

NISSAN PATHFINDER



1995 OWNER'S MANUAL

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 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.

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

IMPORTANT SAFETY INFORMATION!

Follow these four 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 use your seat belts and appropriate child restraint systems.**
- **ALWAYS provide information about the proper use of vehicle safety features to all occupants of the vehicle.**

NOTES ON THE INFORMATION CONTAINED IN THIS OWNER'S MANUAL

This owner's manual contains descriptions and operating instructions for all systems, features and optional equipment that might appear in any model of this vehicle built for any destination in North America, including the continental United States, Canada and

Hawaii. Therefore, you may very well find information in this manual that does not apply to your vehicle.

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 modification may not be covered under NISSAN warranties.

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.

ON-PAVEMENT AND OFF-ROAD DRIVING

This vehicle will handle and maneuver differently from an ordinary passenger car, because it has a higher center of gravity for off-road use. As with other vehicles with features of this type, failure to operate this vehicle correctly may result in loss of control or an accident.

Be sure to read "On-Pavement and Off-Road driving precautions" and "Avoiding collision and rollover" in the "Starting and driving" section of this manual.

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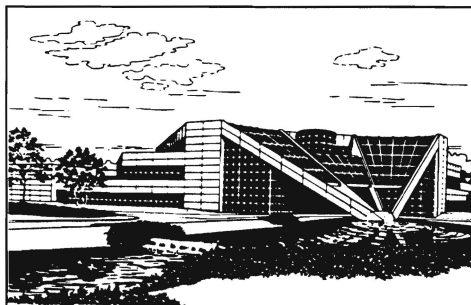
Welcome To The World Of NISSAN

Your new Nissan is the result of our dedication to produce the finest in safe, reliable and economical transportation. Your vehicle is the product of a successful worldwide company that manufactures cars and trucks in over 20 countries and distributes them in 150 nations.

Nissan vehicles are designed and manufactured by Nissan Motor Co., Ltd. which was founded in Tokyo, Japan in 1933, and Nissan affiliates world wide, collectively growing to become the fourth largest automaker in the world. In addition to cars and trucks, Nissan also makes textile machinery, fork-lift trucks, marine engines, boats and other products.

Nissan has made a substantial and growing investment in North America, starting with the opening of Nissan Motor Corporation in U.S.A. in 1960 and continuing with the production of some cars and trucks at one of the world's most modern manufacturing facilities in Smyrna, Tennessee, vehicle styling at Nissan Design International in San Diego, California, and engineering at Nissan Research and Development in Farmington Hills, Michigan.

Nissan Motor Corporation in U.S.A. and its dealers employ about 50,000 Americans.



NISSAN RESEARCH & DEVELOPMENT, INC.
in Farmington Hills, Michigan

Nissan is also a substantial contributor to the Canadian economy. Nissan Canada Inc. and its 200 dealers and suppliers employ approximately 4,000 people. These include company employees and the staffs of Nissan dealers all across Canada. In addition, many Canadians work for companies that supply Nissan and Nissan dealers with materials and services ranging from operation of port facilities and transportation services, to the supply of lubricants, parts and accessories.

Nissan pioneered the use of electronics and computers in automobiles, and has led the industry in improving both performance and fuel efficiency through new engine



NISSAN MOTOR MANUFACTURING CORPORATION
U.S.A. in Smyrna, Tennessee

AFW0001

designs and the use of synthetic materials to reduce vehicle weight. The company has also developed ways to build quality into its vehicles at each stage of the production process, both through extensive use of automation and — most importantly — through an awareness that **people** are the central element in quality control.

From the time the parts arrived from our suppliers until you took delivery of your new Nissan, dozens of checks were made to ensure that only the best job was being done in producing and delivering your vehicle. Nissan also takes great care to ensure that when you take your Nissan to your dealer for maintenance, the service

technician will perform his work according to the quality standards that have been established by the factory.

Safety has also been built into your Nissan. As you know, seat belts are an integral part of the safety systems that will help protect you and your passengers in the event of a sudden stop or an accident. We urge you to use the belts every time you drive the vehicle.

The Nissan story of growth and achievement reflects our major goal: to provide you, our customer, with a vehicle that is built with quality and craftsmanship — a product that we can be proud to build and you can be proud to own.

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 can not assist you with or you would like to provide NISSAN directly with comments or questions, please contact our (NISSAN's) Consumer Affairs Department using our toll-free number:

For U.S. mainland customers
1-800-NISSAN-1 (1-800-647-7261)

For Hawaii customers
531-0231 (Oahu Number)

For Canada customers
1-800-387-0122

The Consumer Affairs Department will ask for the following information:

- Your name, address, and telephone number
- Vehicle identification number (on dashboard)
- Date of purchase
- Current odometer reading

OR

- Your NISSAN dealer's name
- Your comments or questions

You can write to NISSAN with the information on the left at:

For U.S. mainland customers
Nissan Motor Corporation in U.S.A.
Consumer Affairs Department
P.O. Box 191
Gardena, California 90247

For Hawaii customers
Nissan Motor Corporation in Hawaii
2880 Kilihau St.
Honolulu, Hawaii 96819

For Canada customers
Nissan Canada Inc.
P.O. Box 1709, Station "B"
Mississauga, Ontario L4Y 4H6

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

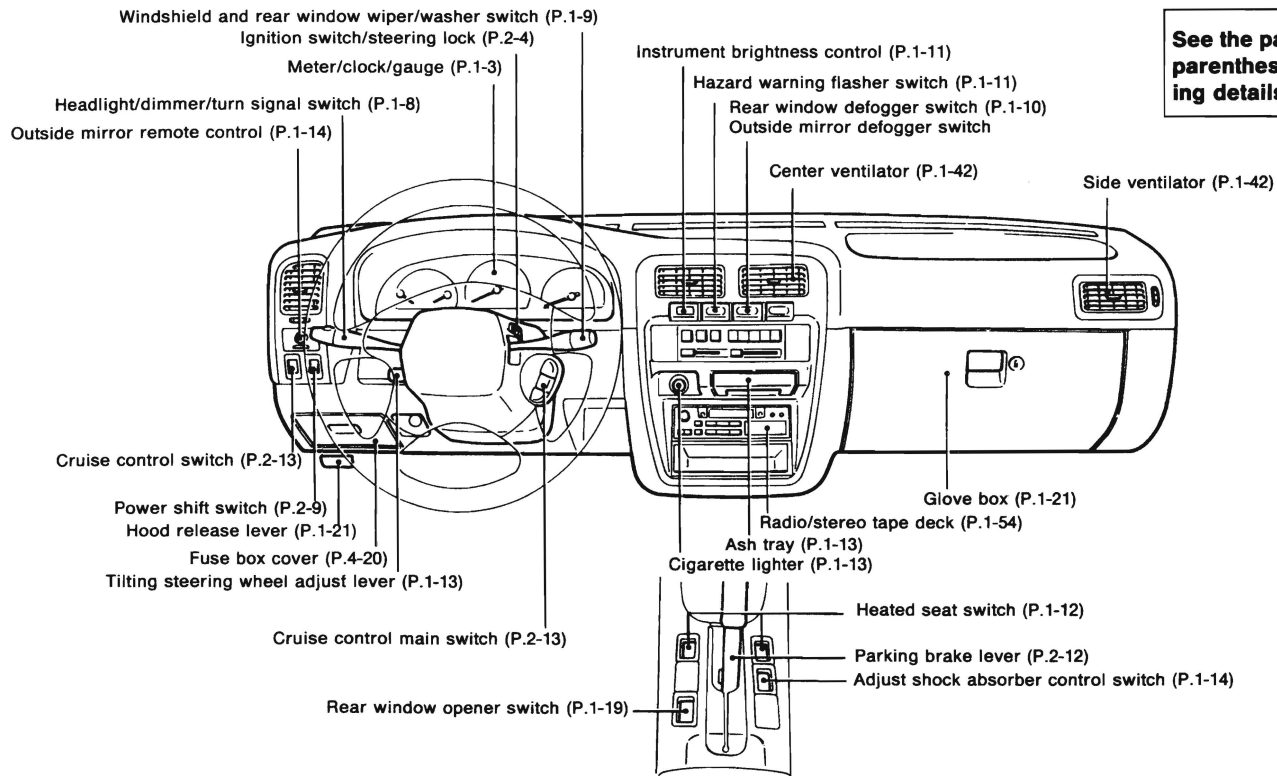
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1 Instruments and controls

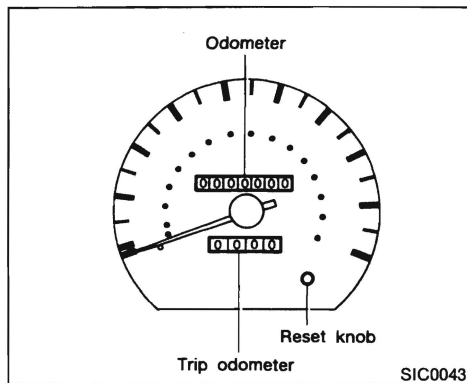
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See the page indicated in parentheses for operating details.

SPEEDOMETER AND ODOMETER



The speedometer indicates vehicle speed.

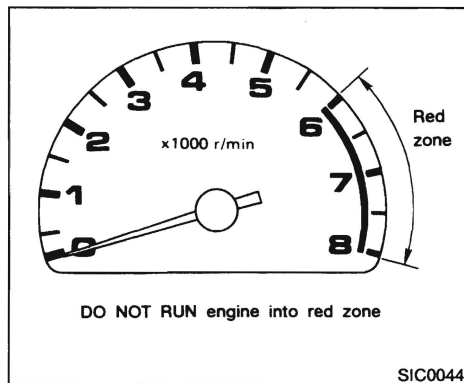
Odometer

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

Trip odometer

The trip odometer records the distance of individual trips. Before each trip, set the trip odometer to zero by pushing the RESET knob.

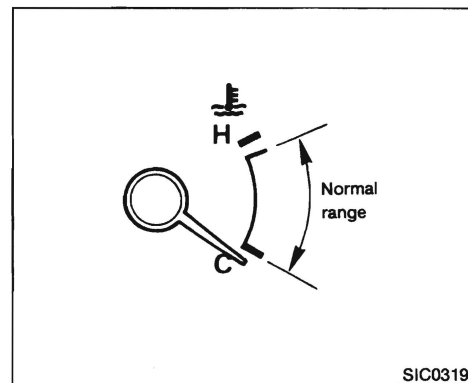
TACHOMETER



The tachometer indicates engine speed in revolutions per minute (rpm).

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

COOLANT TEMPERATURE GAUGE

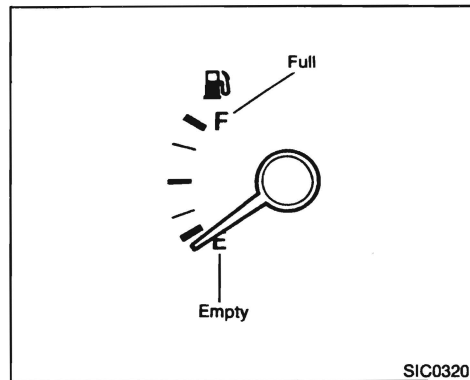


The gauge indicates the coolant temperature.

The coolant temperature will vary with the outside air temperature and driving conditions.

If the gauge indicates 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 "In case of emergency" section for immediate action required.

FUEL GAUGE



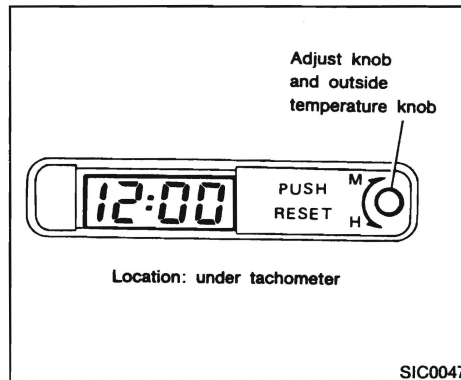
The gauge indicates the APPROXIMATE fuel level in the tank.

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

The gauge needle is designed to remain in approximately the same position, even when the ignition key is turned "OFF".

Refill the fuel tank before the gauge registers Empty.

CLOCK



The digital clock displays all the time. When the ignition key is in the "ACC" or "ON" position, an illumination light will come on.

Adjusting the time

Turn the adjust knob counterclockwise to advance the hour display.

Turn the adjust knob clockwise to advance the minute display.

Resetting the time

To reset the time to the time signal, push the adjust knob.

For example, if the adjust knob is depressed while the time is between 8:00 and 8:29, the display will be reset to 8:00. If depressed while it is between 8:30 and 8:59, the display will be reset to 9:00.

Once the power supply is disconnected, the clock will start to operate from the time 1:00.

Adjust the time.

WARNING/INDICATOR LIGHT AND BUZZER

	Turn signal/hazard indicator lights		Low washer fluid warning light (For Canada)		Tire carrier open warning light
 or BRAKE	Brake warning light		Rear window defogger indicator light		Automatic transmission oil temperature warning light
	High beam indicator light (Blue)		4-wheel drive indicator light		Malfunction indicator light
	Seat belt reminder light and buzzer		"CRUISE" indicator light		Rear anti-lock brake warning light (Except for Canada)
	Engine oil pressure warning light		Overdrive off indicator light		Rear anti-lock brake warning light (For Canada)
	Charge warning light		Power shift indicator light		
	Low fuel warning light		Door open warning light		

Checking bulbs

Turn the ignition key to "ON" without starting the engine. The following lights will come on:

 ,  ,  ,  OR **BRAKE** ,  ,
ABS or 

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.



Turn signal/hazard indicator lights

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



or **BRAKE** Brake warning light

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

Parking brake indicator

The light comes on when the parking brake is applied.

Low brake fluid warning

The light warns of a low brake fluid level. If the light comes on while the engine is running, stop the vehicle and perform the following:

1. Check the brake fluid level. Add brake fluid as necessary. See "Brake and clutch fluid" in the "Do-it-yourself operations" section.

2. If the brake fluid level is correct:

Check the warning system.

- **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 when the engine stops and/or low brake fluid level may increase your stopping distance and require greater pedal effort as well as pedal travel.**



High beam indicator light (Blue)

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



Seat belt reminder light and buzzer

The light and buzzer remind you to fasten seat belts. The light comes on for about six seconds whenever the ignition key is turned to "ON". At the same time, the buzzer will sound for about six seconds unless the driver's seat belt is securely fastened.



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. **Running the engine with the oil pressure warning light on could cause serious damage to the engine.**

The 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 "Do-it-yourself operations" section.



Charge warning light

If the light comes on while the engine is running, it may indicate that there is something wrong with the charging system. Turn the engine off and check the alternator belt. If the belt is loose, broken, missing or if the light remains on, see your NISSAN dealer immediately.

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



Low fuel warning light

This light comes on when the fuel in the tank is getting low. Refuel as soon as it is convenient, preferably before the fuel gauge reaches "E".

There should be a small reserve of fuel remaining in the tank when the fuel gauge needle reaches "E".



Low washer fluid warning light (For Canada)

This light comes on when the washer fluid in the washer tank is at a low level. Add washer fluid as necessary. See the "Do-it-yourself operations" section.



Rear window defogger indicator light

This light comes on when the rear window defogger switch is turned on.



4-wheel drive indicator light

This light comes on when the transfer shift control lever is in the "4H" or "4L" position.



CRUISE indicator light

The light comes on while the vehicle speed

is controlled by the cruise control system.

If the light flickers while the engine is running, it may indicate there is something wrong with the cruise control system. Have the system checked by your NISSAN dealer.

 or  Rear anti-lock brake warning light

If the light comes on while the engine is running, it may indicate there is something wrong with the rear anti-lock brake system. Have the system checked by your Nissan dealer.

If an abnormality occurs in the system, the rear anti-lock function will cease but the ordinary brakes will continue to operate normally.

If the light comes on while you are driving, contact your NISSAN dealer for repair.

When driving in the 4-wheel drive mode, if the front wheels lock, the rear wheels will lock. If this happens, the rear anti-lock brake system may stop functioning but the ordinary brakes will operate normally. The warning light will then come on. The above condition is not a malfunction and the rear anti-lock brake system will recover if the

engine is started again. The warning light will then go off. For further description of the rear anti-lock brake system, refer to "REAR ANTI-LOCK BRAKE SYSTEM" in Section 2.

 Overdrive off indicator light

This light comes on when the overdrive switch is pushed in the "OFF  " position.

 Power shift indicator light

This light comes on when the electronically controlled automatic transmission is under the power shift pattern.

When the ignition switch is turned ON with the power shift switch in "AUTO", the indicator light comes on for two seconds. If the light blinks for approximately eight seconds, it may indicate that there is something wrong with the transmission. Have your NISSAN dealer check and repair the transmission.

Key reminder buzzer

The buzzer will sound when the driver side door is opened if the key is left in the ignition switch. Take the ignition key when

you leave the vehicle.

Light reminder buzzer

A buzzer will sound if the driver's door is opened with the light switch on unless the ignition key in the "ON" position. Turn the light switch off when you leave the vehicle.

Brake pad wear warning

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

 Automatic transmission oil temperature warning light
( model)

This light comes on when the automatic transmission oil temperature is too high. If the light comes on while driving, reduce the vehicle speed as soon as safely possible until the light turns off.

Continued vehicle operation when the A/T oil temperature warning light is on may damage the automatic transmission.

HEADLIGHT AND TURN SIGNAL SWITCH



Malfunction indicator light

If this light comes on while the engine is running, it may indicate a potential emission control problem. Although the vehicle is still driveable, see your NISSAN dealer for service as soon as possible. Continued 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 which may affect your warranty coverage.



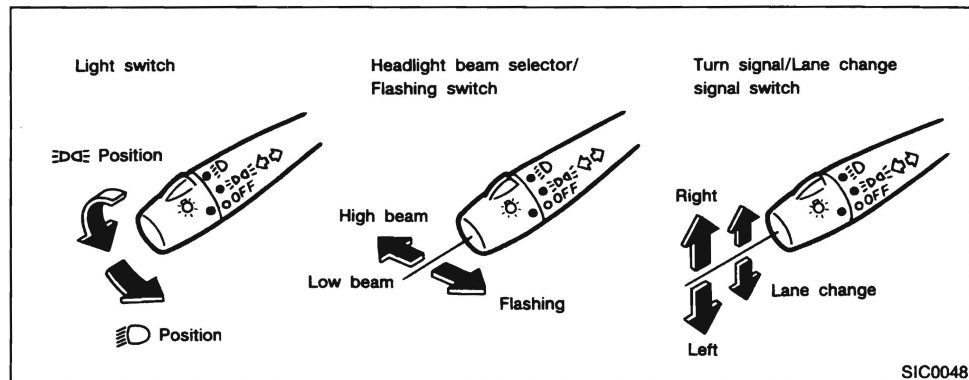
Door open warning light

This light comes on when any of the doors and/or back door is not closed securely while the ignition key is "ON".



Tire carrier open warning light

This light comes on when the tire carrier is not closed securely while the ignition key is "ON".



SIC0048

Lighting

Turn the switch to the "ON" position:

The side marker, tail, license plate and instrument lights will come on.

Turn the switch to the "OFF" position:

Headlights will come on and all the other lights remain on.

To select the high beam, push the lever forward. Pull it back to select the low beam.

Daytime light system (For Canada)

With the parking brake applied, the daytime light will not come on when the engine is started; the daytime light will come on when the parking brake is released. Thereafter, the daytime light will not turn off when using the parking brake at a stop signal, etc. The headlights illuminate a little darker than with the light switch in the "OFF" position.

WINDSHIELD WIPER AND WASHER SWITCH

WARNING:

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

Passing signal

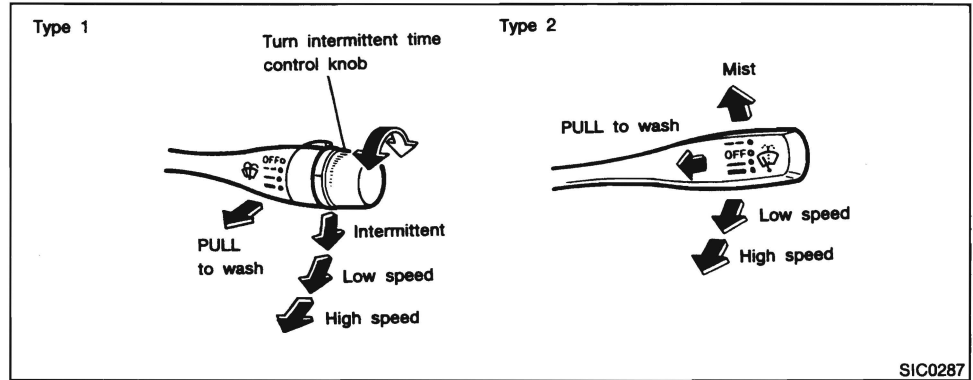
Pulling the lever toward you will turn on the passing signal even when the headlight switch is off.

Turn signal

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

Lane change signal

To indicate a lane change, move the lever up or down to the point where lights begin flashing.



Turn the ignition switch to "ACC" or "ON" and push the lever down to operate the wiper. Move the lever up to clear any water condensation (dew, fog, melted snow, etc.) from your windshield (type 2). The wiper will wipe the windshield only one time when the mist function is selected. The wiper will operate only once. Pull the lever toward you to operate the washer.

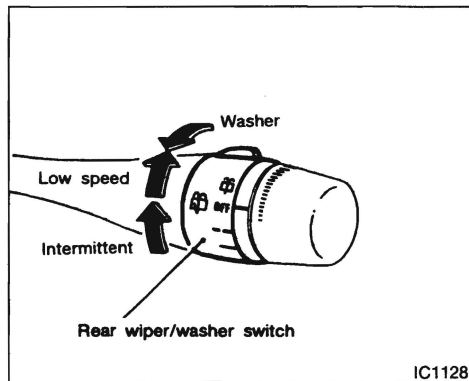
Intermittent operation can be adjusted from 4 to 12 seconds by turning the knob.

- **Do not operate the washer continuously for more than 30 seconds.**
- **Do not operate the washer if the reservoir tank is dry.**

WARNING:

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

REAR WINDOW WIPER AND WASHER SWITCH



To operate the wiper, turn the ignition switch to "ACC" or "ON" and turn the switch clockwise to the intermittent or low speed position to operate the wiper.

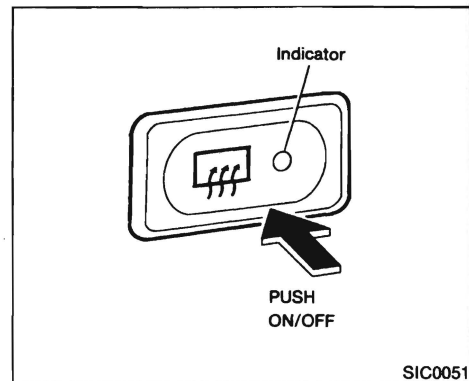
Turn the switch anti-clockwise to the "  " position to operate the washer.

- **Do not operate the washer continuously for more than 30 seconds.**
- **Do not operate the washer if reservoir tank is dry.**
- **The rear window wiper will not operate when the rear window is open.**

The rear window wiper will not operate if the rear window is closed with the wiper switch "ON". To operate the window wiper, turn the switch to "OFF" and then to "ON".

- **The rear window will not open while the rear window wiper is operating.**

REAR WINDOW DEFOGGER SWITCH



To defog the rear window glass, start the engine and push the switch on. (The indicator light will come on.)

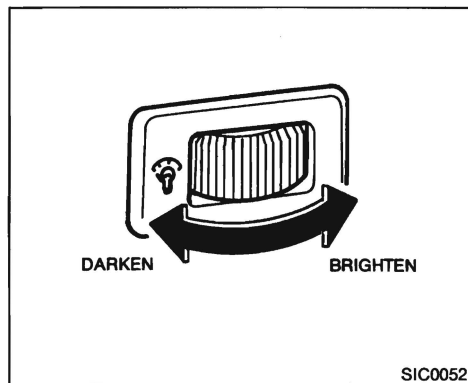
It will automatically turn off in approximately 15 minutes.

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

Outside mirror defogger (if so equipped)

The outside mirrors will be defogged when the rear window defogger switch is pushed.

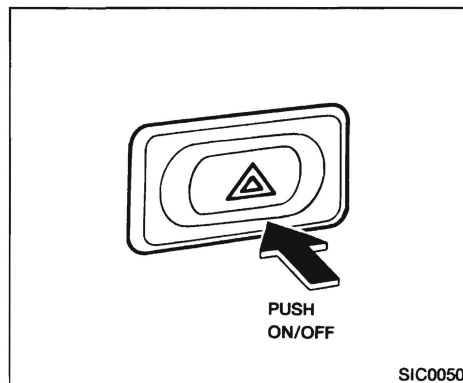
INSTRUMENT BRIGHTNESS CONTROL



The instrument brightness control operates when the light switch is in the "EDGE" or "D" position.

Turn the control to adjust the brightness of the instrument panel lights.

HAZARD WARNING FLASHER SWITCH



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

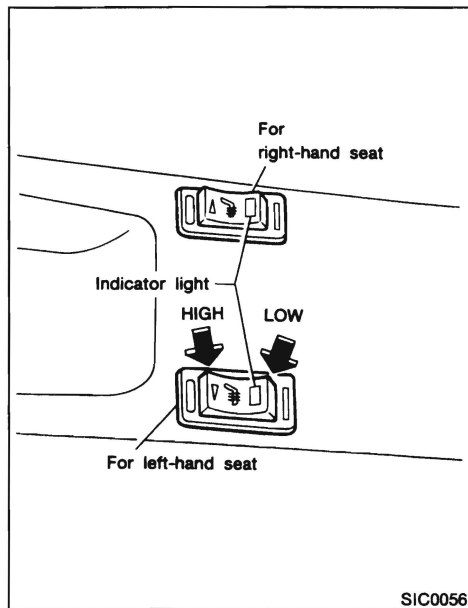
- **When stalled or stopped on the roadway under emergency conditions, move the vehicle well off the road.**
- **Do not use the switch while moving on the highway unless unusual circumstances force you to drive so slowly that your vehicle might become a hazard to other traffic.**
- **Some state laws may prohibit the use of**

the hazard warning flasher switch under any circumstances.

- **Turn signals do not work when the switch is operating.**

The flasher can be actuated with the ignition switch either off or on.

HEATING SEAT



The front seat(s) are warmed by built-in heaters. The switches located on the center console can be operated independently of each other.

1. Start the engine.

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

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 vehicle's interior is warmed or before you leave the vehicle, be sure to turn the switch off.

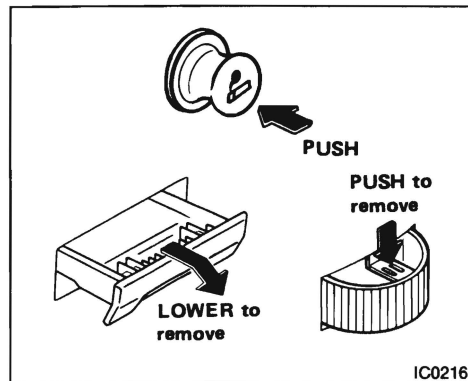
WARNING:

- Do not use the seat heater for a long time or when no one is seated there.
- 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 heating seat

should be immediately wiped up with a dry cloth.

- When cleaning the seat, never use benzine, thinner, or any similar materials.
- If any abnormalities are found or the heating seat does not operate, turn the switch OFF and have the system checked by your NISSAN dealer.

CIGARETTE LIGHTER AND ASH TRAYS



The cigarette lighter operates when the ignition switch is in "ACC" or "ON".

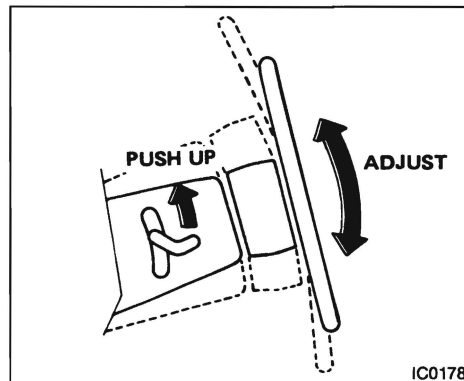
Push the lighter in all the way. When the lighter is heated, it will spring out.

Replace the lighter in its original position after use.

CAUTION:

The cigarette lighter should not be used while driving in order that full attention may be given to the driving operation.

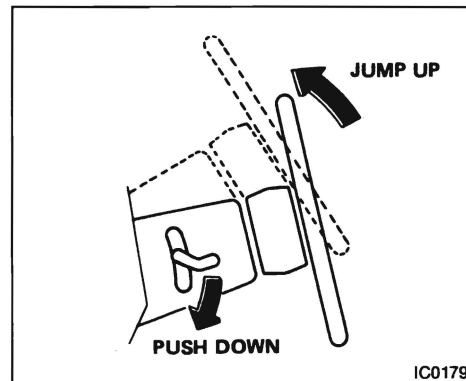
TILTING STEERING WHEEL



Tilt operation

While pushing up on the lock lever, adjust the steering wheel up or down to the desired position. Release the lever to lock the steering wheel in place.

Do not adjust the steering wheel while driving.



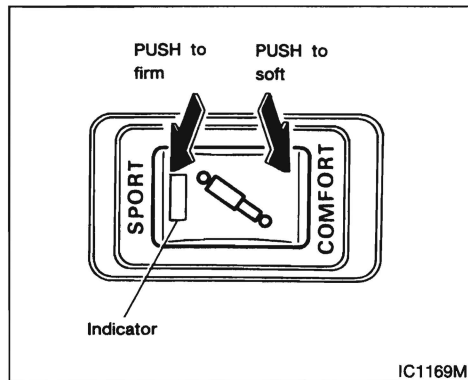
Release operation

Push the lock lever down and the steering wheel will go up to the highest position. This lets the driver get into and out of the seat easily.

After sitting in the seat, push the lock lever down again and pull the steering wheel down. The steering wheel will be set in its original position.

Do not adjust the steering wheel while driving.

ADJUSTABLE SHOCK ABSORBER CONTROL



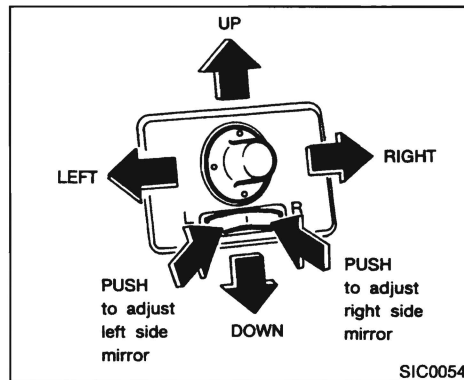
The damping force of the shock absorbers can be adjusted to the level you desire.

Set the switch to the position you desire according to driving conditions.

The sport position is best used for off road driving. The touring position is best used for normal driving.

When the sport position is used, the indicator on the switch comes on.

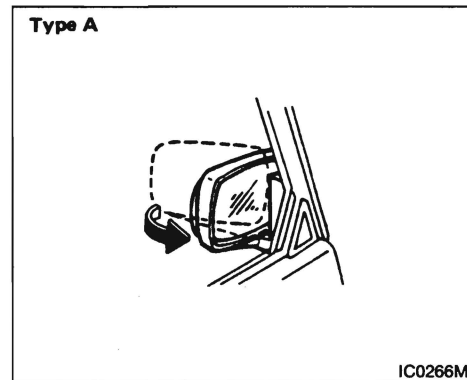
OUTSIDE MIRROR REMOTE CONTROL



Push the right or left end of the switch to adjust the right or left side mirror, then control the lever.

Objects viewed in the outside mirror on the passenger side are closer than they appear.

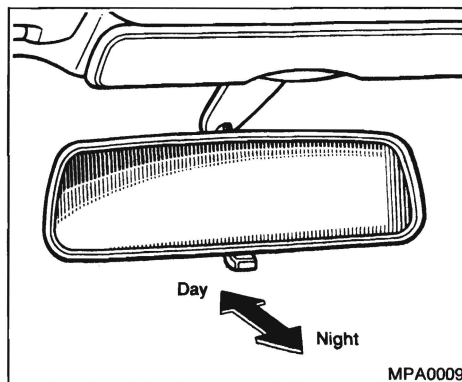
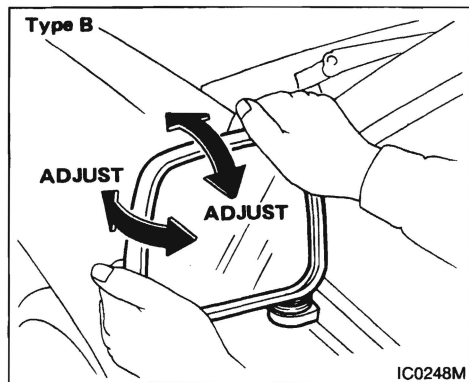
OUTSIDE MIRRORS



Folding outside mirror

Push the mirror backward to fold it.

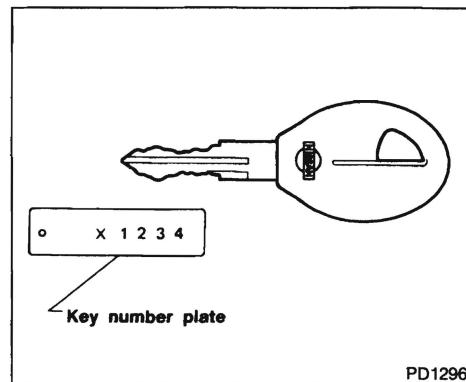
INSIDE MIRROR



The night position will reduce glare from the headlights of vehicles behind you at night.

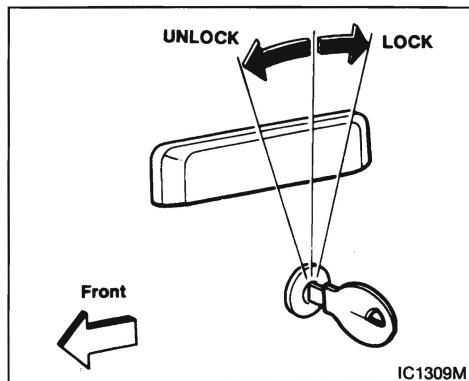
Use the night position only when necessary, because it reduces rear view clarity.

KEY



Record the key number on the key number plate and keep it in a safe place (such as your wallet), NOT IN THE CAR. A key number plate is supplied with your key. Keep the plate in a safe place. 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, this key can be duplicated by your NISSAN dealer or a lock smith shop. If you lose your keys, see your NISSAN dealer for duplicates by using the key number.

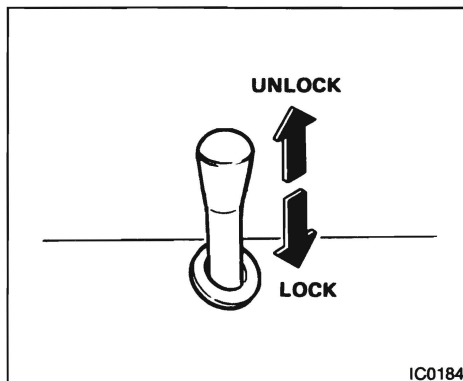
DOOR LOCKS



Locking doors with key

To lock the door, turn the key towards the back of the vehicle. To unlock, turn it towards the front.

On power door lock equipped models, locking the driver's door will simultaneously lock the other doors.



Locking doors without key

To lock from the outside without a key, push the inside lock knob to the "LOCK" position. Then close the door.

When locking the door this way, be certain not to leave the key inside the vehicle.

Front doors (Power door lock system)

The inside lock knob cannot be set to the "Lock" position with the front doors open and the key in the ignition.

