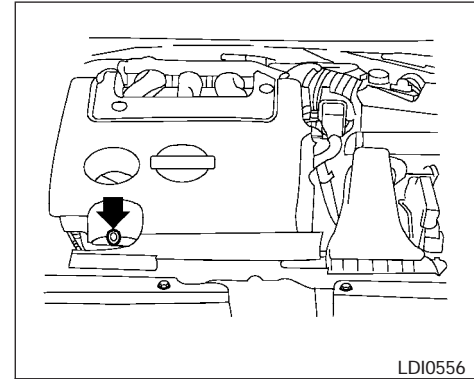
⚠ WARNING

- To avoid the danger of being scalded, never change the coolant when the engine is hot.
- Never remove the radiator cap when the engine is hot. Serious burns could be caused by high pressure fluid escaping from the radiator.
- 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 the reach of children and pets.

Engine coolant must be disposed of properly. Check your local regulations.



QR25DE engine



VQ35DE engine

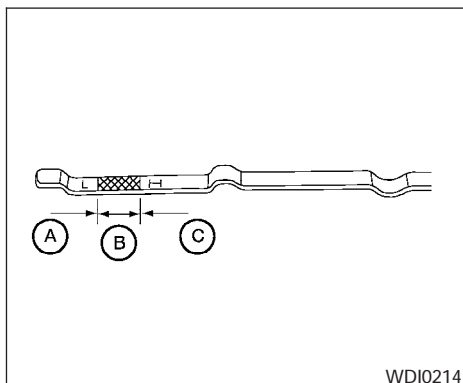
CHECKING ENGINE OIL LEVEL

1. Park the vehicle on a level surface and apply the parking brake.
2. Start the engine and let it idle until it reaches operating temperature.
3. Turn off the engine. **Wait more than 10 minutes for the oil to drain back into the oil pan.**
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 between the H (High) and L (Low) marks (B). This is the normal operating oil level range. If the oil level is below the L (Low) mark (A), remove the oil filler cap and pour recommended oil through the opening. **Do not overfill (C).**

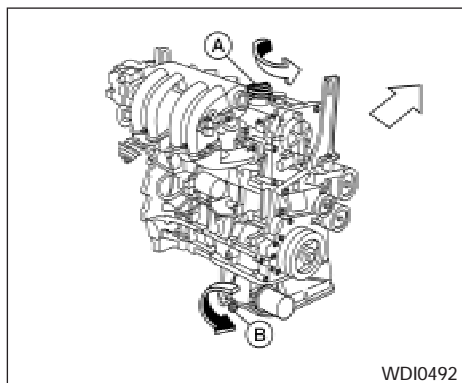
6. Recheck oil level with the dipstick.

It is normal to add some oil between oil maintenance intervals or during the break-in period, depending on the severity of operating conditions.



CAUTION

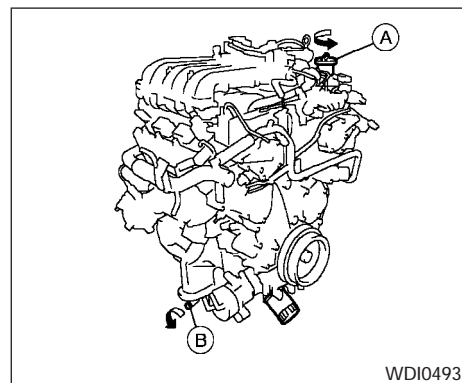
Oil level should be checked regularly. Operating the engine with an insufficient amount of oil can damage the engine, and such damage is not covered by warranty.



QR25DE

CHANGING ENGINE OIL

1. Park the vehicle on a level surface and apply the parking brake.
2. Start the engine and let it idle until it reaches operating temperature, then turn it off.
3. Remove the oil filler (A) cap by turning it counterclockwise.
4. Place a large drain pan under the drain plug (B).



VQ35DE

5. Remove the drain plug (B) with a wrench by turning it counterclockwise and completely drain the oil.

If the oil filter is to be changed, remove and replace it at this time. See "Changing engine oil filter" later in this section.

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.**

⚠ CAUTION

Be careful not to burn yourself. The engine oil may be hot.

- **Waste oil must be disposed of properly.**
 - **Check your local regulations.**
6. Clean and reinstall the drain plug and a new washer. Securely tighten the drain plug with a wrench. Do not use excessive force.

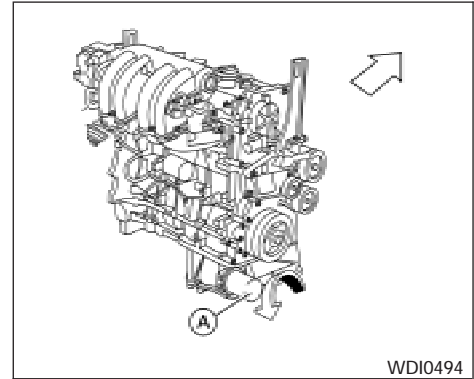
**Drain plug tightening torque:
22 - 29 ft-lb (29 - 39 N·m)**

7. Refill engine with recommended oil through the oil filler opening, then install the oil filler cap securely.

See “Capacities and recommended fuel/lubricants” in the “Technical and consumer information” section of this manual for drain and refill capacity.

The drain and refill capacity depends on the oil temperature and drain time. Use these specifications for reference only. Always use the dipstick to determine when the proper amount of oil is in the engine.

8. Start the engine. Check for leakage around the drain plug and oil filter. Correct as required.
9. Turn the engine off and wait more than 10 minutes. Check the oil level with the dipstick. Add engine oil if necessary.

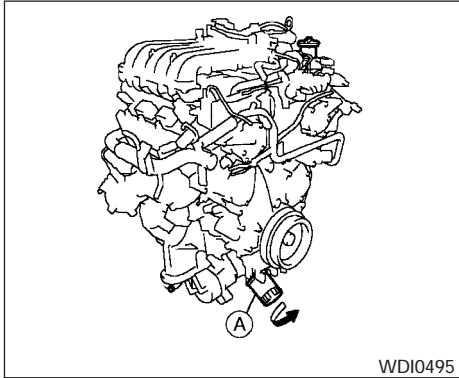


QR25DE

WDI0494

CHANGING ENGINE OIL FILTER

1. Park the vehicle on a level surface and apply the parking brake.
2. Turn the engine off.
3. Place a large drain pan under the oil filter **(A)**.
4. Loosen the oil filter **(A)** with an oil filter wrench by turning it counterclockwise. Then remove the oil filter by turning it by hand.



WDI0495

VQ35DE

⚠ CAUTION

Be careful not to burn yourself. The engine oil may be hot.

5. Wipe the engine oil filter sealing surface with a clean rag.

Be sure to remove any old gasket material remaining on the sealing surface of the engine.

6. Coat the gasket on the new filter with clean engine oil.

7. Screw on the oil filter until a slight resistance is felt, then tighten an additional 2/3 turn.
8. Start the engine and check for leakage around the oil filter. Correct as required.
9. Turn the engine off and wait more than 10 minutes. Check the oil level. Add engine oil if necessary.

CONTINUOUSLY VARIABLE TRANSMISSION (CVT) FLUID

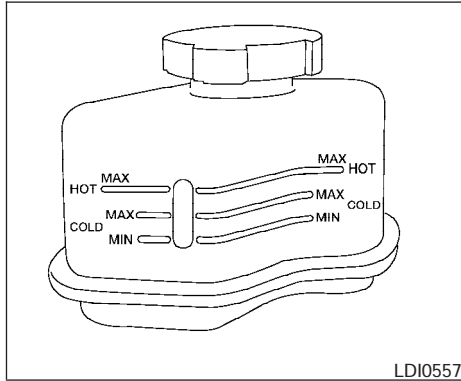
⚠ WARNING

- Use only **Genuine NISSAN CVT Fluid NS-2**. Do not mix with other fluids.
- Using transmission fluid other than **Genuine NISSAN CVT Fluid NS-2** will damage the CVT, which is not covered by the **NISSAN new vehicle limited warranty**.

When checking or replacement is required, we recommend your NISSAN dealer for servicing.

The specified CVT fluid is also described on caution labels located in the engine compartment.

POWER STEERING FLUID



The fluid level should be checked using the HOT MAX range on the power steering fluid reservoir at fluid temperatures of 122° - 176°F (50° - 80°C) or using the COLD MAX range on the power steering fluid reservoir at fluid temperatures of 32° - 86°F (0° - 30°C).

If the fluid is below the MIN line, add Genuine NISSAN PSF. Remove the cap and fill through the opening.

CAUTION

- **DO NOT OVERFILL.**
- **Recommended fluid is Genuine NISSAN PSF or equivalent.**

BRAKE AND CLUTCH FLUID

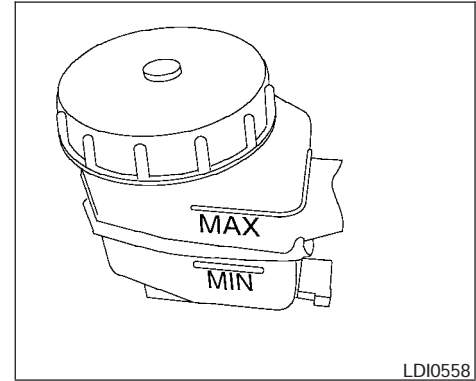
For further brake and clutch fluid specification information, refer to “Capacities and recommended fuel/lubricants” in the “Technical and consumer information” section of this manual.

WARNING

- **Use only new fluid from a sealed container. Old, inferior or contaminated fluid may damage the brake and clutch systems. The use of improper fluids can damage the brake system and affect the vehicle's stopping ability.**
- **Be sure to clean the filler cap before removing.**

CAUTION

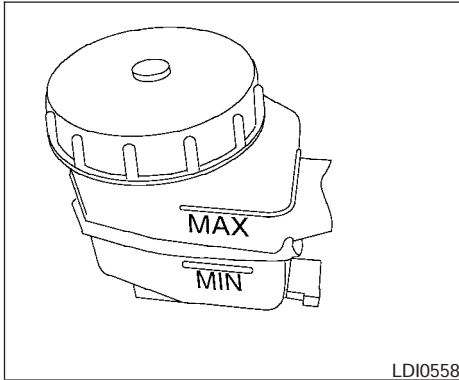
Do not spill the fluid on any painted surfaces. This will damage the paint. If fluid is spilled, immediately wash the surface with water.



BRAKE FLUID

Check the brake fluid level in the reservoir. If the fluid level is below the MIN line or the brake warning light comes on, add Genuine NISSAN Super Heavy Duty Brake Fluid or equivalent **DOT 3** fluid up to the MAX line. If fluid must be added frequently, the system should be checked by a NISSAN dealer.

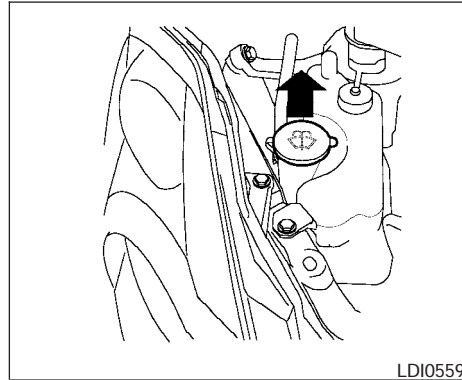
WINDOW WASHER FLUID



CLUTCH FLUID

Check the clutch fluid level in the reservoir (manual transmissions only). If the fluid level is below the MIN line, add Genuine NISSAN Super Heavy Duty Brake Fluid or equivalent **DOT 3** fluid up to the MAX line. If fluid must be added frequently, the system should be checked by a NISSAN dealer.

For further brake and clutch fluid specification information, refer to "Capacities and recommended fuel/lubricants" in the "Technical and consumer information" section of this manual.



WINDOW WASHER FLUID RESERVOIR

Fill the window washer fluid reservoir periodically. Add window washer fluid when the low window washer fluid warning light comes on (if so equipped).

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 antifreeze. 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.

Recommended fluid is Genuine NISSAN Windshield Washer Concentrate Cleaner & Antifreeze or equivalent.

CAUTION

- 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.
- 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.

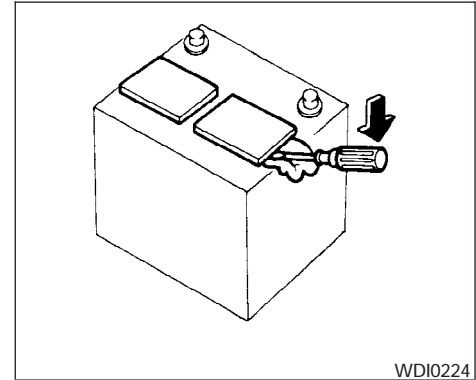
BATTERY

- 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 discharge.

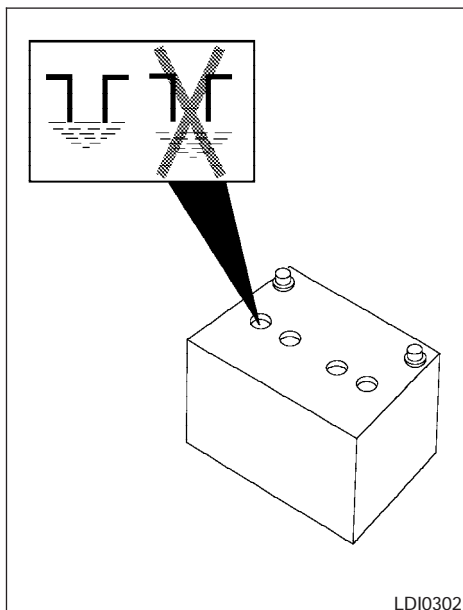
WARNING

- **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 battery out of the reach of children.**



1. Remove the battery caps with a screwdriver as shown. Use a cloth to protect the battery case.



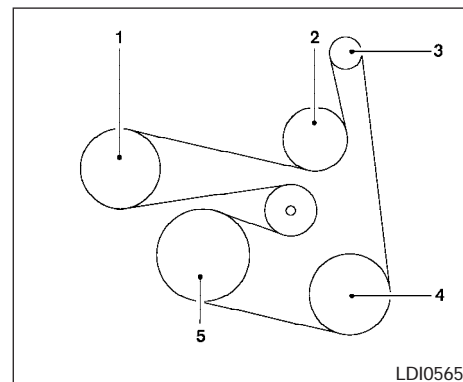
2. Check the fluid level in each cell. If it is necessary to add fluid, add only distilled water to bring the level up to the bottom of the filler opening. **Do not overfill.**

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 "Jump starting" in the "In case of emergency" section of this manual. If the engine does not start by jump starting, the battery may have to be replaced. Contact a NISSAN dealer.