CAUTION:

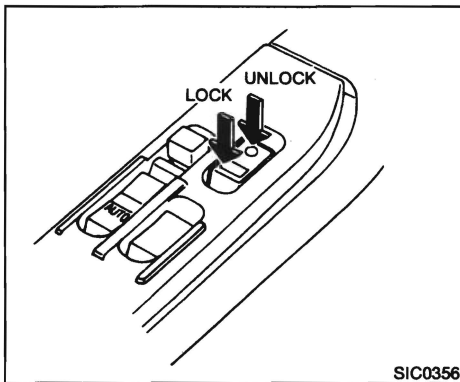
- Always have the doors locked while driving. Along with the use of seat belts, this provides greater safety in the event of an accident by helping to prevent persons from being thrown from the vehicle. This also helps keep children and others from unintentionally opening the doors, and will help keep out intruders.
- Before opening any door, always look for and avoid oncoming traffic.



CHILD SAFETY REAR DOOR LOCK

Child safety locking helps prevent doors from being opened accidentally, especially when small children are in the vehicle.

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



POWER DOOR LOCK

The power door lock system allows you to lock or unlock all doors simultaneously.

- Turning the front door key to the rear of the vehicle will lock all doors including the back door.
- Turning the front door key one time to the front of the vehicle will unlock the door. From that position, releasing the key and turning it to the front again will unlock all doors including the back door.
- Pushing the front door inside lock knob

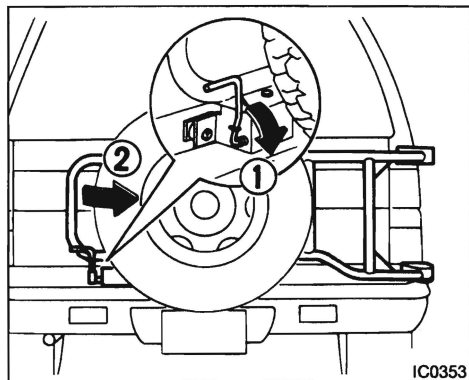
down will lock all doors including the back door.

- Operating the lock-unlock switch will lock or unlock all doors including the back door.

WARNING:

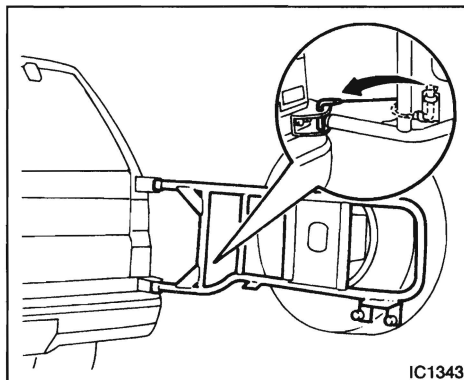
- Before opening the door, always look for and avoid oncoming traffic.
- Do not leave children unattended in a locked vehicle. If an emergency occurs it will be difficult to help them.

SPARE TIRE CARRIER

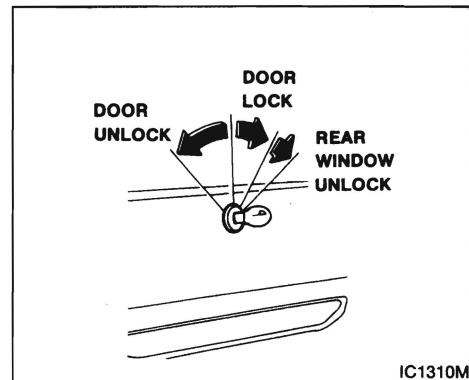


When opening the back door, first open the spare tire carrier in the sequence shown in the illustration above. Then insert the stopper into the hole to secure the carrier in the open position.

- **Be certain that there is adequate area to allow the carrier to open fully.**
- **Open the spare tire carrier slowly.**
- **Before driving, be certain that the spare tire carrier is firmly closed and latched.**



BACK DOOR AND REAR WINDOW LOCKS



Opening and locking the back door

1. Turn the key counterclockwise to unlock the back door.
2. Pull the opener handle to open the back door.
3. To lock the back door, push it down firmly and turn the key clockwise.

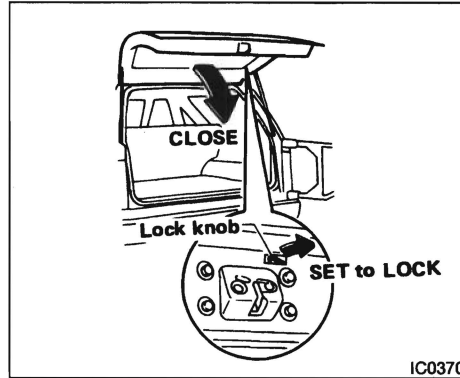
Opening the rear window from the outside

To open the rear window from the outside, turn the key fully clockwise.

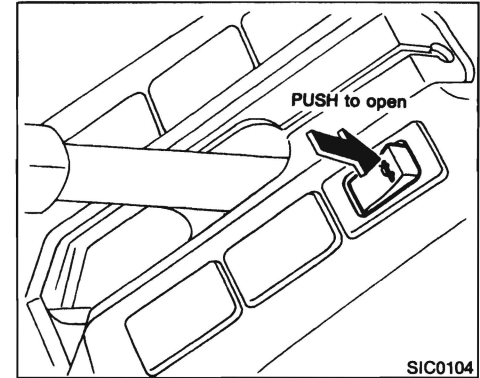
REAR WINDOW OPENER

WARNING:

Do not drive with the rear window and back door open. This will prevent dangerous exhaust gases from being drawn into the vehicle.



To lock the back door without the key, pull the lock knob, then close the back door securely.

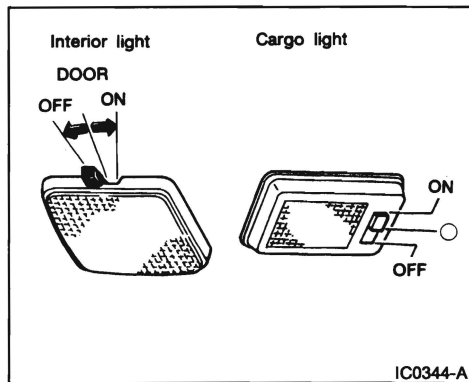


Opening the rear window from the inside

To open the rear window from the inside, push the rear window opener switch.

The rear window will not open while the rear window wiper is operating. Open the rear window after the rear window wiper returns to the STOP position.

INTERIOR LIGHT AND CARGO LIGHT



The interior light will operate regardless of ignition key position.

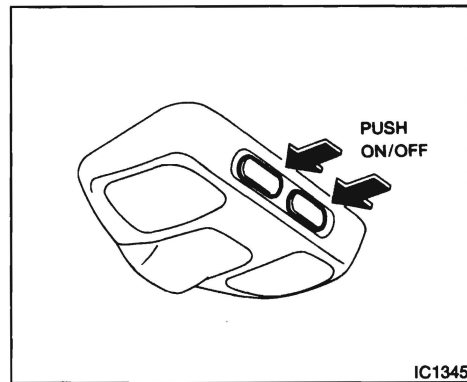
The interior light has a three-position switch.

- When the switch is in the "OFF" position, the interior light will not illuminate, regardless of door position.
- When the switch is in the center "○" or "DOOR" position, the interior light will illuminate by opening the doors.
- When the switch is in the "ON" position, the interior light will illuminate, whether

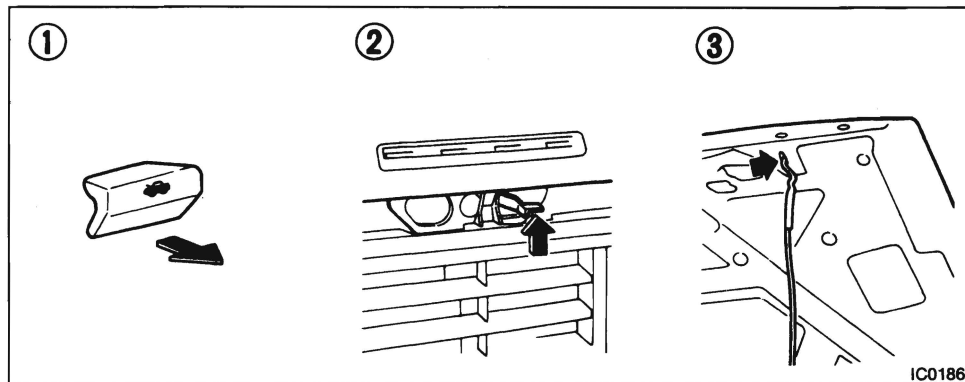
any door is opened or closed.

Leaving the interior light switch in the "ON" position for extended periods of time will result in a discharged battery.

PERSONAL LIGHT

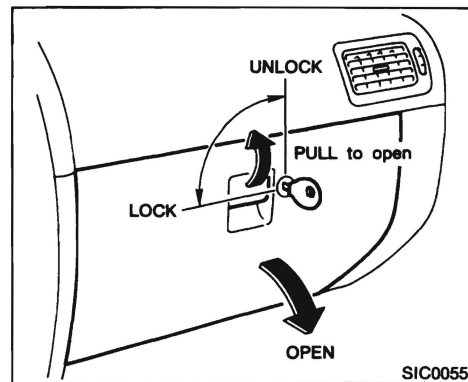


HOOD RELEASE



1. Pull the hood lock release handle located below the instrument panel; the hood will then spring up slightly.
2. Raise the lever at the front of the hood with your fingertips and raise the hood.
3. Insert the assist bar into the slot in the front edge of the hood.
4. When closing the hood, reset the assist bar to its original position, then slowly close the hood and make sure it locks into place.

GLOVE BOX LOCK

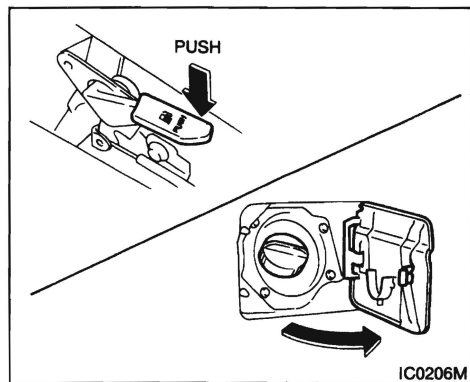


The glove box may be opened by turning the key as shown.

WARNING:

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

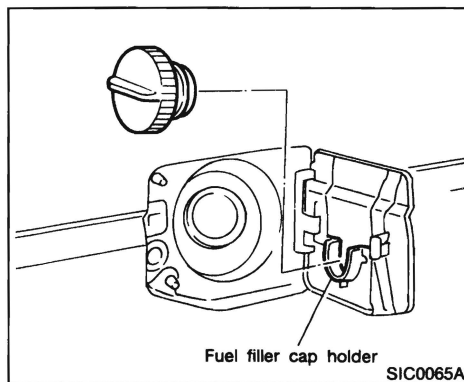
FUEL FILLER LID LOCK



Opener lever

To open the fuel filler lid, push the opener lever down. To lock, close the fuel filler lid securely.

FUEL FILLER CAP



The fuel filler cap is a screw-on ratcheting type. Tighten the cap clockwise until ratcheting clicks are heard.

WARNING:

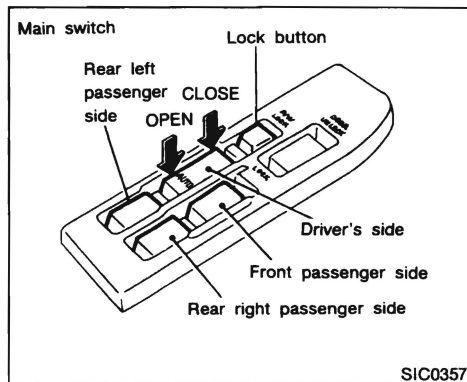
- Gasoline is extremely flammable and highly explosive under certain conditions. Always stop engine and do not smoke or allow open flames or sparks near the vehicle when refueling.
- Fuel may be under pressure. Turn the cap one-half turn and wait for any "hissing" sound to stop, to prevent fuel

from spraying out and possible personal injury.

- Use only a genuine NISSAN 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.

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

POWER WINDOW



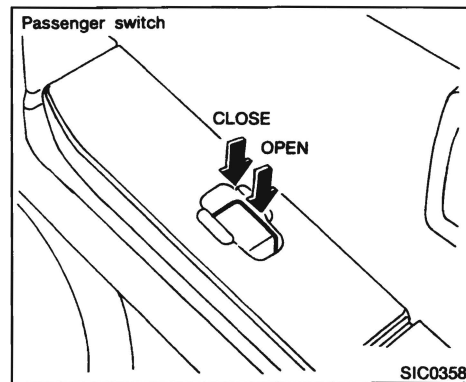
The power window operates when the ignition key is "ON".

To open or close the window, press the switch and hold it down. The main switch (driver's switches) will open or close all the windows.

Locking passenger's window

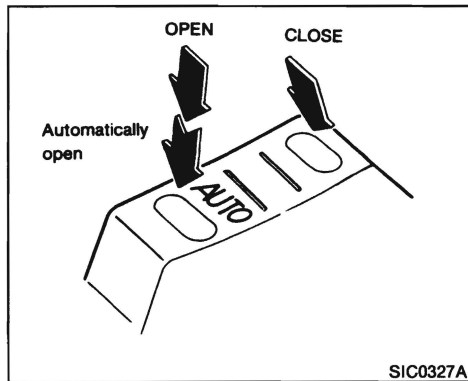
When the lock button is pushed in, only the driver side window can be opened or closed. Push it in again to cancel.

- **Make sure that the passenger has his/her hands, etc. inside the vehicle before closing the windows.**
- **Do not leave children unattended inside the vehicle. They could unknowingly activate switches.**



The passenger's switch will open or close only the passenger's window. To open or close the window, hold the switch down.

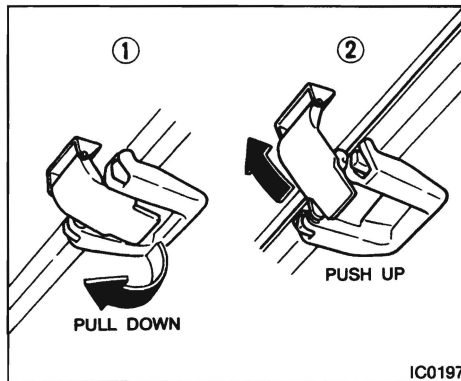
SUN ROOF



Power window automatic switch (If so equipped)

To fully open the driver side window, completely press down the switch and release it; it need not be held. The window will automatically open all the way. To stop the window, just press the switch on the opposite side.

A light press on the switch will cause the window to open while the switch is pressed.

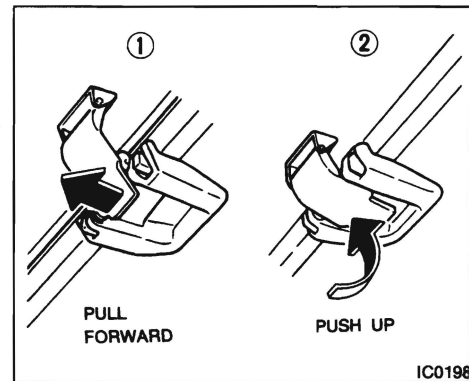


Tilting up

Pull the handle down, then push the handle up to the fully tilted position.

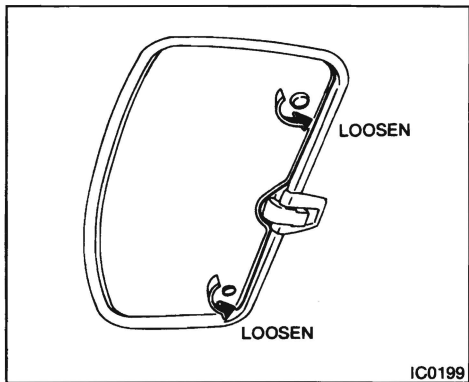
WARNING:

- Do not stand up or extend any portion of your body out of the opening while driving.
- Remove water drops, snow, ice or sand from the sun roof before opening.
- Do not place any heavy object on the sun roof or surrounding area.



Closing

Pull the handle forward to unlock, then push the handle up completely.



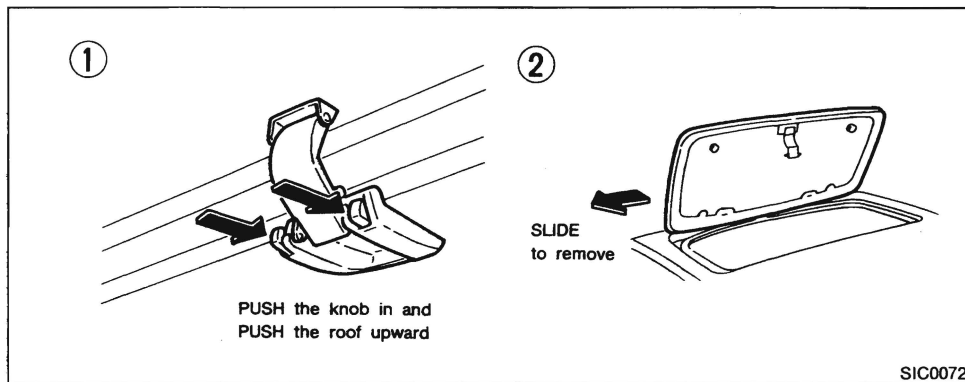
Do not remove or install the sun shade while driving.

Removing the sun shade

1. Turn each knob counterclockwise while lifting the sun shade upward.
2. Slide the shade backward to remove it.

Installing the sun shade

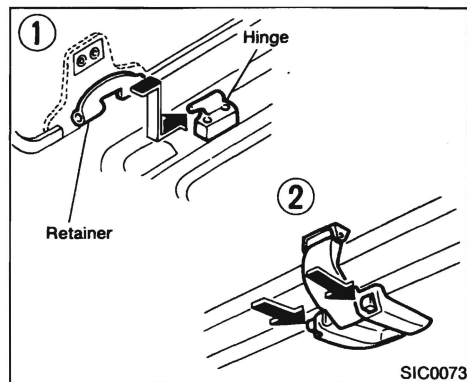
1. Insert two hooks on front edge of sun shade into holders on the roof.
2. Align two bolts on rear edge of sun shade with lock nuts, then securely tighten the bolts.



Removing the sun roof

1. Remove the sun shade before removing the sun roof.
2. Tilt the roof.
3. Push the knob located on each end of the handle and push the roof upwards to disengage the handle linkage.
4. Pull the sun roof up from outside of the vehicle until it is perpendicular to the roof panel.
5. Slide the sun roof to the left and remove the roof.

Do not remove the roof while driving.

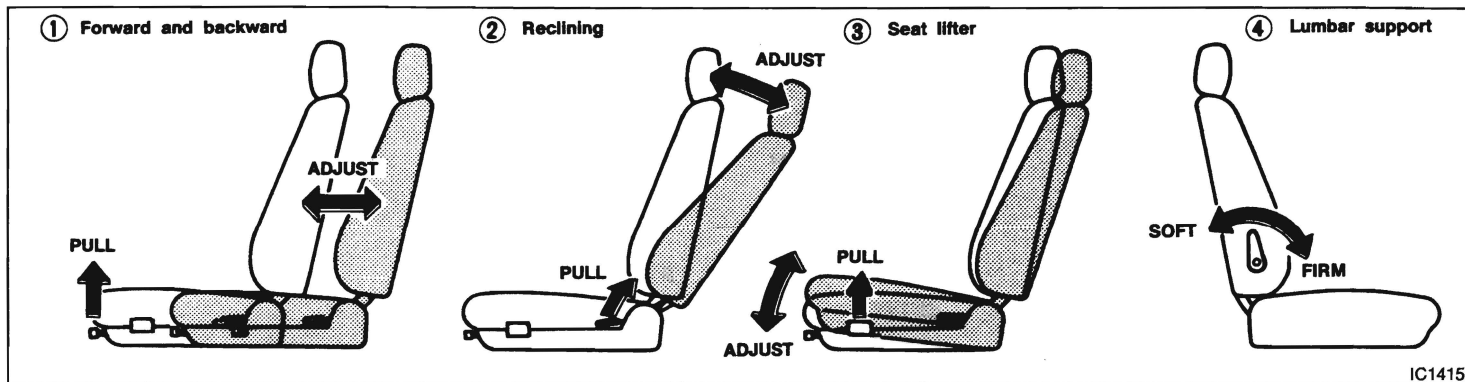


Installing the roof

1. While placing the sun roof perpendicular to the roof panel, position the sun roof and engage the retainer with the hinge.
2. Slide the roof to the right until the red mark on the hinge disappears.
3. Carefully lower the panel, making sure it is in line with the roof opening.
4. Engage the handle linkage.

Be sure that the sun roof is securely installed.

FRONT SEATS



SEAT ADJUSTMENT

Do not adjust the driver's seat while driving. The seat may move suddenly and could cause loss of control of the vehicle.

① 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.

After adjustment, check to be sure the seat is securely locked by slightly rocking fore-and-aft in the seat.

② Reclining

Pull the lever up and lean back until the desired angle is obtained. To bring the seat back forward again, pull the lever and move your body forward. The seat back will move forward.

After adjustment, check to be sure the seatback is securely locked by slightly rocking against it.

WARNING:

The seatback should not be reclined any more than needed for comfort. Seat belts

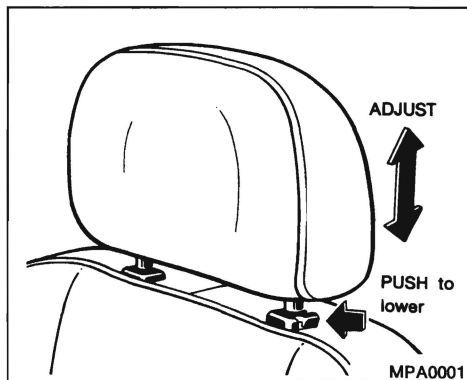
are most effective when the passenger sits well back and straight up in the seat. If the seat is reclined, the risk of sliding under the lap belt and being injured is increased.

③ Seat lifter

Pull the lever up and adjust the angle of the seat to the desired position.

④ Lumbar support

Turn the lever forward or backward to adjust the seat lumbar area.



HEAD RESTRAINTS

Adjust the top of the head restraints even with the top of your ears.

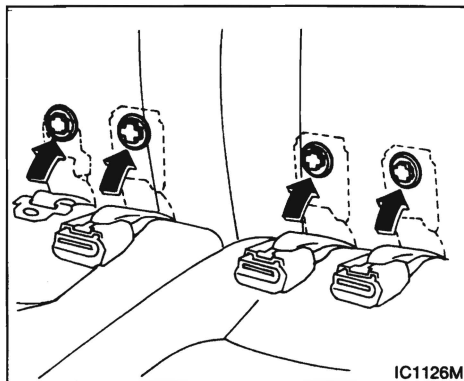
To raise the head restraint, just pull it up.
To lower, push the lock knob and push the head restraint down.

WARNING:

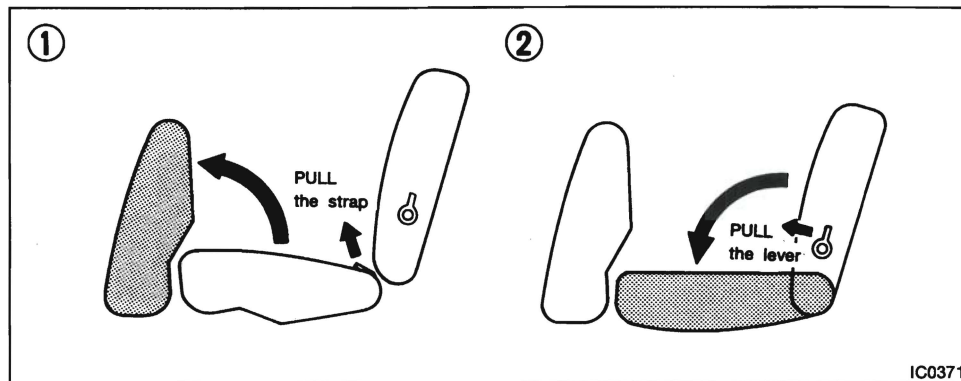
Head restraints should be adjusted properly as they may provide significant protection against whiplash injury.

Do not remove them.

REAR SEATS



Before folding down the seat, hook the buckle and tongue on the button.



Folding

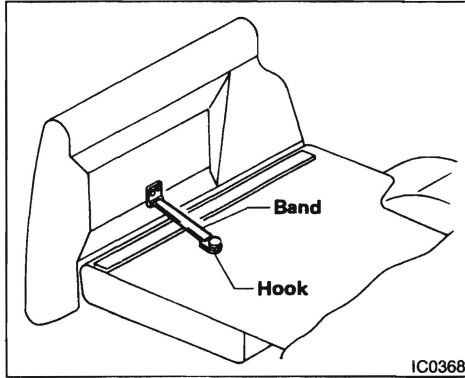
1. Remove the head restraints.
2. Pull the strap forward and fold the seat cushion up.
3. Pull the lever and pull the seat back forward to fold it down.
4. When resetting the seat, be sure to install the head restraints.

Never allow anyone to ride in the luggage area or on the folded down rear seat. A sudden stop or accident may cause risk of injury.

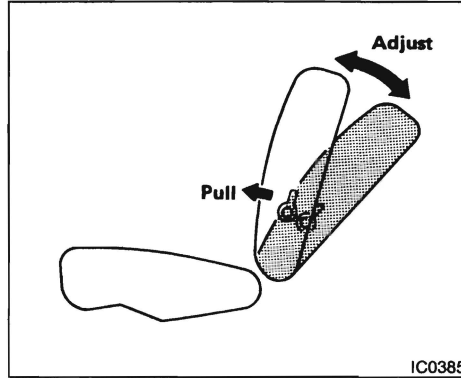
WARNING:

- **Head restraints should be adjusted properly as they may provide significant protection against whiplash injury. Always replace and adjust them properly if they have been removed for any reason.**
- **If the head restraints are removed for any reason, they should be securely stored to prevent them from causing damage to passengers or the vehicle in case of sudden braking or collision.**

SEAT BELTS

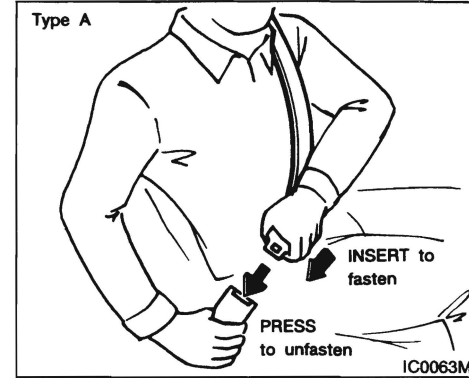


After folding the seat down, attach the band on the back of the cushion to the hook to secure the seat back and cushion.



Pull the reclining lever and position the seat back at the desired angle. Release the reclining lever after positioning the seat at the desired angle.

The seat belts are most effective when the rider is sitting well back and straight up in the seat.



3-POINT TYPE WITH RETRACTOR

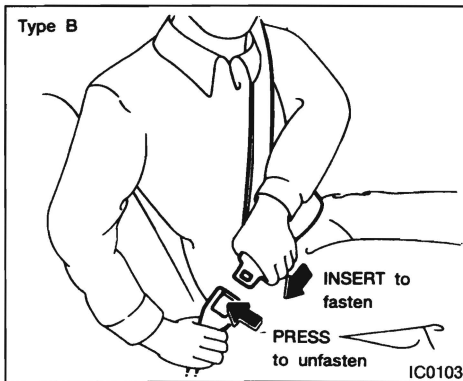
Every person who drives or rides in this vehicle should wear a seat belt at all times.

Fastening the belts

1. Adjust the seat.

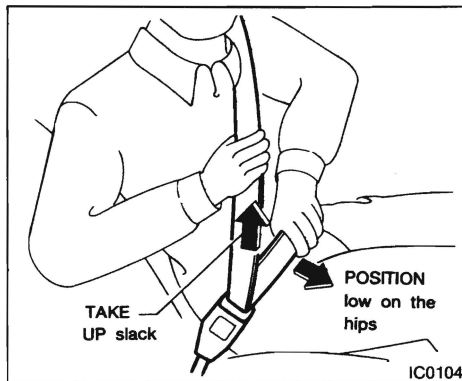
WARNING:

The seatback should not be reclined any more than needed for comfort. Seat belts are most effective when the passenger sits well back and straight up in the seat. If the seat is reclined, the risk of sliding under the



lap belt and being injured is increased.

2. Slowly pull the seat belt out of the retractor and insert the tongue into the buckle until it snaps.



The retractor is designed to lock during a sudden stop or on impact. A slow pulling motion will permit the belt to move, and allow you some freedom of movement in the seat.

3. Position the lap belt portion **low on the hips** as shown.
4. Pull the shoulder belt portion toward the retractor to take up extra slack.

The front seat passenger side seat belt and rear 3-point seat belts have a cinching mechanism for child seat installation. It is referred to as the automatic locking mode.

When the cinching mechanism is activated the seat belt cannot be withdrawn again until the seat belt tongue is detached from the buckle and fully retracted. Refer to "Child Restraint Systems for Infants and Small Children" later in this section for more information.

WARNING:

- **The automatic locking mode should be used only for child seat 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.**

Unfastening the belts

To unfasten the belt, press the button on the buckle. The seat belt will automatically retract.

Checking seat belt operation

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

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

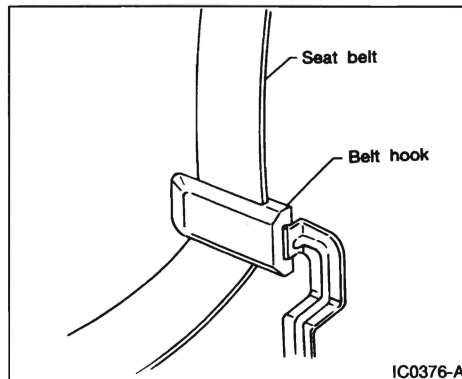
To increase your confidence in the belts, check the operation as follows:

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

If the retractor does not lock during this check or if you have any question about belt operation, see your NISSAN dealer.

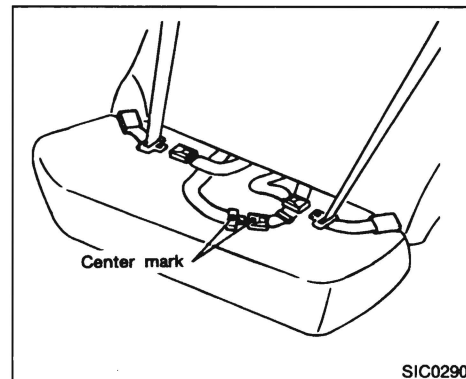
Replacing front seat belt (3-point type only)

The front seat belts are shock absorber types. Replace the belt when the loop has been pulled out and "REPLACE BELT" is visible as this indicator means the seat belt has been overstressed.



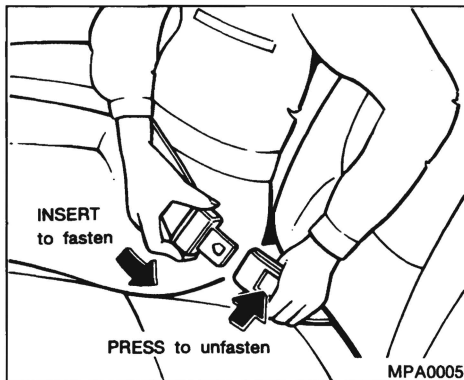
Belt hook

When the 3-point type rear seat belt is not used, hook it at the belt hook.



Selecting correct set of belts

The center seat belt buckle and tongue are identified by the "CENTER" mark. The center seat belt tongue can be fastened only into the center seat belt buckle.

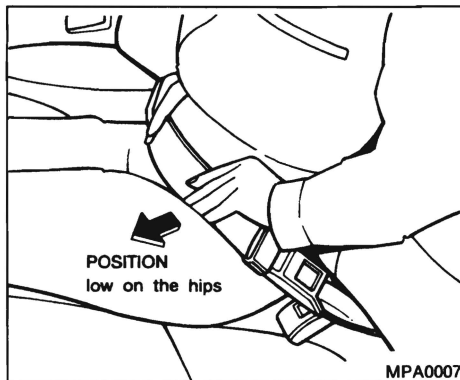


2-POINT TYPE WITH RETRACTOR

Fastening the belts

1. Slowly pull the seat belt out of the retractor and insert the tongue into the buckle until it snaps.

If the retractor locks and restricts further movement, let the belt rewind into the retractor, then slowly pull the belt out.



2. Position the lap belt **low on the hips** as shown.

3. Pull the belt toward the retractor to take up extra slack.

Unfastening the belts

To unfasten the belt, press the button on the buckle. The seat belt will automatically retract.

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 right passenger seating position. See your NISSAN dealer for assistance if the extender is required.

WARNING:

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

PRECAUTIONS ON SEAT BELT USAGE

NISSAN strongly encourages you and all of your passengers to buckle up every time you drive.

Your chances of being injured in an accident and/or the severity of injury may be greatly reduced if you are wearing your seat belt and it is properly adjusted.

Some states, provinces or territories may 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 wear a seat belt at all times.**

Children should be in appropriate child restraints.

- **The belt should be adjusted to a snug fit. Failure to do so will reduce the effectiveness of the entire restraint system.**
- **Do not wear the belt inside out or twisted.**
- **Do not allow more than one person to use the same belt.**

- **All seat belt assemblies including retractors and attaching hardware should be inspected after any collision at your 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.**

- **Never carry more people in the vehicle than there are seat belts.**

If the seat belt warning lamp 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 your NISSAN dealer.

Be sure to observe the following cautions when using seat belts. Failure to do so could increase the chance and/or severity of injury in an accident.

- **Always route the shoulder belt over your shoulder and across your chest. Never run the belt under your arm. Serious**

injury can occur if the seat belt is not worn properly.

- **Position the lap belt as low as possible AROUND THE HIPS, NOT THE WAIST.**

Infant or small child

NISSAN recommends that infants or small children be seated in child restraint systems that comply with Federal Motor Vehicle Safety Standards or Canadian Motor Vehicle Safety Standards. You should choose a child restraint system which fits your vehicle and always follow the manufacturer's instructions for installation and use.

Children

Children who are too large for child restraint systems should be seated and restrained by the seat belts which are provided.

NISSAN recommends that children sit in the rear seat if available. According to accident statistics, children are safer when properly restrained in the rear seat than in the front seat.

If the child's seating position has a shoulder belt that fits close to the face or neck, the use of a booster seat (commercially available) may help overcome this. 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. 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.

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.

Pregnant women

NISSAN recommends that pregnant women use seat belts. Contact your doctor for specific recommendations. The lap belt should be worn snug and positioned as low as possible around the hips, not the waist.

Injured persons

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

SEAT BELT MAINTENANCE

- **To clean the belt webbings**, apply a mild soap solution or any solution recommended for cleaning upholstery or carpets. Then brush it, wipe with a cloth and allow it to dry in the shade. Do not allow the belts to retract until they are completely dry.
- **Periodically check to see that the 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 belt assembly should be replaced.

CHILD RESTRAINTS FOR INFANTS AND SMALL CHILDREN

Infants and small children should **always** be placed in an appropriate child restraint while riding in the vehicle.

WARNING:

Children and infants 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.

In general, child restraints are designed to be installed with a lap belt or the lap portion of a three-point type seat belt.

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.

An improperly installed child restraint could lead to serious injury in an accident.

Child restraint systems specially designed for infants and small children are offered by several manufacturers. When selecting any child restraint system, keep the following points in mind:

- 1) 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.
- 2) Check the child restraint in your vehicle to be sure it is compatible with the vehicle's seat belt system.
- 3) 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. Always follow all of the recommended procedures.