DRIVE BELTS



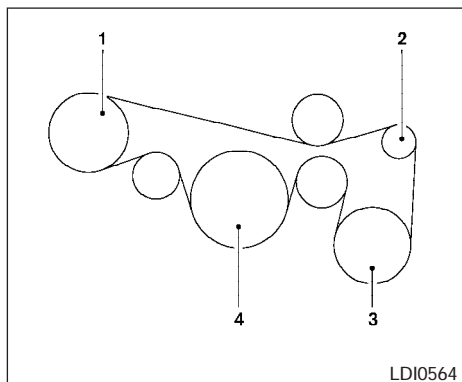
QR25DE engine

1. Power steering fluid pump
2. Water pump
3. Generator
4. Air conditioner (if so equipped)
5. Crank pulley

WARNING

Be sure the ignition key is in the OFF or LOCK position before servicing drive belt. The engine could rotate unexpectedly.

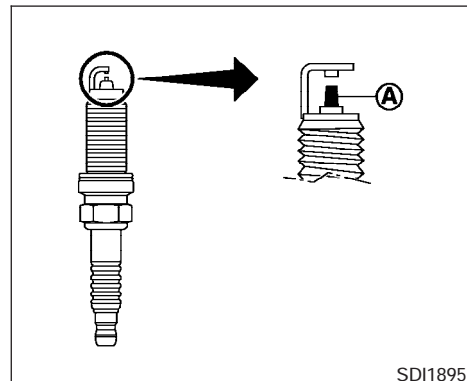
1. Visually inspect the belt(s) for signs of unusual wear, cuts, fraying or looseness. If the belt is in poor condition or is loose, have it replaced or adjusted by a NISSAN dealer.
2. Have the belts checked regularly for condition and tension in accordance with the maintenance schedule found in the "NISSAN Service and Maintenance Guide".



VQ35DE engine

1. Power steering fluid pump
2. Generator
3. Air conditioner
4. Crank pulley

SPARK PLUGS



REPLACING SPARK PLUGS

Platinum-tipped spark plugs (if so equipped)

It is not necessary to replace platinum-tipped **A** spark plugs as frequently as conventional type spark plugs because they last much longer. Follow the maintenance log shown in the "NISSAN Service and Maintenance Guide". Do not service platinum-tipped spark plugs by cleaning or re-gapping.

- **Always replace spark plugs with recommended or equivalent ones.**

⚠ WARNING

Be sure the engine and ignition switch are off and that the parking brake is engaged securely.

⚠ CAUTION

Be sure to use the correct socket to remove the spark plugs. An incorrect socket can damage the spark plugs.

Iridium-tipped spark plugs

It is not necessary to replace iridium-tipped **A** spark plugs as frequently as conventional type spark plugs because they last much longer. Follow the maintenance log shown in the “NISSAN Service and Maintenance Guide”. Do not service iridium-tipped spark plugs by cleaning or regapping.

- **Always replace spark plugs with recommended or equivalent ones.**

⚠ WARNING

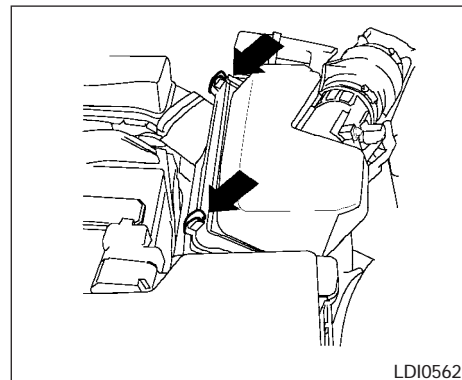
Be sure the engine and ignition switch are off and that the parking brake is engaged securely.

⚠ CAUTION

Be sure to use the correct socket to remove the spark plugs. An incorrect socket can damage the spark plugs.

If replacement is required, see your NISSAN dealer for assistance.

AIR CLEANER

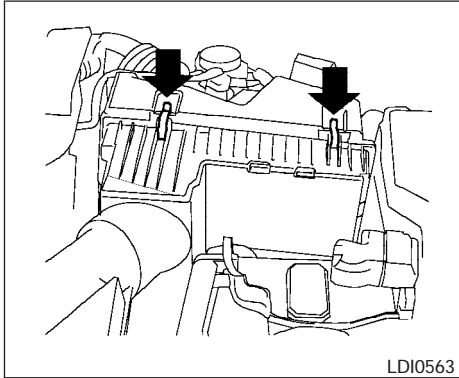


LDI0562

Type A

The air cleaner filter should not be cleaned and reused. Replace it according to the maintenance log shown in the “NISSAN Service and Maintenance Guide.” When replacing the filter, wipe the inside of the air cleaner filter housing and the cover with a damp cloth.

To remove the air cleaner filter, push the tabs and pull the unit upward.



Type B

⚠ 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 the 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.

IN-CABIN MICROFILTER

The in-cabin microfilter restricts the entry of airborne dust and pollen particles and reduces some objectionable outside odors. The filter is located behind the glove box. Refer to the "NISSAN Service and Maintenance Guide" for change intervals.

If replacement is required, see your NISSAN dealer.

WINDSHIELD WIPER BLADES

CLEANING

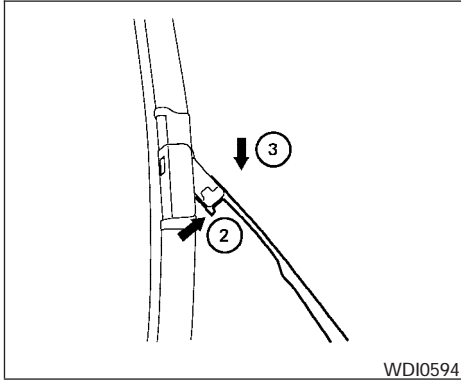
If your windshield is not clear after using the windshield washer or if a wiper blade chatters when running, wax or other material may be on the blade or windshield.

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 blades 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.



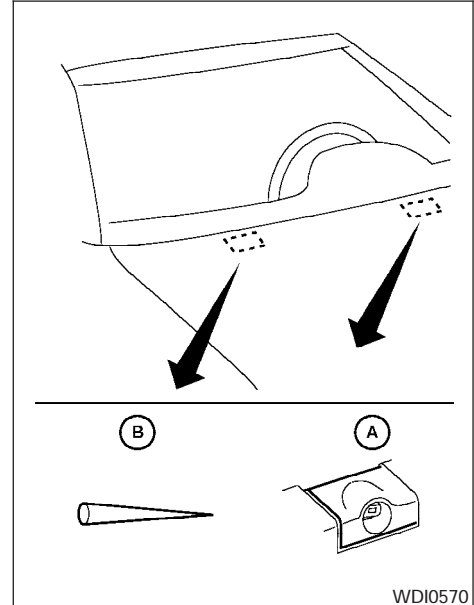
REPLACING

Replace the wiper blades if they are worn.

1. Lift the wiper arm away from the windshield.
- ② Push the release tab, then move the wiper blade down the wiper arm to remove.
- ③ Remove the wiper blade.
4. Insert the new wiper blade onto the wiper arm until it clicks into place.
5. Rotate wiper blade so the dimple is in the groove.

⚠ CAUTION

- 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 arms may be damaged from wind pressure.



If you wax the surface of the hood, be careful not to let wax get into the washer nozzle (A). This may cause clogging or improper windshield washer operation. If wax gets into the nozzle, remove it with a needle or small pin (B).

BRAKES

If the brakes do not operate properly, have the brakes checked by a NISSAN dealer.

SELF-ADJUSTING BRAKES

Your vehicle is equipped with self-adjusting brakes.

The front and rear disc-type brakes self-adjust every time the brake pedal is applied.

WARNING

See a NISSAN dealer for a brake system check if the brake pedal height does not return to normal.

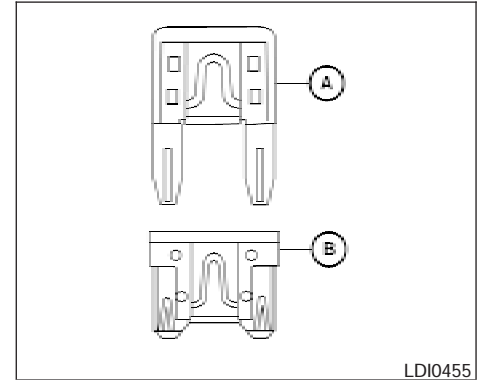
BRAKE PAD WEAR INDICATORS

The disc brake pads on your vehicle have audible wear indicators. When a brake pad requires replacement, a high pitched scraping or screeching sound will be heard when the vehicle is in motion. The noise will be heard whether or not the brake pedal is depressed. Have the brakes checked as soon as possible if the wear indicator 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 more information regarding brake inspections, see the appropriate maintenance schedule information in the “NISSAN Service and Maintenance Guide”.

FUSES

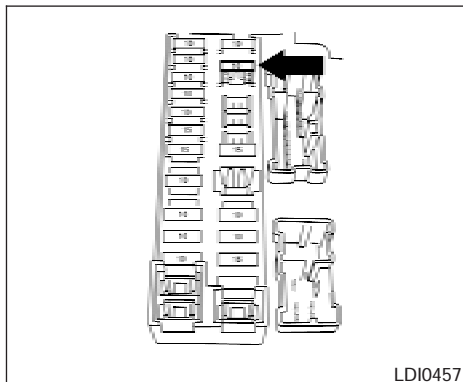


LDI0455

Two types of fuses are used. Type A is used in the fuse boxes in the engine compartment. Type B is used in the passenger compartment fuse box.

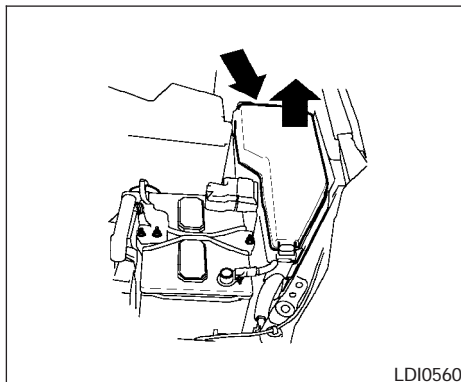
Type A fuses are provided as spare fuses. They are stored in the passenger compartment fuse box.

Type A fuses can be installed in the engine compartment and passenger compartment fuse boxes.



If a type A fuse is used to replace a type B fuse, the type A fuse will not be level with the fuse pocket as shown in the illustration. This will not affect the performance of the fuse. Make sure the fuse is installed in the fuse box securely.

Type B fuses cannot be installed in the underhood fuse boxes. Only use type A fuses in the underhood fuse boxes.



ENGINE COMPARTMENT

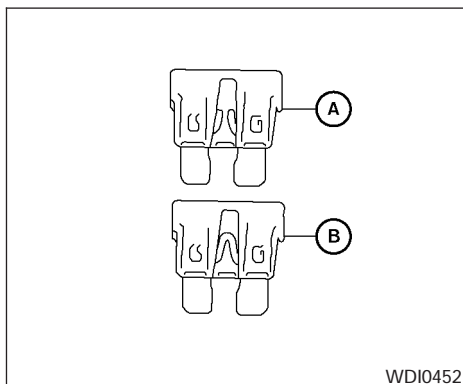
⚠ CAUTION

Never use a fuse of a higher or lower amperage rating than specified on the fuse box cover. This could damage the electrical system or cause a fire.

If any electrical equipment does not come on, check for an open fuse.

1. Be sure the ignition switch and the headlight switch are OFF.
2. Open the engine hood.

3. Remove the fuse box cover by pushing the tab and lifting the cover up.
4. Remove the fuse with the fuse puller. The fuse puller is located in the center of the fuse block in the passenger compartment.

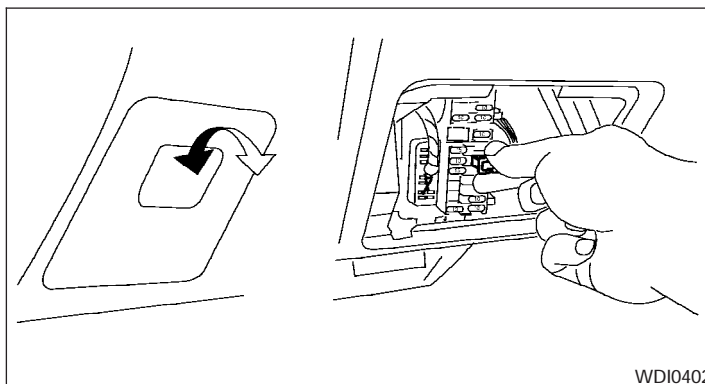


WDI0452

5. If the fuse is open (A), replace it with a new fuse (B).
6. If a new fuse also opens, have the electrical system checked and repaired by a NISSAN dealer.

Fusible links

If the electrical equipment does not operate and fuses are in good condition, check the fusible links. If any of these fusible links are melted, replace with only genuine NISSAN parts.



WDI0402

PASSENGER COMPARTMENT

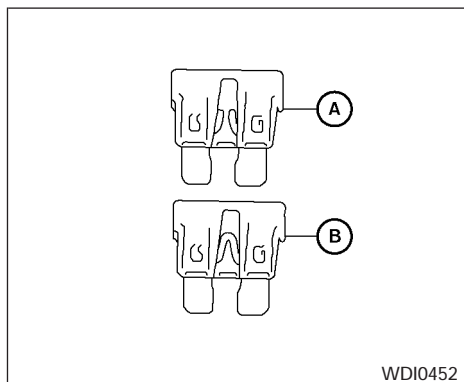
⚠ CAUTION

Never use a fuse of a higher or lower amperage rating than specified on the fuse box cover. This could damage the electrical system or cause a fire.

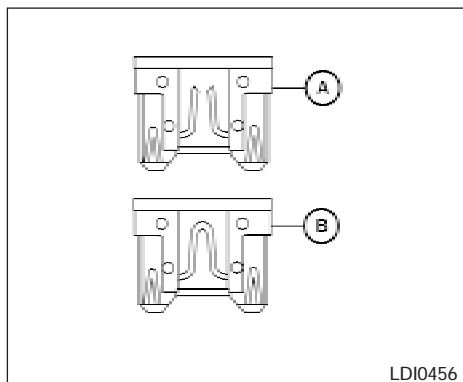
If any electrical equipment does not operate, check for an open fuse.