WARNING:

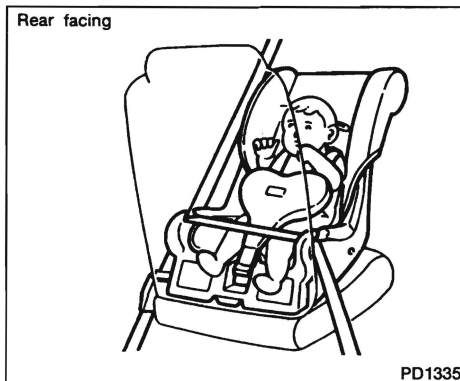
- **Follow all of the child restraint manufacturer's instructions for installation and use. When purchasing a child restraint, be sure to select one which will fit your child and vehicle as it may not be possible to properly install some types of child restraints in your vehicle. Improper use of a child restraint can result in increased injuries for both the infant or child and other occupants in the vehicle.**
- **When your child restraint is not in use,**

store it or keep it secured with a seat belt to prevent it from being thrown forward in case of a sudden stop or accident.

- **Remember that a child restraint left in a closed vehicle can become very hot. Check the seating surface and buckles before placing your child back in the child restraint.**
- **After attaching the child restraint, test it before you place the child in it. Tilt it from side to side. Try to tug it forward and check to see if the belt holds it in place. If the restraint is not secure, tighten the belt as necessary, or put the restraint in another seat and test it again.**
- **If the seat belt in the position where the child restraint is installed requires a locking clip and it is not used, injuries could result from the child restraint tipping over during normal vehicle braking or cornering.**
- **If the child restraint is not anchored properly, the risk of a child being injured in a collision or a sudden stop greatly increases.**
- **Adjustable seatbacks should be posi-**

tioned to fit the child restraint, but as upright as possible.

- For a front facing child restraint. If the seat position where it is installed has a 3-point type lap-shoulder belt, check to make sure the shoulder belt does not go in front of the child's face or neck. If it does, put the shoulder belt behind the child restraint.
- All U.S. states and some provinces or territories of Canada require that infants and small children be restrained in approved child restraints at all times while the vehicle is being operated.



Installation on front passenger seat (3-point type with retractor)

A child restraint with a top strap should not be used in the front passenger seat.

WARNING:

- The 3-point belt in your vehicle is equipped with a locking mode retractor which must be used when installing a child restraint or an infant carrier.
- Failure to use the retractor's locking mode will result in the child restraint not being properly secured. The seat could

tip over or otherwise be unsecured and cause injury to the child in a sudden stop or collision.

If you choose to install a child restraint or infant carrier follow these steps:

1. Position the child restraint or infant carrier on the front passenger seat. It can be placed in a forward facing or rear facing direction, depending on the size of the child and the restraint manufacturer's instructions.
2. Follow the child restraint or infant carrier manufacturer's instructions. Route the lap belt through the child restraint or infant carrier and insert the belt tongue into the buckle until you hear and feel the latch engage.

Front facing



PD1336

Be sure to follow the child restraint manufacturer's instructions for belt routing.

3. Pull upward on the lap belt until all of the belt is fully extended and a click is heard. At this time, the lap belt retractor is in the automatic locking mode (child restraint mode). (It will revert back to "emergency locking" when the belt is fully retracted.)
4. Allow the belt to retract. A clicking sound will be heard as the belt retracts. This indicates that the retractor is in the automatic locking mode. Pull down on the belt to remove any slack in the belt.

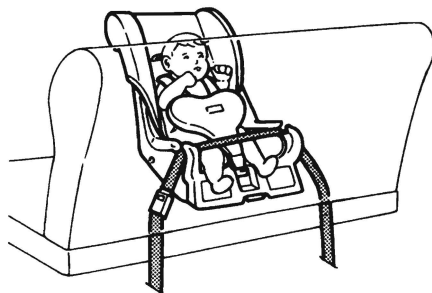
5. Before placing the child in the child restraint or infant carrier, use force to tilt the child restraint from side to side, and tug it forward to make sure that it is securely held in place.

6. Check that the retractor is in the automatic locking mode by trying to pull more belt out of the retractor. If you cannot pull any more belt webbing out of the retractor, the belt is in the automatic locking mode.

7. Check to make sure that the child restraint or infant carrier is properly secured prior to each use. If the lap belt is not locked, repeat steps 3 through 6.

After the child restraint is removed and the seat belt is allowed to wind back into the retractor, the automatic locking mode (child restraint mode) is canceled; the emergency locking retractor may be used as normal and will only lock during a sudden stop or impact.

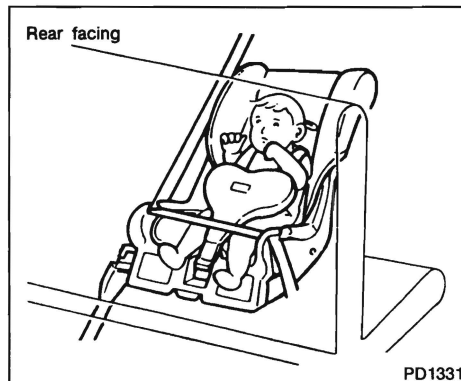
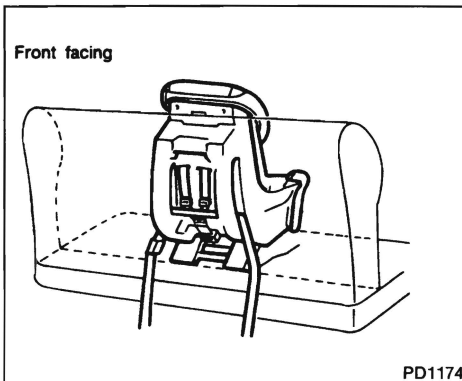
Rear facing



IC0281M

Installation on rear seat center

Secure the child restraint with the lap belt as illustrated. Adjust the belt for a snug fit by pulling it toward the retractor. The automatic locking retractor will hold it snug.



Installation on rear outboard seating positions

WARNING:

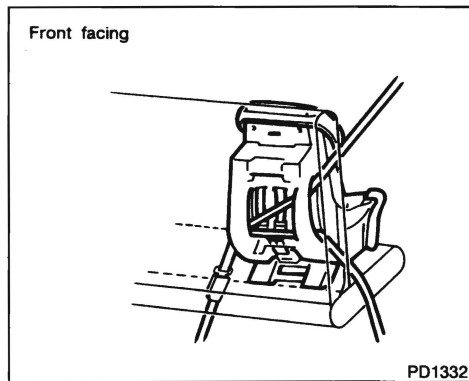
- **The 3-point belt on your vehicle is equipped with a locking mode retractor which must be used when installing a child restraint or an infant carrier.**
- **Failure to do so will result in the child restraint not being properly secured. The seat could tip over or otherwise be unsecured and cause injury to the child in a sudden stop or collision.**

If you choose to install a child restraint or infant carrier follow these steps:

1. Position the child restraint or infant carrier on a rear outboard seat. It can be placed in a forward facing or rear facing direction, depending on the size of the child and the restraint manufacturer's instructions.
2. Follow the child restraint or infant carrier manufacturer's instructions. Route the lap belt through the child restraint or infant carrier and insert the belt tongue into the buckle until you hear and feel the latch engage.

Be sure to follow the child restraint manufacturer's instructions for belt routing.

3. Pull down on the shoulder belt until all of the belt is fully extended and a click is heard. At this time, the shoulder belt retractor is in the automatic locking mode (child restraint mode). (It will revert back to "emergency locking" when the belt is fully retracted.)
4. Allow the belt to retract. A clicking sound will be heard as the belt retracts. This indicates that the retractor is in the automatic locking mode. Pull down on the

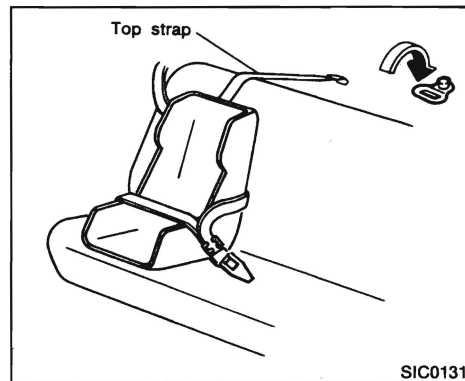


belt to remove any slack in the belt.

5. Before placing the child in the child restraint or infant carrier, use force to tilt the child restraint from side to side, and tug it forward to make sure that it is securely held in place.
6. Check that the retractor is in the automatic locking mode by trying to pull more belt out of the shoulder retractor. If you cannot pull any more belt webbing out of the retractor, the belt is in the automatic locking mode.
7. Check to make sure that the child re-

straint or infant carrier is properly secured prior to each use. If the shoulder belt portion is not locked, repeat steps 3 through 6.

After the child restraint is removed and the seat belt is allowed to wind back into the retractor, the automatic locking mode (child restraint mode) is canceled; the emergency locking retractor may be used as normal and will only lock during a sudden stop or impact.



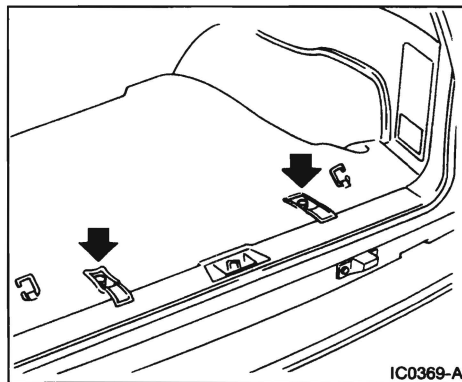
Top strap child restraint

If your child restraint has a top strap, install the anchor bracket to the provided anchor point. Secure the child restraint with the seat belt and latch the top strap hook onto the appropriate anchor bracket. Make sure the shoulder belt is placed between the seat back and child restraint. To install the anchor bracket, a metric bolt of the dimensions listed below must be used.

The top strap should be secured to the attaching belt which provides the straightest installation of the top strap.

Bolt diameter: 8.0 mm
Bolt length: more than 1.18 in (30 mm)
Thread pitch: 1.25 mm

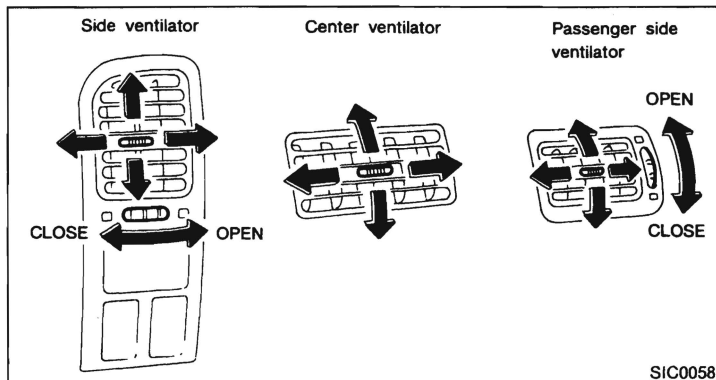
Child restraint anchor points are designed to withstand only these loads imposed by correctly fitted child restraints. Under no circumstances are they to be used for adult seat belts or harnesses.



Anchor point location

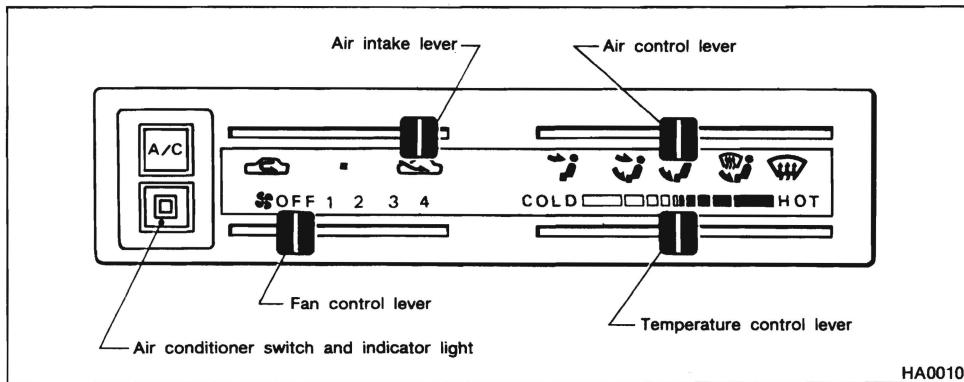
Anchor points are located on the rear floor panel.

CENTER AND SIDE VENT



Open or close, and adjust the air flow direction of ventilators.

HEATER AND AIR CONDITIONER



CONTROLS

Fan control lever

This lever turns the fan on and off, and controls fan speed.

Air control lever

This lever allows you to select the air flow outlets.

Temperature control lever

This lever allows you to adjust the temperature of the outlet air.

Air intake lever

 position

Outside air is drawn into the passenger compartment.

Use this position for normal heater, or air conditioner operation.

 position

Interior air is recirculated inside the vehicle.

Move the air intake lever to the "" position when driving on a dusty road.

Do not use in this position for long periods of time because it may cause the interior air to become stuffy and the windows to fog up.

Air conditioner switch (if equipped)

This button is provided only for vehicles with an air conditioner.

Start the engine and push the switch to turn on the air conditioner. The indicator light will come on when the air conditioner is on.

HEATER OPERATION

Heating

This mode is used to direct hot air from the floor outlets.

1. Move the air intake lever to the "" position for normal heating.
2. Move the air control lever to the "" position.
3. Turn on the fan control lever.
4. Move the temperature control lever to the desired position between the middle and the "HOT" position.

- For quick heating, move the air intake lever to the “” position. As soon as possible after heating, return the air intake lever to the “” position for normal heating.

Ventilation

This mode directs outside air from the side and center vents.

1. Move the air intake lever to the “” position.
2. Move the air control lever to the “” position.
3. Turn on the fan control lever.
4. Move the temperature control lever to the desired position.

Defrosting or defogging

This mode is used to defrost/defog the windows.

1. Move the air intake lever to the “” position.
2. Move the air control lever to the “” position.
3. Turn on the fan control lever.

4. Move the temperature control lever to the desired position between the middle and the “HOT” position.

- To quickly remove ice from the windows, move the air intake lever to the “”, the fan control lever to “4” and the temperature control lever to the full “HOT”. As soon as possible after the window is clear, move the air intake lever to the “” position.
- If it is difficult to defrost the windshield glass while the air conditioner switch is turned off, turn it on. (If so equipped).

Bi-level heating

This mode directs outside air from side and center vents and hot air from the floor outlets.

1. Move the air intake lever to the “” position.
2. Move the air control lever to the “” position.
3. Turn on the fan control lever.
4. Normally move the temperature control lever to the midpoint between “HOT” and “COLD”.

Heating and defrosting

This mode heats the interior and defogs the windshield.

1. Move the air intake lever to the “” position.
2. Move the air control lever to the “” position.
3. Turn on the fan control lever.
4. Move the temperature control lever to the desired position between the middle and the “HOT” position.

Operating tips

Clear snow and ice from the wiper blade and air inlet in front of the windshield. This will improve heater and defroster operation.

AIR CONDITIONER OPERATION

Start the engine and push in the air conditioner switch 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.

1. Move the air intake lever to the “” position.
2. Move the air control lever to the “” position.
3. Turn on the fan control lever.
4. Push on the air conditioner switch. The indicator light will come on.
5. Move the temperature control lever to the desired position.

Dehumidified heating

This mode is used to heat and dehumidify.

1. Move the air intake lever to the “” position.
2. Move the air control lever to the “” position.
3. Turn on the fan control lever.
4. Push on the air conditioner switch. The indicator light will come on.
5. Move the temperature control lever to the desired position.

Dehumidified defrosting

This mode is used to defrost/defog the windows and dehumidify.

1. Move the air intake lever to the “” position.
2. Move the air control lever to the “” position.
3. Turn on the fan control lever.
4. Push on the air conditioner switch. The indicator light will come on.
5. Move the temperature control lever to the desired position.

Operating tips

- Keep windows and sun roof closed while the air conditioner is in operation.
- After parking in the sun, drive for two or three minutes with the windows open to vent hot air from the passenger compartment. Then, close the windows. This will allow the air conditioner to cool the interior more quickly.
- The air conditioning system should be operated for about ten minutes at least once a month, especially in winter. This

helps prevent damage to the system due to lack of lubrication.

- If the coolant temperature gauge exceeds the “HOT” position, turn the air conditioner off. Have your vehicle inspected by a NISSAN dealer. See “If your vehicle overheats” in the “In Case of emergency” section for additional information.

AIR FLOW CHART

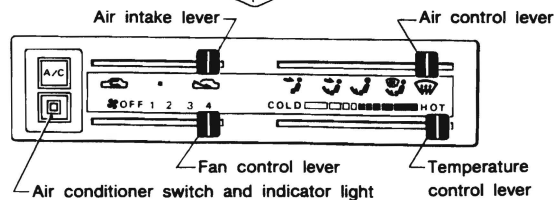
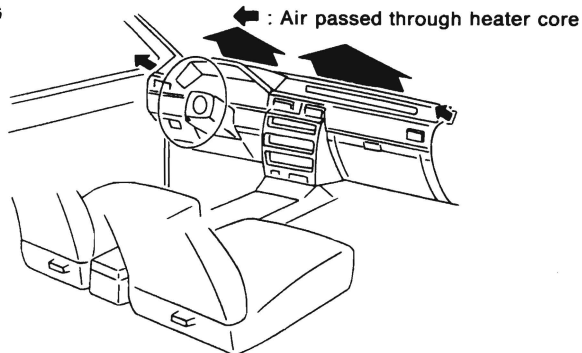
The chart below shows the switch and lever positions for **MAXIMUM** and **QUICK** heating, cooling or defrosting.

The air recirculation switch should be in the “OFF” position for normal cooling, heating and defrosting.

*NOTE:

The air intake lever should be returned to the FRESH POSITION for NORMAL cooling, heating & ventilation.

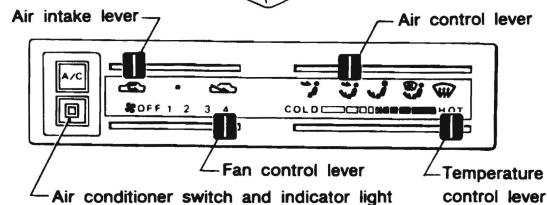
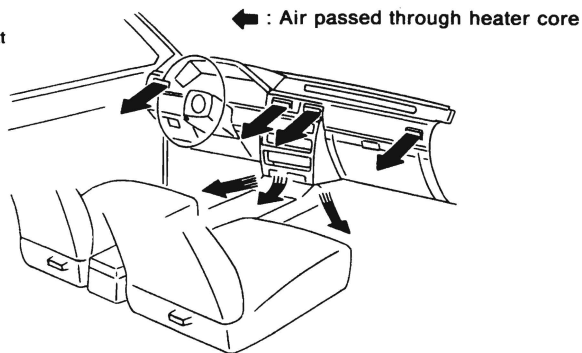
DEFROSTING DEFOGGING



A/C switch (if equipped)	Air intake	Air control	Temp control
ON	FRESH	DEF	HOT (RIGHT)

HA1097S

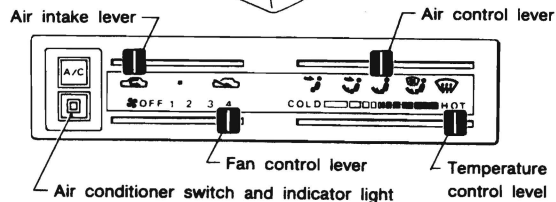
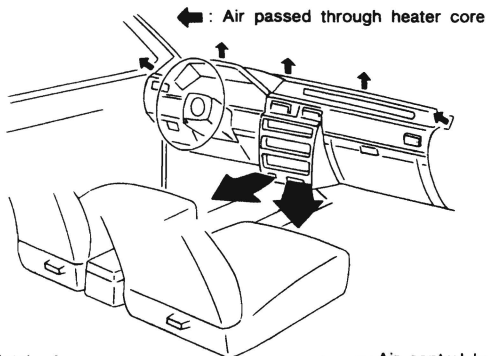
HEATING Heated air at center vents



A/C switch (if equipped)	Air intake	Air control	Temp control
OFF	RECIR ★	FOOT & FACE	HOT (RIGHT)

HA1098S

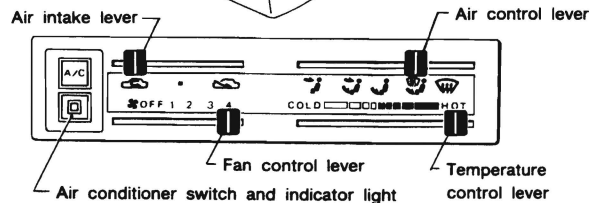
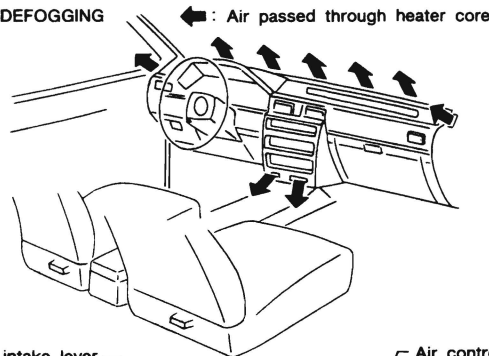
HEATING No air at center vents



A/C switch (if equipped)	Air intake	Air control	Temp control
OFF	RECIR ★	FOOT	HOT (RIGHT)

HA1146

HEATING & DEFOGGING No air at center vents

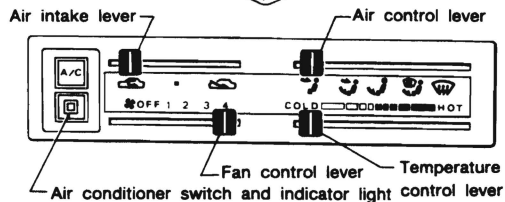
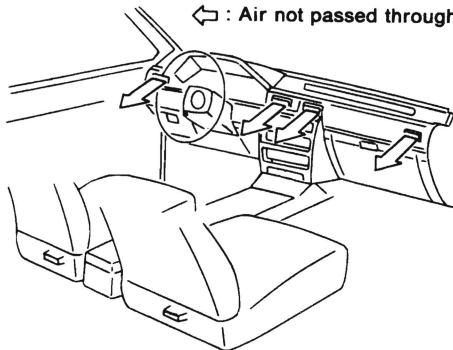


A/C switch (if equipped)	Air intake	Air control	Temp control
OFF	RECIR ★	DEF & FOOT	HOT (RIGHT)

HA1147

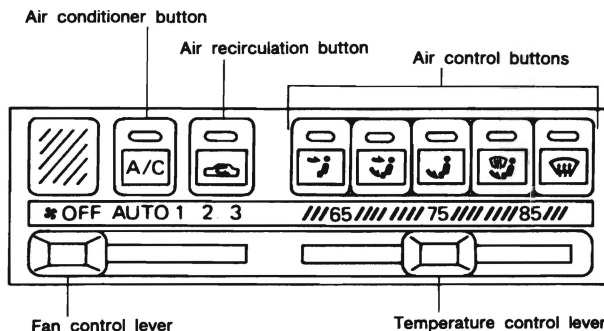
COOLING

↵ : Air not passed through heater core



A/C switch (if equipped)	Air intake	Air control	Temp control
ON	RECIR ★	FACE	COLD (LEFT)

HA1101S



IC0701-A

CONTROLS

Fan control lever

This lever turns the fan on and off, and controls fan speed.

Auto mode: This mode controls the fan speed automatically.

Air control buttons

These buttons allow you to select the air flow outlets.

Temperature control lever

This lever allows you to adjust the temperature of the outlet air.

Air recirculation button

OFF position

Outside air is drawn into the passenger compartment when this button is off.

Use this position for normal heater or air conditioner operation.

ON position

Interior air is recirculated inside the vehicle.

Push the button on when driving on a dusty road. The indicator light will come on.

WARNING:

Do not use in this position for long periods of time because it may cause the interior air to become stuffy and the windows to fog up.

Air conditioner button

Start the engine, move the fan control lever to the desired (Auto, 1 to 3) position and push the air conditioner button to turn on the air conditioner. The indicator light will come on when the air conditioner is on. To stop the air conditioner, push the switch again to return it to the original position.

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

HEATER OPERATION

Heating

This mode is used to direct hot air from the floor outlets.

1. Push the air recirculation button OFF for normal heating.

2. Push in the “” button.

3. (Manual mode)

Turn on the fan control lever (1 to 3).

(Auto mode)

Move the fan control lever to the AUTO position.

- The fan speed will be maintained automatically.
- 4. Move the temperature control lever to set the desired temperature.
- Adjust the temperature control lever to about 77°F (25°C) for normal operation.
- The temperature will be maintained automatically.
- For quick heating, push the air recirculation button ON. Be sure to turn off the air recirculation button for normal heating.
- When starting up from cold with the fan control lever in the AUTO position, the blower speed will be fixed in the low

mode until the coolant temperature rises.

Ventilation

This mode directs outside air from the side, center and driver vents.

1. Push the air recirculation button OFF.

2. Push in the “” button.

3. (Manual mode)

Turn on the fan control lever (1 to 3).

(Auto mode)

Move the fan control lever to the AUTO position.

- The fan speed will be maintained automatically.
- 4. Move the temperature control lever to set the desired temperature.
- The temperature will be maintained automatically.

Defrosting or defogging

This mode is used to defrost/defog the windows.

1. Push in the “” button.

2. (Manual mode)

Turn on the fan control lever (1 to 3).

(Auto mode)

Move the fan control lever to the AUTO position.

3. Move the temperature control lever to the desired position.

- To quickly remove ice or fog from the windows, move the fan control lever to “3” and the temperature control lever fully over to the “HOT” position.
- When the “” button is pushed, the air conditioner will automatically be turned on to defog the windshield, and the air recirculation mode will automatically be turned off.

Bi-level heating

This mode directs outside air from the side and center vents and hot air from the floor outlets.

1. Push the air recirculation button OFF.
2. Push in the “” button.
3. (Manual mode)

Turn on the fan control lever (1 to 3).

(Auto mode)

Move the fan control lever to the AUTO position.

- The fan speed will be maintained automatically.
- 4. Normally move the temperature control lever to about 77°F (25°C).
- The temperature will be maintained automatically.

Heating and defogging

This mode heats the interior and defogs the windshield.

When the “” button is pushed, the air recirculation mode will automatically be turned off.

Outside air is drawn into the passenger compartment to improve the defogging performance.

1. Push in the “” button.
2. (Manual mode)

Turn on the fan control lever (1 to 3).

(Auto mode)

Move the fan control lever to the AUTO position.

- The fan speed will be maintained automatically.
- 3. Move the temperature control lever to set the desired temperature.
- Adjust the temperature control lever to about 77°F (25°C) for normal operation.
- The temperature will be maintained automatically.

Operating tips

- **Clear snow and ice from the wiper blade and air inlet in front of the windshield. This will improve heater operation.**

AIR CONDITIONER OPERATION

Start the engine, move the fan control lever to the desired (Auto, 1 to 3) position and push in the air conditioner button to activate the air conditioner. When the air conditioner is on, cooling and dehumidifying functions will be added to the heater operation.

The air conditioner cooling function oper-

ates only when the engine is running.

Cooling

This mode is used to cool and dehumidify.

1. Push the air recirculation button OFF.
2. Push in the “” button.

3. (Manual mode)

Turn on the fan control lever (1 to 3).

(Auto mode)

Move the fan control lever to the AUTO position.

- The fan speed will be maintained automatically.
- 4. Push the air conditioner button on. The indicator light will come on.
- 5. Move the temperature control lever to set the desired temperature.
- Adjust the temperature control lever to about 77°F (25°C) for normal operation.
- The temperature will be maintained automatically.
- For quick cooling when the outside temperature is high, push the air recirculation button on. Be sure to turn off the air recirculation button for normal cooling.

Dehumidified heating

This mode is used to heat and dehumidify.

1. Push the air recirculation button OFF.
2. Push in the "  " button.

3. (Manual mode)

Turn on the fan control lever (1 to 3).

(Auto mode)

Move the fan control lever to the AUTO position.

- The fan speed will be maintained automatically.
- 4. Push on the air conditioner button. The indicator light will come on.
- 5. Move the temperature control lever to set the desired temperature.
- Adjust the temperature control lever to about 77°F (25°C) for normal operation.
- The temperature will be maintained automatically.

Dehumidified defogging

This mode is used to defog the windows and dehumidify.

When the "  " button is pushed, the air recirculation mode will be automatically turned off, and the air conditioner will be automatically turned on.

Outside air is drawn into the passenger

compartment to improve the defogging performance.

1. Push in the "  " button.

2. (Manual mode)

Turn on the fan control lever (1 to 3).

(Auto mode)

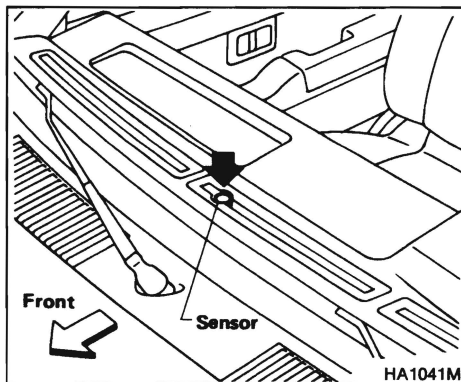
Move the fan control lever to the AUTO position.

3. Move the temperature control lever to the desired position.

Operating tips

- Keep windows and sun roof closed while the air conditioner is in operation.
- After parking in the sun, drive for two or three minutes with the windows open to vent hot air from the passenger compartment. Then, close the windows. This will allow the air conditioner to cool the interior more quickly.
- The air conditioning system should be operated for about ten minutes at least once a month. This helps prevent damage to the system due to lack of lubrication.

- If the coolant temperature gauge exceeds the "HOT" position, turn the air conditioner off. See "If your vehicle overheats" in the "In case of emergency" section for additional information.
- If the engine coolant reaches an extremely high temperature, the air conditioning system will automatically turn off. This may happen for example if the engine is run at idle for a long time on a hot day.



The sensor on the instrument panel helps maintain a constant temperature. Do not put anything on or around this sensor.

Servicing air conditioner

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

This new refrigerant will not harm the earth's ozone layer.

However it may contribute in a small part to global warming.

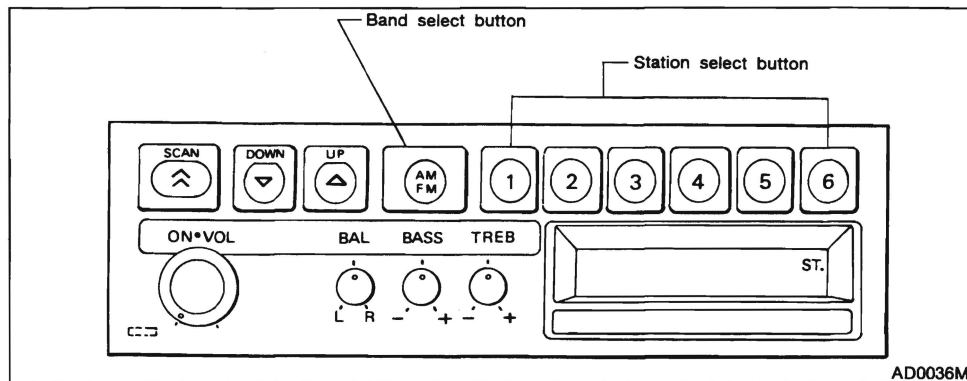
Special charging equipment and lubricant are required when servicing your NISSAN air conditioner. Using improper refrigerants or lubricants will cause severe damage to your air conditioning system. See AIR CONDITIONING SYSTEM REFRIGERANT AND LUBRICANT RECOMMENDATIONS in the TECHNICAL INFORMATION section of this manual.

Your NISSAN dealer will be able to service your environmentally "friendly" air conditioning system.

RADIO

To turn the radio on, turn the ignition key to "ACC" or "ON". If you listen to the radio with the engine not running, turn the key 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.



AM-FM RADIO

Push the ON.VOL knob to listen to the radio and tune in the desired station.

Turn the ON.VOL knob to adjust the volume.

The electronic tuning radio has a DIVERSITY reception system. The FM signal can reflect off of buildings or mountains. This causes offensive noise. The DIVERSITY system employs two antennas; one is a rod type antenna and the other is an antenna printed on the front window. This system automatically switch to the antenna which

receives less noise. Thus the radio provides high quality reception.

Selecting the desired band

Push the band select button " **AM FM** " to change from AM to FM reception.

The stereo indicator will glow during FM stereo reception. When the stereo broadcast signal is weak, the radio will automatically change from stereo to monaural reception.

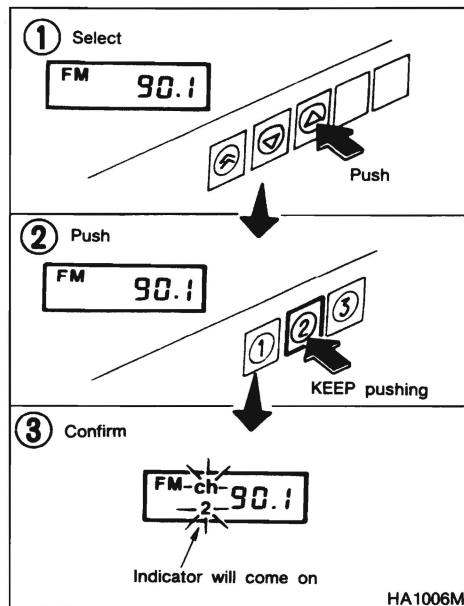
Tuning

Manual tuning

Push down either manual tuning button “ Δ ” or “ ∇ ”.

SCAN tuning

Push the SCAN tuning button “ $\approx$ ”. SCAN tuning begins from low to high frequencies and stops at each broadcasting station for five seconds. Pushing the button again during this five second period will stop SCAN tuning and the radio will remain tuned to that station.



Station memory operations

Six stations can be set for each band.

1. Tune to the desired station.
2. Push the desired select button for more

than 2 seconds. (For example in the diagram ch2 is to be memorized. The radio mutes when the select button is pushed.)

3. The indicator, “ch2” will then come on and the sound will resume. Memorizing is now complete.
4. 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 cancelled. In that case, reset the desired stations.

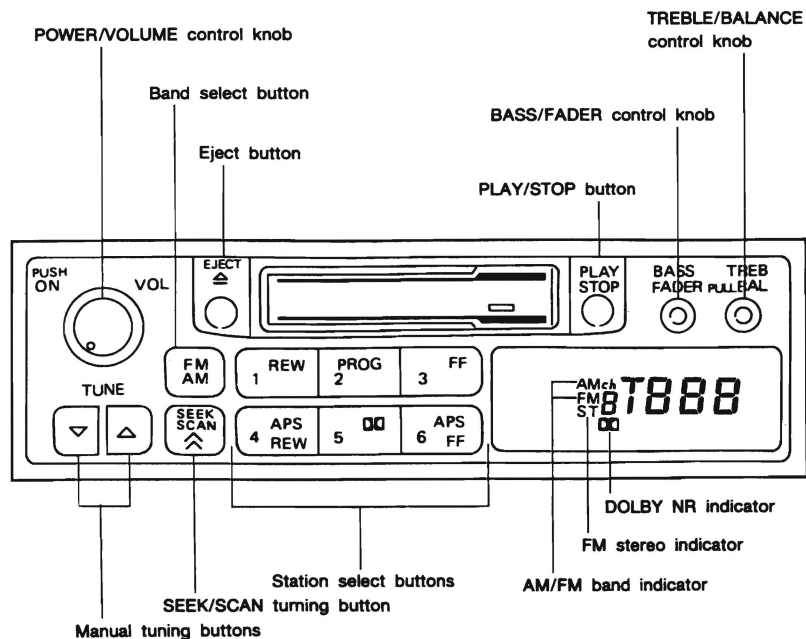
Adjusting speaker sound balance

Turn the BALANCE (BAL) control knob to adjust the volume between the right and left speakers.