1. Be sure the ignition switch and the headlight switch are OFF.
2. Pull the fuse box cover to remove.
3. Remove the fuse with the fuse puller.

BATTERY REPLACEMENT

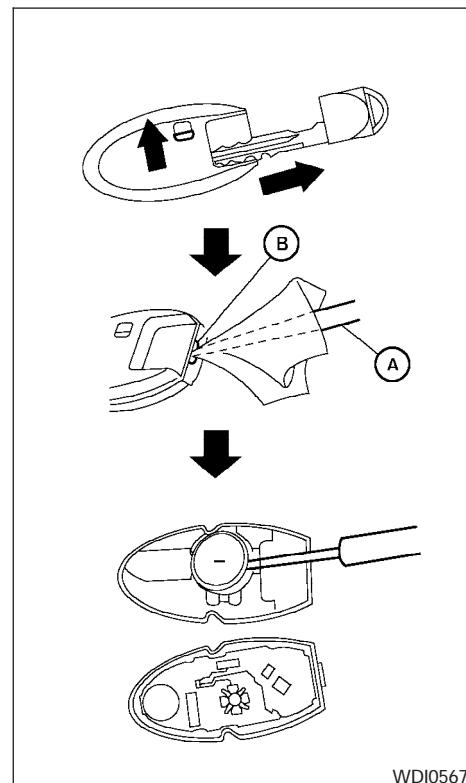


Type A



Type B

4. If the fuse is open (A), replace it with an equivalent good fuse (B).
5. Push the fuse box cover to install.
6. If a new fuse also opens, have the electrical system checked and repaired by a NISSAN dealer.



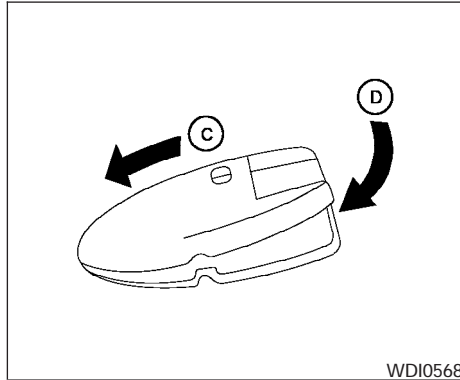
INTELLIGENT KEY BATTERY

Replace the battery in the Intelligent Key as follows:

1. Remove the mechanical key from the Intelligent Key.
2. Insert a small screwdriver (A) into the slit (B) of the corner and twist it to separate the upper part from the lower part. Use a cloth to protect the casing.
3. Replace the battery with a new one.

Recommended battery: CR2032 or equivalent.

- Do not touch the internal circuit and electric terminals as doing so could cause a malfunction.
- Hold the battery by the edges. Holding the battery across the contact points will seriously deplete the storage capacity.
- Make sure that the + side faces the bottom of the case.



4. Close the lid securely as illustrated (C) (D).
5. Operate the buttons to check its operation.

See a NISSAN dealer if you need assistance for replacement.

FCC Notice:

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

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.

LIGHTS

HEADLIGHTS

Replacing the xenon headlight bulb (if so equipped)



When xenon headlights are on, they produce a high voltage. To prevent an electric shock, never attempt to modify or disassemble. Always have your xenon headlights replaced at a NISSAN dealer. For additional information, see “Headlight and turn signal switch” in the “Instruments and controls” section.

Replacing the halogen headlight bulb

The headlight is a semi-sealed beam type which uses a replaceable headlight (halogen) bulb. Because the headlight assembly must be removed from the vehicle for bulb replacement, see your NISSAN dealer.



- **Aiming is not necessary after replacing the bulb. When aiming adjustment is necessary, contact a NISSAN dealer.**

- **Do not leave the headlight assembly open without a bulb installed for a long period of time. Dust, moisture, smoke, etc. entering the headlight body may affect bulb performance. Remove the bulb from the headlight assembly just before a replacement bulb is installed.**

- **Only touch the plastic base when handling the bulb. Never touch the glass envelope. Touching the glass could significantly affect bulb life and/or headlight performance.**

- **High pressure halogen gas is sealed inside the halogen bulb. The bulb may break if the glass envelope is scratched or the bulb is dropped.**

- **Use the same number and wattage as originally installed:**

Low beam:

**Wattage: 55
Bulb no.: H11***

High beam:

**Wattage: 65
Bulb no.: H9***

***: Always check with the Parts Department at a NISSAN dealer for the latest parts information.**

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 is not a malfunction. If large drops of water collect inside the lens, contact a NISSAN dealer.

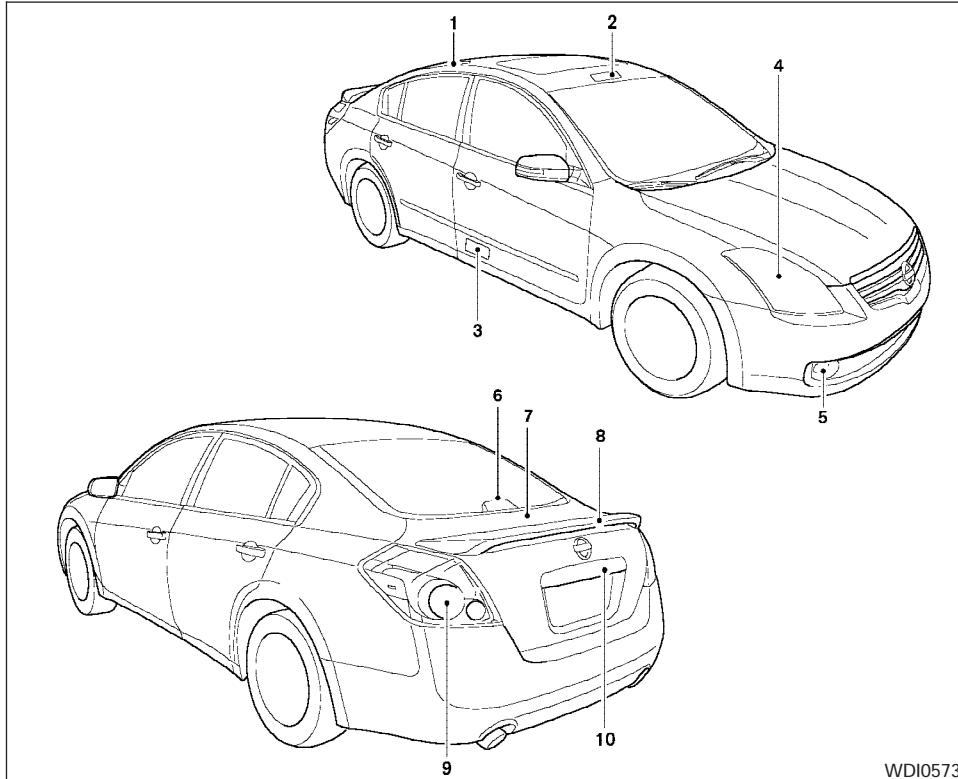
FRONT PARK/TURN/SIDEMARKER LIGHT

Bulb replacement requires the removal of the headlight assembly. If replacement is required, see your NISSAN dealer.

EXTERIOR AND INTERIOR LIGHTS

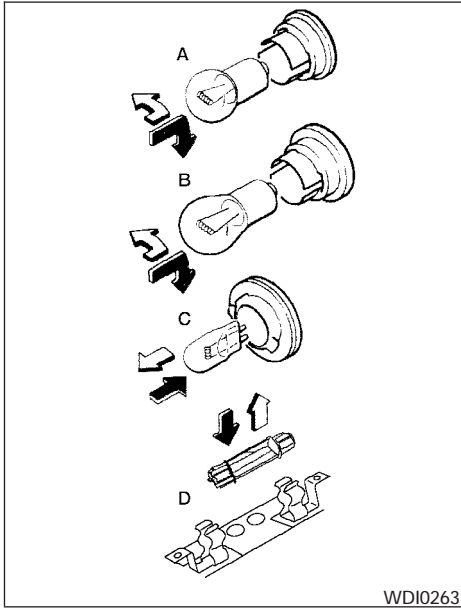
| Item | Wattage (W) | Bulb No.* |
|--------------------------|--|-----------|
| Headlight assembly | | |
| Low (Halogen) | 55 | H11 |
| Low (Xenon) | (special) | D2R |
| High | 65 | H9 |
| Park/Turn | 27/8 | 1157NA |
| Front fog light | 55 | H11 |
| Step light | — | 158 |
| Rear combination light | | |
| Tail/Stop | 8/27 | 3157KX |
| Turn | 27 | 3156 |
| Backup (reversing) | 13 | 912 |
| Sidemarker | 5 | 168 |
| License plate light | 5 | W5W |
| High-mounted stop light | | |
| Inside | 18 | 921 |
| Spoiler (if so equipped) | See a NISSAN dealer for assistance. | |
| Front map light | 8 | B5Y |
| Rear map light | 8 | B5Y |
| Trunk light | 3.4 | 158 |
| Glove box light | 3.4 | 658 |

* Always check with the Parts Department at a NISSAN dealer for the latest parts information.



1. Rear map light
2. Front map light
3. Step light
4. Headlamp assembly
5. Fog light (if so equipped)
6. High-mount stoplight (if so equipped)
7. Trunk light
8. Spoiler mounted stoplight (if so equipped)
9. Rear combination light
10. License plate light

WDI0573



Replacement procedures

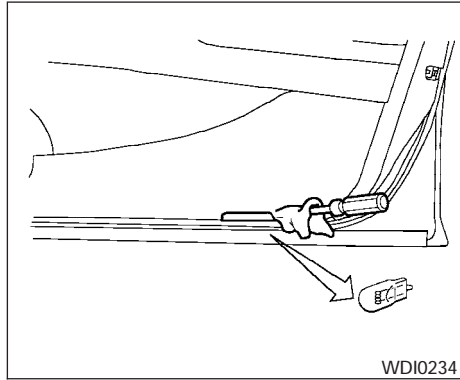
All other lights are either type A, B, C or D. When replacing a bulb, first remove the lens, lamp and/or cover.



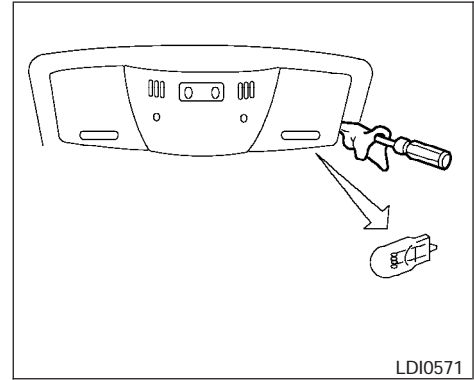
Indicates bulb removal



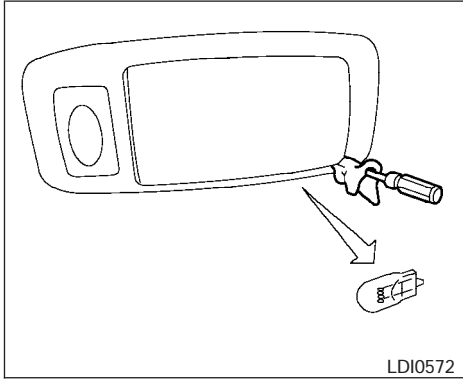
Indicates bulb installation



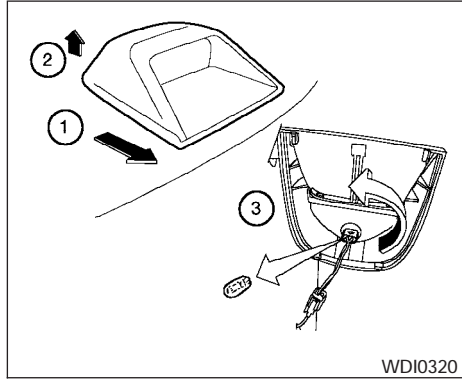
Step light



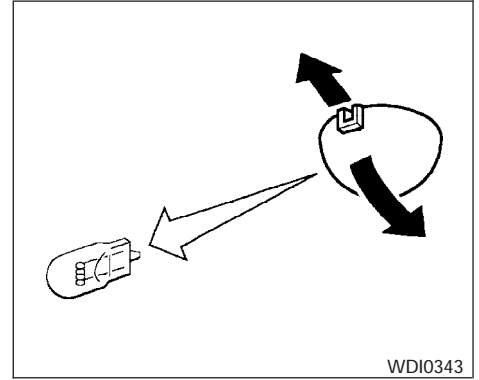
Front map light



Rear map light



High-mounted stop light (rear window)



Trunk light

WHEELS AND TIRES

If you have a flat tire, see the “In case of emergency” section of this manual.

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 except the spare. When the low tire pressure warning light is lit, one or more of your tires is significantly under-inflated.

The TPMS will activate only when the vehicle is driven at speeds above 16 MPH (25 km/h). Also, this system may not detect a sudden drop in tire pressure (for example a flat tire while driving).

For more details, refer to “Low tire pressure warning light” in the “Instruments and controls” section, “Tire Pressure Monitoring System (TPMS)” in the “Starting and driving” section, and “Flat tire” in the “In case of emergency” section.

Tire inflation pressure

Check the tire pressures (including the spare) often and always prior to long distance trips. The recommended tire pressure specifications are shown on the F.M.V.S.S./C.M.V.S.S. label or the Tire and Loading Information label under the “Cold Tire Inflation Pressure” heading. The Tire and Loading Information label is affixed to the driver side center pillar. 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.

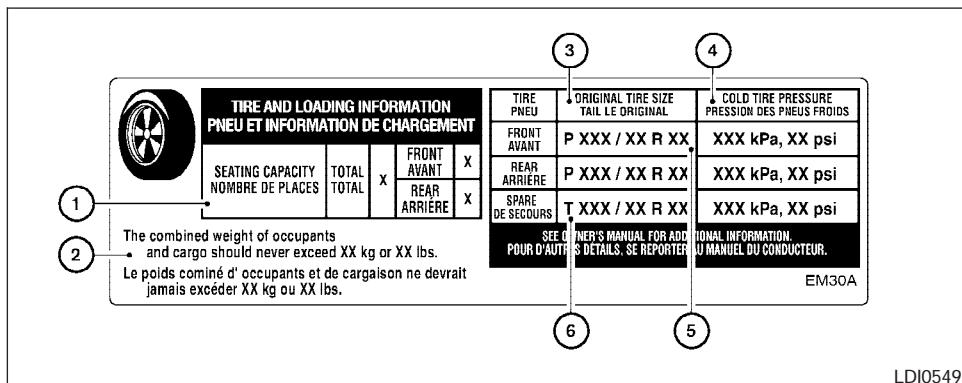
The tire pressures should be checked when the tires are cold. The tires are considered COLD after the vehicle has been parked for 3 or more hours, or driven less than 1 mile (1.6 km) at moderate speeds.

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.**
- **The Gross Vehicle Weight Rating (GVWR) is located on the F.M.V.S.S./C.M.V.S.S. label. The vehicle weight capacity is indicated on the Tire and Loading Information label. Do not load your vehicle beyond this capacity. Overloading your vehicle may result in reduced tire life, unsafe operating conditions due to premature tire failure, or unfavorable handling characteristics and could also lead to a serious accident. Loading beyond the specified capacity may also result in failure of other vehicle components.**

- 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.
- Do not drive your vehicle over 85 MPH (137 km/h) unless it is equipped with high speed rated tires. Driving faster than 85 MPH (137 km/h) may result in tire failure, loss of control and possible injury.
- For additional information regarding tires, refer to “Important Tire Safety Information” (US) or “Tire Safety Information” (Canada) in the Warranty Information Booklet.

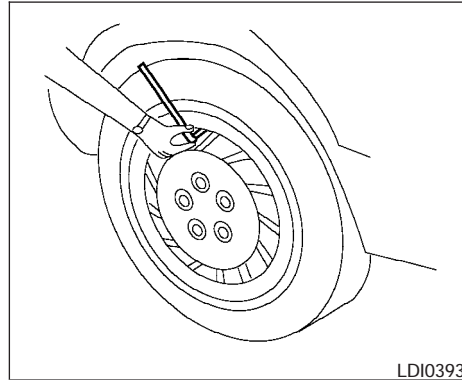


Tire and loading information label

- ① Seating capacity: The maximum number of occupants that can be seated in the vehicle.
- ② Vehicle load limit: See loading information in the “Technical and consumer information” section.
- ③ Original tire size: The size of the tires originally installed on the vehicle at the factory.

- ④ Cold tire pressure: Inflate the tires to this pressure when the tires are cold. Tires are considered COLD after the vehicle has been parked for 3 or more hours, or driven less than 1 mile (1.6 km) at moderate speeds. The recommended cold tire inflation is set by the manufacturer to provide the best balance of tire wear, vehicle handling, driveability, tire noise, etc., up to the vehicle's GVWR.
- ⑤ Tire size – refer to “Tire labeling” later in this section.

- ⑥ Spare tire size (if so equipped).

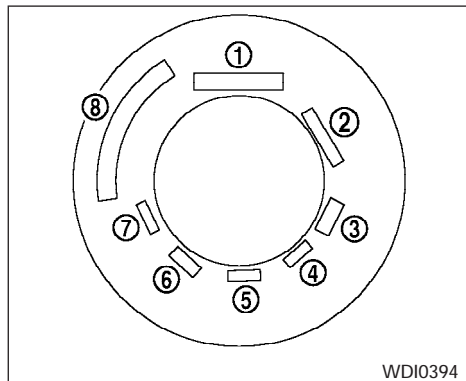


Checking tire pressure

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 to the specification shown on the Tire and Loading Information 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, including the spare.

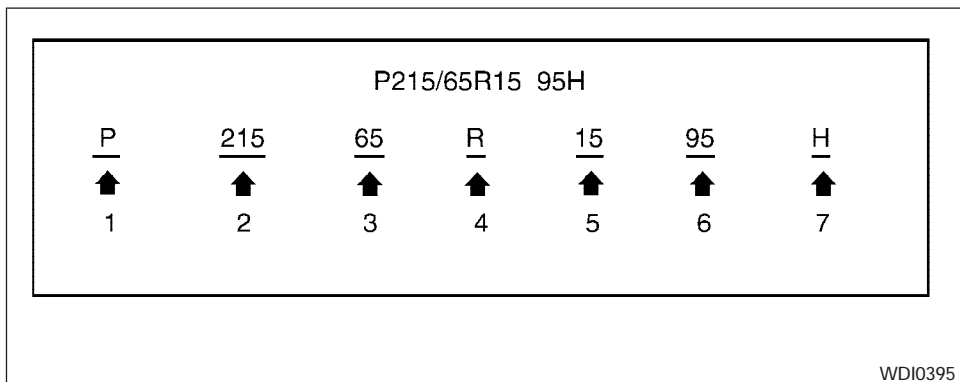
| | Size | Cold Tire Inflation Pressure |
|---------------------|--------------------------|------------------------------|
| Front Original Tire | P215/60/R16 | 220 kPa, 32 PSI |
| | P215/55R17 | 230 kPa, 33 PSI |
| Rear Original Tire | P215/60R16 | 220 kPa, 32 PSI |
| | P215/55R17 | 230 kPa, 33 PSI |
| Spare Tire | T135/70R16 T135/90R16 | 420 kPa, 60 PSI |



Example

TIRE LABELING

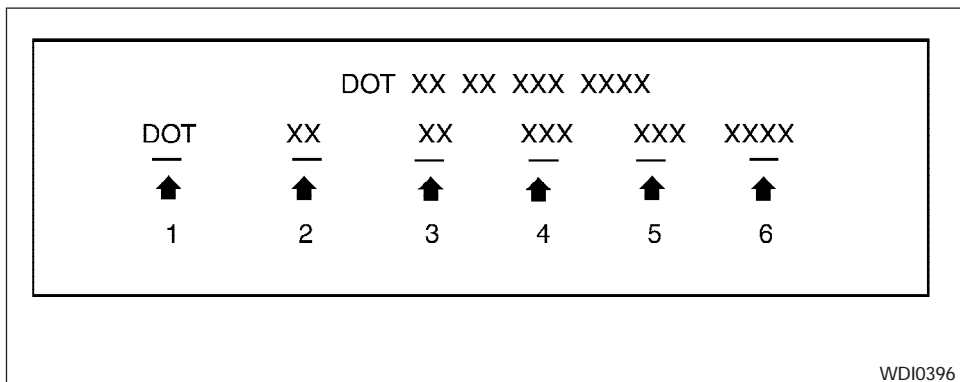
Federal law requires tire manufacturers to place standardized information on the sidewall of all tires. This information identifies and describes the fundamental characteristics of the tire and also provides the tire identification number (TIN) for safety standard certification. The TIN can be used to identify the tire in case of a recall.



Example

- ① Tire size (example: P215/65R15 95H)
 1. P: The "P" indicates the tire is designed for passenger vehicles (not all tires have this information).
 2. Three-digit number (215): This number gives the width in millimeters of the tire from sidewall edge to sidewall edge.
 3. Two-digit number (65): This number, known as the aspect ratio, gives the tire's ratio of height to width.
 4. R: The "R" stands for radial.
 5. Two-digit number (15): This number is the wheel or rim diameter in inches.
 6. Two- or three-digit number (95): This number is the tire's load index. It is a measurement of how much weight each tire can support. You may not find this information on all tires because it is not required by law.

7. H: Tire speed rating. You should not drive the vehicle faster than the tire speed rating.



Example

② TIN (Tire Identification Number) for a new tire (example: DOT XX XX XXX XXXX)

1. DOT: Abbreviation for the "Department Of Transportation." The symbol can be placed above, below or to the left or right of Tire Identification Number.
2. Two-digit code: Manufacturer's identification mark
3. Two-digit code: Tire size

4. Three-digit code: Tire type code (Optional)
5. Three-digit code: Date of Manufacture
6. 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 (i.e., Summer, All Season or Snow) and construction. A NISSAN dealer may be able to help you with information about tire type, size, speed rating and availability.**
- **Replacement tires may have a lower speed rating than the factory equipped tires, and may not match the potential maximum vehicle speed. Never exceed the maximum speed rating of the tire.**
- **For additional information regarding tires, refer to “Important Tire Safety Information” (US) or “Tire Safety Information” (Canada) in the Warranty Information Booklet.**

All season tires

NISSAN specifies All Season tires on some models to provide good performance all year, including snowy and icy road conditions. All Season tires are identified by ALL SEASON and/or M&S on the tire sidewall. Snow tires have better snow traction than All Season tires and may be more appropriate in some areas.

Summer tires

NISSAN specifies summer tires on some models to provide superior performance on dry roads. Summer tire performance is substantially reduced in snow and ice. Summer tires do not have the tire traction rating “M&S” on the tire sidewall.

If you plan to operate your vehicle in snowy or icy conditions, NISSAN recommends the use of SNOW tires or ALL SEASON tires on all four wheels.

Snow tires

If snow tires are needed, it is necessary to select tires equivalent in size and load rating to the original equipment tires. If you do not, it can adversely affect the safety and handling of your vehicle.

Generally, snow tires have lower speed ratings than factory equipped tires and may not match the potential maximum vehicle speed. Never exceed the maximum speed rating of the tire.

If you install snow tires, they must be the same size, brand, construction and tread pattern on all four wheels.

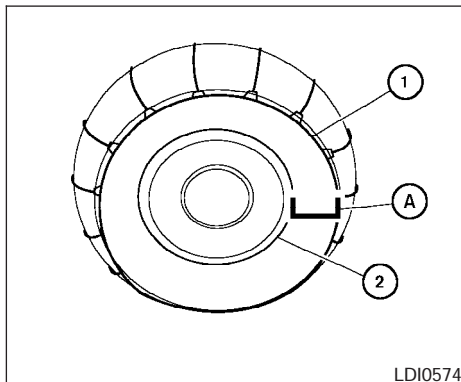
For additional traction on icy roads, studded tires may be used. However, some U.S. states and Canadian provinces prohibit their use. Check local, state and provincial laws before installing

studded tires. Skid and traction capabilities of studded snow tires on wet or dry surfaces may be poorer than that of non-studded snow tires.

TIRE CHAINS

CAUTION

Only certain SAE class “S” tire chains can be used on this vehicle. Using the wrong Class “S” chains on this vehicle will cause damage to the vehicle. If you plan to use tire chains/cables, you should use a tire chain that meets the minimum clearances for your vehicle.



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 the proper size for the tires on your vehicle and are installed according to the chain manufacturer's suggestions. Use a tire chain that is designed to provide the specified space **A** between the installed tire chain **1** and where the tire meets the rim **2** as shown on the chart.

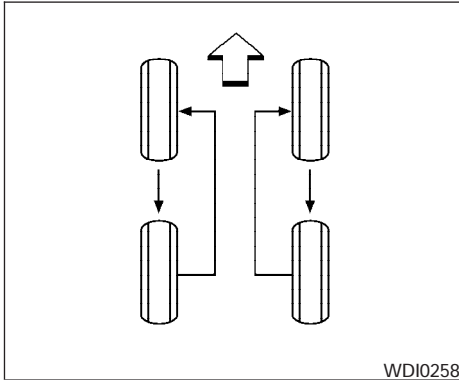
| Wheel size | Minimum space required |
|------------|------------------------|
| 16 in | .7 in (17 mm) |
| 17 in | .2 in (4 mm) |

A tire chain that provides the specified amount of space will provide the necessary clearance between the tire and the closest vehicle suspension or body component. The minimum clearances are determined using the factory-equipped tires. 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 underbody. 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.

Tire chains must be installed only on the front wheels and not on the rear wheels.

Never install tire chains on a TEMPORARY USE ONLY spare tire.

Do not use tire chains on dry roads. Driving with tire chains in such conditions can cause damage to the various mechanisms of the vehicle due to some overstress.



CHANGING WHEELS AND TIRES

Tire rotation

NISSAN recommends rotating the tires every 7,500 miles (12,000 km).

See “Flat tire” in the “In case of emergency” section of this manual for tire replacing procedures.

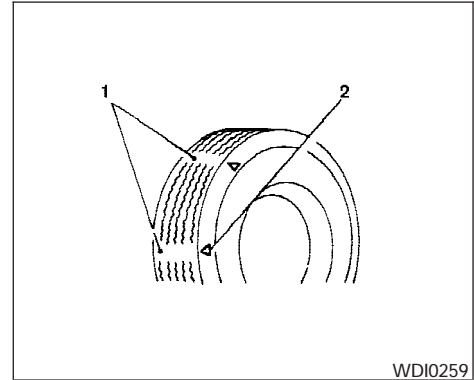
As soon as possible, tighten the wheel nuts to the specified torque with a torque wrench.

**Wheel nut tightening torque:
83 ft-lb (112 N-m)**

The wheel nuts must be kept tightened to specifications at all times. It is recommended that wheel nuts be tightened to specification at each tire rotation interval.

⚠ WARNING

- **After rotating the tires, check and adjust the tire pressure.**
- **Retighten the wheel nuts when the vehicle has been driven for 600 miles (1,000 km) (also in cases of a flat tire, etc.).**
- **Do not include the spare tire in the tire rotation.**
- **For additional information regarding tires, refer to “Important Tire Safety Information” (US) or “Tire Safety Information” (Canada) in the Warranty Information Booklet.**



1. Wear indicator
2. Location mark

Tire wear and damage

⚠ 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, including the spare, 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.**
- **Improper service of the spare tire may result in serious personal injury. If it is necessary to repair the spare tire, contact a NISSAN dealer.**
- **For additional information regarding tires, refer to “Important Tire Safety Information” (US) or “Tire Safety Information” (Canada) in the Warranty Information Booklet.**

Replacing wheels and tires

When replacing a tire, use the same size, tread design, speed rating and load carrying capacity as originally equipped. Recommended types and sizes are shown in “Wheels and tires” in the “Technical and consumer information” section of this manual.

WARNING

- **The use of tires other than those recommended or the mixed use of tires of different brands, construction (bias, bias-belted or radial), or tread patterns can adversely affect the ride, braking, 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 and/or interference with the brake discs/drums. Such interference can lead to decreased braking efficiency and/or early brake pad/shoe wear. Refer to “Wheels and tires” in the “Technical and consumer information” section of this manual for wheel off-set dimensions.**
- **When a spare tire is mounted or 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. The light will remain on after 1 minute. Contact your NISSAN dealer 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 install a deformed wheel or tire even if it has been repaired. Such wheels or tires could have structural damage and could fail without warning.**
- **The use of retread tires is not recommended.**
- **For additional information regarding tires, refer to “Important Tire Safety Information” (US) or “Tire Safety Information” (Canada) in the Warranty Information Booklet.**

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 wheels on the vehicle could lead to mechanical damage.