Adjusting tone quality

Turn the BASS and TREB (TREBLE) control knob to obtain the most pleasant sound.

AM/FM ELECTRONIC TUNING RADIO WITH CASSETTE PLAYER (Active speaker system)



AM-FM ELECTRONIC TUNING RADIO WITH CASSETTE PLAYER (ACTIVE SPEAKER system)

The **ACTIVE SPEAKER** system creates clear sound ranging from small volume to large volume. The equalizing circuit compensates for disturbances in the medium and high frequency ranges based on the acoustics of the room. The auto loudness circuit eliminates insufficient power in the low frequency range when the volume is low.

The vehicle's environment has been tuned to suit the sound efficiency peculiar to your vehicle.

This permits music to be enjoyed clearly not only in the driver's seat but also in any seat in the vehicle.

Radio operation

Push the ON.VOL knob to listen to the radio and tune in the desired station. Pushing the ON.VOL knob once more will turn the radio off.

Pushing the ON.VOL knob while the cassette tape is playing will turn off the cassette player and turn on the radio.

SAA0021

Turn the ON.VOL knob to adjust the volume.

The electronic tuning radio has an FM DIVERSITY reception system. The FM DIVERSITY system employs two antennas; one is a rod type antenna and the other is an antenna printed on the front window. This system automatically switches to the antenna which receives less noise. Thus the radio provides high quality reception.

Selecting the desired band

Push the band select button to change from AM to FM reception.

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.

Tuning

Manual tuning

Push either manual tuning button "▲" or "▼".

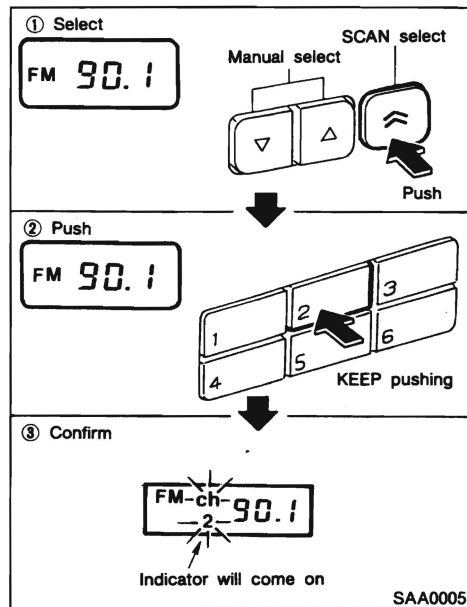
AUTO tuning (SEEK)

Depressing the SEEK/SCAN button momentarily will advance the radio to the next highest broadcasting station. Once the

highest broadcast station is reached, the radio will continue operating in the SEEK mode at the lowest broadcast station.

AUTO tuning (SCAN)

Depressing the SEEK/SCAN button for more than 1.5 seconds begins SCAN tuning from low to high frequencies. "SCAN" will illuminate in the display window during the scan operation. The radio will stop at each broadcasting station for five seconds. Pushing the button again during this five second period will stop SCAN tuning and the radio will remain tuned to that station.



Station memory operations

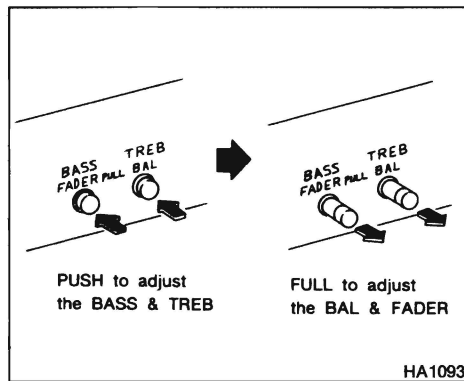
Six stations can be set for each band.

1. Tune to the desired station.
2. Push the desired select button for more

than 2 seconds. (For example in the diagram ch2 is to be memorized. The radio ceases emitting sounds when the select button is pushed.)

3. The indicator, "ch2" will then come on and the sound will resume. Memorizing is now complete.
4. 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 cancelled. In that case, reset the desired stations.



Adjusting tone quality

Push then turn the BASS and TREB (TREBLE) control knobs to obtain the most pleasant sound.

Adjusting speaker sound balance

Pull then turn the BALANCE (BAL) control knob to adjust the volume between the right and left speakers.

FADER volume control

Pull then turn the FADER control knob to

adjust the volume between the front and rear speakers.

Cassette tape operation

Turn the ignition key to "ACC" or "ON", then lightly insert the cassette tape into the tape door.

The cassette tape will be automatically pulled into the player. The word "TAPE" and an arrow indicating tape side will illuminate in the display window.

The radio will turn off and the cassette tape will begin to play.

Do not force the cassette tape into the tape door.

Pressing strongly could cause player damage.

The cassette tape will automatically change directions to play the other side when the first side is completed. At this time, the arrow in the display window will change direction.

PLAY/STOP button

You may push the PLAY button when:

- the tape has stopped playing,

- the tape has been fast forwarded,
- the tape has been rewound,
- the radio is on,
- the tape is playing, to stop and store the tape.

Fast forwarding or rewinding the tape

Push either the FF (forward) or REW (rewind) button for the desired direction.

The indicator light on the switch will come on.

Push either the APS FF or APS REW button while the cassette tape is playing. The tape will run quickly, and stop and play at the next program. The indicator light flashes "ON" and "OFF" while searching the program.

This system searches at the blank intervals between selections. If there is a blank interval within one program or there is no interval between programs, the system may not search correctly.

Changing the direction of tape play

Push the PROG (program) select button.

Dolby NR (noise reduction)

Push the  "DOLBY NR" button for DOLBY NR encoded tapes to reduce high frequency tape noise. The indicator will glow on the button.

Dolby NR is manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby NR" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Metal or chrome tape usage

The cassette player will be automatically set to high performance play when playing a metal or chrome cassette tape.

The indicator will come on when playing a metal or chrome cassette tape.

Stopping and ejecting the cassette tape

Push the eject button.

Precautions on cassette player operation

- **To maintain good quality sound, NISSAN recommends that you use cassette tapes of 60 minutes or shorter in length.**

- **Cassette tapes should be removed from the player when not in use. Store cassettes in their protective cases and away from direct sunlight, heat, moisture and magnetic sources.**

Direct sunlight can cause the cassette to become deformed. The use of deformed cassettes may cause the cassette to jam in the player.

- **Do not use cassettes that have labels which are peeling and loose. If used, the label could jam in the player.**
- **If a cassette has loose tape, insert a pencil through one of the cassette hubs and rewind the tape firmly around the hubs. Loose tape may cause tape jamming and wavering sound quality.**
- **Over a period of time, the playback head, capstan and pinch roller may gather a tape coating residue as the tape passes over the head. This residue accumulation can cause a weak or wavering sound and should be removed periodically with a head cleaning tape. If the residue is not removed periodically, the player may need to be disassembled for cleaning.**

POWER ANTENNA

The antenna will automatically extend when the radio is turned on, and retract when switched off. If the radio is left on, the antenna will retract and extend with the ignition key "OFF-ON" operation.

CAUTION:

- Before turning the radio on, make sure that there is no one near the antenna outlet and there is enough space for it to extend.
- To prevent damage, be sure that antenna is fully retracted before the vehicle enters an automated car wash.
- Dirt and other foreign matter on the power antenna rod may interrupt its operation. Clean the rod periodically with a damp cloth. This type of cleaning is especially important during the winter seasons in areas where road salt and other chemicals may be spread on road surfaces and splashed onto the antenna rod.

MANUAL ANTENNA

The antenna cannot be shortened but can be removed.

Turn its root counter-clockwise to remove the antenna.

CAUTION:

Be sure to remove the antenna before washing the vehicle in an automatic car washing machine, or the antenna may be damaged.

CB RADIO OR CAR PHONE

When installing large capacity wireless equipment or a car phone in your NISSAN, be sure to observe the following as it may adversely affect the Multiport fuel injection system and other electronic parts depending on its installation location.

- Keep the antenna as far as possible away from the Electric Control Module.
- Also keep the antenna wire more than 8 inches (20 cm) away from the Electro Injection harness. 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 radio chassis to the body.
- For details, consult a NISSAN dealer.

2 Starting and driving

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PRECAUTIONS WHEN STARTING AND DRIVING

WARNING:

- **Do not leave children, unreliable adults, or pets alone in your vehicle. 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.**
- **To prevent luggage or packages from sliding forward during braking, do not stack anything in the cargo area higher than the seatbacks.**
- **Failure to follow proper seating instructions in this section could result in serious personal injury in an accident or during a sudden stop.**

EXHAUST GAS (Carbon Monoxide)

Do not breathe exhaust gases; they contain colorless and odorless carbon monoxide. Carbon monoxide is a dangerous gas, and 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 for any longer than is absolutely necessary.
- Do not park the vehicle with the engine running for any extended length of time.
- Keep the back door and rear window closed while driving, otherwise exhaust gases could be drawn into the passenger compartment. If you must drive in this manner for some reason, take the following steps.
 1. Open all the windows.
 2. Set the air recirculate switch "OFF" and the fan control at "high" to circulate the air.
- 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. In the converter, exhaust gases are burned at high temperatures to help reduce pollutants.

- The exhaust gas and the exhaust system are very hot. While the engine is running, keep people or flammable materials away from the exhaust system.
- Do not stop or park the vehicle over flammable materials, such as dry grass, waste paper, or rags as they may burn easily.

To help prevent damage

- **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 converter, causing it to overheat. **Do not keep driving if the engine misfires, or if noticeable loss of performance or other unusual operating con-**

ditions are detected. Have the vehicle inspected promptly by an authorized 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.

ON-PAVEMENT AND OFF-ROAD DRIVING PRECAUTIONS

Utility vehicles have higher ground clearance than passenger cars and a narrower track to make them capable of performing in a wide variety of off-road applications. Specific design characteristics give them a higher center of gravity than ordinary cars. An advantage of higher ground clearance is a better view of the road, allowing you to anticipate problems. They are not designed for cornering at the same speeds as conventional 2-wheel drive vehicles any more than low-slung sports cars are designed to perform satisfactorily under off-road conditions. If at all possible, avoid sharp turns or abrupt maneuvers. As with other vehicles of this type, failure to operate this vehicle correctly may result in loss of control or vehicle rollover.

Be sure to read the driving safety precautions later in this section.

AVOIDING COLLISION AND ROLLOVER

Failure to operate this vehicle in a safe and prudent manner may result in loss of control or an accident. Be alert and drive defensively at all times. Obey all traffic regulations. Avoid excessive speed, high speed cornering, or sudden steering maneuvers, because these driving practices could cause you to lose control of your vehicle. **As with any vehicle, a loss of control could result in a collision with other vehicles or objects, or cause the vehicle to rollover, particularly if the loss of control causes the vehicle to slide sideways.** Be attentive at all times, and avoid driving when tired. Never drive when under the influence of alcohol or drugs (including prescription or over-the-counter drugs which may cause drowsiness). Always wear your seat belt as outlined in the "Seat Belts" section of this manual, and also instruct your passengers to do so.

DRINKING ALCOHOL/DRUGS AND DRIVING

WARNING:

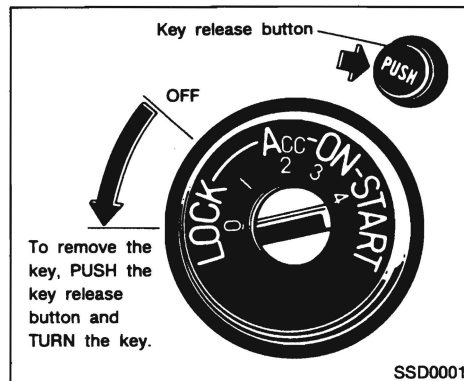
Alcohol in the blood stream reduces coordination, delays reaction time and impairs judgement. Driving after drinking alcohol increases the likelihood of being involved in an accident injuring yourself and others. Additionally, if you are injured in the accident alcohol can increase the severity of injury.

Nissan is committed to safe driving. But, 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's 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.

IGNITION SWITCH



The switch includes an anti-theft steering lock device.

"LOCK" Normal parking position (0)

The ignition key can only be removed when the switch is in this position.

On manual transmission model, to turn the ignition key to "LOCK" from "ACC" or "ON", turn the key to "OFF" and press in the key release button, then turn the key to "LOCK".

On automatic transmission models, the ignition lock is designed so that the key

cannot be turned to "LOCK" and removed until the shift lever is moved to the "P" position.

When removing the key from the ignition, make sure the shift lever is in the "P" position.

When the key cannot be turned to the "LOCK" position, proceed as follows to remove the key:

- 1) Move the shift lever into the "P" position.
- 2) Turn the ignition key slightly in the "ON" direction.
- 3) Turn the key toward the "LOCK" position.
- 4) Remove the key.

The shift lever is designed so that it cannot be moved out of "P" and into any of the other gear positions if the ignition key is turned to "OFF" or if the key is removed from the switch. **The shift lever can be moved if the ignition switch is in the "ACC" position. The shift lever can also be moved if the ignition switch is in the "ON" position and the foot brake pedal is depressed.**

WARNING:

To lock the steering wheel, remove the key. To unlock the steering wheel, insert the key and turn it gently while rotating the steering wheel slightly right and left.

Never remove the key while driving. If the key is removed, the steering wheel will lock. This may cause the driver to lose control of the vehicle and could result in serious vehicle damage or personal injury.

"OFF" (1)

The engine can be turned off without locking the steering wheel. When removing the key from the key cylinder, push the key release button at this position and turn the key to "LOCK".

"ACC" (Accessories) (2)

This position activates electrical accessories such as the radio when the engine is not running.

"ON" Normal operating position (3)

This position turns on the ignition system and electrical accessories.

"START" (4)

This position starts the engine. As soon as the engine has started, release the key immediately. It will automatically return to the "ON" position.

BEFORE STARTING THE ENGINE

- Make sure the area around the vehicle is clear.
- Check fluid levels such as engine oil, coolant, brake and clutch fluid, window washer fluid as frequently as possible, at least whenever you refuel.
- Check to be sure that all windows and light lenses 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 key is turned to the "ON (3)" position.

DRIVING WITH AUTOMATIC TRANSMISSION

The automatic transmission in your vehicle is electronically controlled (VG30E engine model) by a microcomputer to produce maximum power and smooth operation.

Shown on the following pages are the recommended operating procedures for this transmission. Follow these procedures for maximum vehicle performance and driving enjoyment.

Starting the vehicle

- After starting the engine, fully depress the foot brake pedal before shifting the selector lever to the "D", "R", "2" or "1" position. Be sure the vehicle is fully stopped before attempting to shift the selector lever.

This automatic transmission is designed so that the foot brake pedal MUST be depressed before shifting from "P" to any drive position while the ignition switch is "ON".

The shift lever cannot be moved out of "P" and into any of the other gear positions if the ignition key is turned to "OFF" or if the key is removed from the switch.

When the battery charge is low, the shift

lever can be moved if the ignition switch is in the "ACC" position.

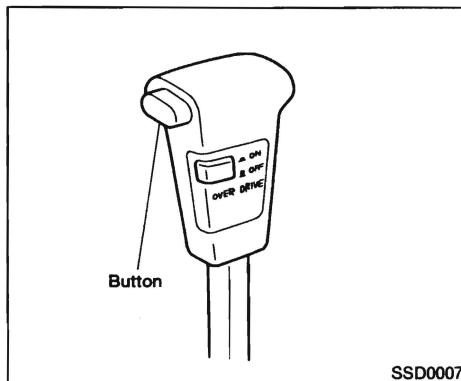
1. Keep the foot brake pedal depressed and shift into a driving gear.
 2. Release the parking brake and foot brake, then gradually start the vehicle in motion.
- Cold engine idle speed is high, so use caution when shifting into a forward or reverse gear before the engine has warmed up.
 - Avoid revving up the engine while the vehicle is stopped. This could cause unexpected vehicle movement.

Driving precautions

To help prevent transmission damage:

- Do not depress the accelerator pedal while shifting from "P" or "N" to "R", "D", "2" or "1". Always depress the brake pedal until shifting is completed.
- Never shift to "P" or "R" while vehicle is moving.
- On an uphill grade, do not hold the vehicle by depressing the accelerator pedal. The foot brakes should be used

for this purpose. See "Tips on driving" for other precautions.



Push the button to shift into "P", "R" or from "D" to "2". All other positions can be selected without pushing the button.

Column shift models:

- Pull the shift lever towards you to shift into "P", "R" or from "D" to "2".
- All other positions can be selected without pulling the lever.

"P" (Park):

Use this selector position when the vehicle is parked or when starting the engine. Always be sure the vehicle is at a complete

stop. For maximum safety, depress the brake pedal, then push in the select lever button and move the lever to the "P" position. Apply the parking brake. When parking on a hill, apply the parking brake first, then shift the lever into the "P" position.

"R" (Reverse):

Use this position to back up. Shift into this position only after the vehicle has completely stopped.

"N" (Neutral):

Neither forward nor reverse gear is engaged. The engine can be started in this position. You may shift to "N" and restart a stalled engine while the vehicle is moving.

"D" (Drive):

Use this position for all normal forward driving.

"2" (Second gear):

Use for hill climbing, effective engine braking on downhill grades or starting on slippery roads.

Do not downshift into the "2" position at speeds over the following speeds and do

not exceed the following speeds in the "2" position:

2-wheel drive

65 MPH (105 km/h)

4-wheel drive

60 MPH (95 km/h)

"1" (Low gear):

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.

Do not shift into "1" position at speeds over the following speeds:

2-wheel drive

65 MPH (105 km/h)

4-wheel drive

60 MPH (95 km/h)

Do not exceed the following speeds in the "1" position:

2-wheel drive

37 MPH (60 km/h)

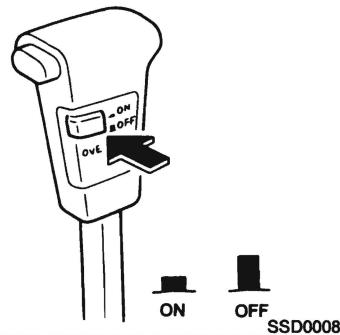
4-wheel drive

30 MPH (50 km/h)

Accelerator downshift — In "D" position —

For rapid passing or hill climbing, fully depress the accelerator pedal to the floor. This shifts the transmission down into second gear or first gear, depending on the vehicle speed.

Floor shift models



Overdrive switch

ON: For normal driving, push the overdrive switch "ON" with the selector switch in the "D" position. The transmission is upshifted into OVERDRIVE as the vehicle speed increases.

The overdrive will not engage until the engine has warmed up.

OFF: For driving up and down long slopes where engine "braking" would be advantageous, push the switch "OFF".

When cruising at a low speeds or climbing a gentle slope, you may feel uncomfortable shift shock as the transmission shifts between 3rd and overdrive repeatedly. In this case, set the overdrive switch in the "OFF □" position.

The indicator light will come on at this time.

When driving conditions change, push the overdrive switch in the "ON 𐀀" position.

Remember not to drive at high speeds for extended periods of time with the overdrive switch set in the "OFF □" position. This lowers the fuel economy.

VG30E engine model:

Each time your vehicle is started, the transmission is automatically "reset" to the "ON" position.

ON: For normal driving. The transmission is upshifted into OVERDRIVE as the vehicle speed increases.

The overdrive will not engage until the engine has warmed up.

OFF: For driving up and down long slopes where engine "braking" would be ad-

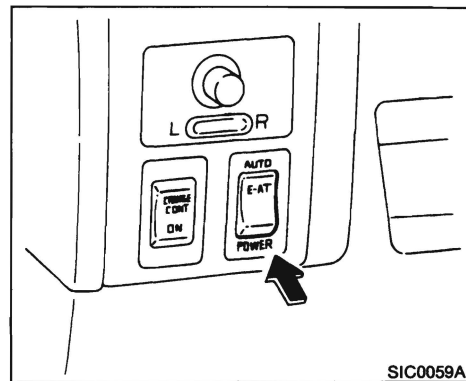
vantageous, push the switch "OFF □".

When cruising at a low speeds or climbing a gentle slope, you may feel uncomfortable shift shock as the transmission shifts between 3rd and overdrive repeatedly. In this case, set the overdrive switch in the "OFF □" position.

The indicator light will come on at this time.

When driving conditions change, push the overdrive switch in the "ON 𐀀" position.

Remember not to drive at high speeds for extended periods of time with the overdrive switch set in the "OFF □" position. This lowers the fuel economy.



Power shift switch

Two different driving pattern modes are available on this automatic transmission, AUTO and POWER. Each mode is designed to maximize driving performance under different driving conditions. These modes can be selected by pushing the power shift switch to the appropriate position, as shown above.

AUTO MODE:

For normal driving (The Shift Pattern automatically changes). Push the power shift switch to the AUTO position. This is the

most effective pattern mode for routine, stop-and-go driving, or driving on the freeway, when you do not want to repeatedly change particular driving patterns. Normally, the transmission shifts in the standard driving pattern. When the accelerator pedal is quickly depressed, the transmission may shift into the POWER driving pattern. The "POWER" indicator light comes on.

POWER MODE:

For powerful acceleration in sporty driving or driving up long slopes. Push the power shift switch to the POWER position. The indicator light will come on. The transmission shifts into the POWER driving pattern. As the transmission may always shift in higher engine speed (higher vehicle speed), you can obtain powerful acceleration in passing or climbing.

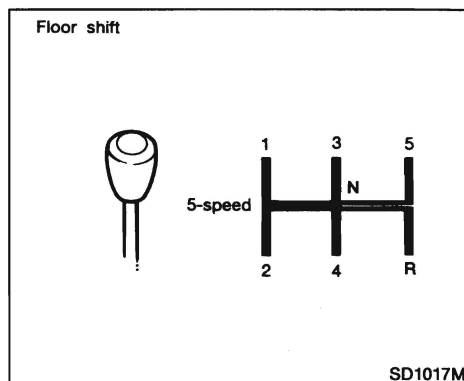
Fail-safe

When the Fail-safe operation occurs, the next time the key is turned to the "ON" position, the power shift indicator light will blink for approximately 8 seconds after coming on for 2 seconds. While the vehicle can be driven under these circumstances

please note that the gears in the automatic transmission will be locked in third gear.

If the vehicle is driven under extreme conditions, such as excessive wheel spinning and subsequent hard braking, the Fail-safe system may be activated. This will occur even if all electrical circuits are functioning properly. In this case, turn the ignition key "OFF" and wait for 3 seconds. Then turn the key 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 your NISSAN dealer check the transmission and repair if necessary.

DRIVING WITH MANUAL TRANSMISSION



To change gears, fully depress the clutch pedal, then move the gearshift lever. After shifting, release the clutch slowly.

You cannot shift directly from 5th gear into Reverse. First shift into the Neutral position, then into Reverse.

If it is difficult to move the shift lever into Reverse or 1st, shift into Neutral, then release the clutch pedal and shift into Reverse or 1st again.

Suggested shift-up speeds

The table below provides suggested speed

ranges for shifting into a higher gear. These suggestions relate to fuel economy and vehicle performance. Actual shift ranges should be adjusted for specific road conditions, weather conditions and individual driving habits.

- 2-wheel drive models and 4-wheel drive models (2H and 4H position)

	MPH (km/h)
1st to 2nd	15 (25)
2nd to 3rd	25 (40)
3rd to 4th	40 (65)
4th to 5th	45 (75)

***1 Acceleration:**

Normal acceleration such as standing start

***2 Cruise:**

Driving without rapid acceleration or deceleration at moderate speed which permits maximum fuel economy

- 4-wheel drive model (4L position)

	MPH (km/h)
1st to 2nd	8 (13)
2nd to 3rd	12 (20)
3rd to 4th	20 (32)
4th to 5th	22 (36)

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 overrev the engine when shifting to a lower gear as it may cause engine damage or loss of vehicle control.

Allowable maximum speed in each gear

2-wheel drive models	MPH (km/h)
1st	30 (50)
2nd	53 (85)
3rd	80 (130)
4th & 5th	– (–)

4-wheel drive models 2H/4H position	MPH (km/h)
1st	25 (40)
2nd	43 (70)
3rd	70 (115)
4th & 5th	– (–)
4L position	
1st	12 (20)
2nd	22 (35)
3rd	35 (55)
4th & 5th	– (–)

Driving precautions

- Do not rest your foot on the clutch pedal while driving. This may cause clutch damage.
- Stop your vehicle completely before shifting into Reverse.

STARTING THE ENGINE

1. Apply the parking brake.

2. Automatic transmission:

Move the selector lever to "P" (Park position) or "N" (Neutral position). ("P" preferred)

The shift lever cannot be moved out of "P" and into any of the other gear positions if the ignition key is turned to "OFF" or if the key is removed from the switch.

The starter is designed not to operate if the selector lever is in one of the driving positions.

Manual transmission:

Move the gearshift lever to "N" (Neutral position), and depress the clutch pedal to the floor while starting the engine.

The starter is designed not to operate unless the clutch pedal is depressed.

(For Canada)

The starter will operate without depressing the clutch to allow the vehicle to be moved when in gear by turning the ignition key to "START".

CAUTION:

Make sure that the area around the vehicle is clear when using this feature. When the vehicle is in gear and the starter is operated without depressing the clutch, the vehicle will lurch forward or backward.

3. Crank the engine **with your foot off the accelerator pedal** by turning the ignition key to "START". Release the key when the engine starts. If the engine starts, but fails to run, repeat the above procedure.

— If the engine is very hard to start in extremely cold or hot weather —

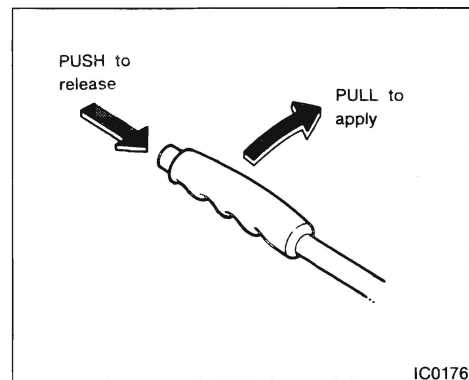
Use the accelerator pedal to help start the engine.

Do not crank the engine for more than 10 seconds at a time. If the engine does not start, wait 10 seconds before cranking again, otherwise the starter could be damaged.

4. Warm-up

Always allow the engine to idle for at least 30 seconds after starting. Drive at moderate speed for a short distance first, especially in cold weather.

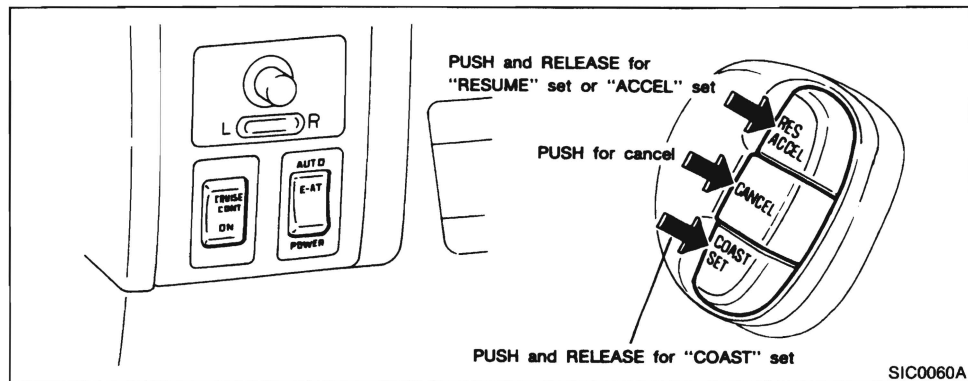
PARKING BRAKE



To apply: pull the lever up.

To release: pull the lever up slightly, push the button and lower completely. Before driving, be sure the parking brake warning light goes out.

CRUISE CONTROL



The cruise control allows driving at a fixed speed between 30 to 90 MPH (50 to 140 km/h) without keeping your foot on the accelerator pedal.

To turn on the cruise control, push the main switch on. The "CRUISE CONT" light will come on.

To set at cruising speed, accelerate your vehicle to the desired speed, push the SET/COAST switch and release it. (The "CRUISE" light will come on.) Take your foot off the accelerator pedal. Your vehicle will maintain the set speed.

- **To pass another vehicle**, depress the accelerator pedal. When you release the pedal, the vehicle will return 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, follow any of these three methods:

- a) Tap the brake pedal ("CRUISE" light will go out).

- b) Depress the clutch pedal (manual transmission), or move the selector lever to "N" (automatic transmission). "CRUISE" light will go out.

- c) Turn the main switch off. Both the "CRUISE CONT" and "CRUISE" lights will go out.

- If you depress the brake pedal while pushing the "ACCEL" set switch and reset at the cruising speed, turn the main switch off once and then turn it on again.

- The cruise control will automatically be cancelled if the vehicle slows down to a speed below approximately 10 MPH (15 km/h).

To reset at a faster cruising speed, follow either of these three methods:

- a) Depress the accelerator pedal. When the vehicle attains the desired speed, push and release the "SET/COAST" switch.

- b) Push and hold the "ACCEL" set switch. When the vehicle attains the speed you desire, release the switch.

- c) Push, then quickly release the "ACCEL" set switch. Each time you do this, the set

speed will increase by about 1 MPH (1.6 km/h).

To reset at a slower cruising speed, follow either of these three methods:

- a) Lightly tap the brake pedal. When the vehicle attains the desired speed, push the "SET/COAST" switch and release it.
- b) Push and hold the "SET/COAST" switch. Release the switch when the vehicle slows down to the desired speed.
- c) Push, then quickly release the "SET/COAST" switch. Each time you do this, the set speed will decrease by about 1 MPH (1.6 km/h).

To resume the preset speed, push and release the "RESUME" set switch. The vehicle will resume the last set cruising speed when the vehicle speed is over 30 MPH (48 km/h).

Precautions

- The cruise indicator may sometimes blink when the cruise control switch (Main switch) is turned "ON" while pushing the "RESUME/ACCEL" switch or "COAST/SET" switch or "CANCEL" switch (located on the steering wheel).

To properly set the cruise control system perform the steps above in the order indicated.

- If the cruise control system malfunctions, it will cancel automatically. The cruise indicator in the meter assembly will then blink to warn the driver.
- When the cruise indicator blinks, turn the cruise control switch (Main switch) "OFF" and have the system checked by your NISSAN dealer.

Avoid using the cruise control when driving under the following conditions:

- when it is not possible to keep the vehicle at 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.

On the manual transmission model, do not shift into neutral position without depressing the clutch pedal when the cruise control is on. This could cause engine damage. If you shift into neutral without depressing the

pedal, depress the clutch pedal and turn the main switch off immediately.

BREAK-IN SCHEDULE

During the first 1,000 miles (1,600 km), 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.

- Do not run the engine over 4,000 rpm.

Do not drive over the following speed limits:

2-wheel drive models:

55 MPH (90 km/h)

4-wheel drive models

(2H or 4H position):

55 MPH (90 km/h)

4-wheel drive models

(4L position):

30 MPH (50 km/h)

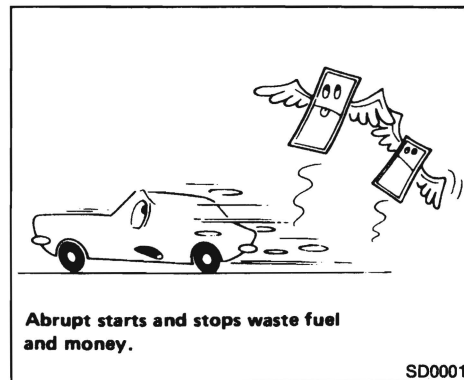
- Do not accelerate hard in top gear.
- Avoid quick starts and full acceleration.
- Avoid hard stops as much as possible.
- **4x4**

For the first 300 miles (500 km), it is recommended that you drive in the 2-wheel drive (2H) position with the free-running hubs set in "LOCK" if your ve-

hicle is equipped with manual-lock free-running hubs.

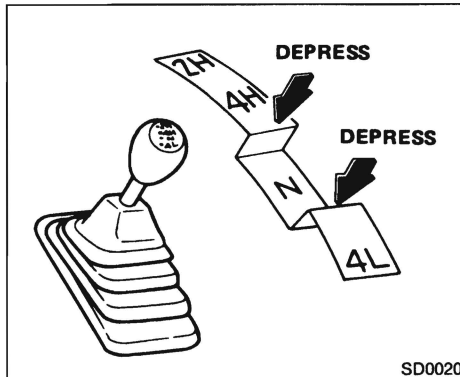
- Do not tow a trailer for the first 500 miles (800 km).

ECONOMY HINTS



- Accelerate slowly and smoothly. Maintain cruising speeds with a constant accelerator position.
- Drive at moderate speeds on the highway. Driving at high speed will lower 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.

4x4 TRANSFER CASE SHIFTING PROCEDURES FOR 4-WHEEL DRIVE VEHICLES



2H — (2WD, high range) Only the rear wheels are driven. Use when driving under the same conditions as standard 2WD vehicle.

4H — (4WD, high range) Four wheels are driven. Use when driving on roads where it is difficult to drive in the 2H position (i.e., driving at normal speeds on snow covered, icy, wet, muddy or sandy roads).

4L — (4WD, low range) Four wheels are driven. Use when climbing or descending steep hills, or during hard driving in sand, mud or deep snow. The "4L" position pro-

vides maximum power and traction. Avoid raising vehicle speed excessively, as the maximum speed in 5th gear is approximately 30 MPH (50 km/h).

N — No wheels are driven. Always keep the transfer lever out of the "N" position. Shift the lever quickly and smoothly when moving across the "N" position with the vehicle stopped.

CAUTION:

- **Do not drive on dry hard surface roads in 4-wheel drive.**

Driving on dry hard surfaces in "4H" or "4L" may cause unnecessary noise and tire wear. We recommend driving in the "2H" position under these conditions.

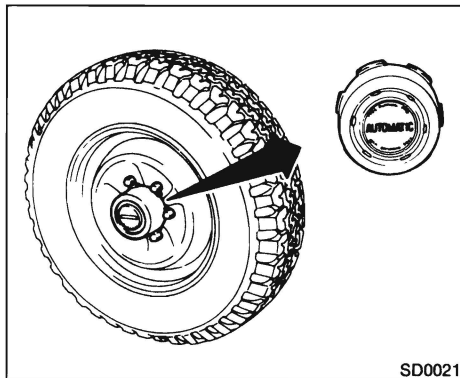
WARNING:

When parking the vehicle, apply the parking brake and shift the transfer control lever in the "2H", "4H" or "4L" position.

Do not leave in the "N" position. Otherwise, the vehicle could roll unexpectedly even if the manual transmission is in any gear or the automatic transmission in the "P" position.

- Avoid unnecessary engine idling.
- Keep your engine tuned up.
- Follow the recommended periodic maintenance schedule.
- Keep the tires inflated at the correct pressure. Low pressure will increase tire wear and waste fuel.
- Keep the front wheels in correct alignment. Improper alignment will cause increased tire wear and lower 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.
- **4x4**
Use "4H" or "4L" position only when necessary. 4-wheel drive operation lowers fuel economy.

Your NISSAN is equipped with one of two optional 4WD systems.



AUTO-LOCK FREE-RUNNING HUBS

The auto-lock free-running hub is designed to allow for automatic 4-wheel drive engagement when the shift lever is moved to the "4H" or "4L" position. If your vehicle is equipped with this system, follow these operational cautions:

CAUTION:

- When engaging and disengaging, the auto-lock hubs will make a clicking noise. This is normal.