- **For additional information regarding tires, refer to “Important Tire Safety Information” (US) or “Tire Safety Information” (Canada) in the Warranty Information Booklet .**

Care of 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.
- Do not use abrasive cleaners when washing the wheels.
- Inspect wheel rims regularly for dents or corrosion. Such damage may cause loss of pressure or poor seal at the tire bead.
- NISSAN recommends waxing the road wheels to protect against road salt in areas where it is used during winter.

Spare tire (TEMPORARY USE ONLY spare tire)

Observe the following precautions if the TEMPORARY USE ONLY spare tire must be used. Otherwise, your vehicle could be damaged or involved in an accident:

WARNING

- **The spare tire should be used for emergency use only. It should be replaced with the standard tire at the first opportunity to avoid possible tire or differential damage.**
- **Drive carefully while the TEMPORARY USE ONLY spare tire is installed. Avoid sharp turns and abrupt braking while driving.**
- **Periodically check spare tire inflation pressure. Always keep the pressure of the TEMPORARY USE ONLY spare tire at 60 psi (420 kPa, 4.2 bar).**
- **With the TEMPORARY USE ONLY spare tire installed do not drive the vehicle at speeds faster than 50 MPH (80 km/h).**
- **When driving on roads covered with snow or ice, the TEMPORARY USE ONLY spare tire should be used on the rear wheels and the original tire used on the front wheels (drive wheels). Use tire chains only on the front (original) tires.**

- Tire tread of the **TEMPORARY USE ONLY** spare tire will wear at a faster rate than the standard tire. Replace the spare tire as soon as the tread wear indicators appear.
- Do not use the spare tire on other vehicles.
- Do not use more than one spare tire at the same time.
- Do not tow a trailer when the **TEMPORARY USE ONLY** spare tire is installed.

 **CAUTION**

- Do not use tire chains on a **TEMPORARY USE ONLY** spare tire. Tire chains will not fit properly and may cause damage to the vehicle.
- Because the **TEMPORARY USE ONLY** spare tire is smaller than the original tire, ground clearance is reduced. To avoid damage to the vehicle, do not drive over obstacles. Also, do not drive the vehicle through an automatic car wash since it may get caught.

9 Technical and consumer information

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CAPACITIES AND RECOMMENDED FUEL/LUBRICANTS

The following are approximate capacities. The actual refill capacities may be slightly different. When refilling, follow the procedure described in the “Maintenance and do-it-yourself” section to determine the proper refill capacity.

| | Capacity (Approximate) | | | Recommended Fluids and Lubricants | |
|--|------------------------|-------------|-----------|---|---|
| | US measure | Imp measure | Liter | | |
| Fuel | 20 gal | 16-5/8 gal | 75.6 | Unleaded gasoline with an octane rating of at least 87 AKI (RON 91)*1 | |
| Engine oil *7 | | | | | |
| Drain and Refill | | | | | |
| With oil filter change | QR25DE | 4-7/8 qt | 4 qt | 4.6 | <ul style="list-style-type: none"> ▪ Engine oil with API Certification Mark *2 ▪ Viscosity SAE 5W-30 *2 |
| | VQ35DE | 4-7/8 qt | 4 qt | 4.6 | |
| Without oil filter change | QR25DE | 4-1/2 qt | 3-3/4 qt | 4.3 | |
| | VQ35DE | 4-1/2 qt | 3-3/4 qt | 4.3 | |
| Cooling system | | | | | |
| With reservoir | | | | | |
| | QR25DE | 2 gal | 1-5/8 gal | 7.6 | 50% Genuine NISSAN Long Life Antifreeze/Coolant or equivalent |
| | VQ35DE | 2-1/8 gal | 1-3/4 gal | 8.2 | 50% Demineralized or distilled water |
| Manual transmission gear oil | | 1-3/4 qt | 1-1/2 qt | 1.7 | Genuine NISSAN Manual Transmission Fluid (MTF) HQ Multi 75W-85 |
| Continuously Variable Transmission (CVT) fluid | | — | — | — | Genuine NISSAN CVT fluid NS-2 *3 |
| Power steering fluid (PSF) | | — | — | — | Genuine NISSAN PSF or equivalent.*4 |
| Brake and clutch fluid | | — | — | — | Genuine NISSAN Super Heavy Duty Brake Fluid *5 or equivalent DOT 3 |
| Multi-purpose grease | | — | — | — | NLGI No. 2 (Lithium Soap base) |
| Air conditioning system refrigerant | | — | — | — | HFC-134a (R-134a) *6 |
| Air conditioning system oil | | — | — | — | NISSAN A/C System Oil Type S or equivalent *6 |
| Windshield washer fluid | | — | — | — | Genuine NISSAN Windshield Washer Concentrate Cleaner & Anti-freeze fluid or equivalent |

*1: For further details, see “Fuel recommendation.”

*2: For further details, see “Engine oil and oil filter recommendations.”

*3: **Use only Genuine NISSAN CVT Fluid NS-2. Using transmission fluid other than Genuine NISSAN CVT Fluid NS-2 will damage the CVT transmission, which is not covered by the NISSAN new vehicle limited warranty.**

*4: For Canada, NISSAN Automatic Transmission Fluid (ATF), DEXRON™ III/MERCON™, or equivalent ATF may also be used.

*5: Available in mainland USA through your NISSAN dealer.

*6: For further details, see “Air conditioner system refrigerant and oil recommendations.”

*7: For further details, see “Engine Oil” in the “Maintenance and do-it-yourself” section of this manual.

9-2 Technical and consumer information

FUEL RECOMMENDATION

For 2.5L engine

Use unleaded regular gasoline with an octane rating of at least 87 AKI (Anti-Knock Index) number (Research octane number 91).

For 3.5L

NISSAN recommends the use of premium unleaded gasoline with an octane rating of at least 91 AKI (Anti-Knock Index) number (Research octane number 96). If unleaded premium gasoline is not available, you may use unleaded regular gasoline with an octane rating of at least 87 AKI number (Research octane number 91), but you may notice a decrease in performance.

CAUTION

- **Using a fuel other than that specified could adversely affect the emission control system, and may also affect the warranty coverage.**
- **Under no circumstances should a leaded gasoline be used, because this will damage the three-way catalyst.**

- **Do not use E-85 fuel in your vehicle. Your vehicle is not designed to run on E-85 fuel. Using E-85 fuel can damage the fuel system components and is not covered by the NISSAN new vehicle limited warranty.**

Gasoline specifications

NISSAN recommends using gasoline that meets the World-Wide Fuel Charter (WWFC) specifications where it is available. Many of the automobile manufacturers developed this specification to improve emission control system and vehicle performance. Ask your service station manager if the gasoline meets the WWFC specifications.

Reformulated gasoline

Some fuel suppliers are now producing reformulated gasolines. These gasolines are specially designed to reduce vehicle emissions. NISSAN supports efforts towards cleaner air and suggests that you use reformulated gasoline when available.

Gasoline containing oxygenates

Some fuel suppliers sell gasoline containing oxygenates such as ethanol, MTBE and methanol with or without advertising their presence. NISSAN does not recommend the use of fuels of which the oxygenate content and the fuel com-

patibility for your NISSAN cannot be readily determined. If in doubt, ask your service station manager.

If you use oxygenate-blend gasoline, please take the following precautions as the usage of such fuels may cause vehicle performance problems and/or fuel system damage.

- **The fuel should be unleaded and have an octane rating no lower than that recommended for unleaded gasoline.**
- **If an oxygenate-blend other than methanol blend is used, it should contain no more than 10% oxygenate. (MTBE may, however, be added up to 15%.)**
- **If a methanol blend is used, it should contain no more than 5% methanol (methyl alcohol, wood alcohol). It should also contain a suitable amount of appropriate cosolvents and corrosion inhibitors. If not properly formulated with appropriate cosolvents and corrosion inhibitors, such methanol blends may cause fuel system damage and/or vehicle performance problems. At this time, sufficient data is not available to ensure that all methanol blends are suitable for use in NISSAN vehicles.**

If any driveability problems such as engine stalling and difficult hot-starting are experienced after using oxygenate-blend fuels, immediately change to a non-oxygenate fuel or a fuel with a low blend of MTBE.

Take care not to spill gasoline during refueling. Gasoline containing oxygenates can cause paint damage.

E-85 fuel

E-85 fuel is a mixture of approximately 85% fuel ethanol and 15% unleaded gasoline. E-85 can only be used in a Flexible Fuel Vehicle (FFV). Do not use E-85 in your vehicle. U.S. government regulations require fuel ethanol dispensing pumps to be identified by a small, square, orange and black label with the common abbreviation or the appropriate percentage for that region.

Aftermarket fuel additives

NISSAN does not recommend the use of any aftermarket fuel additives (for example, fuel injector cleaner, octane booster, intake valve deposit removers, etc.) which are sold commercially. Many of these additives intended for gum, varnish or deposit removal may contain active solvents 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 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 dealer correct the condition. Failure to correct the condition is misuse of the vehicle, for which NISSAN is not responsible.

Incorrect ignition timing may result in spark knock, after-run and/or overheating, which may cause excessive fuel consumption or engine damage. If any of the above symptoms are encountered, have your vehicle checked at a NISSAN dealer.

However, now and then you may notice light spark knock for a short time while accelerating or driving up hills. This is not a cause for concern, because you get the greatest fuel benefit when there is light spark knock for a short time under heavy engine load.

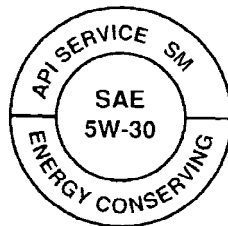
CAUTION

- Your vehicle is not designed to run on E-85 fuel. Using E-85 fuel in a vehicle not specifically designed for E-85 fuel can damage fuel system components and is not covered by the NISSAN new vehicle limited warranty.
- E-85 is a mixture of approximately 85% fuel ethanol and 15% unleaded gasoline.
- U.S. government regulations require ethanol dispensing pumps to be identified by a small, square, orange and black label with the common abbreviation or the appropriate percentage for that region.

API certification mark



API service symbol



WT10183

ENGINE OIL AND OIL FILTER RECOMMENDATIONS

Selecting the correct oil

It is essential to choose the correct grade, quality and viscosity engine oil to ensure satisfactory engine life and performance. See "Capacities and recommended fuel/lubricants" earlier in this section. NISSAN recommends the use of an energy conserving oil in order to improve fuel economy.

Select only engine oils that meet the American Petroleum Institute (API) certification or International Lubricant Standardization and Approval

Committee (ILSAC) certification and SAE viscosity standard. These oils have the API certification mark on the front of the container. Oils which do not have the specified quality label should not be used as they could cause engine damage.

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 to select the engine oil viscosity 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 NISSAN vehicle is equipped with a high-quality genuine NISSAN oil filter. When replacing, use a genuine NISSAN oil filter or its equivalent 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. Using engine oil and filters that are not of the specified quality, or exceeding recommended oil and filter change intervals could reduce engine life. Damage to the engine caused by improper maintenance or use of incorrect oil and filter quality and/or viscosity is not covered by the NISSAN new vehicle limited warranty.

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
- towing a trailer
- stop and go commuting

Refer to the "NISSAN Service and Maintenance Guide" for the maintenance schedule.

AIR CONDITIONER SYSTEM REFRIGERANT AND OIL RECOMMENDATIONS

The air conditioner system in your NISSAN vehicle must be charged with the refrigerant HFC-134a (R-134a) and the oil, NISSAN A/C system oil Type S or the exact equivalents.

CAUTION

The use of any other refrigerant or oil will cause severe damage to the air conditioning system and will require the replacement of all air conditioner system components.

The refrigerant HFC-134a (R-134a) in your NISSAN vehicle does not harm the earth's ozone layer. Although this refrigerant does not affect the earth's atmosphere, certain government regulations require the recovery and recycling of any refrigerant during automotive air conditioner system service. A NISSAN dealer has the trained technicians and equipment needed to recover and recycle your air conditioner system refrigerant.

Contact a NISSAN dealer when servicing your air conditioner system.

SPECIFICATIONS

ENGINE

| Model | QR25DE | VQ35DE |
|---|---|-------------------------------------|
| Type | Gasoline, 4-cycle, DOHC | Gasoline, 4-cycle, DOHC |
| Cylinder arrangement | 4-cylinder in-line | 6-cylinder, V-block, Slanted at 60° |
| Bore x Stroke | in (mm) 3.5 x 3.9 (89.0 x 100.0) | 3.760 x 3.205 (95.5 x 81.4) |
| Displacement | cu in (cm ³) 151.82 (2,488) | 213.45 (3,498) |
| Firing order | 1-3-4-2 | 1-2-3-4-5-6 |
| Idle speed | | |
| M/T | | |
| CVT (in "N" position) | No adjustment is necessary. | |
| Ignition timing (degree B.T.D.C. at idle speed) | | |
| CO % at idle | | |
| Spark plug | DILKAR6A-11 | FXE20HR-11 |
| Spark plug gap (Nominal) | in (mm) 0.043 (1.1) | 0.043 (1.1) |
| Camshaft operation | Timing chain | Timing chain |

The spark ignition system of this vehicle meets all requirements of the Canadian Interference-Causing Equipment Regulations.

WHEELS AND TIRES

| Wheel type | Size | Offset in (mm) |
|----------------|--------------|----------------|
| Aluminum/Steel | 16 x 7JJ | 1.77 (45) |
| Aluminum/Steel | 17 x 7 1/2JJ | 1.77 (45) |
| T type (Spare) | 16 x 4T | 1.57 (40) |

| | |
|------------|------------|
| Tire size | P215/60R16 |
| | P215/55R17 |
| Spare tire | T135/70R16 |
| | T135/90R16 |

DIMENSIONS AND WEIGHTS

| | | |
|----------------|---------|--------------|
| Overall length | in (mm) | 189.8(4,820) |
| Overall width | in (mm) | 70.7(1,795) |
| Overall height | in (mm) | 57.9(1,471) |
| Front tread | in (mm) | 61.0(1,549) |
| Rear tread | in (mm) | 61.0(1,549) |
| Wheelbase | in (mm) | 109.3(2,776) |

| | | |
|-----------------------------|---------|--|
| Gross vehicle weight rating | lb (kg) | See the "F.M.V.S.S./C.M.V.S.S. certification label" on the center pillar between the driver's side front and rear doors. |
| Gross axle weight rating | | |
| Front | lb (kg) | |
| Rear | lb (kg) | |

WHEN TRAVELING OR REGISTERING YOUR VEHICLE IN ANOTHER COUNTRY

When planning to drive your **NISSAN** vehicle in another country, you should first find out if the fuel available is suitable for your vehicle's engine.

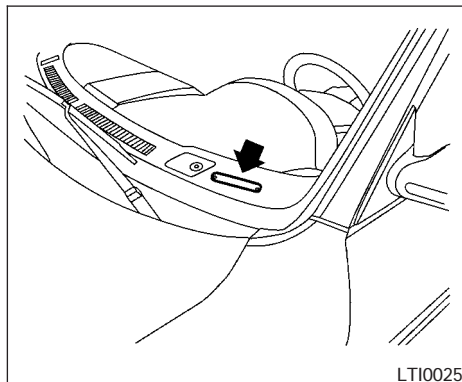
Using fuel with an octane rating that is too low may cause engine damage. All gasoline vehicles must be operated with unleaded gasoline. Therefore, avoid taking your vehicle to areas where appropriate fuel is not available.

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.

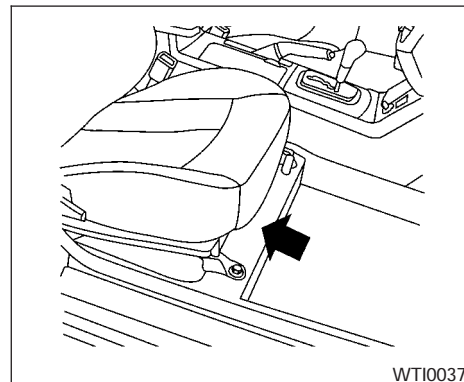
When any vehicle is to be taken into another country, state, province or district and registered, its modifications, transportation, and registration are the responsibility of the user. **NISSAN** is not responsible for any inconvenience that may result.

VEHICLE IDENTIFICATION



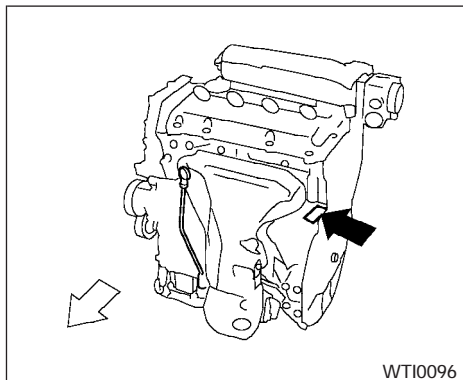
VEHICLE IDENTIFICATION NUMBER (VIN) PLATE

The vehicle identification number (VIN) plate is attached as shown. This number is the identification for your vehicle and is used in the vehicle registration.



VEHICLE IDENTIFICATION NUMBER (chassis number)

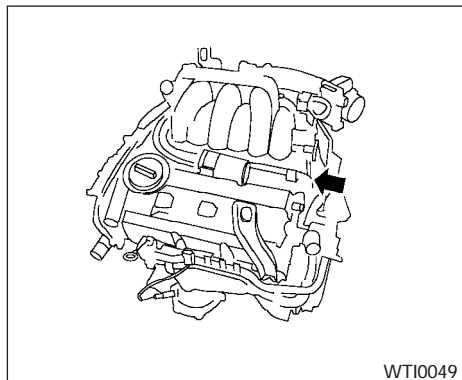
The vehicle identification number is located as shown.



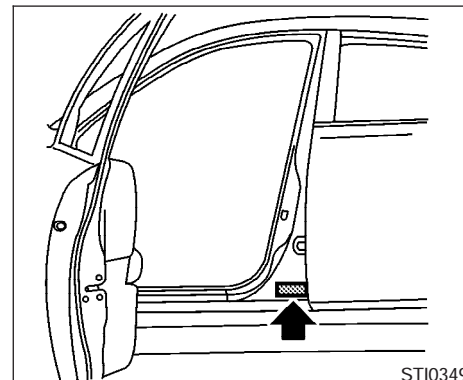
QR25DE

ENGINE SERIAL NUMBER

The number is stamped on the engine as shown.

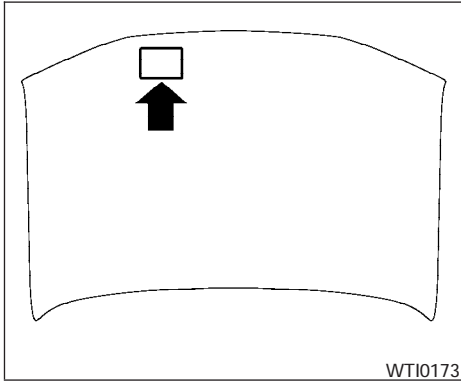


VQ35DE



F.M.V.S.S./C.M.V.S.S. CERTIFICATION LABEL

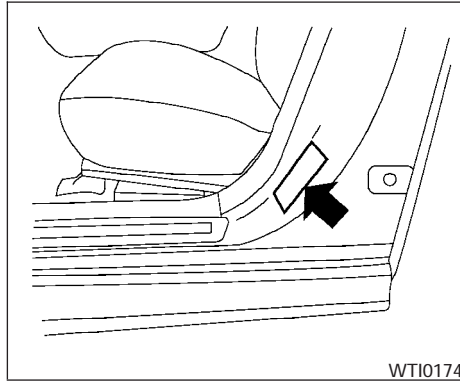
The Federal/Canadian Motor Vehicle Safety Standard (F.M.V.S.S./C.M.V.S.S.) certification label is affixed as shown. This label contains valuable vehicle information, such as: Gross Vehicle Weight Ratings (GVWR), Gross Axle Weight Rating (GAWR), month and year of manufacture, Vehicle Identification Number (VIN), etc. Review it carefully.



WTI0173

EMISSION CONTROL INFORMATION LABEL

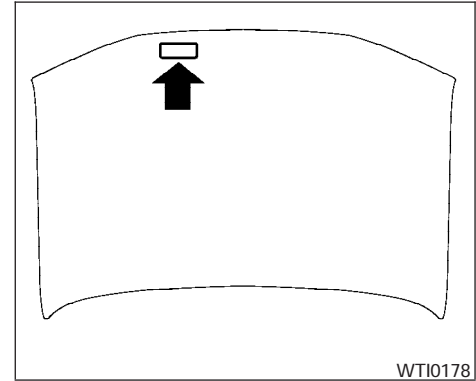
The emission control information label is attached to the underside of the hood as shown.



WTI0174

TIRE AND LOADING INFORMATION LABEL

The cold tire pressure is shown on the Tire and Loading Information label. The label is located as shown.

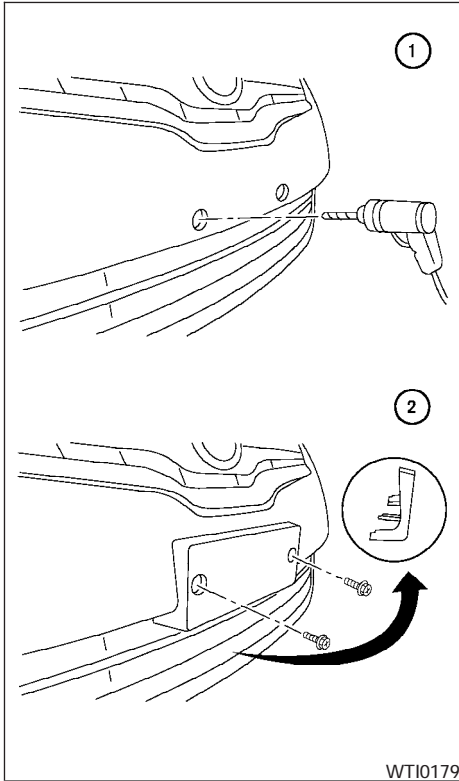


WTI0178

AIR CONDITIONER SPECIFICATION LABEL

The air conditioner specification label is affixed to the underside of the hood as shown.

INSTALLING FRONT LICENSE PLATE



Use the following steps to mount the front license plate:

- ① Make a shallow hole in each plastic finisher at the location mark (small dimple) using a 0.31 in (8 mm) drill. To avoid damaging the threads behind the finisher, apply only light pressure to the drill.
- ② Mount the license plate bracket using two **8 mm slotted hex head screws**.

VEHICLE LOADING INFORMATION

⚠ WARNING

- **It is extremely dangerous to ride in a cargo area inside a vehicle. In a collision, people riding in these areas are more likely to be seriously injured or killed.**
- **Do not allow people to ride in any area of your vehicle that is not equipped with seats and seat belts.**
- **Be sure everyone in your vehicle is in a seat and using a seat belt properly.**

TERMS

It is important to familiarize yourself with the following terms before loading your vehicle:

- **Curb Weight** (actual weight of your vehicle) - vehicle weight including: standard and optional equipment, fluids, emergency tools, and spare tire assembly. This weight **does not** include passengers and cargo.

INSTALLING FRONT LICENSE PLATE

- GVW (Gross Vehicle Weight) - curb weight plus the combined weight of passengers and cargo.
- GVWR (Gross Vehicle Weight Rating) - maximum total combined weight of the unloaded vehicle, passengers, luggage, hitch, trailer tongue load and any other optional equipment. This information is located on the F.M.V.S.S./C.M.V.S.S. label.
- GAWR (Gross Axle Weight Rating) - maximum weight (load) limit specified for the front or rear axle. This information is located on the F.M.V.S.S./C.M.V.S.S. label.
- GCWR (Gross Combined Weight rating) - The maximum total weight rating of the vehicle, passengers, cargo, and trailer.
- Vehicle Capacity Weight, Load limit, Total load capacity - maximum total weight limit specified of the load (passengers and cargo) for the vehicle. This is the maximum combined

weight of occupants and cargo that can be loaded into the vehicle. If the vehicle is used to tow a trailer, the trailer tongue weight must be included as part of the cargo load. This information is located on the Tire and Loading Information label (if so equipped).

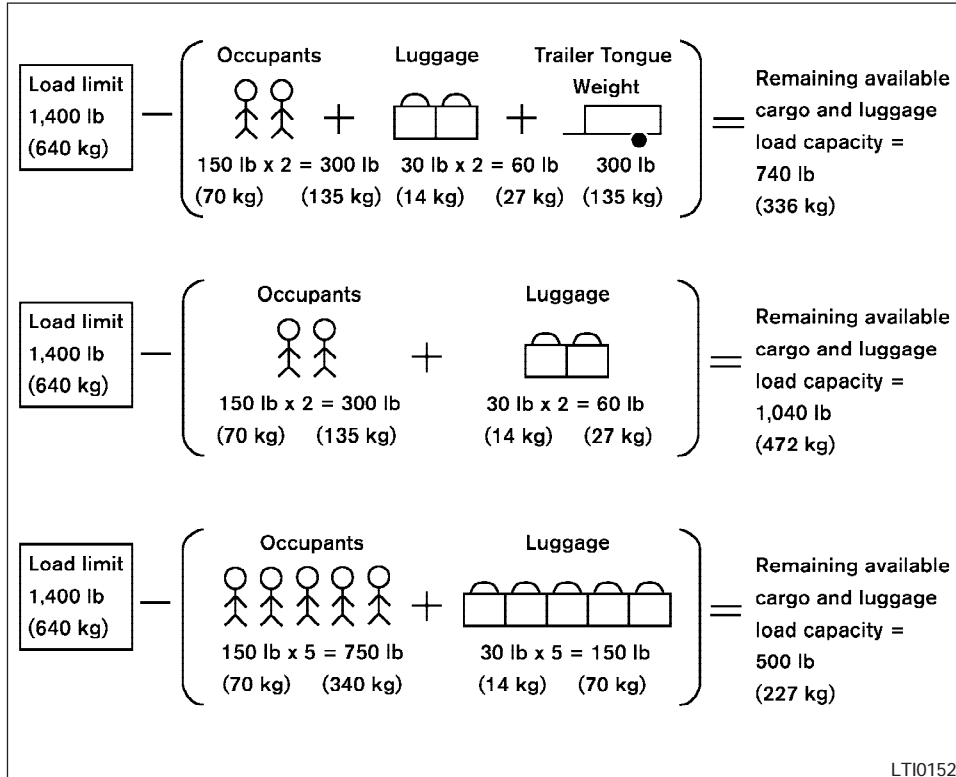
- Cargo capacity - permissible weight of cargo, the subtracted weight of occupants from the load limit.

VEHICLE LOAD CAPACITY

Do not exceed the load limit of your vehicle shown as “The combined weight of occupants and cargo” on the Tire and Loading Information label. Do not exceed the number of occupants shown as “Seating Capacity” on Tire and Loading Information label.

To get “the combined weight of occupants and cargo”, add the weight of all occupants, then add the total luggage weight. Examples are shown in the following illustration.

INSTALLING FRONT LICENSE PLATE



LTI0152

Example

9-14 Technical and consumer information

Steps for determining correct load limit

1. Locate the statement "The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs" on your vehicle's placard.
2. Determine the combined weight of the driver and passengers that will be riding in your vehicle.
3. Subtract the combined weight of the driver and passengers from XXX kg or XXX lbs.
4. The resulting figure equals the available amount of cargo and luggage load capacity. For example, if the XXX amount equals 1400 lbs. and there will be five 150 lb. passengers in your vehicle, the amount of available cargo and luggage load capacity is 650 lbs. (1400-750 (5 X 150) = 650 lbs) or (640-340 (5 X 70) = 300 kg.)

INSTALLING FRONT LICENSE PLATE

- Determine the combined weight of luggage and cargo being loaded on the vehicle. That weight may not safely exceed the available cargo and luggage load capacity calculated in Step 4.
- If your vehicle will be towing a trailer, load from your trailer will be transferred to your vehicle. Consult this manual to determine how this reduces the available cargo and luggage load capacity of your vehicle.

Before driving a loaded vehicle, confirm that you do not exceed the Gross Vehicle Weight Rating (GVWR) or the Gross Axle Weight Rating (GAWR) for your vehicle. See “Measurement of Weights” later in this section.

Also check tires for proper inflation pressures. See the Tire and Loading Information label.

LOADING TIPS

- The GVW must not exceed GVWR or GAWR as specified on the F.M.V.S.S./C.M.V.S.S. certification label.
- Do not load the front and rear axle to the GAWR. Doing so will exceed the GVWR.