- Accelerating the vehicle suddenly from a stop with the transfer lever in the "4H" or "4L" position may not engage the auto-lock free-running hub and may cause a clattering noise. Continued use of the vehicle with this noise may damage the hub lock. In such a case, release the accelerator pedal to reduce the engine speed.
- If the auto-lock hubs make a clattering noise while driving with the transfer lever in the "2H" position, stop and move the vehicle about 7 to 10 ft (2 to 3 meters) in the opposite direction of travel.
- Under extremely cold conditions [below 5°F (-15°C)], when the vehicle is driven in 2-wheel drive at high speeds without first warming up the vehicle and gear oil, the axle shafts may rotate, causing the hubs to make a clattering noise. To avoid this, first drive in 4-wheel drive, then shift to 2-wheel drive.
- When shifting from the "2H" to "4H" position while driving, do not stop shift lever movement midway. An incomplete shift from the "2H" to "4H" position or disengagement of only one hub lock may cause a clattering noise from the auto-

lock hubs. Continued use of the vehicle with this noise may damage the hub lock. Shift to 4-wheel drive to stop the noise; unlock hubs as described.

Also, in cold weather, if difficulty is encountered in shifting from "2H" to "4H", it may be necessary to reduce speed or stop the vehicle.

TO SHIFT TRANSFER CASE:	SHIFT PROCEDURE FOR AUTO-LOCK FREE-RUNNING HUBS
From "2H" to "4H"	Move the transfer lever to "4H" at speeds below 25 MPH (40 km/h). It is not necessary to depress the clutch pedal. Perform this operation when driving straight.
From "4H" to "2H"	Move the transfer lever to "2H". This can be done at any speed, and it is not necessary to depress the clutch pedal (Manual transmission models). Perform this operation when driving straight. NOTE: For 2-wheel drive operation, set the free-running hubs in the disengaged position. AUTO-LOCK hubs will not disengage until the vehicle is moved about 3 feet (1 m) in the opposite direction of travel: ● When driving forward, stop and move 3 feet (1 m) in reverse. ● When backing up, stop and move 3 feet (1 m) forward, then move the vehicle about 3 feet (1 m) in reverse. This will allow for better fuel economy, quieter ride and less component wear.
From "4H" or "4L" to "4L" or "4H"	1. Stop the vehicle. 2. Depress the clutch pedal (On automatic transmission models, put the select lever in the "N" position). 3. Depress the transfer lever and move it to the desired "4L" or "4H" position. NOTE: On automatic transmission models, do not leave the transfer lever in the "N" position. Stopping in the "N" position may cause gear grinding when selecting another gear. Changing transfer case gear quickly and smoothly will eliminate this. If the transfer case is left in the neutral position for more than a few seconds and you have difficulty selecting another gear, turn off the engine, make the gear selection and restart the engine. CAUTION: With the engine running, do not place the transfer case in neutral position and attempt to select "P" in the transmission.

TO SHIFT TRANSFER CASE:	SHIFT PROCEDURE FOR AUTO-LOCK FREE-RUNNING HUBS
From "2H" to "4L"	1. Stop the vehicle. 2. Depress the clutch pedal (On automatic transmission models, move the transmission select lever to the "N" position). 3. Depress the transfer lever and move it to "4L". Change gears quickly and smoothly. NOTE: On automatic transmission models, sometimes, with the vehicle stopped, the transfer lever will not move directly from "2H" to "4L". When this occurs, follow the "NOTE" shown in shifting from "4H" or "4L" to "4L" or "4H".
From "4L" to "2H"	1. Stop the vehicle. 2. Depress the clutch pedal (On automatic transmission models, move the transmission select lever to the "N" position). 3. Depress the transfer lever and move it to "2H". NOTE: Follow the "NOTE" shown in shifting from "4H" to "2H".

DRIVING SAFETY PRECAUTIONS

Your NISSAN is designed for both normal and off-road use. However, avoid driving in deep water or mud as your NISSAN is mainly designed for leisure use, unlike a conventional off-road vehicle.

Remember that two-wheel drive models are less capable than four-wheel drive models for rough road driving and extrication when stuck in deep snow or mud, or the like.

Please observe the following precautions:

CAUTION:

- **Drive carefully when off the road and avoid dangerous areas. Always wear your seat belts to help keep you and your passengers in position when driving over rough terrain.**
- **Do not drive across steep slopes. Instead drive either straight up or straight down the slopes. Off-road vehicles can tip over sideways much more easily than they can forward or backward.**
- **Many hills are too steep for any vehicle. If you drive up them, you may stall. If you drive down them, you may not be able to control your speed. If you drive across**

them, you may roll over.

- **Stay alert when driving to the top of a hill. At the top there could be a drop-off or other hazard that could cause an accident.**
- **If your engine stalls or you cannot make it to the top of a steep hill, never attempt to turn around. Your vehicle could tip or roll over. Always back straight down in reverse gear. Never back down in neutral (N) or with the clutch depressed, using only the brake, as this could cause loss of control.**
- **Heavy braking going down a hill could cause your brakes to overheat and fade, resulting in loss of control and an accident. Apply brakes lightly and use a low gear to control your speed.**
- **Unsecured cargo can be thrown around when driving over rough terrain. Properly secure it so that it will not be thrown forward and cause injury to you or your passengers.**
- **Avoid raising the center of gravity by loading things on the roof or equipping the vehicle with tires larger than specified in this manual. This could cause**

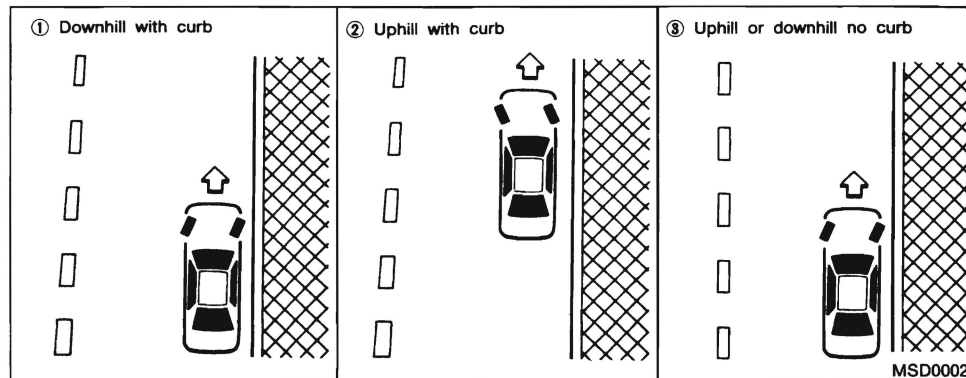
your vehicle to rollover. Put heavy loads in the cargo area as far forward and as low as possible.

- **Do not grip the inside or spokes of the steering wheel when driving off-road. The steering wheel could jerk and injure your hands. Instead drive with your fingers and thumbs on the outside of the rim.**
 - **Before operating vehicle, ensure that the driver and all passengers have their seat belts fastened.**
 - **Always drive with the floor mats in place as the floor may become very hot. Particular care should be taken if you are barefoot.**
 - **Lower your speed when encountering strong crosswinds. With its higher center of gravity, your NISSAN is more affected by gusty side winds. Slower speeds ensure better vehicle control.**
 - **Do not drive beyond the performance of the tires even with 4WD.**
- Sudden acceleration, sharp steering maneuvers or sudden braking may cause loss of control.**
- **Install the same size of winter tires on all**

PARKING

four (4) wheels (such as studless tires) or install tire chains to the rear wheels when driving on slippery roads (e.g., after a snow) and drive carefully using 4WD.

- Be sure to check the brakes immediately after driving in mud or water as specified in "WET BRAKES" under the heading "Precautions when driving".
- Whenever you drive off-road through sand, mud or water as deep as the wheel hub, more frequent maintenance may be required. For details, refer to "Maintenance under severe driving conditions" under the heading "Maintenance schedule".
- Avoid parking your vehicle on steep hills. If you get out of the vehicle and it rolls forward, backward or sideways, you could be injured.



Do not park the vehicle over flammable materials, such as dry grass, waste paper, or rags as they may burn easily.

1. Firmly apply the parking brake.
2. **Manual transmission models:**

Place the gearshift lever in the "REVERSE" position. When parking on an uphill grade, place the gearshift lever in the "1st" position.

Automatic transmission models:

Move the gearshift lever to the "P" (PARK) position.

WARNING:

 The transfer control lever must be in the "2H", "4H" or "4L" position to prevent the vehicle from rolling.

Never place it in the "N" position.

3. To help prevent the vehicle rolling into the street when parked on a sloping drive way, it is a good practice to turn the wheels as illustrated.

● HEADED DOWNHILL WITH CURB: ①

Turn the wheels into the curb and move the vehicle forward until the curb side

PRECAUTIONS WHEN DRIVING

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.

Never leave children unattended in the vehicle.

- **Driving with vacuum assisted brake:**

The brake booster aids braking by using engine vacuum. If the engine stops, you can stop the vehicle by depressing the brake pedal. However, greater foot pressure on the brake pedal will be required to stop the vehicle and the stopping distance will be longer.

- **Driving with the power assisted steering:**

The power assisted steering is designed to use a hydraulic pump, driven by the engine, to assist steering.

If the engine stops or drive belt breaks, you will still have control of the vehicle. However, much greater steering effort is needed, especially in sharp turns or at low speeds.

- **Wet brakes:**

When the vehicle is washed or driven through water, the brakes may get wet. As a result, your braking distance will be longer and the vehicle may pull to one side during braking.

To dry brakes, drive the vehicle at a safe speed while lightly 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.

- Avoid resting your foot on the brake pedal while driving. This will overheat the brakes, wear out the brake linings and pads faster and reduce gas mileage.
- To help save the brakes and to prevent the brakes from overheating, before going down a slope or long grade, reduce speed and downshift to a lower gear.
- While driving on a slippery surface, be careful when braking, accelerating or downshifting. Abrupt braking actions or sudden acceleration could cause the wheels to skid.
- **Rear disc brake model:**

The parking brake shoes must be bedded down periodically or whenever the parking brake shoes and/or drums are replaced since this brake system differs from conventional parking brakes.

Have your NISSAN dealer perform this bedding down as follows:

1. Set the transfer lever in the "2H" position. Using either low or 2nd

REAR ANTI-LOCK BRAKE SYSTEM

transmission speed, drive the unloaded vehicle at approximately 20 MPH (30 km/h) on a safe, level and dry road.

2. Depress the release button of the parking brake lever and pull the lever back with a force of 22 lb (98 N).
3. While holding the lever back, continue to drive the vehicle about 300 ft (100 m).
4. Repeat steps 1 through 3 two or three times.

The rear anti-lock brake system will not operate at speeds below 3 to 6 MPH (5 to 10 km/h) to completely stop the vehicle. (The speeds will vary according to road conditions.) When driving in the 2-wheel drive, the rear anti-lock brake system controls the rear wheels so that they will not lock when braking abruptly or when braking on a slippery road. Thus difficult steering and swerving of the vehicle due to locked rear wheels is minimized. The system detects the rear wheel rotation rate and electronically controls the pressure applied to each rear brake. Slight vibration on the brake pedal accompanied by noise usually occurs while brakes are being applied. Such vibration and noise encountered during abrupt braking are not a problem but indicate that the system is functioning properly.

Even with the rear anti-lock brake system, your front wheels can still lock. If this happens, release the brake pedal slightly and then reapply pressure.

When driving in the 4-wheel drive mode with 4WD, the rear anti-lock brake system may not be effective in many cases because the front axle is connected with the rear axle through the transfer gear. The rear

wheels will lock if the front wheels lock. If this happens, the rear anti-lock brake system may cease functioning but the ordinary brakes will continue to operate normally. The "ABS" brake warning light will then come on.

The above condition is not a malfunction and the rear anti-lock brake system will recover if the engine is started again. The "ABS" brake warning light will then go off.

If an abnormality occurs in the system, the rear anti-lock function will cease but the ordinary brakes will continue to operate normally. The "ABS" brake warning light will then come on.

If the light comes on while you are driving, contact your NISSAN dealer for repair.

Using the system

Depress the brake pedal and hold it down.

It is not necessary to pump the brake pedal.

Doing so may result in increased stopping distances.

WARNING:

The rear anti-lock brake system is a sophisticated device. But it cannot prevent acci-

COLD WEATHER DRIVING CAUTIONS

dents resulting from careless or dangerous driving techniques. It can help maintain vehicle control under some conditions, but remember that the stopping distance on slippery surfaces will be longer than on normal surfaces even with rear wheel 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 responsibility for safety of self and others rests in the hands of the driver.

Tire type and condition of tires may also affect braking effectiveness.

- **When replacing tires, install the specified size of tire on all 4 wheels.**
- **When installing a spare tire, make sure it is the proper size and type as specified on the tire placard. For tire placard location information, refer to "Tire placard" in the Owner's Manual index.**

Refer to "Wheels and Tires" in the "Do-it-yourself operations" section of this manual.

Freeing a frozen door lock

To prevent a door lock from freezing, apply de-icer or glycerin to it through the key hole. If the lock becomes frozen, heat the key before inserting it into the key hole.

Anti-freeze

In the winter when it is anticipated that the temperature will drop below 32°F (0°C), check anti-freeze (ethylene glycol base) to assure proper winter protection. For details, see "Engine Cooling System" in the "Do-it-yourself operations" section.

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 "Do-it-yourself operations" section.

Draining of coolant water

If the vehicle is to be left outside without anti-freeze, drain the cooling system by opening the drain valves located under the radiator and on the engine block. Refill

before operating the vehicle. For details, see "Changing Engine Coolant" in the "Do-it-yourself operations" section.

Tire equipment

1. The SUMMER tires are of a tread design 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 on all four wheels of MUD & SNOW or ALL SEASON tires. Please consult your 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 Provinces and States prohibit their use, so, before installing studded tires, check local, state and provincial laws.

Skid and traction capabilities of studded snow tires, on wet or dry surfaces, may be poorer than that of non-studded snow tires.

3. Snow chains may be used if desired. Make sure they are of proper size for the tires on your vehicle and are installed according to the chain manufacturer's

suggestions. Use chain tensioners when recommended by the tire chain manufacturer to ensure a tight fit. Loose end links of the tire chain must be secured or removed to prevent the possibility of whipping action damage to the fenders or undercarriage. In addition, drive at a reduced speed, otherwise, your vehicle may be damaged and/or vehicle handling and performance may be adversely affected.

Special winter equipment

It is recommended that the following items be carried in the vehicle during winter:

1. A scraper and stiff-bristled brush to remove ice and snow from the windows and wiper blades.
2. A sturdy, flat board to be placed under the jack to give it firm support.
3. A shovel to dig the vehicle out of snow-drifts.
4. Extra window washer fluid to refill the reservoir tank.

Driving on snow or ice

- 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 a lot 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 and accelerate gently. If accelerated too fast, the drive wheels will spin and 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 actually on the ice, and avoid any sudden steering maneuvers.

Engine block heater

WARNING:

Do not use your heater with an ungrounded electrical system or two-pronged (cheater) adapters. You can be injured by an electri-

cal shock if you use an ungrounded connection.

CORROSION PROTECTION

Chemicals used for road surface de-icing are extremely corrosive and will accelerate corrosion and the 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 more detailed information concerning cleaning the exterior to protect it from corrosion, please refer to the “Appearance and interior care” section of this Manual.

For additional protection against rust and corrosion, which may be required in some areas, consult your local NISSAN dealer.

MEMO

3 In case of emergency

Flat tire	3-2
Jump starting	3-6
Push starting	3-7
If your vehicle overheats	3-8
Tow truck towing	3-8



FLAT TIRE

If you have a flat tire, follow the instructions below.

Stopping the vehicle

1. Safely move the vehicle off the road away from traffic.
2. Turn on the hazard warning flasher.
3. Park on a level surface and apply the parking brake. Shift the manual transmission into reverse (automatic transmission in "P").

WARNING:

4x4 The transfer control lever must be in the "2H", "4H" or "4L" position.

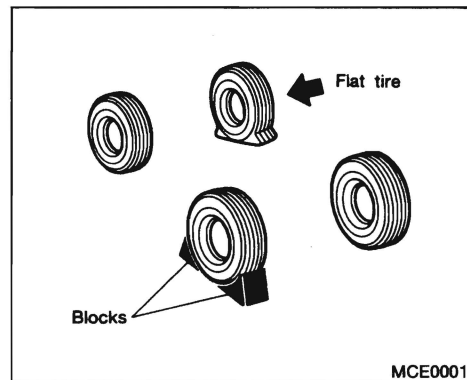
Never place it in the "N" position.

4. Turn off the engine.

Never change tires when the vehicle is on a slope, ice or a slippery area. This is dangerous.

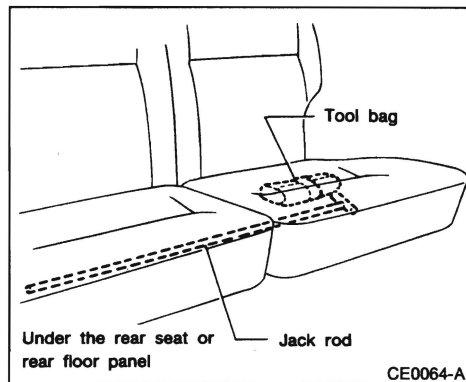
- Never change tires if oncoming traffic is close to your vehicle. Wait for professional road assistance.
- Raise the hood to warn other traffic and to signal professional road assistance personnel that you require assistance.

- Have all passengers get out of the vehicle and stand in a safe place away from traffic and clear of the vehicle.



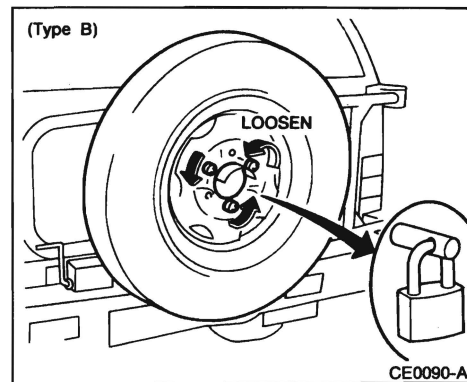
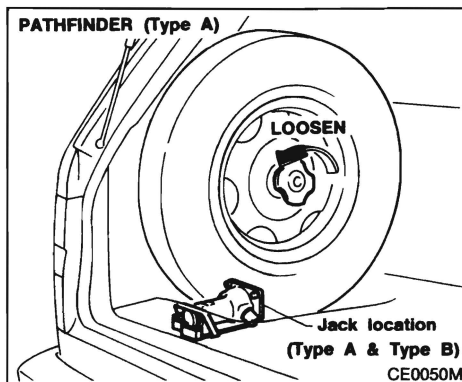
Blocking wheels

Place suitable blocks at both the front and back of the wheel diagonally opposite the flat tire.

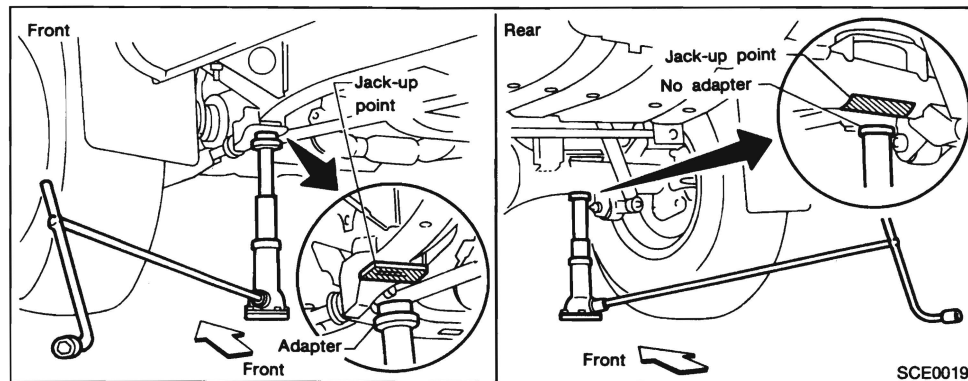


Getting the spare tire and tools

Remove jacking tools and spare tire from storage area.



Tightening torque of nuts:
48 to 66 ft-lb
(66 to 89 N·m)
Use a suitable padlock.



Jacking up and removing wheel

To help avoid personal injury, carefully read the following instructions.

1. On 4-wheel drive models, put the adapter stored in the tool bag on the jack when jacking up the front side.

Do not use the jack adapter for the rear.

2. Place the jack directly under the jack-up point.

The jack should be used on level firm ground.

3. Loosen each wheel nut one or two turns by turning counterclockwise with the wheel nut wrench.

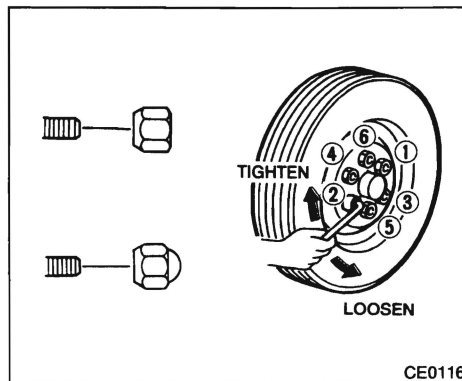
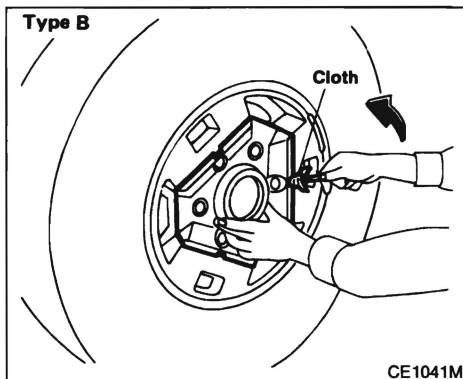
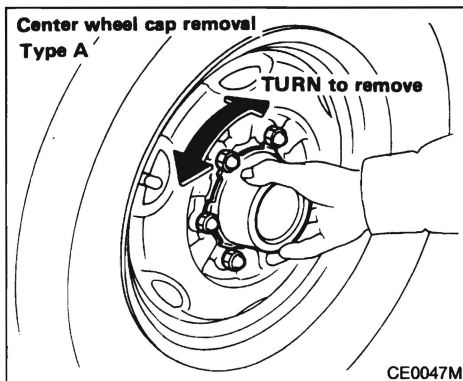
Do not remove the wheel nuts until the tire is off the ground.

4. Carefully raise the vehicle until the tire clears the ground. Remove the wheel nuts, and then remove the wheel. Do not remove the brake drum with the wheel.

- **Never get under the vehicle while it is supported only by the jack.**
- **Use the jack provided with your vehicle.**

The jack is designed only for lifting 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 engine while vehicle is on the jack.**
- **Do not allow passengers to stay in the vehicle while it is on the jack.**
- **Do not raise the vehicle using a bumper jack.**
- **On models equipped with the limited slip differential carrier, never run the engine with one rear wheel off the ground. It may cause the vehicle to move.**



Installing wheel

1. Clean any mud or dirt from the surface between the wheel and hub.
2. Carefully put the wheel on and tighten the wheel nuts finger tight.
3. With the wheel nut wrench, tighten wheel nuts alternately and evenly until they are tight.
4. Lower the vehicle slowly until the tire touches the ground. Then, with the wheel nut wrench, tighten the wheel nuts securely in the sequence as illustrated.

As soon as possible tighten the wheel nuts to the specified torque with a torque wrench.

Wheel nut tightening torque:

87 to 108 ft-lb (118 to 147 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 lubrication interval.

5. 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 placard affixed to the glove box lid.

- Retighten the wheel nuts when the vehicle has been run for 600 miles (1,000 km) after installing the aluminum wheel.
6. Securely store the spare tire and jacking equipment in the vehicle.

Always make sure that the spare tire and jacking equipment are properly secured after use. Such items can become danger-

JUMP STARTING

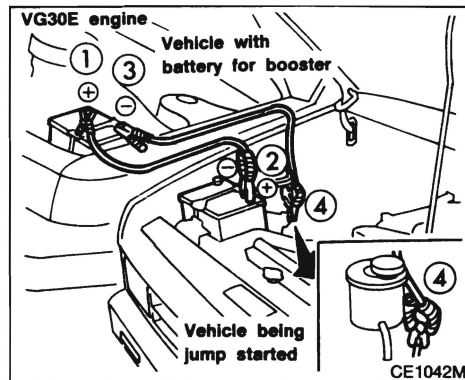
ous projectiles in a serious accident.

The T-type spare tire and small size spare tire are designed for emergency use. See specific instructions under the heading "Wheels and tires" in the "Do-it-yourself operations" section.

If you try to start your engine with a booster battery, follow the instructions and precautions below:

Precautions

- If done incorrectly, jump starting can be hazardous.
- Because explosive hydrogen gas is always present in the vicinity of the battery, keep all sparks and flames away from it.
- Do not allow battery fluid to come into contact with eyes, skin, cloth or painted surfaces. Battery fluid is a corrosive sulphuric acid solution which can cause severe burns. If the fluid should come into contact with anything, immediately flush the contacted area with water.
- A battery rated at 24 volts should not be used for a booster.
- Whenever working on or near a battery, always wear suitable eye protectors (e.g., goggles or industrial safety spectacles) and remove rings, metal bands, or any other metal jewelry.
- Keep battery out of the reach of children.



Always follow the instructions below exactly. Failure to do so could result in damage to the charging system and cause personal injury.

1. Position the two vehicles to bring their batteries into close proximity to each other if the booster battery is in another vehicle. Do not allow the two vehicles to touch.
2. Apply parking brakes. Move the shift lever to "Neutral position" (On automatic transmission models, move the lever to "P"). Switch off all unnecessary

PUSH STARTING

electrical systems (light, heater, air conditioner, etc.).

3. Remove vent caps on the battery (if so equipped). Cover the battery with an old cloth.
4. Connect jumper cables in the sequence as illustrated.
- **Positive (+) to positive (+) and negative (-) to body ground, engine lift bracket, etc. (not to the battery).**
- **Make sure that cables do not touch any moving parts in the engine compartment and that clamps do not contact any other metal.**
5. Start the engine of the other vehicle and let it run for a few minutes.
6. Keep the engine speed of the other vehicle at about 2,000 rpm, and start your engine in the normal manner.

Do not keep 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 your engine, carefully dis-

connect 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.

- **Automatic transmission models cannot be started by pushing. This may cause transmission damage.**
- **Three-way catalyst equipped models should not be started by pushing since the three-way catalyst may be damaged.**
- **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:

To avoid the danger of being burned, 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.

1. Move the vehicle safely off the road, apply the parking brake and move the gearshift lever to the neutral position (automatic transmission to "P").

Do not stop the engine.

2. Turn off the air conditioner switch. Open all the windows, move the heater or air conditioner temperature control to "maximum hot" and fan control to "high speed".
3. Open the engine hood. **If steam or water is coming from the engine, stand clear to prevent getting burned.**
4. If engine overheating is caused by climbing a long hill on a hot day, run the engine at a fast idle (approximately 1,500

rpm) until the temperature gauge indication returns to normal.

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.

Be careful not to allow your hands, hair or clothing to come into contact with, or to get caught in, the running fan or belts.

If coolant is leaking, the cooling fan belt is missing or loose or the cooling fan does not run, stop the engine.

6. After the engine cools down, check the coolant level in the reservoir tank with the engine running. Add coolant if necessary. Have your vehicle repaired at the nearest NISSAN dealer.

TOW TRUCK TOWING

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 your NISSAN dealer. Local service operators will generally be familiar with the applicable laws and procedures for towing. To assure proper towing and to prevent accidental damage to your vehicle, NISSAN recommends that you have a service operator tow your vehicle. It is advisable to have the service operator carefully read the following precautions.

Towing precautions

- When towing, make sure that the transmission, axles, steering system and power train are in good order. If any unit is damaged, a dolly must be used.
- **When towing 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 place the ignition key in the "LOCK" position. This will

result in damage to the steering lock mechanism.

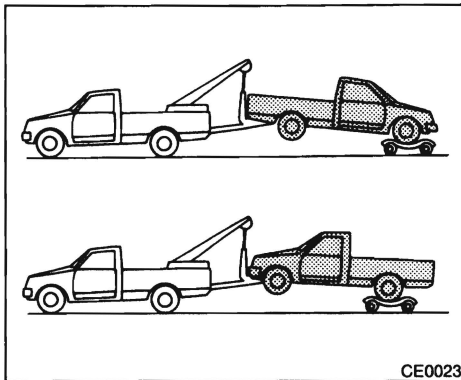
- **When towing with the rear wheels on the ground**, release the parking brake and move the gearshift lever to the neutral position ("N" position).

On automatic transmission models, to move the shift lever to neutral ("N" position), turn the ignition key to the "ACC" position. After moving the shift lever to neutral ("N" position), be sure to turn the ignition key to the "OFF" position.

- **For 4-wheel drive model:**

Set the free-running hubs to the free position (See **EX-2** "AUTO-LOCK FREE-RUNNING HUBS" as appropriate in the "Starting and driving" section). Move the transfer case shift lever into the "2H" position and the transmission shift lever into the neutral ("N") position.

- Attach safety chains for all towing.



2-WHEEL DRIVE MODELS

NISSAN recommends that your vehicle be towed with the driving (rear) wheels off the ground as illustrated.

If you have to tow your vehicle with four wheels on ground or Towing with front wheels raised (with rear wheels on ground)

Observe the following restricted towing speeds and distances.

Automatic transmission model:

- **Speed:** Below 30 MPH (50 km/h)
- **Distance:** Less than 40 miles (65 km)

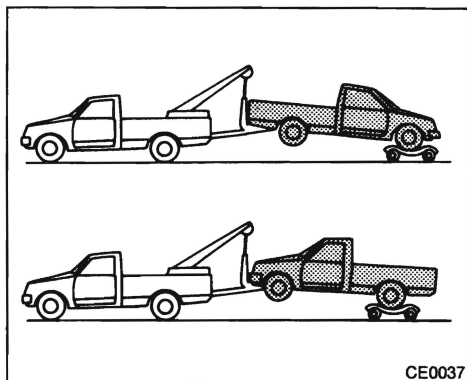
Manual transmission model:

- **Speed:** Below 60 MPH (95 km/h)
- **Distance:** Less than 200 miles (320 km)

If the speed or distance must necessarily be greater, remove the propeller shaft beforehand to prevent damage to the transmission.

CAUTION:

Never tow your vehicle from the rear (i.e., backward) with four wheels on the ground as this may cause serious and expensive damage to the transmission.



CE0037

4-WHEEL DRIVE MODELS

NISSAN recommends that a dolly be used as illustrated when towing your vehicle.

If you have to tow your vehicle with four wheels on ground or Towing with front or rear wheels raised

Observe the following restricted towing speeds and distances.

Automatic transmission model:

- Speed: Below 30 MPH (50 km/h)
- Distance: Less than 40 miles (65 km)

Manual transmission model:

- Speed: Below 60 MPH (95 km/h)
- Distance: Less than 500 miles (800 km)

If the speed or distance must necessarily be greater, remove the front and rear propeller shafts beforehand to prevent damage to the transmission.

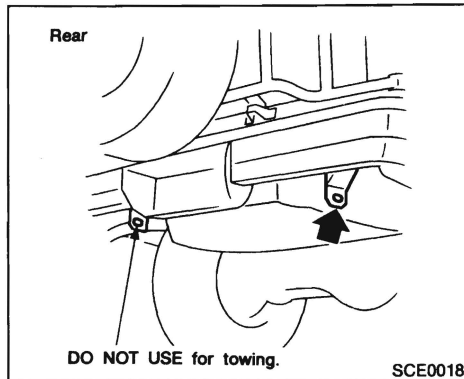
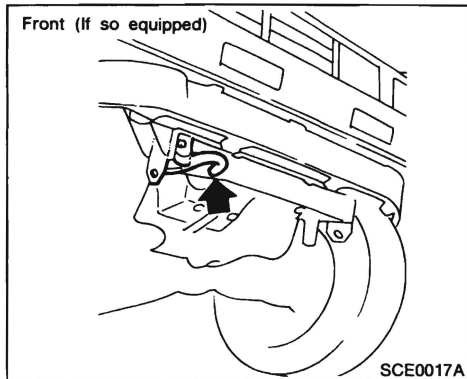
CAUTION:

Never tow your vehicle from the rear (i.e., backward) with four wheels on the ground as this may cause serious and expensive damage to the transmission.

WARNING:

Be sure to place the transfer case shift lever into the "2H" position and the trans-

mission shift lever into the neutral ("N") position.



TOWING POINT

- Use the towing **hooks** only, not other parts of the vehicle. Otherwise, the vehicle body will be damaged.
- Use the towing hooks **only** to free a vehicle stuck in sand, snow, mud, etc. **Never** tow the vehicle using only the towing hooks.

- The towing hook is under tremendous force when used to free a stuck vehicle. Always pull the cable straight out from the front or rear of the vehicle. **Never** pull on the hook at a sideways angle.

MEMO

4 Do-it-yourself operations

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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.

- **Park the vehicle on a level surface, apply the parking brake securely and move the transmission control lever to the neutral position ("N").**
- **Be sure the ignition key is "OFF" when performing any replacement or repair.**
- **Do not work under the engine hood while it is hot. Always turn off the engine and wait until it cools down.**
- **Be sure to turn the ignition key to the "OFF" or "LOCK" position.**

When the ignition key is in the "ON" or "ACC" position, the cooling fan may start to operate suddenly even when the engine is not running.

- **If you must work with the engine running, keep your hands, clothing, hair and tools away from moving fans and fan belts.**
- **It is advisable to remove necktie and any**

jewelry, such as rings, watch, etc. before working on your vehicle.

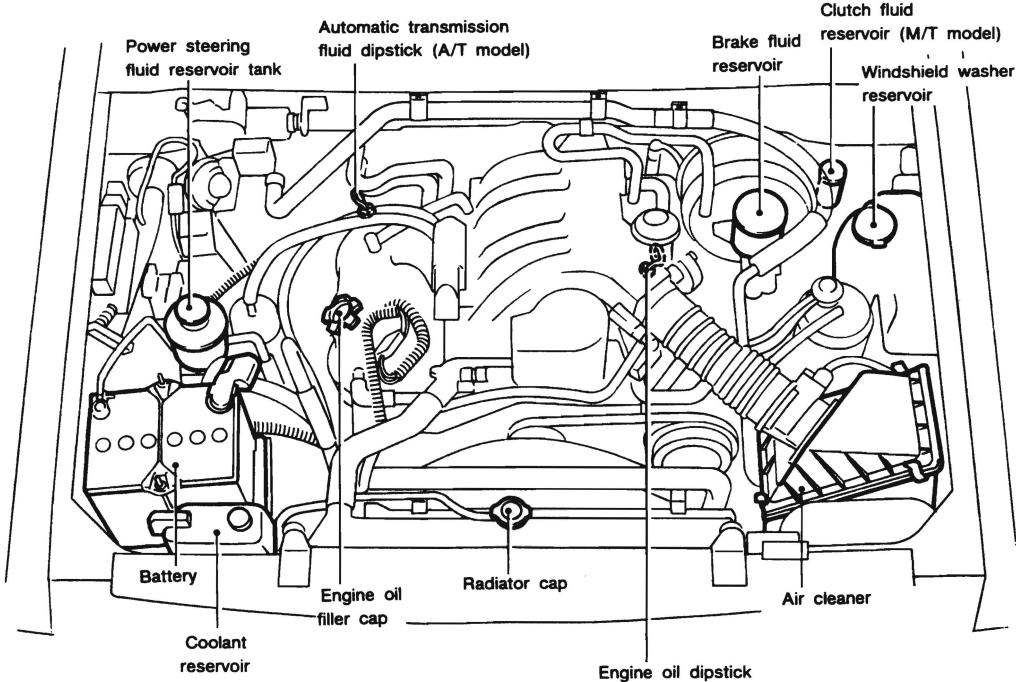
- **If you must run the engine in an enclosed space such as a garage, be sure there is proper ventilation for exhaust gases.**
- **Never get under the vehicle while it is supported only by a jack. If it is necessary to work under the vehicle, support it with safety stands.**
- **Keep smoking materials, flame and sparks away from fuel and battery.**
- **Never connect or disconnect either the battery or any transistorized component connector while the ignition key is on.**
- **Always apply the parking brake and block the wheels to prevent the vehicle from moving.**
- **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.**
- **Failure to follow these or other common sense guidelines may lead to serious injury or vehicle damage.**
- **Improperly disposed motor oil and/or**

other vehicle fluids can hurt the environment. Always conform to local regulations for disposal of vehicle fluid.

This "Do-it-yourself operations" section gives instructions regarding only those items which are relatively easy for an owner to perform.

You should be aware that incomplete or improper servicing may result in operating difficulties or excessive emissions, and could affect your warranty coverage. **If in doubt about any servicing, have it done by your NISSAN dealer.**

VG30E engine



ENGINE COOLING SYSTEM

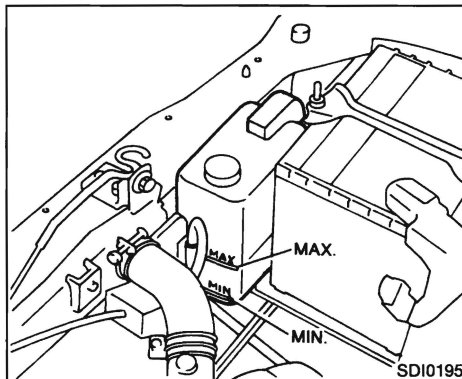
The engine cooling system is filled at the factory with a high-quality, year-round, anti-freeze coolant solution (anti-freeze/water mixture ratio: 50/50) which will ensure protection against freezing down to -30°F (-35°C). The anti-freeze solution contains rust and corrosion inhibitors, therefore additional cooling system additives are not necessary.

When adding or replacing the coolant, be sure to use an ethylene glycol anti-freeze with the proper mixture ratio. Examples are shown below:

Outside temperature down to		Anti-freeze	Soft water
$^{\circ}\text{C}$	$^{\circ}\text{F}$		
-15	5	30%	70%
-35	-30	50%	50%

The radiator is equipped with a pressure cap. Use a NISSAN genuine cap or its equivalent when replacement is required.

Never remove the radiator cap when the engine is hot; serious burns could be caused by high pressure fluid escaping from the radiator. Wait until the engine and radiator cool down.

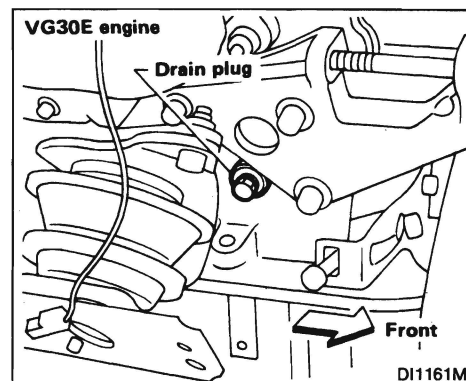
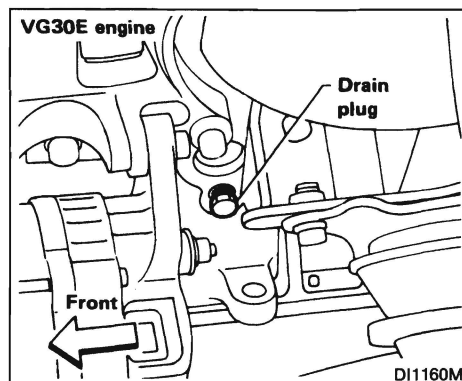
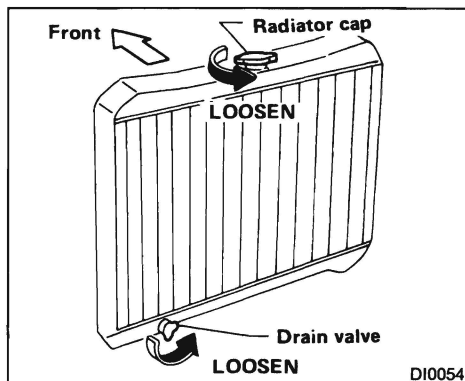


CHECKING COOLANT LEVEL

With coolant reservoir

Check the coolant level in the reservoir tank when the engine is cold. If the coolant level is below the "MIN" level, add coolant to the "MAX" level. If the reservoir tank 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 tank up to the "MAX" level.

If the cooling system frequently requires coolant, have it checked by your NISSAN dealer.



CHANGING ENGINE COOLANT

- Major cooling system repairs should be performed by your NISSAN dealer. The service procedures can be found in the appropriate NISSAN Service Manual.
- Improper servicing can result in reduced heater performance and engine overheating.

WARNING:

To avoid the danger of being scalded, never change the coolant when the engine is hot.

1. Move the heater or air conditioner temperature control to the maximum hot position.
2. Open the radiator cap and drain valve.
Open the drain plug on the engine block.
3. Open the air release plug to drain the coolant.
4. Flush the cooling system by running fresh water through the radiator.
5. Close the drain valve and drain plug securely.

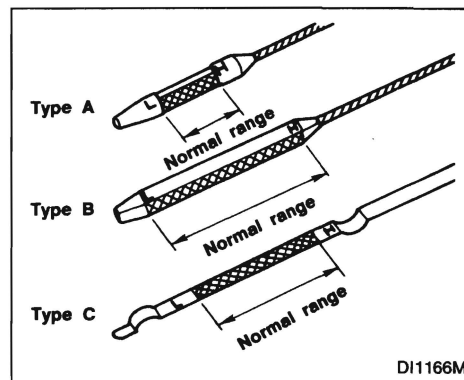
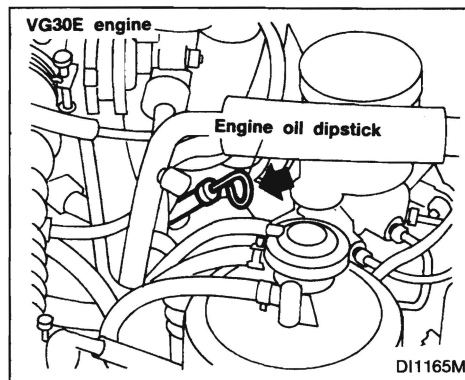
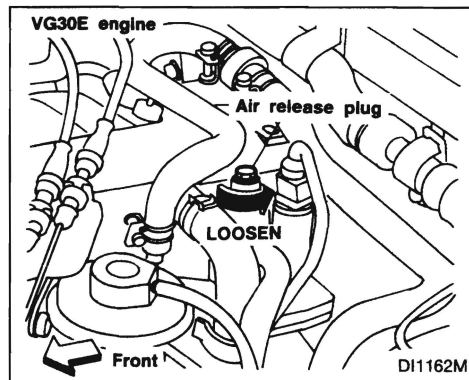
6. See the "Technical information" section for cooling system capacity.

Fill the radiator slowly with the proper mixture of coolant and water. Fill the reservoir tank slowly up to the "MAX" level. Then install the radiator cap and close the air release plug.

7. Start the engine and warm it up until it reaches normal operating temperature. Then race the engine 2 or 3 times under no load.

Watch the coolant temperature gauge for signs of overheating.

ENGINE OIL



8. Stop the engine. After it completely cools down, refill the radiator up to the filler opening. Fill the reservoir tank up the "MAX" level.
9. Check the drain valve and drain plug for any sign of leakage.

CHECKING ENGINE OIL LEVEL

1. Run the engine until it reaches operating temperature.
2. Turn off the engine. **Wait a few minutes for the oil to drain back into the oil pan.**
3. Remove the dipstick and wipe it clean. Reinsert it all the way.

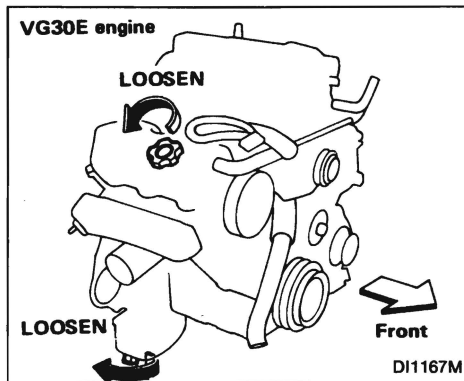
4. Remove the dipstick again and check the oil level. It should be between the "H" and "L" marks. If the oil level is below the "L" mark, remove the oil filler cap and pour recommended oil through the opening. Do not overfill.

5. Recheck oil level with dipstick.

Oil level should be checked regularly. Operating with insufficient amount of oil can damage the engine, and such damage is not covered by warranty.

It is normal to add some oil between oil changes or during the break-in period, de-

pending on the severity of operating conditions.



CHANGING ENGINE OIL

1. Warm up the engine until it reaches operating temperature, and then turn it off.
2. Place a large drain pan under the drain plug.
3. Remove the oil filler cap.
4. Remove the drain plug with a wrench and completely drain the oil.

If the oil filter is to be changed, remove and replace it at this time. See "Changing oil filter".

Be careful not to burn yourself, as the engine oil is hot.

Waste oil must be disposed of properly. Check your local regulations.

5. Clean and re-install the drain plug and washer. Securely tighten the drain plug with a wrench. Do not use excessive force.

Drain plug tightening torque:
22 to 29 ft-lb (29 to 39 N·m)

6. Refill engine with recommended oil and install the cap securely.

See the "Technical information" section for refill capacity.

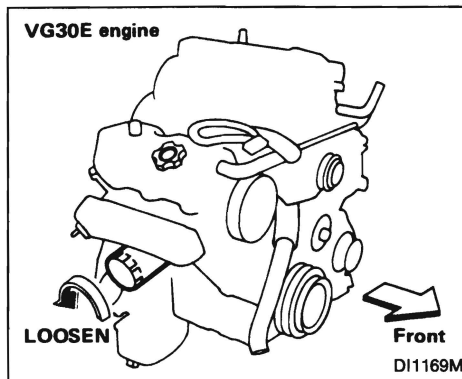
7. Start the engine.
Check for leakage around the drain plug. Correct as required.
8. Turn the engine off and wait several minutes. Check the oil level with the dipstick. Add engine oil if necessary.

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.



CHANGING OIL FILTER

1. Turn the engine off.
2. Loosen the oil filter with an oil filter wrench. (A special **cap-type** wrench will assist with oil filter removal on models with the V6 engine. This tool can be purchased from your NISSAN dealer.) Then remove the oil filter by turning it by hand.

Be careful not to burn yourself, as the engine oil may be hot.

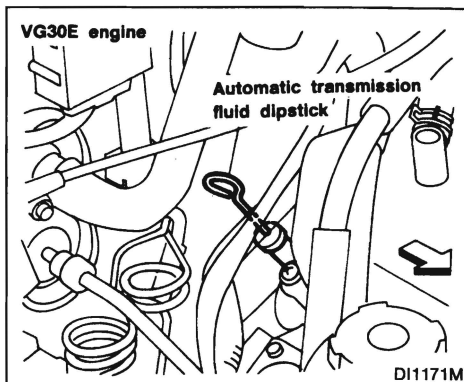
3. Wipe the engine oil filter mounting sur-

face with a clean rag.

Be sure to remove any old rubber gasket remaining on the mounting surface of the engine.

4. Coat the rubber gasket on the new filter with engine oil.
5. Screw in the oil filter until a slight resistance is felt, then tighten an additional 2/3 turn.
6. Start the engine and check for leakage around the oil filter. Correct as required.
7. Turn the engine off and wait several minutes. Check the oil level. Add engine oil if necessary.

AUTOMATIC TRANSMISSION FLUID



When engine is running, keep hands and clothing away from any moving parts such as fan and drive belt.

The fluid level should be checked using the "HOT" range ("L" & "H" marks for 4WD models) on the dipstick at fluid temperatures between 122 and 176°F (50 and 80°C) after the vehicle has been driven approximately 5 minutes in urban areas after the engine is warmed up. For 2WD models, the level can be checked at fluid temperatures between 86 and 122°F (30 and 50°C) using the "COLD" range on the dipstick for reference, after the engine is warmed up but

before driving. However, the fluid level must be rechecked using the "HOT" range.

1. Park the vehicle on a level surface and set the parking brake.
2. Start the engine and then move the selector lever through each gear range, ending in "P".
3. Check the fluid level with the engine idling.

If the vehicle has been driven for a long time at high speeds, or in city traffic in hot weather, or if it is being used to pull a trailer, the fluid level cannot be read accurately. You should wait until the fluid has cooled down (about 30 minutes).

4. Remove the dipstick and wipe it clean with lint-free paper.
5. Re-insert the dipstick into the charging pipe as far as it will go.
6. Remove the dipstick and note the reading.

If the level is on the low side of either range, add fluid to the charging pipe.

Do not overfill.

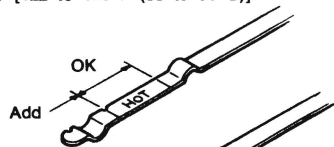
Use only Genuine Nissan ATF or equivalent DEXRON™II type fluid.

POWER STEERING FLUID

For 2WD model

- Front side

HOT [122 to 176°F (50 to 80°C)]



- Reverse side



DIC004-A

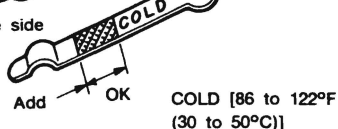
For 4WD model

- Front side

HOT [122 to 176°F (50 to 80°C)]

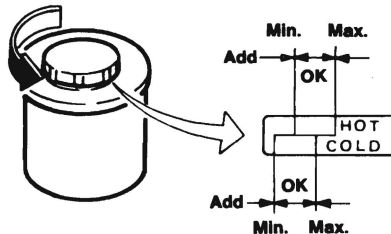


- Reverse side



DI0125MA

LOOSEN



DI0187M

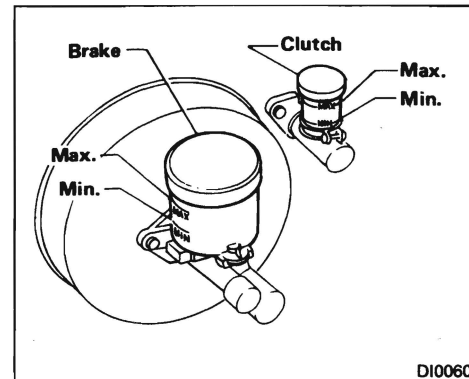
Check the fluid level.

The fluid level should be checked using the "HOT" range on the dipstick at fluid temperatures of 122 to 176°F (50 to 80°C) or using the "COLD" range on the dipstick at fluid temperatures of 32 to 86°F (0 to 30°C).

CAUTION:

- Do not overfill.
- Use type DEXRON™II or equivalent.

BRAKE AND CLUTCH FLUID



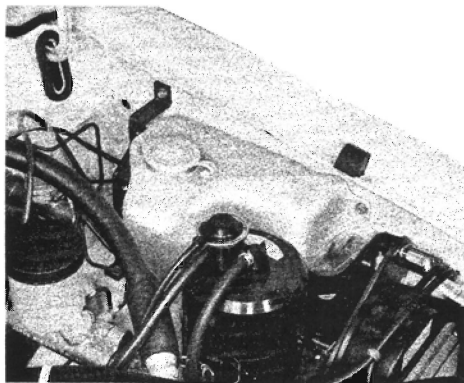
DI0060

Check the fluid level in the reservoir. If the fluid level is below the Min. line or the brake warning light comes on, add DOT 3 fluid up to the Max. line.

If fluid is added frequently, the system should be thoroughly checked by your NISSAN dealer.

- Use only new fluid. Old, inferior or contaminated fluid may damage the brake and clutch systems.
- Do not spill the fluid on any painted surfaces. This will damage the paint.

WINDOW WASHER FLUID



Check the fluid level in the reservoir tank and add fluid if necessary. Add a washer solvent to the water for better cleaning. In the winter season, add a windshield washer anti-freeze. Follow the manufacturer's instructions for the mixture ratio.

Do not substitute engine anti-freeze coolant for window washer solution. This may result in damage to the paint.

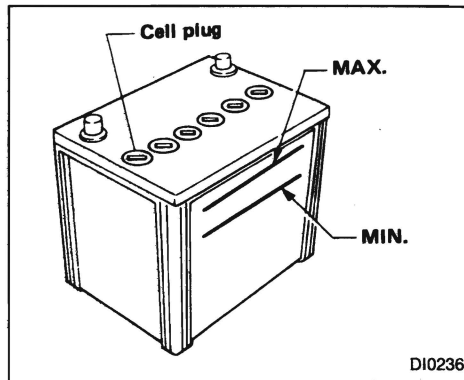
BATTERY

- Keep the battery surface clean and dry. Any corrosion should be washed off 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.

Do not expose the battery to flames or electrical sparks. Hydrogen gas generated by battery action 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.

JUMP STARTING

If jump starting is necessary, see the “In case of emergency” section. If the engine does not start by jump starting, the battery may have to be replaced. Contact a NISSAN dealer.



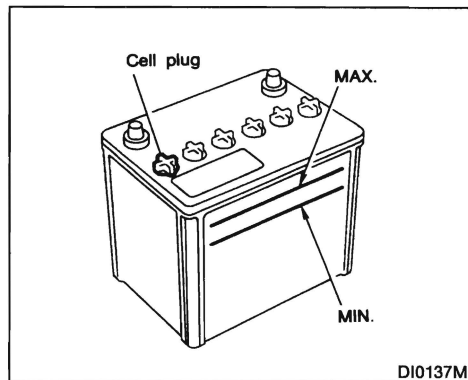
DI0236

Check the fluid level in each cell. It should be between the MAX. and MIN. lines.

If it is necessary to add fluid, add only distilled water to bring the level to the indicator in each filler opening. **Do not overfill.**

1. Remove the cell plugs using a suitable tool.
2. Add distilled water up to the MAX. level.
3. Tighten cell plugs.

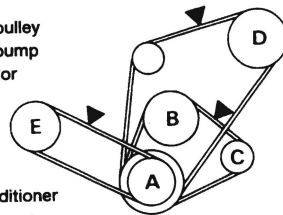
DRIVE BELTS



VG30E engine

A: Crank pulley
B: Water pump
C: Alternator

D: Air conditioner compressor
E: Power steering fluid pump



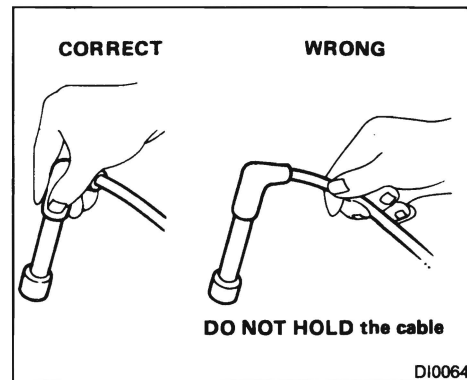
▼ : Tension checking points

SDI0049

Be sure the ignition key is "OFF".

1. Visually inspect each belt for signs of unusual wear, cuts, fraying or looseness. If the belt is in poor condition or loose, have it replaced or adjusted by your NISSAN dealer.
2. Have the belts checked regularly for condition and tension in accordance with the maintenance schedule in this manual.

SPARK PLUG REPLACEMENT

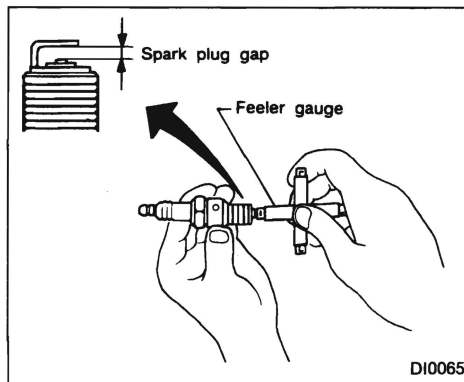


Be sure the ignition key is "OFF".

1. Disconnect spark plug cables. Keep track of the original cable location.

When disconnecting, always hold the boots — not the cables. Mark all cables to identify their original location.

2. Remove spark plugs with a spark plug wrench.



3. Check each new spark plug gap with a feeler gauge. Correct it as required.

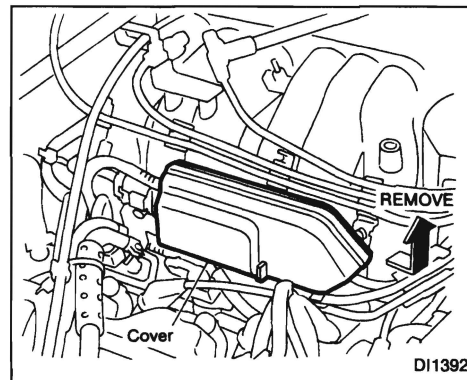
4. Install spark plugs.

When installing a plug, turn it in two or three turns by hand and then tighten with a spark plug wrench. (Spark plug tightening torque is shown in the “Technical information” section.) Be careful not to overtighten it.

Tightening torque:

14 to 22 ft-lb (20 to 29 N·m)

5. Reconnect the spark plug cables to their original positions.



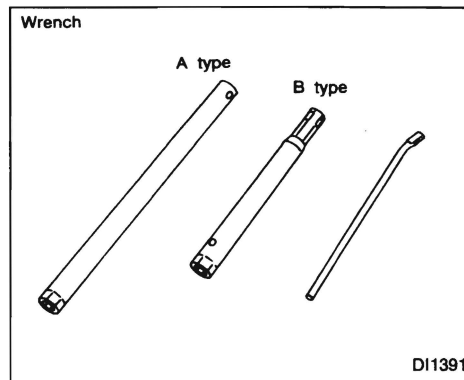
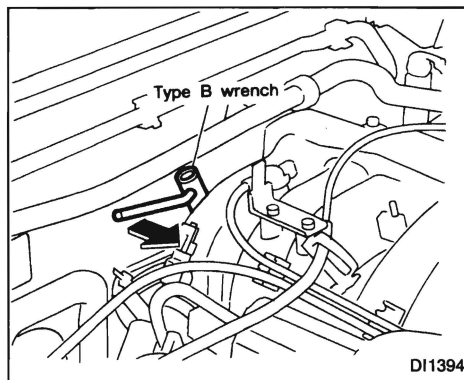
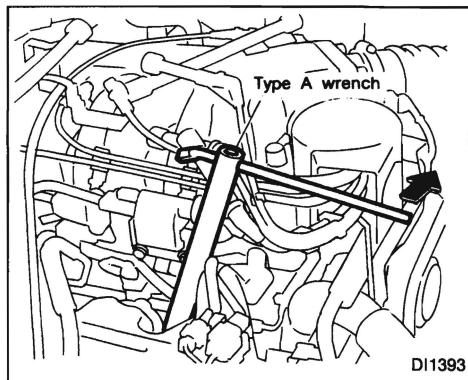
VG30E engine models

Be sure the ignition key is “OFF”.

1. Remove the cover.
2. Disconnect spark plug cables. Keep track of the original cable location.

When disconnecting, always hold the boots — not the cables. Mark all cables to identify their original location.

3. Remove spark plugs with a spark plug wrench. (Type A or B)



4. Check each new spark plug gap with a feeler gauge. Correct it as required.

5. Install spark plugs.

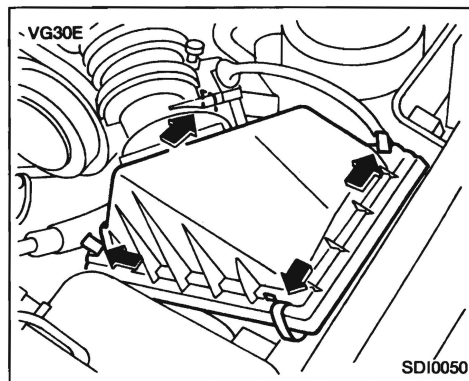
When installing a plug, turn it in two or three turns by hand and then tighten with a spark plug wrench. (Spark plug tightening torque is shown in the "Technical information" section.) Be careful not to overtighten it.

Tightening torque:

14 to 22 ft-lb (20 to 29 N·m)

6. Reconnect the spark plug cables to their original positions.

AIR CLEANER FILTER



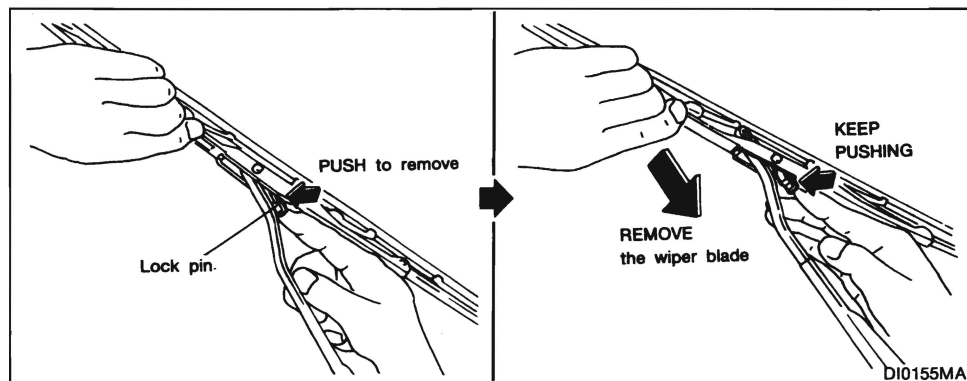
there, and the engine backfires, you could be burned. Don't drive with it off, and be careful working on the engine with the air cleaner off.

The filter element should not be cleaned and reused as it is given a special treatment. We recommended it be replaced according to the maintenance intervals shown in the "Maintenance schedule" section. When replacing the filter, wipe the inside of the air cleaner housing and the cover with a damp cloth.

WARNING:

Operating the engine with the air cleaner off can cause you or others to be burned. The air cleaner not only cleans the air, it stops flame if the engine backfires. If it isn't

WIPER BLADE



wiper arm to its original position.

Otherwise it may be damaged when the engine hood is opened.

Make sure the wiper blade contacts the glass. Otherwise, the arm may be damaged from wind pressure.

1) CLEANING

If your windshield is not clear after using the windshield washer or if the 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 the blade by wiping it with a cloth soaked in a washer solution or a mild detergent. Then rinse the blade with

clear water. If your windshield is still not clear after cleaning the blades and using the wiper, replace the blades.

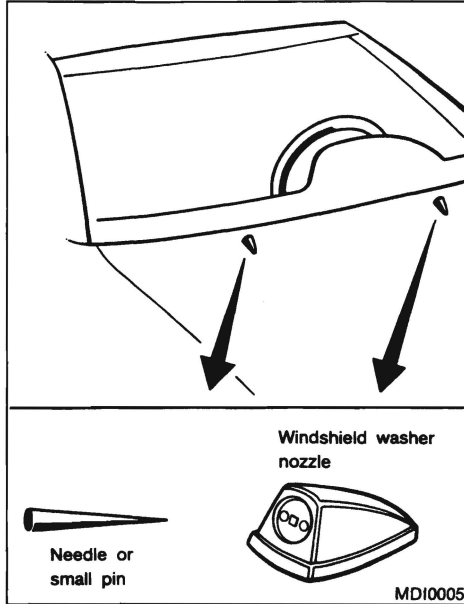
2) REPLACEMENT

1. Pull the wiper arm.
2. Push the lock pin, then remove the wiper blade.
3. Insert the new wiper blade to the wiper arm until a click sounds.

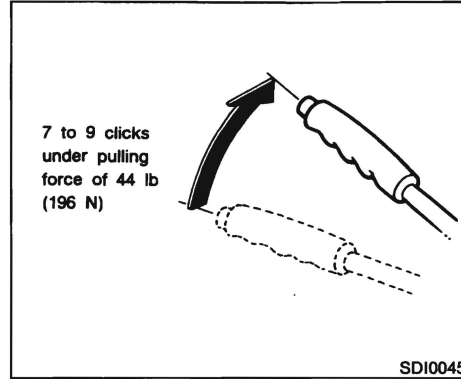
CAUTION:

After wiper blade replacement, return the

PARKING BRAKE

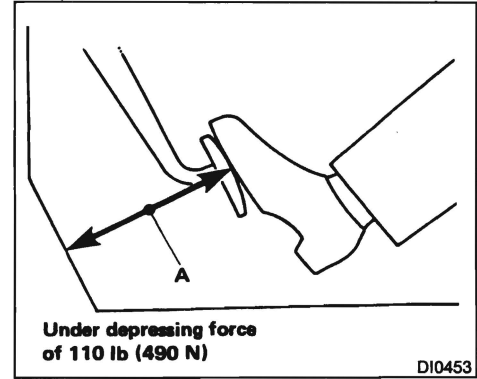


If you wax the surface of the hood, be careful not to let wax get into the washer nozzle. This may cause clogging or improper windshield washer operation. If wax gets into the nozzle, remove it with a needle or small pin.



Pull the parking brake lever up. If the number of clicks is out of the range as listed above, see your NISSAN dealer.

BRAKE PEDAL



With the engine running, check distance A between the upper surface of the pedal and the melt sheet.

Distance A

4-3/4 in (120 mm) or more

If it is out of the range shown above, see your NISSAN dealer.

BRAKE BOOSTER

Self-adjusting brakes

Your vehicle is equipped with self-adjusting brakes.

The front disc-type brakes self-adjust every time the brake pedal is applied. The rear drum-type brakes self-adjust every time the parking brake is applied. If the brake pedal goes down farther than normal, it may be due to a lack of adjustment of the rear drum brakes. Apply the parking brake several times.

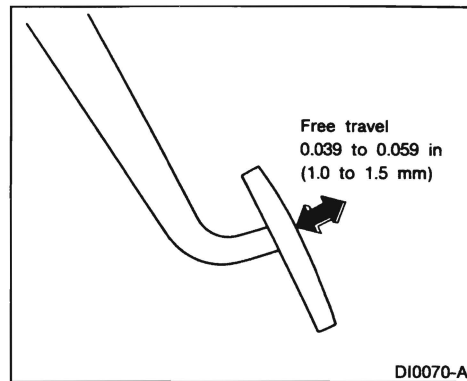
See your NISSAN dealer and have it checked if the brake pedal height does not return to normal.

Check the brake booster function with the following steps:

1. With the engine off, press and release the brake pedal several times. When brake pedal movement (distance of travel) remains the same from one pedal application to the next, continue on to the next step.
2. While depressing the brake pedal, start the engine. The pedal height should drop a little.
3. With the brake pedal depressed, stop the engine. Keeping the pedal depressed for about 30 seconds, the pedal height should not change.
4. Run the engine for one minute without depressing the brake pedal, then turn it off. Depress the brake pedal several times. The pedal travel distance will decrease gradually with each depression as the vacuum is released from the booster.

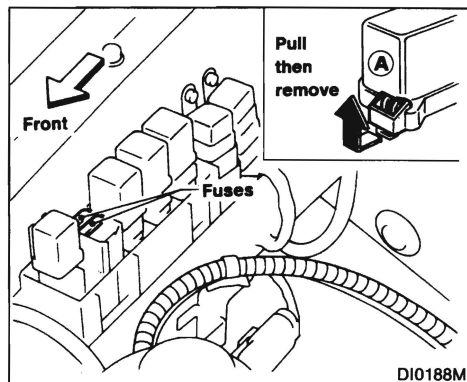
If the brakes do not operate properly, have the brake checked by your NISSAN dealer.

CLUTCH PEDAL



Press the pedal by hand and be sure the free travel is within the above limit. If free travel is out of the range shown above, see your NISSAN dealer.

FUSES



Never use a fuse of higher amperage rating than that specified on the fuse box cover.

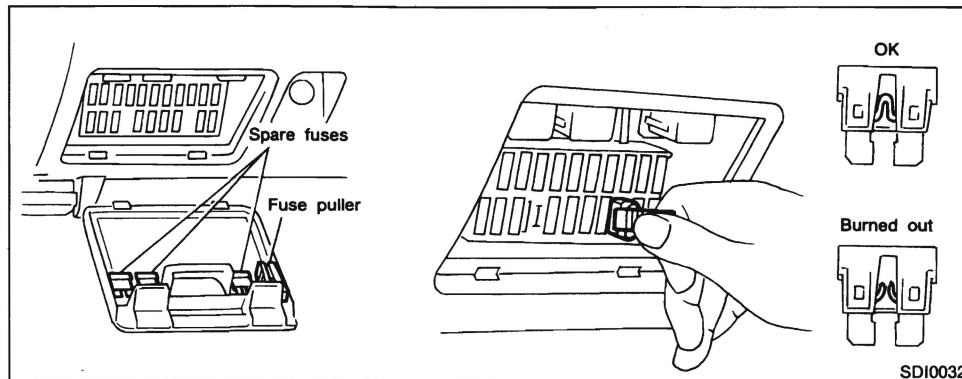
6. If a new fuse burns out again, have the electrical system checked and repaired by your NISSAN dealer.

Engine compartment (Headlight fuses)

If the electrical equipment does not operate, check for a burned-out fuse.

1. Be sure the ignition key and the headlight switch are "OFF".
2. Open the engine hood.
3. Remove the fusible link cover (A).
4. Remove the fuse with the fuse puller.
5. If the fuse is burned out, replace it with a new fuse.

LIGHT BULBS



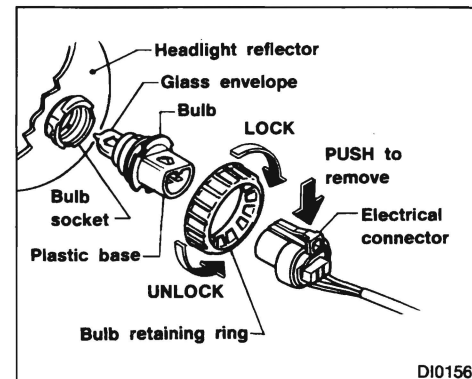
Passenger compartment

If the electrical equipment does not operate, check for a burned-out fuse.

1. Be sure the ignition key and the headlight switch are "OFF".
2. Remove the fuse box cover.
3. Remove the fuse with the fuse puller.
4. If the fuse is burned, replace it with a new fuse.

Never use a fuse of higher amperage rating than that specified on the fuse box cover.

5. If a new fuse burns out again, have the electrical system checked and repaired by your NISSAN dealer.



HEADLIGHTS

Semi-sealed beam type

The headlight is a semi-sealed beam type which uses a replaceable headlight (halogen) bulb. A bulb can be replaced inside the engine compartment without removing the headlight assembly.

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.

Hold the plastic base when handling the

bulb. Never touch the glass envelope.

Removing the headlight bulb

1. Disconnect the battery negative cable.
2. Disconnect the electrical connector from the rear end of the bulb.
3. Turn the bulb retaining ring counter-clockwise until it is free from the headlight reflector, then remove it.
4. Remove the headlight bulb. Do not shake or rotate the bulb when removing it.

Replacing the headlight bulb

1. Insert the bulb into the headlight reflector with the flat side of the plastic base facing upward.
 2. Install the bulb retaining ring and turn it clockwise until it stops.
 3. Push the electrical connector into the bulb plastic base until it snaps and stops.
- **Use the same number and wattage as originally installed:**

Wattage 65/45

Bulb no. 9004

- **Aiming is not necessary after replacing**

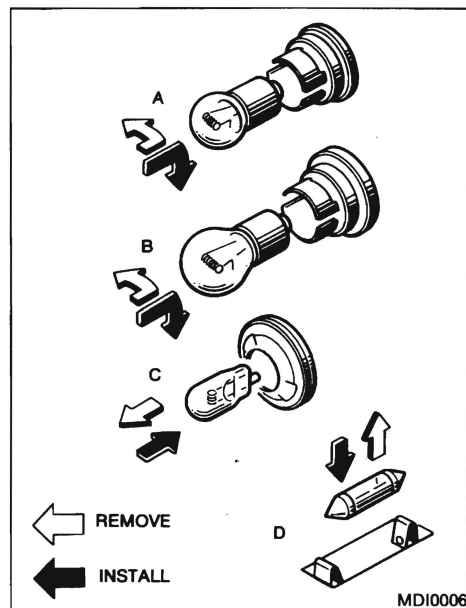
the bulb. When aiming adjustment is necessary, contact your NISSAN dealer.