WARNING

- Properly secure all cargo with ropes or straps to help prevent it from sliding or shifting. Do not place cargo higher than the seat-backs. In a sudden stop or collision, unsecured cargo could cause personal injury.**
- Do not load your vehicle any heavier than the GVWR or the maximum front and rear GAWRs. If you do, parts of your vehicle can break, tire damage could occur, or it can change the way your vehicle handles. This could result in loss of control and cause personal injury.**

Overloading not only can shorten the life of your vehicle and the tire, but can also cause unsafe vehicle handling and longer braking distances. This may cause a premature tire failure which could result in a serious accident and personal injury. Failures caused by overloading are not covered by the vehicle's warranty.

MEASUREMENT OF WEIGHTS

Secure loose items to prevent weight shifts that could affect the balance of your vehicle. When the vehicle is loaded, drive to a scale and weigh the front and the rear wheels separately to determine axle loads. Individual axle loads should not exceed either of the gross axle weight ratings (GAWR). The total of the axle loads should not exceed the gross vehicle weight rating (GVWR). These ratings are given on the vehicle certification label. If weight ratings are exceeded, move or remove items to bring all weights below the ratings.

TOWING A TRAILER

WARNING

Overloading or improper loading of a trailer and its cargo can adversely affect vehicle handling, braking and performance and may lead to accidents.

CAUTION

- **Do not tow a trailer or haul a heavy load for the first 500 miles (800 km). Your engine, axle or other parts could be damaged.**
- **For the first 500 miles (800 km) that you tow a trailer, do not drive over 50 mph (80 km/h) and do not make starts at full throttle. This helps the engine and other parts of your vehicle wear in at the heavier loads.**

Your new vehicle was designed to be used primarily to carry passengers and cargo. Remember that towing a trailer places additional loads on your vehicle's engine, drive train, steering, braking and other systems.

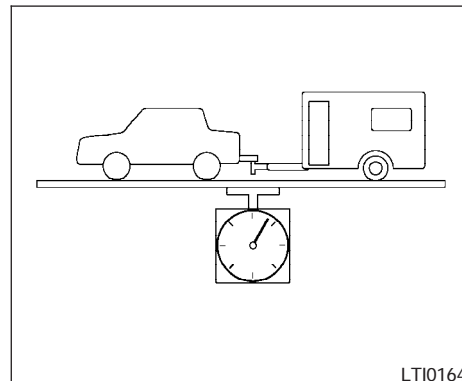
A NISSAN Towing Guide (U.S. only) is available on the website at www.nissanusa.com. This guide includes information on trailer towing capability and the special equipment required for proper towing.

MAXIMUM LOAD LIMITS

Maximum trailer loads

Never allow the total trailer load to exceed the value specified in the "Towing Load/Specification" chart found later in this section. The total trailer load equals trailer weight plus its cargo weight.

- **When towing a trailer load of 1,000 lbs. (454 kg) or more, trailers with a brake system must be used.**



The GCWR equals the combined weight of the towing vehicle (including passengers and cargo) plus the total trailer load. Towing loads greater than these or using improper towing equipment could adversely affect vehicle handling, braking and performance.

The ability of your vehicle to tow a trailer is not only related to the maximum trailer loads, but also the places you plan to tow. Tow weights appropriate for level highway driving may have to be reduced for low traction situations (for example, on slippery boat ramps).

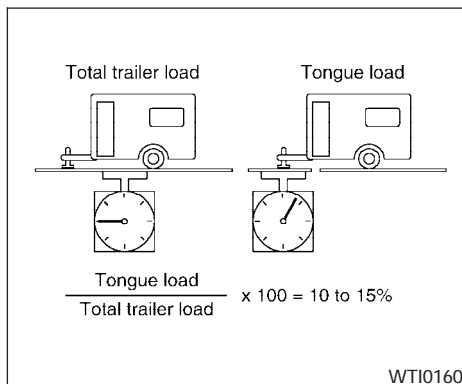
Temperature conditions can also affect towing. For example, towing a heavy trailer in high outside temperatures on graded roads can affect engine performance and cause overheating. The engine protection mode, which helps reduce the chance of engine damage, could activate and automatically decrease engine power. Vehicle speed may decrease under high load. Plan your trip carefully to account for trailer and vehicle load, weather and road conditions.

⚠ WARNING

Overheating can result in reduced engine power and vehicle speed. The reduced speed may be lower than other traffic, which could increase the chance of a collision. Be especially careful when driving. Pull to the side of the road to a safe area. Allow the engine to cool and return to normal operation. See “If your vehicle overheats” in the “In case of emergency” section of this manual.

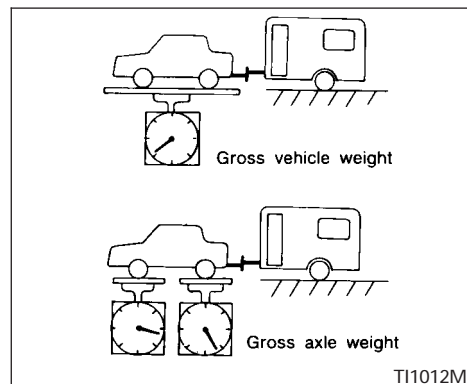
⚠ CAUTION

Vehicle damage resulting from improper towing procedures is not covered by NISSAN warranties.



Tongue load

Keep the tongue load between 10 - 15 percent of the total trailer load within the maximum tongue load limits shown in the following “Towing Load/Specification” chart. If the tongue load becomes excessive, rearrange cargo to allow for proper tongue load.



Maximum Gross Vehicle Weight (GVW)/Maximum Gross Axle Weight (GAW)

The GVW of the towing vehicle must not exceed the Gross Vehicle Weight Rating (GVWR) shown on the F.M.V.S.S./C.M.V.S.S. certification label. The GVW equals the combined weight of the unloaded vehicle, passengers, luggage, hitch, trailer tongue load and any other optional equipment. In addition, front or rear GAW must not exceed the Gross Axle Weight Rating (GAWR) shown on the F.M.V.S.S./C.M.V.S.S. certification label.

Towing capacities are calculated assuming a base vehicle with driver and any options required to achieve the rating. Additional passengers, cargo and/or optional equipment, such as the trailer hitch, will add weight to the vehicle and reduce your vehicle's maximum towing capacity and trailer tongue load.

The vehicle and trailer need to be weighed to confirm the vehicle is within the GVWR, Front GAWR, Rear GAWR, Gross Combined Weight Rating (GCWR) and Towing capacity.

All vehicle and trailer weights can be measured using platform type scales commonly found at truck stops, highway weigh stations, building supply centers or salvage yards.

To determine the available payload capacity for tongue load, use the following procedure.

1. Locate the GVWR on the F.M.V.S.S./C.M.V.S.S. certification label.
2. Weigh your vehicle on the scale with all of the passengers and cargo that are normally in the vehicle when towing a trailer.
3. Subtract the actual vehicle weight from the GVWR. The remaining amount is the available maximum tongue load.

To determine the Gross Trailer Weight, weigh your trailer on a scale with all equipment and cargo, that are normally in the trailer when it is towed. Make sure the Gross Trailer Weight is not more than the Gross Trailer Weight Rating shown on the trailer and is not more than the calculated available maximum towing capacity.

Also weigh the front and rear axles on the scale to make sure the Front Gross Axle Weight and Rear Gross Axle Weight are not more than Front Gross Axle Weight and Rear Gross Axle Weight on the F.M.V.S.S./C.M.V.S.S. certification label. The cargo in the trailer and vehicle may need to be moved or removed to meet the specified ratings.

Example:

- Gross Vehicle Weight (GVW) as weighed on a scale - including passengers, cargo and hitch - 4,103 lb. (1861 kg).
- Gross Vehicle Weight Rating (GVWR) from F.M.V.S.S./C.M.V.S.S. certification label - 4,203 lb. (1906 kg).
- Maximum Towing Load from "Towing Load/Specification" chart - 1,000 lb. (454 kg).

| | |
|--|-----------------------------|
| 4,203 lb. (1906 kg) | GVWR |
| - 4,103 lb. (1861 kg) | GVW |
| | |
| = 100 lb. (45 kg) | Available for tongue weight |
| 1,000 lb. (454 kg) Capacity available for towing | |
| 100 lb. (45 kg) | Available tongue weight |
| / 1,000 lb. (454 kg) | Available capacity |
| | |
| = | 10 % tongue weight |

The available towing capacity may be less than the maximum towing capacity due to the passenger and cargo load in the vehicle.

Remember to keep trailer tongue weight between 10 - 15% of the trailer weight. If the tongue load becomes excessive, rearrange the cargo to obtain the proper tongue load. Do not exceed the 10 - 15% tongue weight specification even if the calculated available tongue weight is greater than 15%. If the calculated tongue weight is less than 10% , reduce the total trailer weight to match the available tongue weight.

Always verify that available capacities are within the required ratings.

TOWING LOAD/SPECIFICATION

| TOWING LOAD / SPECIFICATION | |
|-----------------------------|-------------|
| UNIT: lb (kg) | |
| MAXIMUM TOWING LOAD | 1,000 (454) |
| MAXIMUM TONGUE LOAD | 100 (45) |

TOWING SAFETY

Trailer hitch

Choose a proper hitch for your vehicle and trailer. A genuine NISSAN trailer hitch is available from your NISSAN dealer (Canada only). Make sure the trailer hitch is securely attached to the vehicle, to help avoid personal injury or property damage due to sway caused by crosswinds, rough road surfaces or passing trucks.

Hitch ball

Choose a hitch ball of the proper size and weight rating for your trailer:

- The required hitch ball size is stamped on most trailer couplers. Most hitch balls also have the size printed on the top of the ball.

- Choose the proper class hitch ball based on the trailer weight.
- The diameter of the threaded shank of the hitch ball must be matched to the ball mount hole diameter. The hitch ball shank should be no more than 1/16" smaller than the hole in the ball mount.
- The threaded shank of the hitch ball must be long enough to be properly secured to the ball mount. There should be at least 2 threads showing beyond the lock washer and nut.

Class I hitch

Class I trailer hitch equipment (receiver, ball mount and hitch ball) can be used to tow trailers of a maximum weight of 2,000 lb (909 kg).

You may add Class I trailer hitch equipment that has a 2,000 lb (909 kg) maximum weight rating to the vehicle, but your vehicle is only capable of towing the maximum trailer weights shown in the Towing Load/Specification Chart earlier in this section.

CAUTION

- **Do not use axle-mounted hitches.**

- **The hitch should not be attached to or affect the operation of the impact-absorbing bumper.**
- **Do not modify the vehicle exhaust system, brake system, etc. to install a trailer hitch.**
- **To reduce the possibility of additional damage if your vehicle is struck from the rear, where practical, remove the hitch and/or receiver when not in use.**
- **After the hitch is removed, seal the bolt holes to prevent exhaust fumes, water or dust from entering the passenger compartment.**
- **Regularly check that all trailer hitch mounting bolts are securely mounted.**

Tire pressures

- When towing a trailer, inflate the vehicle tires to the recommended cold tire pressure indicated on the Tire and Loading Information label.
- Trailer tire condition, size, load rating and proper inflation pressure should be in accordance with the trailer and tire manufacturer's specifications.

Safety chains

Always use suitable safety chains between your vehicle and the trailer. The safety chains should be crossed and should be attached to the hitch, not to the vehicle bumper or axle. Be sure to leave enough slack in the chains to permit turning corners.

Trailer lights

CAUTION

When splicing into the vehicle electrical system, a commercially available power-type module/converter must be used to provide power for all trailer lighting. This unit uses the vehicle battery as a direct power source for all trailer lights while using the vehicle tail light, stoplight and turn signal circuits as a signal source. The module/converter must draw no more than 15 milliamps from the stop and tail lamp circuits. Using a module/converter that exceeds these power requirements may damage the vehicle's electrical system. See a reputable trailer dealer to obtain the proper equipment and to have it installed.

Trailer lights should comply with federal and/or local regulations. For assistance in hooking up trailer lights, contact a NISSAN dealer or reputable trailer dealer.

Trailer brakes

If your trailer is equipped with a braking system, make sure it conforms to federal and/or local regulations and that it is properly installed.

WARNING

Never connect a trailer brake system directly to the vehicle brake system.

Pre-towing tips

- Be certain your vehicle maintains a level position when a loaded and/or unloaded trailer is hitched. Do not drive the vehicle if it has an abnormal nose-up or nose-down condition; check for improper tongue load, overload, worn suspension or other possible causes of either condition.
- Always secure items in the trailer to prevent load shift while driving.
- Keep the cargo load as low as possible in the trailer to keep the trailer center of gravity low.

- Load the trailer so approximately 60% of the trailer load is in the front half and 40% is in the back half. Also make sure the load is balanced side to side.
- Check your hitch, trailer tire pressure, vehicle tire pressure, trailer light operation, and trailer wheel lug nuts every time you attach a trailer to the vehicle.
- Be certain your rearview mirrors conform to all federal, state or local regulations. If not, install any mirrors required for towing before driving the vehicle.
- Determine the overall height of the vehicle and trailer so the required clearance is known.

Trailer towing tips

In order to gain skill and an understanding of the vehicle's behavior, you should practice turning, stopping and backing up in an area which is free from traffic. Steering stability and braking performance will be somewhat different than under normal driving conditions.

- Always secure items in the trailer to prevent load shift while driving.
- Lock the trailer hitch coupler with a pin or lock to prevent the coupler from inadvertently becoming unlatched.

- Avoid abrupt starts, acceleration or stops.
- Avoid sharp turns or lane changes.
- Always drive your vehicle at a moderate speed.
- When backing up, hold the bottom of the steering wheel with one hand. Move your hand in the direction in which you want the trailer to go. Make small corrections and back up slowly. If possible, have someone guide you when you are backing up.

Always block the wheels on both vehicle and trailer when parking. Parking on a slope is not recommended; however, if you must do so:

CAUTION

If you move the shift selector lever to the P (Park) position before blocking the wheels and applying the parking brake, transmission damage could occur.

1. Apply and hold the brake pedal.
2. Have someone place blocks on the downhill side of the vehicle and trailer wheels.
3. After the wheel blocks are in place, slowly release the brake pedal until the blocks absorb the vehicle load.
4. Apply the parking brake.

5. Shift the transmission into P (Park).
6. Turn off the engine.

To drive away:

1. Start the vehicle.
 2. Apply and hold the brake pedal.
 3. Shift the transmission into gear.
 4. Release the parking brake.
 5. Drive slowly until the vehicle and trailer are clear from the blocks.
 6. Apply and hold the brake pedal.
 7. Have someone retrieve and store the blocks.
- When going down a hill, shift into a lower gear and use the engine braking effect. When going up a long grade, downshift the transmission to a lower gear and reduce speed to reduce chances of engine overloading and/or overheating. However, for long steep grades, do not stay in 1st gear when driving above 35 MPH (56 km/h) or 2nd gear when driving above 58 MPH (93 km/h).
 - If the engine coolant rises to an extremely high temperature when the air conditioner system is on, turn off the air conditioner. Coolant heat can be additionally vented by

opening the windows, switching the fan control to high and setting the temperature control to the HOT position.