- **Do not leave the bulb out of the headlight reflector for a long period of time as dust, moisture, and smoke may enter the headlight body and affect the performance of the headlight.**

OTHER LIGHTS

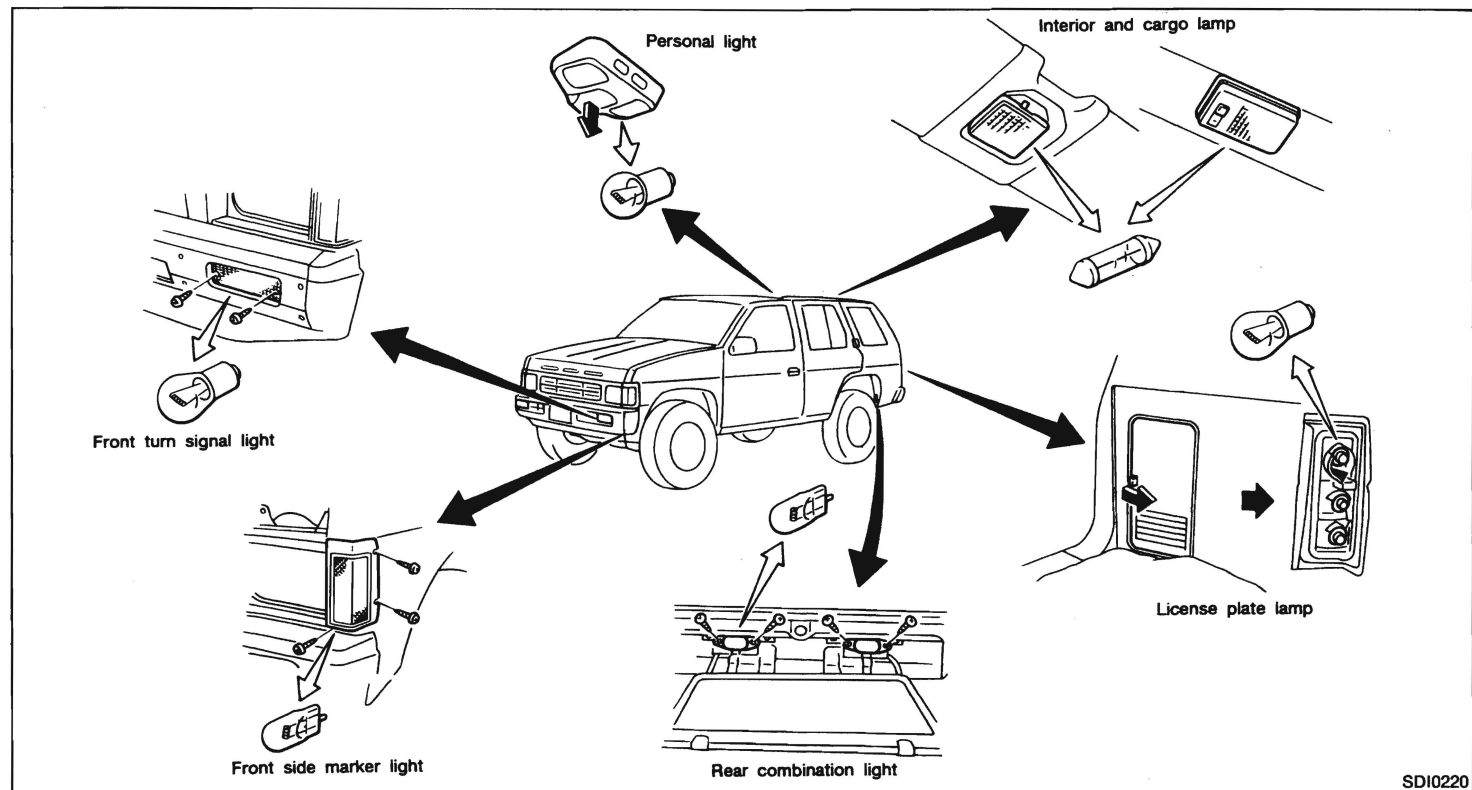
Item	Wattage (W)	Bulb No.
Front turn signal light	27	1156
Front side marker light	3.8	194
Front combination light		
Turn signal	27	1156
Stop/Tail	27/8	1157
Back-up	27	1156
License plate light	3.8 or 5	194*
Interior light	10	—
Personal light	8	—

(*; For 3.8 watt lamp)



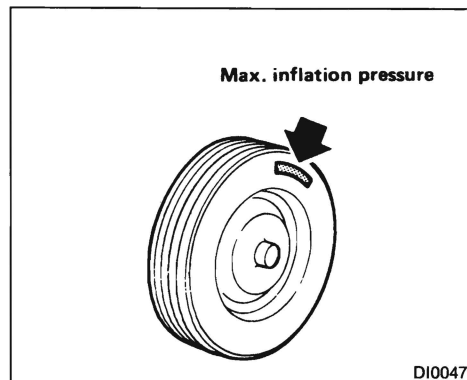
Replacing procedures

All other lights are either type A, B, C or D. When replacing a bulb, first remove the lens and/or cover.



SDI0220

WHEELS AND TIRES



If you have a flat tire, see "In case of emergency" section.

Maximum inflation pressure

Do not exceed the maximum inflation pressures shown on the side wall of the tire.

Tire inflation pressure

Periodically check the tire pressure (including spare). Tire pressure should be checked when tires are COLD. COLD tire pressures are shown on the tire placard affixed to the glove box lid.

Incorrect tire pressure may adversely affect tire life and vehicle handling.

COLD pressure:

After vehicle has been parked for three hours or more or driven less than 1 mile (1.6 km).

- The vehicle capacity weight is indicated on the tire placard. 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 have loaded your vehicle heavily, use a tire pressure gauge to ensure that the tire pressure is at the specified level.

Types of tires

CAUTION:

When changing or replacing tires, be sure all four tires are of the same type (i.e., Summer, All Season or Snow) and con-

struction. Your 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.

All season tires

NISSAN specifies All Season tires on some models to provide good performance for use all year around, 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 in snow and ice will be substantially reduced. 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" 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 will 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.

For additional traction on icy roads, studded tires may be used. However, some provinces and states 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.

4-wheel drive model

If you install snow tires, they must also be the same size, brand, construction and tread pattern on all four wheels.

CAUTION:

ONLY use spare tires specified for each 4-wheel drive model.

Tire chains

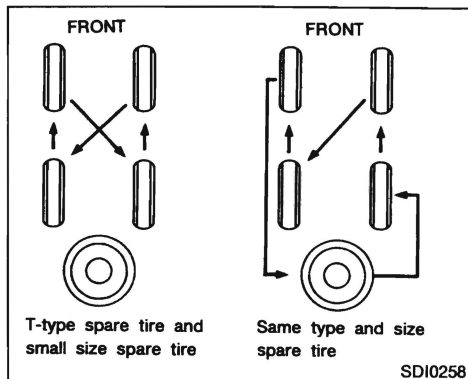
Use of tire chains is prohibited according to location. Check the local laws before installing tire chains. When installing tire chains, make sure they are of proper size for the tires on your vehicle and are installed according to the chain manufacturer's suggestions. Use chain tensioners when recommended by the tire chain manufacturer to ensure a tight fit. Loose end links of the tire chain must be secured or removed to prevent the possibility of whipping action damage to the fenders or undercarriage. In addition, drive at a reduced speed. Otherwise, your vehicle may be damaged and/or vehicle handling and performance may be adversely affected.

Never install tire chains on a T-type spare tire and small size spare tires.

Tire chains must be installed only on the rear wheels and not on the front wheels.

Do not drive with tire chains on paved roads which are clear of snow. Driving with chains

in such conditions can cause damage to the various mechanisms of the vehicle due to some overstress. When driving on clear paved roads, be sure to change to 2WD.



Tire rotation

NISSAN recommends that tires be rotated every 7,500 miles (12,000 km) for 2WD vehicles and 3,750 miles (6,000 km) for 4WD vehicles.

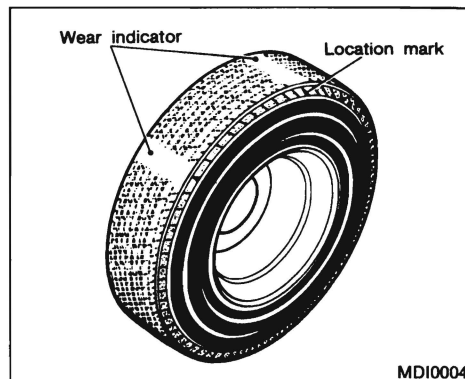
See “Flat tire” in the “In case of emergency” section for tire replacing procedures.

Wheel nut tightening torque:

87 to 108 ft-lb (118 to 147 N·m)

- After rotating the tires, adjust the tire pressure.

- Retighten the wheel nuts after the aluminum wheel has been run for the first 600 miles (1,000 km). (also in cases of a flat tire, etc.)
- Do not include the T-type spare tire and small size spare tire when rotating the tires.



Tire wear and damage

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 should be replaced.

The original tires have a built-in tread wear indicator. When the wear indicator is visible, the tire should be replaced.

When replacing a tire, use the same size and load carrying capacity as originally equipped. Recommended types and sizes are shown in “wheels and tires” in the

"Technical information" section. 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, snow chain clearance, speedometer calibration, headlight aim and bumper height. Some of these effects may lead to accidents and could result in serious personal injury.

Improper service for a T-type spare tire may result in serious personal injury. If it is necessary to repair the T-type spare tire, contact your NISSAN dealer.

Changing tires and wheels

When replacing a tire, use the same size, speed rating and load carrying capacity as originally equipped. Recommended types and sizes are shown in "Wheels and tires" in the "Technical information" section. 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, snow 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 offset dimension. Wheels of a different offset could cause early tire wear, possibly degraded 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.

WARNING:

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.

4-WHEEL DRIVE MODELS

CAUTION:

Always use tires of the same size, brand, construction (bias, bias-belted or radial), and tread pattern on all four wheels. Failure to do so may result in a circumference difference between tires on the front and rear axles which will cause excessive tire wear and may damage the transmission,

transfer case and differential gears.

If excessive tire wear is found, it is recommended that all four tires be replaced with tires of the same size, brand, construction and tread pattern. The tire pressure and wheel alignment should also be checked and corrected as necessary. Contact your NISSAN dealer.

ONLY use spare tires specified for each 4-wheel drive model.

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.

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. This may cause loss of pres-

sure or damage the tire bead.

- We recommend that the road wheels be waxed to protect against road salt in areas where it is used during winter.

Spare tire (T-type spare tire)

Vehicles equipped with standard P215/75R15 tires have a T-type spare tire (T155/90D16).

To avoid property damage or personal injury when using the T-type spare tire, the following cautions should be observed.

- The T-type spare tire should be used for emergency use only. It should be replaced by the standard tire at the first opportunity to avoid possible tire or differential damage.
- Periodically check tire inflation pressure and always keep it at 60 psi (420 kPa, 4.2 bar).
- Do not drive the vehicle at speeds faster than 50 MPH (80 km/h).
- The transfer control lever must be in the "2H" position to prevent the transfer case and differential gears from being damaged.

- Do not use tire chains on a T-type spare tire. Tire chains will not fit properly on the T-type spare tire and may cause damage to the vehicle.

- When driving on roads covered with snow or ice, the T-type spare tire should be used on the front wheels and the original tire used on the rear wheels (drive wheels). Use tire chains only on the rear two original tires.

- Tire tread of the T-type spare tire will wear at a faster rate than the original tire. Replace the T-type spare tire as soon as the tread wear indicators appear.

- Because the T-type 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.

- Drive carefully while the T-type spare tire is installed. Avoid sharp turns and abrupt braking while driving.

- Do not use the T-type spare tire on other vehicles.

- Do not use more than one T-type spare tire at the same time.

(Small size spare tire)

4WD vehicles equipped with standard P235/75R15 or 31x10.5R15 tires have a P215/75R15 "TEMPORARY USE ONLY" small size spare tire. Although this tire is a conventional tire. It is marked "TEMPORARY USE ONLY" to prevent differential damage due to tire size mismatch.

To avoid property damage or personal injury when using the small size spare tire, the following cautions should be observed.

- The small size ("TEMPORARY USE ONLY") spare tire should be used for emergency use only. It should be replaced by the standard tire at the first opportunity to avoid possible tire or differential damage.

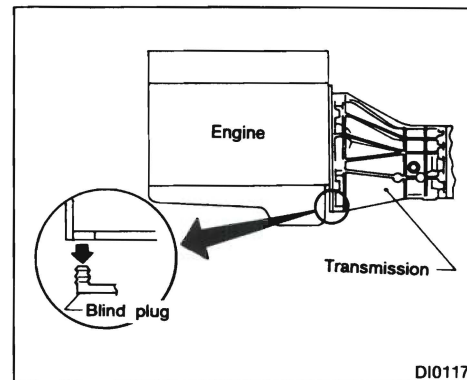
- Periodically check tire inflation pressure and always keep it at 26 psi (1.83 kg/cm², 180 kPa).

- Do not drive the vehicle at speeds faster than 50 MPH (80 km/h).

- The transfer control lever must be in the "2H" position to prevent the transfer

case and differential gears from being damaged.

- Do not use tire chains on a small size spare tire. Tire chains will not fit properly on the small size spare tire and may cause damage to the vehicle.
 - When driving on roads covered with snow or ice, the small size spare tire should be used on the front wheels and the original tire used on the rear wheels (drive wheels). Use tire chains only on the rear two original tires.
 - Tire tread of the small size spare tire will wear at a faster rate than the original tire. Replace the small size spare tire as soon as the tread wear indicators appear.
 - Because the small size 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.
 - Drive carefully while the small size spare tire is installed. Avoid sharp turns and abrupt braking while driving.
- Do not use the small size spare tire on other vehicles.
 - Do not use more than one small size spare tire at the same time.



Checking water entry

Whenever you drive in deep water or mud, check water entry in the clutch housing by removing the blind plug at the bottom of the transmission case. After checking, be sure to reinstall the plug.

MEMO

5 Technical information

Capacities and recommended fuel/lubricants	5-2
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Registering your vehicle in another country	5-10



CAPACITIES AND RECOMMENDED FUEL/LUBRICANTS

The following values are approximate capacities. The actual refill capacities may be a little different from them. When refilling, follow the procedure instructed in the "Do-it-yourself operations" section to determine the proper refill capacity.

	Capacity (Approximate)			Recommended Fuel/Lubricants
	US measure	Imp measure	Liter	
Fuel	21-1/8 gal	17-5/8 gal	80	Unleaded gasoline with an octane rating of at least 87 AKI (RON 91)*1
Engine oil (Refill)				
with oil filter	3-5/8 qt	3 qt	3.4	Energy Conserving Oils *2 of API SG
without oil filter	3-1/8 qt	2-5/8 qt	3.0	
Cooling system (with heater and reservoir tank)				
4x2	11-3/8 qt	9-3/8 qt	10.7	Anti-freeze coolant (Ethylene glycol base)
4x4	12-3/8 qt	10-1/4 qt	11.7	

*1: For further details, see the "Fuel recommendation" section.

*2: For further details, see recommended SAE viscosity number chart.

	Capacity (Approximate)			Recommended Fuel/Lubricants
	US measure	Imp measure	Liter	
Manual transmission and steering gear oil	—	—	—	API GL-4*1
Differential gear oil (exc. LSD)	—	—	—	API GL-5*1
Limited-slip differential (LSD) gear oil	—	—	—	Only LSD gear oil: API GL-5 and SAE 80W-90*2 approved for Nissan LSD*3
Automatic transmission fluid				Genuine Nissan ATF*4 or equivalent DEXRON™II type fluid
Power steering fluid and transfer gear oil	Refill to the proper oil level according to the instructions in the "Do-it-yourself operations" section.			Type DEXRON™ II or equivalent
Brake and clutch fluid				Genuine Nissan Brake Fluid*4 or equivalent DOT 3 (U.S. F.M.V.S.S. No. 116)
Multi-purpose grease	—	—	—	NLGI No. 2 (Lithium soap base)
Air conditioning system refrigerant	—	—	—	HFC-134a (R-134a)*5
Air conditioning system lubricants	—	—	—	Nissan A/C System Oil Type R or exact equivalent

*1: For further details, see recommended SAE viscosity number chart.

*2: SAE 90 is acceptable in temperatures above 0°F (–18°C).

*3: Contact your NISSAN dealer for a list of approved oils.

*4: Available in mainland U.S.A. through your Nissan dealer.

*5: For further details, see "Air conditioner specification label".

FUEL RECOMMENDATION

All models are designed to operate on unleaded gasoline with an octane rating of at least 87 AKI (Anti-Knock Index) number (Research octane number 91). Using a fuel other than that specified could adversely affect the emission control devices and systems, and could also affect the warranty coverage validity.

Under no circumstances should a leaded gasoline be used since this will damage the three-way catalyst.

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 suggest 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 compatibility for your Nissan

cannot be readily determined.

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, excepting a 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 undesirable driveability problems

such as engine stalling and hard 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.

After market fuel additives

NISSAN does not recommend the use of any fuel additives (i.e.: 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

In most parts of North America, you should use unleaded gasoline with an octane rating of at least 87 AKI (Anti-Knock Index) number. However, you may use unleaded gasoline with an octane rating as low as 85 AKI (Anti-Knock Index) number in these high altitude areas [over 4,000 ft (1,219 m)] such as: Colorado, Montana, New Mexico,

Utah, Wyoming, northeastern Nevada, southern Idaho, western South Dakota, western Nebraska, and that part of Texas which is directly south of New Mexico.

Using unleaded gasoline with an octane rating lower than stated above can cause persistent, heavy "spark knock". ("Spark knock" is a metallic rapping noise.) If severe, this can lead to engine damage. If you detect a persistent heavy spark knock even when using gasoline of the stated octane rating, or if you hear steady spark knock while holding a steady speed on level roads, have your dealer correct the condition. Failure to correct the condition is misuse of the vehicle, for which NISSAN is not responsible.

Incorrect ignition timing will result in knocking, after-run or overheating. This in turn may cause excessive fuel consumption or damage to the engine. If any of the above symptoms are encountered, have your vehicle checked at a NISSAN dealer or other competent service facility.

However, now and then you may notice light spark knock for a short time while accelerating or driving up hills. This is no cause for concern, because you get the

greatest fuel benefit when there is light spark knock for a short time.

ENGINE OIL AND OIL FILTER RECOMMENDATION

Only those engine oils with the American Petroleum Institute CERTIFICATION MARK on the front of the container should be used. This type of oil supersedes the existing API SERVICE SG or SH and Energy Conserving II categories. If you cannot find engine oil with the CERTIFICATION MARK, an API SERVICE SG or SH oil labeled Energy Conserving II may be used.

Selecting the correct oil

An API SG or SH quality, SAE 5W-30 and energy conserving II oil is the preferred engine oil for your vehicle. There are three oil characteristics which must be considered when selecting the correct engine oil. They are quality, viscosity and frictional characteristics. It is essential that the correct quality and viscosity oil is chosen to ensure satisfactory life and performance of the engine. It is further recommended on the gasoline engine that a low friction oil (energy conserving oil) be selected in order

to improve fuel economy and conserve energy.

Mineral based or synthetic type oils may be used in your NISSAN vehicle. These oils must, however, meet the API quality and SAE viscosity ratings specified for your vehicle. Do not mix mineral based and synthetic type oils in the engine at the same time.

Oil which may contain foreign matter or has been previously used should not be used.

Oil quality

The quality of the engine oil is shown on the container in accordance with API (American Petroleum Institute) designations of quality.

Oils which do not have the specified quality label should not be used as they could cause engine damage.

Only energy conserving oils with the designation API SG or SH should be used. The oil may be labeled with a single designation "SG" "SH" or in combination with other categories, for example, "SG/CC" or "SG/CD".

Oil viscosity

The engine oil viscosity or thickness changes with temperature. Because of this it is important that the engine oil viscosity be selected based on the temperatures at which the vehicle will be operated before the next oil change. The following chart "Recommended SAE viscosity number" shows the recommended oil viscosities for the expected ambient temperatures. Choosing an oil viscosity other than that recommended could cause serious engine damage.

Energy conserving oils

New lower friction engine oils have been developed in order to improve fuel economy and conserve energy. These oils are readily available and can be identified by such labels as EC-I, EC-II, energy conserving, energy saving, improved fuel economy, etc.

Oil identification

A standard symbol may be used to help you select the correct oil. The typical symbol shown below is usually found on the oil can top. The upper portion designates quality,

the center designates viscosity and the lower section indicates fuel saving capabilities.



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 and maintenance intervals are observed.

Selecting the correct oil filter

Your new vehicle is equipped with a high-quality genuine Nissan oil filter. When replacing, use the genuine oil filter or its equivalent for the reason described in "change intervals".

Change intervals

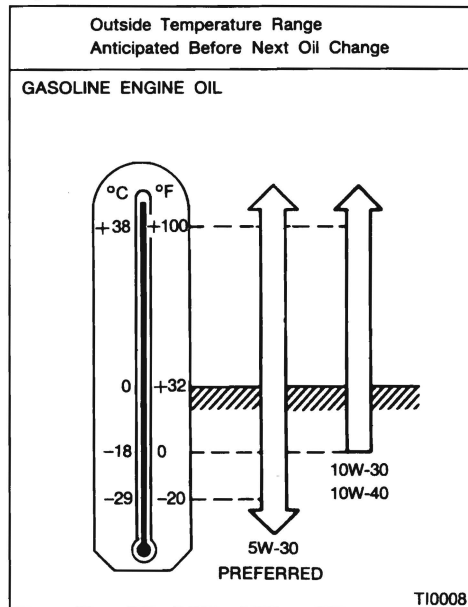
The oil and oil filter change intervals for your engine are based on the use of the

specified quality oils and filters. Oil and filter other than the specified quality, or oil and filter change intervals longer than recommended could reduce engine life. Damage to engines caused by improper maintenance or use of incorrect oil and filter quality and/or viscosity is not covered by the new Nissan vehicle warranties.

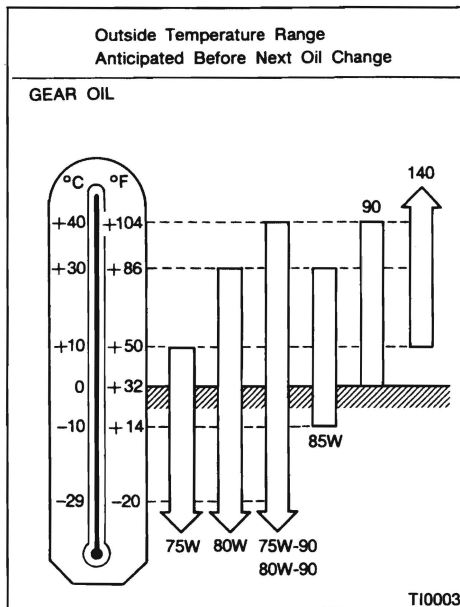
Your engine was filled with a high quality engine oil when it was built. You do not have to change the oil before the first recommended change interval. Oil and filter change intervals depend upon how you use your vehicle. Operation under the following conditions may require more frequent oil and filter changes.

- repeated short distance driving at cold outside temperatures,
- driving in dusty conditions,
- extensive idling,
- towing a trailer.

RECOMMENDED SAE VISCOSITY NUMBER



- 5W-30 is preferable for all ambient temperatures. 20W-40 and 20W-50 are usable if the ambient temperature is above 50°F (10°C) for all seasons.



- 75W-90 for transmission and 80W-90 for differential are preferable if the ambient temperature is below 104°F (40°C).

AIR CONDITIONING SYSTEM REFRIGERANT AND LUBRICANT RECOMMENDATIONS

The air conditioning system in this **NISSAN** vehicle must be charged with the refrigerant **HFC-134a (R-134a)** and the lubricant, **Nissan A/C System Oil Type R** or the exact equivalents. Use of any other refrigerants or lubricants will cause severe damage and you will need to replace your vehicle's entire air conditioning system.

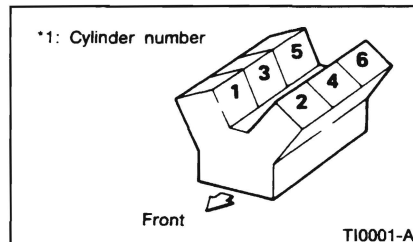
The release of refrigerant into the atmosphere is not recommended. The new refrigerant **HFC-134a (R-134a)** in your **NISSAN** vehicle will not harm the earth's ozone layer. However it may contribute in a small part to global warming. **NISSAN** recommends that the refrigerant be recovered and recycled.

Contact your **NISSAN** dealer when servicing your air conditioning system.

ENGINE

Model	VG30E	
Type	Gasoline, 4-cycle	
Cylinder arrangement	6-cylinder, V-slanted at 60°	
Bore × Stroke in (mm)	3.425 × 3.268 (87.0 × 83.0)	
Displacement cu in (cm³)	180.62 (2,960)	
Firing order	1-2-3-4-5-6*1	
Idle speed rpm		
Ignition timing (BTDC) degree/rpm	See the "Emission Control Label" on the underside of the hood.	
CO percentage at idle speed		
[No air] %		
Spark plug	For California	Except for California
	BKR5EY (Hot)	—
	BKR6EY (Standard)	BKR5EY (Standard)
	BKR7EY (Cold)	BKR6EY (Cold)
Spark plug gap in (mm)	0.031 to 0.035 (0.8 to 0.9)	
Camshaft operation	Timing belt*2	
Alternator belt size		
Width × Length in (mm)	0.551 × 36.42 (14.0 × 925)	

*2: Periodic maintenance is necessary. Refer to the appropriate maintenance schedule in chapter 8.



WHEELS & TIRES

FOR U.S.A.

		Grade	Road wheel/ offset in (mm)	Tire	Spare tire size
4x2	PATH- FINDER	XE	15x6JJ/1.18 (30)	P235/75R15*1	P215/75R15*1
			15x5-1/2K/1.57 (40)	P215/75R15	P235/75R15*1 T155/90D16
4x4	PATH- FINDER	XE	15x6JJ/1.18 (30)	P235/75R15*1	P215/75R15*1
			15x5-1/2K/1.57 (40)	P215/75R15	P235/75R15*1 T155/90D16
		SE	15x6JJ/1.18 (30) 15x7JJ Alumi- num/0.98 (25)*1	P235/75R15 31x10.5R15*1	P215/75R15 P235/75R15*1

*1: Option

FOR CANADA

		Grade	Road wheel/off- set in (mm)	Tire	Spare tire size
4x4	PATH- FINDER	XE	15x5-1/2K/1.57 (40)	P215/75R15 P235/75R15*1	P235/75R15*1 T155/90D16
			15x6JJ/1.18 (30)		
		SE	15x6JJ/1.18 (30) 15x7JJ Alumi- num/0.98 (25)*1	P235/75R15 31x10.5R15*1	P215/75R15 P235/75R15*1

*1: Option

DIMENSIONS AND WEIGHTS

Unit: in (mm)

PATHFINDER		
Overall length *1		171.9 (4,365)
Overall width		66.5 (1,690)
Overall height		65.7 (1,670) 66.1 (1,680)*2
Front tread		56.1 (1,425) 56.9 (1,445)*2
Rear tread		55.5 (1,410) 56.3 (1,430)*2
Wheelbase		104.3 (2,650)
Gross vehicle weight rating		See the "F.M.V.S.S. certification label" on the driver's side lock pillar.
	lb (kg)	
Gross axle weight rating		
Front	lb (kg)	
Rear	lb (kg)	

*1: On models with a spare tire carrier, the overall lengths is increased by the following length depending on the spare tire.

9.1 in (230 mm) for P215/75R tires, 10.2 in (260 mm) for P235/75R tires, 10.8 in (275 mm) for 10.5R tires.

*2: SE model

REGISTERING YOUR VEHICLE IN ANOTHER COUNTRY

When planning to travel in another country, you should first find out if the fuel available is suitable for your vehicle's engine.

Using fuel with an octane/cetane rating that is too low may cause engine damage. All gasoline vehicles must be operated with unleaded engine 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.

6 Appearance and interior care

Cleaning exterior and interior	6-2
Protecting against corrosion	6-5



CLEANING EXTERIOR AND INTERIOR



In order to maintain the appearance of your vehicle, it is important to take proper care of it.

In the following cases, please wash your vehicle as soon as possible to protect the paint surface.

- After a rainfall
- After driving on coastal roads
- When things 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 or detergent (a special vehicle soap or general purpose dish-washing liquid) mixed with clean, lukewarm (never hot) water.

Do not use strong household soap, strong chemical detergents, gasoline or solvents.

Rinse the vehicle thoroughly with plenty of clean water.

Inside flanges, seams and folds on the doors, hatches and hood are particularly endangered by the effects of road salt. Therefore, these areas must be regularly

cleaned. Take care that the drain holes in the lower edge of the door are open. Spray water under the body and in the wheel wells to loosen the dirt and wash away road salt.

A damp chamois can be used to dry the vehicle to avoid water spots.

Waxing

Regular waxing protects the paintwork and keeps the finish. After waxing, polishing is recommended to remove built-up residue and avoid a "weathered" appearance.

Your 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.
- If the surface does not polish easily, use a "road tar" remover and wax again.

Machine compounding or aggressive polishing on a base coat/clear coat paint finish may dull the finish or leave swirl marks.

Only apply black wax or black shoe polish

to the black urethane or polypropylene bumper.

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 your NISSAN dealer or any automotive accessories 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 corrosion on the underbody and suspension. Before the winter period and again in the spring, the underseal must be checked and, if necessary, re-treated.

Cleaning glass

Use glass cleaner to remove smoke and dust film from the glass surfaces. It is normal for glass to be coated with a film after the vehicle is parked in the hot sun. Glass cleaner and a soft cloth will easily remove this film.

When cleaning the inside of the window, do not use any sharp-edged tools or abrasive cleaners or chlorine-based disinfectant cleaners.

These may damage the electrical conductors, radio antenna elements or rear window defogger elements.

Cleaning alloy wheels

Wash regularly, especially during winter months in areas where road salt is used. Salt could discolor the wheel if not removed.

Chrome parts

Clean all chrome parts regularly with a non-abrasive chrome polish to maintain the finish.

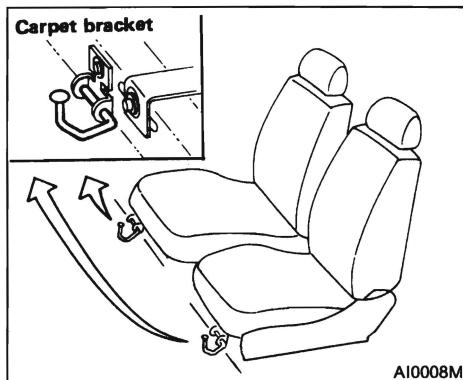
Plastic parts

Plastic parts can be cleaned with a mild soap solution. If the dirt cannot be easily removed, use a plastic cleaner. Do not use any solvents.

Cleaning interior

Occasionally remove loose dust from the interior trim and seats using a vacuum cleaner or soft 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. Before using any fabric protector, read the manufacturer's recommendations. Some fabric protectors contain chemicals that stain or bleach the seat material.

- **Never use benzine, thinner or any similar material.**
- The leather seats should be regularly coated with a leather wax like saddle soap. **Never use car wax.**
- Never use fabric protectors unless recommended by the manufacturer.



Floor mat positioning aid

Some models include a floor mat bracket to act as a floor mat positioning aid. Nissan floor mats have been especially designed for your vehicle model that incorporate a grommet hole, simply position the mat by placing the floor mat bracket hook through the floor mat grommet hole while centering the mat in the floor pan contour. Repeat this procedure for both the driver side and front passenger side floor mats. Periodically check to make certain that the mats are properly positioned.

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.

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 before using them. Do not allow wet belts to roll up in the retractor. **NEVER** use bleach, dye or chemical solvents since these may severely weaken the seat belt webbing.

PROTECTING AGAINST CORROSION

Most common factors contributing to vehicle corrosion:

1. The accumulation of moisture-retaining dirt and debris in body panel sections, cavities, and other areas.
2. 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

The accumulation of sand, dirt and water on the underside of the body will accelerate corrosion. Floor sections which have snow and ice trapped under the floor matting will not dry.

Relative humidity

Corrosion will be accelerated:

- in areas of high relative humidity
- especially in areas where the temperatures stay above freezing
- where atmospheric pollution exists
- where road salt is used

Temperature

A temperature increase will accelerate the rate of corrosion to those parts which are not well ventilated.

Air pollution

Industrial pollution, the presence of salt in the air in coastal areas, or heavy road salt use will accelerate the corrosion process. Road salt will also accelerate the disintegration of paint surfaces.

To protect your vehicle from corrosion:

- Wash and wax your vehicle often to keep the vehicle clean.
- Always check for minor damage to the paint and repair it as soon as possible.
- Keep drain holes at the bottom of the doors and tailgate open to avoid water accumulation.
- Check the underbody. If any sand, dirt or salt is accumulated, wash it off with water as soon as possible.
- NEVER remove dirt, sand or other debris from the passenger compartment by washing 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.

MEMO

7 Customer assistance

When traveling or registering your vehicle	
in another country	7-2
Vehicle identification	7-2
Trailer towing	7-5
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Reporting safety defects (U.S.A.)	7-9



WHEN TRAVELING OR REGISTERING YOUR VEHICLE IN ANOTHER COUNTRY

When planning to travel in another country, you should first find out if the fuel available is suitable for your vehicle's engine.

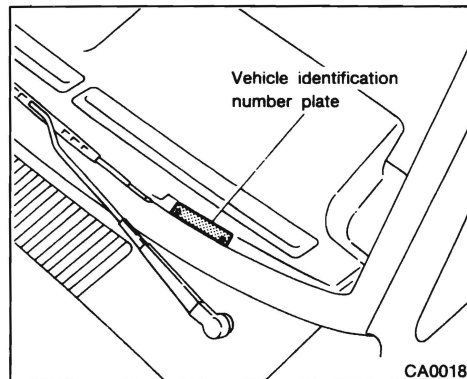
Using fuel with too low an octane rating may cause engine damage. All gasoline vehicles can be operated with unleaded gasoline. Therefore, avoid taking your vehicle to areas where appropriate fuel is not available.

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.

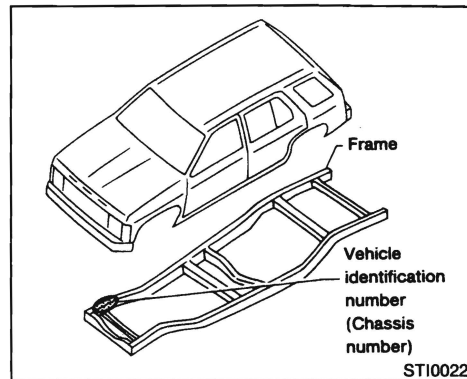
When any vehicle is to be taken into another country, state, province or district and registered, its modifications, transportation and registration are the responsibility of the user. NISSAN is not responsible for any inconvenience that may result.