- Trailer towing requires more fuel than normal circumstances.
- Avoid towing a trailer for your vehicle's first 500 miles (805 km).
- For the first 500 miles (805 km) that you do tow, do not drive over 50 MPH (80 km/h).
- Have your vehicle serviced more often than at intervals specified in the "Recommended Maintenance Schedule in the "NISSAN Service and Maintenance Guide".
- When making a turn, your trailer wheels will be closer to the inside of the turn than your vehicle wheels. To compensate for this, make a larger than normal turning radius during the turn.
- Crosswinds and rough roads will adversely affect vehicle/trailer handling, possibly causing vehicle sway. When being passed by larger vehicles, be prepared for possible changes in crosswinds that could affect vehicle handling.

Do the following if the trailer begins to sway:

1. Take your foot off the accelerator pedal to allow the vehicle to coast and steer as straight ahead as the road conditions allow. This combination will help stabilize the vehicle
 - Do not correct trailer sway by steering or applying the brakes.
 2. When the trailer sway stops, gently apply the brakes and pull to the side of the road in a safe area.
 3. Try to rearrange the trailer load so it is balanced as described earlier in this section.
- Be careful when passing other vehicles. Passing while towing a trailer requires considerably more distance than normal passing. Remember, the length of the trailer must also pass the other vehicle before you can safely change lanes.
 - Down shift the transmission to a lower gear for engine braking when driving down steep or long hills. This will help slow the vehicle without applying the brakes.
 - To maintain engine braking efficiency and electrical charging performance, do not use overdrive.

- Avoid holding the brake pedal down too long or too frequently. This could cause the brakes to overheat, resulting in reduced braking efficiency.
- Increase your following distance to allow for greater stopping distances while towing a trailer. Anticipate stops and brake gradually
- Do not use cruise control while towing a trailer.
- Some states or provinces have specific regulations and speed limits for vehicles that are towing trailers. Obey the local speed limits.
- Check your hitch, trailer wiring harness connections, and trailer wheel lug nuts after 50 miles (80 km) of travel and at every break.
- When stopped in traffic for long periods of time in hot weather, put the vehicle in the P (Park) position.
- When launching a boat, don't allow the water level to go over the exhaust tail pipe or rear bumper.
- Make sure you disconnect the trailer lights before backing the trailer into the water or the trailer lights may burn out.

When towing a trailer, final drive gear oil should be replaced and transmission

oil/fluid should be changed more frequently. For additional information, see the "Maintenance and do-it-yourself" section earlier in this manual.

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.

CAUTION

- **Failure to follow these guidelines can result in severe transmission damage.**
- **Whenever flat towing your vehicle, always tow forward, never backward.**
- **DO NOT tow any continuously variable transmission vehicle with all four wheels on the ground (flat towing). Doing so WILL DAMAGE internal transmission parts due to lack of transmission lubrication.**
- **For emergency towing procedures refer to "Towing recommended by NISSAN" in the "In case of emergency" section of this manual.**

UNIFORM TIRE QUALITY GRADING

Continuously Variable Transmission

To tow a vehicle equipped with a continuously variable transmission, an appropriate vehicle dolly **MUST** be placed under the towed vehicle's drive wheels. **Always** follow the dolly manufacturer's recommendations when using their product.

Manual Transmission

- Always tow with the manual transmission in Neutral.
- After towing 500 miles (805 km), start and idle the engine with the transmission in Neutral for two minutes. Failure to idle the engine after every 500 miles (805 km) of towing may cause damage to internal transmission parts.

DOT (Department of Transportation) Quality Grades: All passenger car tires must conform to federal safety requirements in addition to these grades.

Quality grades can be found where applicable on the tire sidewall between tread shoulder and maximum section width. For example:

Treadwear 200 Traction AA Temperature A

Treadwear

The treadwear grade is a comparative rating based on the wear rate of the tire when tested under controlled conditions on a specified government test course. For example, a tire graded 150 would wear one and 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 Federal Motor Safety Standard No. 109. Grades B and A represent higher levels of performance on the laboratory test wheel than the minimum required by law.

WARNING

The temperature 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.

EMISSION CONTROL SYSTEM WARRANTY

Your NISSAN vehicle is covered by the following emission warranties:

For USA

1. Emission Defects Warranty
2. Emissions Performance Warranty

Details of these warranties may be found with other vehicle warranties in your Warranty Information Booklet which comes with your NISSAN vehicle. If you did not receive a Warranty Information Booklet, or it is lost, you may obtain a replacement by writing to:

- Nissan North America, Inc.
Consumer Affairs Department
P.O. Box 685003
Franklin, TN 37068-5003

For Canada

Emission Control System Warranty

Details of these warranties may be found with other vehicle warranties in your Warranty Information Booklet which comes with your NISSAN vehicle. If you did not receive a Warranty Information Booklet, or it is lost, you may obtain a replacement by writing to:

- Nissan Canada Inc.
5290 Orbitor Drive
Mississauga, Ontario, L4W 4Z5

REPORTING SAFETY DEFECTS (US only)

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying NISSAN.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or NISSAN.

To contact NHTSA, you may call the Vehicle Safety Hotline toll-free at 1-888-327-4236 (TTY: 1-800-424-9153); go to <http://www.safercar.gov>; or write to: Administrator, NHTSA, 400 Seventh Street, SW., Washington, D.C. 20590. You can also obtain other information about motor vehicle safety from <http://www.safercar.gov>.

You may notify NISSAN by contacting our Consumer Affairs Department, toll-free, at 1-800-NISSAN-1.

READINESS FOR INSPECTION/ MAINTENANCE (I/M) TEST

Due to legal requirements in some states and Canadian Provinces, your vehicle may be required to be in what is called the “ready condition” for an Inspection/Maintenance (I/M) test of the emission control system.

The vehicle is set to the “ready condition” when it is driven through certain driving patterns. Usually, the ready condition can be obtained by ordinary usage of the vehicle.

If a powertrain system component is repaired or the battery is disconnected, the vehicle may be reset to a “not ready” condition. Before taking the I/M test, check the vehicle’s inspection/maintenance test readiness condition. Turn the ignition switch ON without starting the engine. If the Malfunction Indicator Light (MIL) comes on steady for 20 seconds and then blinks for 10 seconds, the I/M test condition is “not ready”. If the MIL does not blink after 20 seconds, the I/M test condition is “ready.” If the MIL indicates the vehicle is in a “not ready” condition, drive the vehicle through the following pattern to set the vehicle to the ready condition. If you cannot or do not want to perform the driving pattern, a NISSAN dealer can conduct it for you.

WARNING

Always drive the vehicle in a safe and prudent manner according to traffic conditions and obey all traffic laws.

1. Start the engine when the engine coolant temperature gauge needle points to C. Allow the engine to idle until the gauge needle points between the C and H (normal operating temperature).
2. Accelerate the vehicle to 55 MPH (88 km/h), then quickly release the accelerator pedal completely and keep it released for at least 10 seconds.
3. Quickly depress the accelerator pedal for a moment, then drive the vehicle at a speed of 53 - 60 MPH (86 - 96 km/h) for at least 9 minutes.
4. Stop the vehicle.
5. Accelerate the vehicle to 35 MPH (55 km/h) and maintain the speed for 20 seconds.
6. Repeat steps 4 through 5 at least 10 times.
7. Accelerate the vehicle to 55 MPH (88 km/h) and maintain the speed for at least 3 minutes.

8. Stop the vehicle. Place the transmission selector lever in the P (Park) or N (Neutral) position.
9. Turn the engine off.
10. Repeat steps 1 - 8 at least one more time.

If steps 1 through 7 are interrupted, repeat the preceding step. Any safe driving mode is acceptable between steps. Do not stop the engine until step 7 is completed.

EVENT DATA RECORDERS

Your vehicle is equipped with a variety of computers that monitor and control a number of systems to optimize performance and help service technicians with diagnosis and repair. Some of the computers monitor emission control systems, braking systems, engine systems, transmission systems, tire pressure systems, and airbag systems. Some data about vehicle operation may be stored in the computers for use during servicing. Other data may be stored if a crash event occurs. For example, vehicle speed, brake application, steering angle, air bag readiness, air bag performance, and seat belt use by the driver or passenger may be recorded. These types of systems are sometimes called Event Data Recorders.

Special equipment can be used to access the electronic data that may be stored in the vehicle's computers (sounds are not recorded). NISSAN and NISSAN dealers have equipment to access some of this data; others may also have this equipment. The data may be retrieved during routine vehicle servicing or for special research. It might also be accessed with the consent of the vehicle owner or lessee, in response to a request by law enforcement, or as otherwise required or permitted by law.

OWNER'S MANUAL/SERVICE MANUAL ORDER INFORMATION

A genuine NISSAN Service Manual is the best source of service and repair information for your vehicle. Filled with wiring diagrams, illustrations and step-by-step diagnostic and adjustment procedures, this manual is the same one used by the factory-trained technicians working at NISSAN dealerships. Also available are genuine NISSAN Owner's Manuals, and genuine NISSAN Service and Owner's Manuals for older NISSAN models.

For USA

For current pricing and availability of genuine **NISSAN Service Manuals** for the 2000 model year and later contact:

Tweddle Litho Company
1-800-450-9491
www.nissan-techinfo.com

For current pricing and availability of genuine **NISSAN Service Manuals** for the 1999 model year and prior, see a NISSAN dealer, or contact:

Resolve Corporation
20770 Westwood Drive
Strongsville, OH 44149
1-800-247-5321

For current pricing and availability of genuine **NISSAN Owner's Manuals** for this model year and prior, see a NISSAN dealer, or contact:

Resolve Corporation
20770 Westwood Drive
Strongsville, OH 44149
1-800-247-5321

For Canada

To purchase a copy of a genuine NISSAN Service Manual or Owner's Manual please contact your nearest NISSAN dealer. For the phone number and location of a NISSAN dealer in your area call the NISSAN Information Center at 1-800-387-0122 and a bilingual NISSAN representative will assist you.

Also available are genuine NISSAN Service and Owner's Manuals for older NISSAN models.

IN THE EVENT OF A COLLISION

Unfortunately, accidents do occur. In this unlikely event, there is some important information you should know.

Many insurance companies routinely authorize the use of non-genuine collision parts in order to cut costs, among other reasons.

Insist on the use of genuine NISSAN collision parts!

If you want your vehicle to be restored using parts made to NISSAN's original exacting specifications – if you want to help it to last and hold its resale value, the solution is simple. **Tell your insurance agent and your repair shop to only use Genuine NISSAN Collision Parts.** NISSAN does not warrant non-NISSAN parts, nor does NISSAN's warranty apply to damage caused by a non-genuine part.

Using Genuine NISSAN Parts can help protect your personal safety, preserve your warranty protection and maintain the resale value of your vehicle. And if your vehicle was leased, using Genuine NISSAN Parts may prevent or limit unnecessary excess wear and tear expenses at the end of your lease.

NISSAN designs its hoods with crumple zones to minimize the risk that the hood will penetrate the windshield of your vehicle in an accident. Non-genuine (imitation) parts may not provide such built-in safeguards. Also, non-genuine parts often show premature wear, rust and corrosion.

Why should you take a chance?

In over 40 states, the law says you must be advised if non-genuine parts are used to repair your vehicle. And some states have enacted laws that restrict insurance companies from authorizing the use of non-genuine collision parts during the new vehicle warranty. These laws help protect you, so you can take action to protect yourself.

It's your right!

If you should need further information visit us at: **www.nissanusa.com** (for U.S. customers) or **www.nissan.ca** (for Canadian customers).

MEMO

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GAS STATION INFORMATION

RECOMMENDED FUEL:

For 2.5L engine

Use unleaded regular gasoline with an octane rating of at least 87 AKI (Anti-Knock Index) number (Research octane number 91).

For 3.5L engine

NISSAN recommends the use of premium unleaded gasoline with an octane rating of at least 91 AKI (Anti-Knock Index) number (Research octane number 96). If unleaded premium gasoline is not available, you may use unleaded regular gasoline with an octane rating of at least 87 AKI number (Research octane number 91), but you may notice a decrease in performance.

CAUTION

- **Using a fuel other than that specified could adversely affect the emission control system, and may also affect the warranty coverage.**
- **Under no circumstances should a leaded gasoline be used, because this will damage the three-way catalyst.**

- **Do not use E-85 fuel in your vehicle. Your vehicle is not designed to run on E-85 fuel. Using E-85 fuel can damage the fuel system components and is not covered by the NISSAN new vehicle limited warranty.**

For additional information, see “Capacities and recommended fuel/lubricants in the “Technical and consumer information” section.

RECOMMENDED ENGINE OIL:

- Engine oil with API Certification Mark
- Viscosity SAE 5W-30

See “Engine oil and oil filter recommendation” in the “Technical and consumer information” section of this manual.

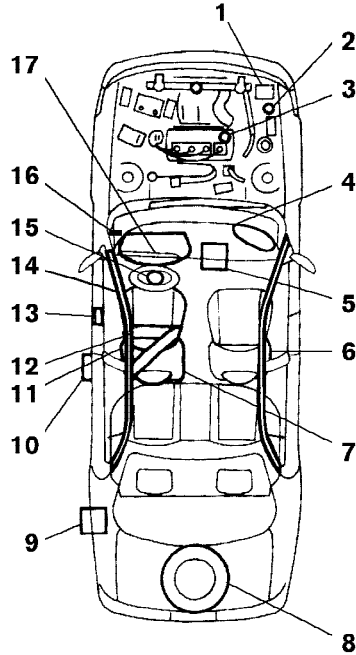
TIRE COLD PRESSURE:

See Tire and Loading Information label.

RECOMMENDED NEW VEHICLE BREAK-IN PROCEDURE:

During the first 1,200 miles (2,000 km) of vehicle use, follow the recommendations outlined in the “BREAK-IN SCHEDULE” information found in the “Starting and driving” section of this manual. Follow these recommendations for the future reliability and economy of your new vehicle. Failure to follow these recommendations may result in vehicle damage or shortened engine life.

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