VEHICLE IDENTIFICATION

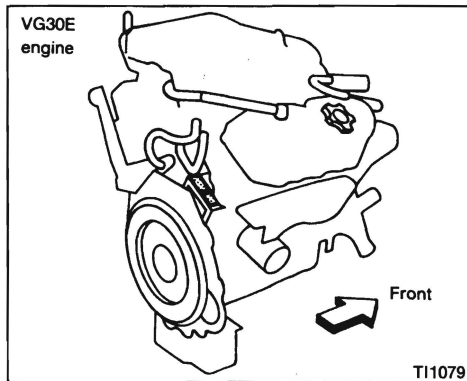


VEHICLE IDENTIFICATION NUMBER PLATE

The vehicle identification number plate is attached as shown. This number is the identification for your vehicle and is used in the vehicle registration.

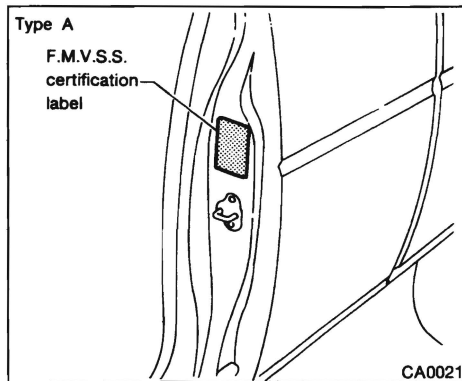


VEHICLE IDENTIFICATION NUMBER (Chassis number)



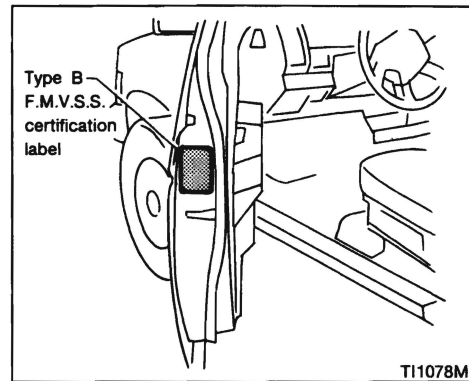
ENGINE SERIAL NUMBER

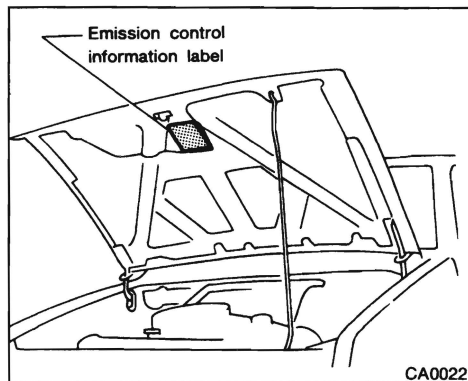
The number is stamped on the engine as shown.



F.M.V.S.S. CERTIFICATION LABEL

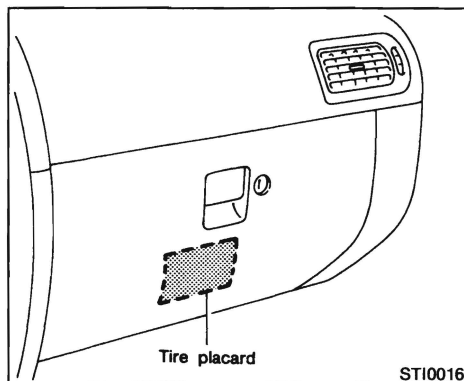
The F.M.V.S.S. certification label is affixed as shown.





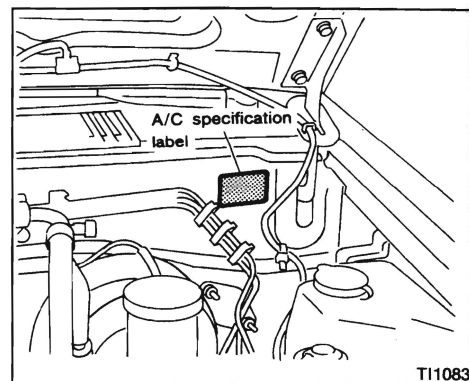
EMISSION CONTROL INFORMATION LABEL

The emission control information label is attached as shown.



TIRE PLACARD

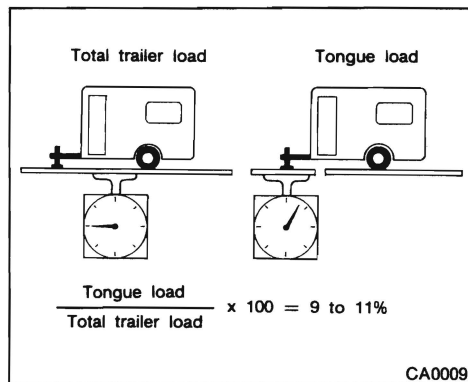
The cold tire pressure is shown on the tire placard.



AIR CONDITIONER SPECIFICATION LABEL

The label is affixed on the firewall as shown.

TRAILER TOWING



Your new vehicle was designed to be used primarily to carry passengers and cargo. Remember that towing a trailer will place additional loads on your vehicle's engine, drive train, steering, braking and other systems.

Information on trailer towing ability and the special equipment required should be obtained from your Nissan dealer. He can obtain a **Nissan Trailer Towing Guide** for you.

Maximum load limits

Maximum trailer loads

Never allow the total trailer load to exceed the value specified in the following Towing Load/Specification Chart. The total trailer load equals trailer weight plus its cargo weight.

- When towing a trailer load of 1,000 lb (454 kg) or more, trailers with a brake system **MUST** be used.

The maximum GCWR (Gross Combined Weight Rating) should not exceed the value specified in the following Towing Load Specification Chart.

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.

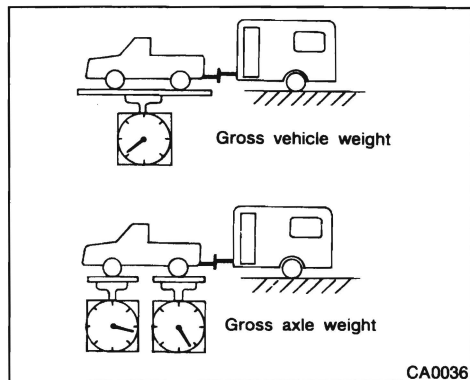
Vehicle damage and/or personal injury resulting from improper towing procedures is not covered by NISSAN warranties.

Tongue load

Keep the tongue load between 9 to 11% of the total trailer load within the maximum tongue load limits shown in the following Towing Load/Specifications Chart. If the tongue load becomes excessive, rearrange cargo to allow for proper tongue load.

TOWING LOAD/SPECIFICATION CHART

Unit: lb (kg)



Maximum gross vehicle weight/maximum gross axle weight

The gross vehicle weight of the towing vehicle must not exceed the gross vehicle weight rating (GVWR) shown on the F.M.V.S.S. certification label. The gross vehicle weight equals the combined weight of the unloaded vehicle, passengers, luggage, hitch, trailer tongue load and any other optional equipment. In addition, front or rear gross axle weight must not exceed the gross axle weight rating (GAWR) shown on the F.M.V.S.S. certification label.

WEIGHT	MODEL	PATHFINDER VG30E (6-Cyl.) M/T & A/T
MAXIMUM TRAILER WEIGHT*1		3,500 (1,588)
MAXIMUM TONGUE LOAD		350 (159)
GROSS COMBINED WEIGHT RATING		8,000 (3,629)
RECOMMENDED EQUIPMENT*2		Sway Control Device (SCD)

*1: All towing above 1,000 lb (454 kg) requires the use of trailer brakes. NISSAN recommends the use of a tandem axle trailer whenever towing above 3,000 lb (1,361 kg).

*2: A sway control device is recommended for all towing above 2,000 lb (907 kg). Sway control devices are not offered by NISSAN. See a professional trailer/hitch outlet for a properly designed sway control device for your trailer.

M/T = Manual Transmission

A/T = Automatic Transmission

Trailer hitch

Check the towing capacity of your bumper hitch or receiver type frame mounted hitch. Choose a proper hitch for your vehicle and trailer. 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.

- Special hitches which include frame reinforcements are required for towing above 2,000 lb (907 kg). Suitable Genuine NISSAN hitches for pickup truck and Pathfinder models are available at your Nissan dealer.
- Axle-mounted hitches should not be used.
- Do not modify the vehicle exhaust system, brake system, etc. when the hitch is installed. After the hitch is removed, seal the bolt holes to prevent exhaust fumes, water or dust from entering the passenger compartment.
- Check regularly to make sure that all trailer hitch mounting bolts are securely fastened.

Tire pressures

- When towing a trailer, inflate the vehicle tires to the recommended cold tire pressure indicated on the tire placard (affixed to the glove box lid).
- Trailer tire condition, size, load rating and proper inflation pressure should be in accordance with the trailer and tire manufacturers' specifications.

Safety chain

Always use a suitable chain between your vehicle and the trailer. The chain 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 chain to permit turning corners.

Trailer lights

Trailer lights should comply with Federal and/or local regulations.

When wiring vehicle for towing connection, connect stop and tail light pickup into the vehicle electrical circuit at point between the sensor and stop light switch or light switch.

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.

Never connect a trailer brake system directly to the vehicle brake system.

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.
- Avoid abrupt starts, acceleration or stops.
- Avoid sharp turns or lane changes.
- Always drive your vehicle at a moderate speed.
- Always block the wheels on both vehicle and trailer when parking. Parking on a slope is not recommended; however, if

you must do so, and if your vehicle is equipped with automatic transmission, first block the wheels and apply the parking brake, and then move the transmission shift lever into the "P" position. If you move the shift lever to the "P" position before blocking the wheels and applying the parking brake, transmission damage could occur.

- When going down a hill, shift into a lower gear and use the engine braking effect. When ascending 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 or 2nd gear when driving above 35 MPH (56 km/h).

- If the engine coolant rises to an extremely high temperature when the air conditioning 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 the first 500 miles (800 km).
- Have your vehicle serviced more often than at intervals specified in the recommended Maintenance Schedule.

When towing a trailer, change oil in the transmission more frequently. See the Maintenance Schedule.

EMISSION CONTROL SYSTEM WARRANTY

Your NISSAN is covered by the following emission warranties.

For U.S.A.

- 1) Emission Defects Warranty
- 2) Emissions Performance Warranty

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. If you did not receive a warranty information booklet or it becomes lost, you may obtain a replacement by writing.

- Nissan Motor Corporation in U.S.A. Consumer Affairs Department P.O. Box 191 Gardena. CA 90247
- Nissan Canada Inc. P.O. Box 1709, Station "B" Mississauga, Ontario, L4Y 4H6

VEHICLE LOADING

When loading your vehicle, the gross vehicle weight must not exceed the gross vehicle weight rating (GVWR) shown on the FMVSS certification label. The gross vehicle weight equals the combined weight of the unloaded vehicle, passengers, cargo, fuel and any other optional equipment.

In addition, the front and rear gross axle weights must not exceed the gross axle weight ratings (GAWR) shown on the FMVSS certification label. To find out the actual loads on the front and rear axles, you may need to weight your vehicle at a weight station. Loads should be spread out, and cargo should be properly secured.

CAUTION:

- **Properly secure all cargo with ropes or straps to prevent it from sliding or shifting. 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 on your vehicle can break, or it can change the way your vehicle handles. This could**

result in loss of control and cause personal injury.

- **Overloading can shorten the life of your vehicle. Failures caused by overloading are not covered by your warranty.**

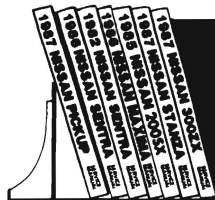
REPORTING SAFETY DEFECTS (U.S.A.)

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 either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 366-0123 in Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590. You can also obtain other information about motor vehicle safety from the Hotline.

You may notify NISSAN by contacting our Consumer Affairs Department, toll-free, at 1-800-NISSAN-1. In Hawaii call 531-0231.



Genuine Nissan Service Manuals

GET THE INSIDE STORY

The inside story on every NISSAN is available to you. Genuine Nissan Service Manuals are filled with facts, photos, diagrams, illustrations — the works. Written by the people who make the cars. And used by the ones who work on them.

Best of all, although these volumes of information are used by technicians, you don't have to be an engineer to get the picture, it's written in plain English and well illustrated.

For your copy, see your dealer or send a check or money order payable to:

In U.S.A. Dyment Distribution Services
20770 Westwood Road
Strongsville, Ohio, 44136

In Canada Nissan Canada Inc.,
P.O. Box 1709,
Station "B"
Mississauga, Ontario,
L4Y 4H6

MODEL	SERVICE MANUAL			OWNER'S MANUAL		
	PART NUMBER	U.S.A.	CANADA	PART NUMBER	U.S.A.	CANADA
1995 Pathfinder (U.S.A.)	2WD2195	\$70.00	—	3WD2195	\$8.00	—
1995 Pathfinder (Canada)	4WD2195	—	\$59.95	4WD2195E 4WD2195C	English French	\$6.50 \$6.50

California residents add 6.5% tax.

Yes! We also have service manuals for older models. Write for a free catalog.

In a hurry? Call 1-800-247-5321 and charge your purchase to Visa/MasterCard.

Prices listed are for Dyment Distribution Services and Nissan Canada Inc., and are suggested retail prices. Dealer prices may vary. Prices are subject to change without notice.

MEMO

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GENERAL MAINTENANCE

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 specified maintenance, as well as general maintenance, is performed.

As the vehicle owner, you are the only one who can ensure that your vehicle receives the proper maintenance care. You are a vital link in the maintenance chain.

General maintenance

General maintenance includes those items which should be checked during normal day-to-day operation of the vehicle. They are essential if your vehicle is to continue to operate properly. It is your responsibility to perform these procedures regularly as prescribed.

These checks or inspections can be done by yourself, a qualified technician or, if you prefer, your NISSAN dealer.

Periodic maintenance

The maintenance items listed in this part are required to be serviced at regular intervals.

However, under severe driving conditions, additional or more frequent maintenance will be required.

Where to go for service

If maintenance service is required or your vehicle appears to malfunction, have the systems checked and tuned by an authorized NISSAN dealer.

NISSAN technicians are well-trained specialists and 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's vehicles before they work on your vehicle, rather than after they have worked on it.

You can be confident that your NISSAN dealer's service department performs the best job to meet the maintenance requirements on your vehicle — in a reliable and economic way.

During the normal day-to-day operation of the vehicle, general maintenance should be performed regularly as prescribed in this section. If you detect any unusual sounds, vibrations or smell, be sure to check for the cause or have your NISSAN dealer do it promptly. In addition, you should notify your NISSAN dealer if you think that repairs are required.

When performing any checks or maintenance work, closely observe the precautions in the "Do-it-yourself operations" section.

Additional information on the following items with "*" is found in the "Do-it-yourself operations" section.

OUTSIDE THE VEHICLE

The maintenance items listed here should be performed from time to time, unless otherwise specified.

Tires* Check the pressure with a gauge periodically when at a service station, including the spare, and adjust to the specified pressure if necessary. Check carefully for damage, cuts or excessive wear.

Wheel nuts* When checking the tires, make

sure no nuts are missing, and check for any loose nuts. Tighten if necessary.

Tire rotation* Tires should be rotated every 7,500 miles (12,000 km) for 2WD vehicles and 3,750 miles (6,000 km) for 4WD vehicles.

Wheel alignment and balance If the vehicle should pull to either side while driving on a straight and level road, or if you detect uneven or abnormal tire wear, there may be a need for wheel alignment.

If the steering wheel or seat vibrates at normal highway speeds, wheel balancing may be needed.

Windshield wiper blades* Check for cracks or wear if they do not wipe properly.

Doors and engine hood Check that all doors and the engine hood, operate properly. Also ensure that all latches lock securely. Lubricate hinges, latches, rollers and links if necessary. Make sure that the secondary latch keeps the hood from opening when the primary latch is released.

When driving in areas using road salt or other corrosive materials, check lubrication frequently.

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.

Lights* 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.

Warning lights and buzzers/chimes Make sure that all warning lights and buzzers/s/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.

Steering wheel Check for changes in the steering conditions, such as excessive freeplay, hard steering or strange noises.

Seats Check seat position controls such as seat adjusters, seatback recliner, etc. to ensure they operate smoothly and that all

latches lock securely in every position. Check that the head restraints move up and down smoothly and that the locks (if so equipped) hold securely in all latched positions.

Seat belts Check that all parts of the seat belt system (e.g. buckles, anchors, adjusters and retractors) operate properly and smoothly, and are installed securely. Check the belt webbing for cuts, fraying, wear or damage.

Accelerator pedal Check the pedal for smooth operation and make sure the pedal does not catch or require uneven effort. Keep the floor mats away from the pedal.

Clutch pedal* Make sure the pedal operates smoothly and check that it has the proper free travel.

Brakes Check that the brakes do not pull the vehicle to one side when applied.

Brake pedal and booster* Check the pedal for smooth operation and make sure it has the proper distance under it when depressed fully. Check the brake booster function. Be certain to keep floor mats away from the pedal.

Parking brake* Check that the lever has the proper travel and confirm that your vehicle is held securely on a fairly steep hill with only the parking brake applied.

Automatic transmission "Park position" mechanism Check that the lock release button on the selector lever operates properly and smoothly. On a fairly steep hill check that your vehicle is held securely with the selector lever in the "P" position without applying any brakes.

UNDER THE HOOD AND VEHICLE

The maintenance items listed here should be checked periodically e.g. each time you check the engine oil or refuel.

Windshield washer fluid* Check that there is adequate fluid in the tank.

Engine coolant level* Check the coolant level when the engine is cold.

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.

Brake and clutch fluid levels* Make sure that the brake and clutch fluid level is

between the "MAX" and "MIN" lines on the reservoir.

Battery* Check the fluid level in each cell. It should be between the "MAX" and "MIN" lines.

Engine drive belts* Make sure that no belt is frayed, worn, cracked or oily.

Engine oil level* Check the level after parking the vehicle on a level spot and turning off the engine.

Power steering fluid level* and lines Check the level when the fluid is cold and the engine is turned off. Check the lines for proper attachment, leaks, cracks, etc.

Automatic transmission fluid level* Check the level after putting the selector lever in "P" with the engine idling.

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 locate the trouble and correct it. (See the carbon monoxide warning in the "Starting and driving" section)

Underbody The underbody is frequently exposed to corrosive substances such as

those used on icy roads or to control dust. It is very important to remove these substances, otherwise rust will form on the floor pan, frame, fuel lines and around the exhaust system. At the end of winter, the underbody should be thoroughly flushed with plain water, being careful to clean those areas where mud and dirt may accumulate. See the "Appearance and Interior Care" section for additional information.

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.

PERIODIC MAINTENANCE

To ensure smooth, trouble-free, safe and economical driving, NISSAN provides two different maintenance schedules that may be used, depending upon the conditions in which you usually drive. These schedules contain both distance and time intervals, up to 60,000 miles (96,000 km)/48 months. For most people, the odometer reading will indicate when service is needed. However, if you drive very little, your vehicle should be serviced at the regular time intervals shown in the schedule.

After 60,000 miles (96,000 km) or 48 months, continue periodic maintenance at the same mileage/time intervals.

SCHEDULE 1

Follow Periodic Maintenance Schedule 1 if your driving habits frequently include one or more of the following driving conditions:

- **Repeated short trips of less than 5 miles (8 km).**
- **Repeated short trips of less than 10 miles (16 km) with outside temperatures remaining below freezing.**
- **Operating in hot weather in stop-and-go “rush hour” traffic.**

- **Extensive idling and/or low speed driving for long distances, such as police, taxi or door-to-door delivery use.**
- **Driving in dusty conditions.**
- **Driving on rough, muddy, or salt spread roads.**
- **Towing a trailer, using a camper or a car-top carrier.**

SCHEDULE 2

Follow Periodic Maintenance Schedule 2 if none of the driving conditions shown in Schedule 1 apply to your driving habits.

Maintenance for off-road driving

Whenever you drive off-road through sand, mud or water as deep as the wheel hub, more frequent maintenance may be required of the following items:

- ▲ Brake pads and discs
- ▲ Brake lining and drums
- ▲ Brake lines and hoses
- ▲ Wheel bearing grease and free-running hub grease
- ▲ Differential, transmission and transfer oil
- ▲ Steering linkage
- ▲ Propeller shafts and front drive shafts
- ▲ Air cleaner filter
- ▲ Clutch housing (Check water entry. Refer to “Do-it-yourself operations” section.)

These items should be checked frequently to assure safe and proper operation of your vehicle.

SCHEDULE 1

Abbreviations: R = Replace I = Inspect. Correct or replace if necessary.

[]: At the mileage intervals only

MAINTENANCE OPERATION		MAINTENANCE INTERVAL																
Perform at number of miles, kilometers or months, whichever comes first.	Miles × 1,000	3.75	7.5	11.25	15	18.75	22.5	26.25	30	33.75	37.5	41.25	45	48.75	52.5	56.25	60	
	(km × 1,000)	(6)	(12)	(18)	(24)	(30)	(36)	(42)	(48)	(54)	(60)	(66)	(72)	(78)	(84)	(90)	(96)	
	Months	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	
Emission control system maintenance																		
Drive belts									I*									I*
Air cleaner filter	See NOTE (1)								[R]									[R]
Vapor lines									I*									I*
Fuel lines									I*									I*
Fuel filter	See NOTE (3)*																	
Engine coolant	See NOTE (4)																	R*
Engine oil		R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Engine oil filter (Use Nissan PREMIUM type or equivalent.)		R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Spark plugs									[R]									[R]
Timing belt		Replace every 105,000 miles (168,000 km)																

NOTE: (1) If operating mainly in dusty conditions, more frequent maintenance may be required.

(2) If operating mainly in dusty conditions, replace every 30,000 miles (48,000 km).

(3) If vehicle is operated under extremely adverse weather conditions or in areas where ambient temperatures are either extremely low or extremely high, the filters might become clogged. In such an event, replace them immediately.

(4) After 60,000 miles (96,000 km) or 48 months, replace every 30,000 miles (48,000 km) or 24 months.

(5) Maintenance items and intervals with "****" are recommended by NISSAN for reliable vehicle operation. The owner need not perform such maintenance in order to maintain the emission warranty or manufacturer recall liability. Other maintenance items and intervals are required.

SCHEDULE 1

Abbreviations: R = Replace I = Inspect. Correct or replace if necessary.

[]: At the mileage intervals only

MAINTENANCE OPERATION		MAINTENANCE INTERVAL															
Perform at number of miles, kilometers or months, whichever comes first.	Miles × 1,000	3.75	7.5	11.25	15	18.75	22.5	26.25	30	33.75	37.5	41.25	45	48.75	52.5	56.25	60
	(km × 1,000)	(6)	(12)	(18)	(24)	(30)	(36)	(42)	(48)	(54)	(60)	(66)	(72)	(78)	(84)	(90)	(96)
	Months	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48
Chassis and body maintenance																	
Brake lines & cables					I				I				I				I
Brake pads, discs, drums & linings			I		I		I		I		I		I		I		I
Manual & automatic transmission, transfer & differential gear oil (exc. LSD)	See NOTE (1)				I				I				I				I
Limited-slip differential (LSD) gear oil	See NOTE (1)				I				R				I				R
Steering gear (box) & linkage, (steering damper ) , axle & suspension parts			I		I		I		I		I		I		I		I
Drive shaft boots & propeller shaft ()			I		I		I		I		I		I		I		I
Steering linkage ball joints & front suspension ball joints			I		I		I		I		I		I		I		I
Front wheel bearing grease (4x2)									I								I
Front wheel bearing grease & free-running hub grease ()	See NOTE (2)				I				R				I				R
Exhaust system			I		I		I		I		I		I		I		I

NOTE: (1) If towing a trailer, using a camper or a car-top carrier, or driving on rough or muddy roads, change (not just inspect) oil at every 30,000 miles (48,000 km) or 24 months except for LSD Change LSD gear oil every 15,000 miles (24,000 km) or 12 months.

(2) If operating frequently in water, replace grease every 3,750 miles (6,000 km) or 3 months.

SCHEDULE 2

Abbreviations: R = Replace I = Inspect. Correct or replace if necessary.

[]: At the mileage intervals only

MAINTENANCE OPERATION	MAINTENANCE INTERVAL								
	Miles × 1,000	7.5	15	22.5	30	37.5	45	52.5	60
	(km × 1,000)	(12)	(24)	(36)	(48)	(60)	(72)	(84)	(96)
	Months	6	12	18	24	30	36	42	48
Emission control system maintenance									
Drive belts					I*				I*
Air cleaner filter					[R]				[R]
Vapor lines					I*				I*
Fuel lines					I*				I*
Fuel filter	See NOTE (1)*								
Engine coolant	See NOTE (2)								R*
Engine oil		R	R	R	R	R	R	R	R
Engine oil filter (Use Nissan PREMIUM type or equivalent.)			R		R		R		R
Spark plugs					[R]				[R]
Timing belt					Replace every 105,000 miles (168,000 km)				

NOTE: (1) If vehicle is operated under extremely adverse weather conditions or in areas where ambient temperatures are either extremely low or extremely high, the filters might become clogged. In such an event, replace them immediately.

(2) After 60,000 miles (96,000 km) or 48 months, replace every 30,000 miles (48,000 km) or 24 months.

(3) Maintenance items and intervals with "*" are recommended by NISSAN for reliable vehicle operation. The owner need not perform such maintenance in order to maintain the emission warranty or manufacturer recall liability. Other maintenance items and intervals are required.

SCHEDULE 2

Abbreviations: R = Replace I = Inspect. Correct or replace if necessary.

[]: At the mileage intervals only

MAINTENANCE OPERATION	MAINTENANCE INTERVAL								
	Miles × 1,000	7.5	15	22.5	30	37.5	45	52.5	60
	(km × 1,000)	(12)	(24)	(36)	(48)	(60)	(72)	(84)	(96)
	Months	6	12	18	24	30	36	42	48
Chassis and body maintenance									
Brake lines & cables			I		I		I		I
Brake pads, discs, drums & linings			I		I		I		I
Manual & automatic transmission, transfer & differential gear oil (exc. LSD)			I		I		I		I
Limited-slip differential (LSD) gear oil			I		R		I		R
Steering gear (box) & linkage, (steering damper ) , axle & suspension parts					I				I
Drive shaft boots ()			I		I		I		I
Steering linkage ball joints & front suspension ball joints									I
Front wheel bearing grease (4x2)					I				I
Front wheel bearing grease & free-running hub grease ()			I		R		I		R
Exhaust system					I				I

EXPLANATION OF MAINTENANCE ITEMS

Additional information on the following items with “*” is found in the “Do-it-yourself operations” section.

Emission control system maintenance

Drive belts* Check drive belts for wear, fraying or cracking and also for proper tension. Replace the drive belts if found damaged or in accordance with the maintenance schedule.

Air cleaner filter Under normal driving conditions, the air cleaner filter should be replaced in accordance with the maintenance schedule. However, driving the vehicle in dusty areas may cause more rapid clogging of the element. Consequently, the element may have to be replaced more frequently.

Vapor lines Check vapor lines and connections for failure or looseness. If leaks are found, replace the lines.

Fuel lines (hoses, piping, connections, etc.) Check the fuel hoses, piping and connections for leaks, looseness or deterioration.

Replace any parts if they are damaged.

Fuel filter If the vehicle is operated under extremely adverse weather conditions or in areas where ambient temperatures are either extremely low or extremely high, the filter might become clogged. In such an event, replace the filter immediately.

Engine coolant* Flush and refill the cooling system.

Engine oil & oil filter* Under normal driving conditions, the engine oil and oil filter should be replaced in accordance with the maintenance schedule. However, under severe driving conditions, they may have to be replaced more frequently.

Spark plugs* Replace with new plugs having the correct heat range.

Timing belt

Replace the timing belt for driving the camshafts.

Chassis and body maintenance

Brake lines & cables Check the brake lines and hoses (including brake booster vacuum hoses, connections & check valve) and parking brake cables for proper attach-

ment, leaks, cracks, chafing, abrasion, deterioration, etc.

Brake pads, discs, drums & linings Check these and the other neighboring brake components for wear, deterioration and leaks. Under severe driving conditions, they may have to be inspected more frequently.

Manual and automatic transmission, transfer & differential gear oil Visually inspect for signs of leakage and replace oil for limited-slip differential. Under severe driving conditions, the oil should be replaced at the specified interval.

Steering gear (box) & linkage, steering damper, axle & suspension parts & drive axle shaft boots Check for damage, looseness and leakage of oil or grease. Under severe driving conditions, more frequent inspection should be performed.

Steering linkage ball joints & front suspension ball joints Check the ball joints for damage, looseness and grease leakage. Under severe driving conditions, more frequent inspection should be performed.

Propeller shaft(s) Check the propeller shaft(s) for damage, looseness and grease

leakage under severe driving condition (~~4x2~~ only).

Front wheel bearing grease & free-running hub grease Check the wheel bearing and free-running hub for grease leakage around grease seals, axial end play and smooth turning (4x2).

Check the wheel bearing grease and free running hub grease condition or repack these in accordance with the maintenance schedule. In case of frequent driving in muddy water, the bearing grease and free-running hub grease inspection should be performed more frequently (~~4x2~~).

Exhaust system Visually check the exhaust pipes, muffler, and hangers for proper attachment, leaks, cracks, chafing, abrasion, deterioration, etc. Under severe driving conditions, inspection should be performed more frequently.

MEMO

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GAS STATION INFORMATION

QUICK REFERENCE

Recommended fuel:

Unleaded gasoline, at least 87 AKI number (RON 91)

For further details such as gasohol or diesel fuel grade, see "Fuel recommendation" in the "Technical information" section.

Recommended engine oil:

Energy Conserving Oils of API SG or SH, SAE 5W-30 is preferable for all temperatures. See "Engine oil and oil filter recommendation" in the "Technical information" section.

Tire cold pressure:

See the tire placard affixed to the glove box.

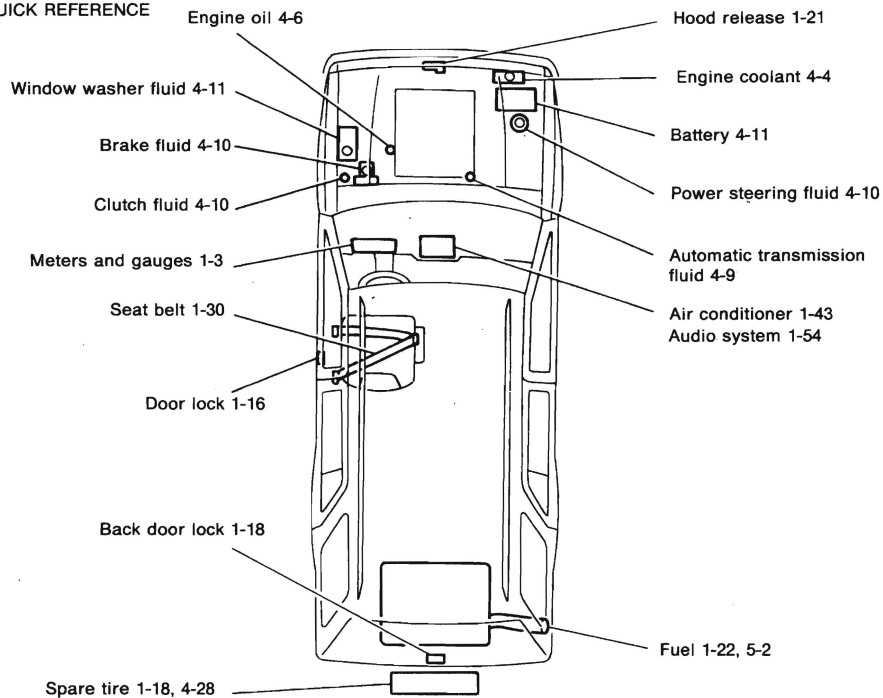
Recommended new vehicle break-in procedure:

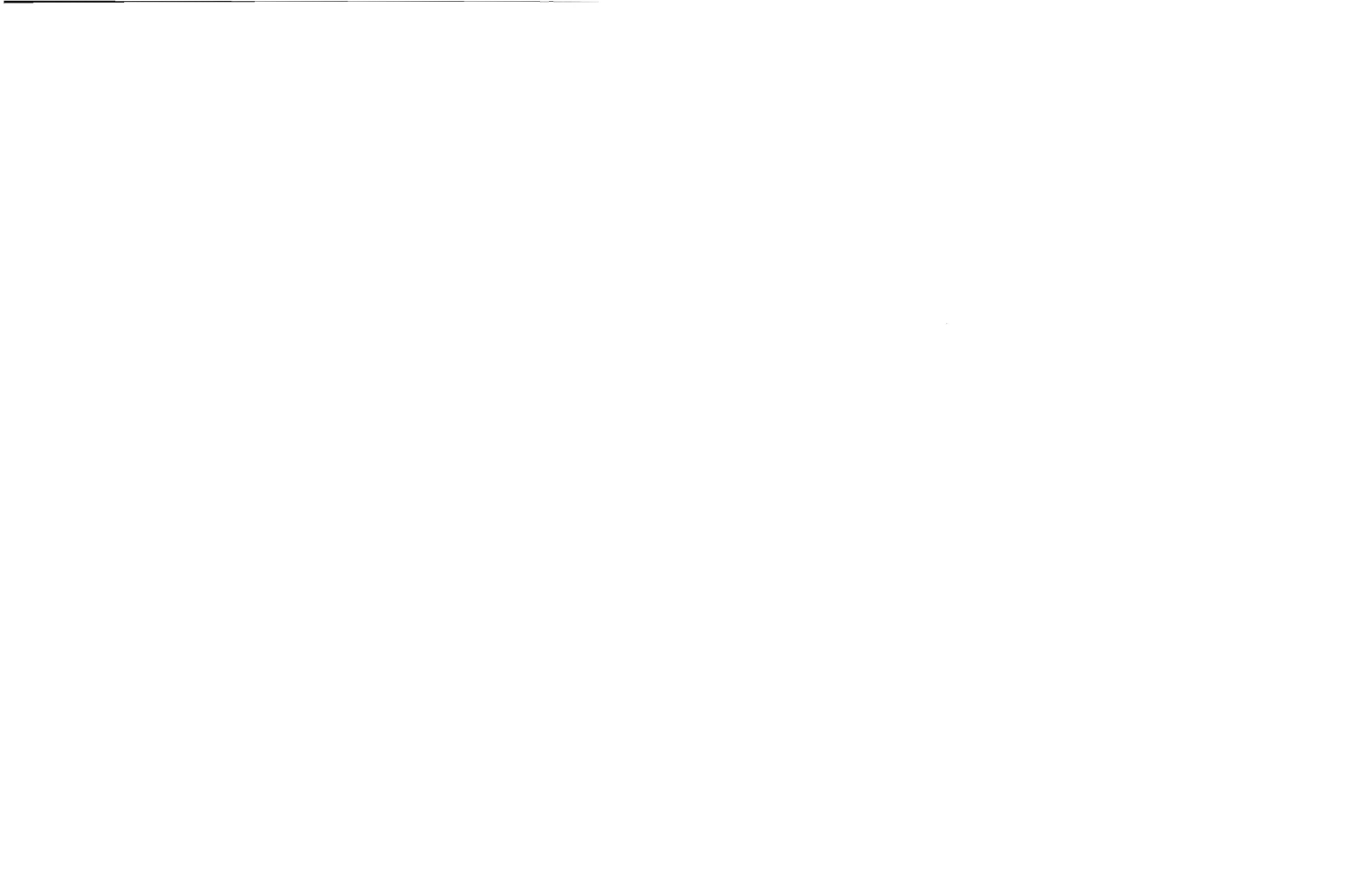
During the first 1,000 miles (1,600 km) of vehicle use, follow the recommendations outlined in the "BREAK-IN SCHEDULE" information found in the "Starting and driving" section of this Owner's Manual. Follow these recommendations for the future reliability and economy of your new vehicle. Failure to follow these recommendations may result in vehicle damage or shortened engine life.

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QUICK REFERENCE







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