

SECTION MA
MAINTENANCE

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PREPARATION

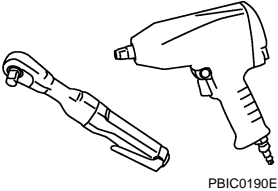
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PREPARATION

PREPARATION

Commercial Service Tool

INFOID:000000006847373

Tool name	Description
<p data-bbox="164 415 272 441">Power tool</p>  <p data-bbox="829 632 901 646">PBIC0190E</p>	<p data-bbox="1013 415 1263 441">Loosening nuts and bolts</p>

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GENERAL MAINTENANCE

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PERIODIC MAINTENANCE

GENERAL MAINTENANCE

Explanation of General Maintenance

INFOID:000000006880303

General maintenance includes those items which should be checked during the normal day-to-day operation of the vehicle. They are essential if the vehicle is to continue operating properly. The owners can perform checks and inspections themselves or have their **NISSAN** dealers do them.

OUTSIDE THE VEHICLE

The maintenance items listed here should be performed from time to time, unless otherwise specified.

Item		Reference page
Doors and motor hood	Check that all doors and the hood operate smoothly as well as the back door. Also make sure that all latches lock securely. Lubricate 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.	MA-22
Lights	Make sure that the headlamps, stop lamps, tail lamps, turn signal lamps, and other lamps are all operating properly and installed securely. Also check headlamp aim. Check for cracks and clean the headlamps on a regular basis. The Low-headlamps are LED lamps. If any repairs are necessary, have these performed at a NISSAN certified LEAF dealer. Be sure to check that all indicator lamps display operate normally.	—
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 12,000 km (7,500 miles).	MA-18
Tires	Check the pressure with a gauge often and always prior to long distance trips. Adjust the pressure in all tires, including the spare, to the pressure specified. Check carefully for damage, cuts or excessive wear.	WT-50
Tire Pressure Monitoring System (TPMS) transmitter components	Replace the TPMS transmitter grommet seal, valve core and cap when the tires are replaced due to wear or age.	WT-47
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.	FSU-11 RSU-7 MA-16
Windshield	Clean the windshield on a regular basis. Check the windshield at least every six months for cracks or other damage. Repair as necessary.	—
Windshield wiper blades	Check for cracks or wear if they do not wipe properly.	—

INSIDE THE VEHICLE

The maintenance items listed here should be checked on a regular basis, such as when performing periodic maintenance, cleaning the vehicle, etc.

Item		Reference page
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.	—
Brake pedal	Check the pedal for smooth operation and make sure it has the proper distance under it when depressed fully. Be sure to keep the floor mats away from the pedal.	BR-202
Brakes	Check that the brake does not pull the vehicle to one side when applied.	—
Electric shift P (Park) position mechanism	Check that the park button on the selector lever operates properly and smoothly. On a fairly steep hill check that the vehicle is held securely with the park switch in the P (Park) position without applying any brakes.	—
Electric Parking brake	Check the parking brake operation regularly. The vehicle should be securely held on a steep hill with only the parking brake is applied.	—

GENERAL MAINTENANCE

< PERIODIC MAINTENANCE >

Item		Reference page	
Seats	Check seat position controls such as seat adjusters, seatback recliner, etc. to make sure 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 equipped) hold securely in all latched positions. Check that the latches lock securely for folding-down rear seatbacks.	—	A
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.	MA-22	B
Steering wheel	Check that it has the specified play. Check for changes in the steering condition, such as excessive play, hard steering or strange noises. Free play: Less than 35 mm (1.38 in)	—	C
Warning lamps and chimes	Make sure that all warning lamps and chimes are operating properly.	—	D
Windshield defroster	Check that the air comes out of the defroster outlets properly and in sufficient quantity when operating the heater or air conditioner.	—	E
Windshield wiper and washer	Check that the wipers and washer operate properly and that the wipers do not streak.	—	F

UNDER THE HOOD AND VEHICLE

The maintenance items listed here should be checked periodically.

Item		Reference page	
12V Battery	Check the fluid level in each cell. It should be between the “MAX” and “MIN” lines. Vehicles operated in high temperatures or under severe conditions require frequent checks of the 12V battery fluid level.	PG-99	G
Brake fluid level	Make sure that the brake fluid level is between the “MAX” and “MIN” lines on the reservoir.	MA-18	H
Coolant level	Make sure that the coolant level is between the “MAX” and “MIN” lines on the reservoirs. Check the coolant level when the coolant is cold.	MA-10	I
Fluid leaks	Check under the vehicle for 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, check for the cause and correct it immediately.	—	J
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, deterioration or loose connections.	—	K
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 and frame. At the end of winter, the underbody should be thoroughly flushed with plain water, being careful to clean those areas where mud and dirt can easily accumulate.	—	L
Windshield washer fluid	Check that there is adequate fluid in the tank.	—	M

PERIODIC MAINTENANCE

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PERIODIC MAINTENANCE

Introduction of Periodic Maintenance

INFOID:000000006880542

Two different maintenance schedules are provided, and should be used, depending upon the conditions in which the vehicle is mainly operated. **After 60,000 miles (96,000 km) or 48 months, continue the periodic maintenance at the same mileage/time intervals.**

Schedule 1	Follow Periodic Maintenance Schedule 1 if the driving habits frequently include one or more of the following driving conditions: <ul style="list-style-type: none"> • 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. • 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. • Using a car-top carrier. 	EV System Maintenance	MA-6
		Chassis and Body Maintenance	
Schedule 2	Follow Periodic Maintenance Schedule 2 if none of driving conditions shown in Schedule 1 apply to the driving habits.	EV System Maintenance	MA-7
		Chassis and Body Maintenance	

Schedule 1

INFOID:000000006880543

EV System Maintenance

Abbreviations: R = Replace. I = Inspect. Correct or replace if necessary.

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference Section - Page or - Content Title
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	3.75 (6)	7.50 (12)	11.25 (18)	15 (24)	18.75 (30)	22.5 (36)	26.25 (42)	30 (48)	
Charging port					I				I	MA-12
Charging port sealing cap									I	—
Cooling system coolant	NOTE (1)									MA-10
Heating system coolant	NOTE (1)									MA-13
EV battery usage report					I				I	—

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference Section - Page or - Content Title
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	33.75 (54)	37.5 (60)	41.25 (66)	45 (72)	48.75 (78)	52.5 (84)	56.25 (90)	60 (96)	
Charging port					I				I	MA-12
Charging port sealing cap									I	—
Cooling system coolant	NOTE (1)									MA-10
Heating system coolant	NOTE (1)									MA-13
EV battery usage report					I				I	—

NOTE:

(1) First replacement interval is 125,000 miles (200,000 km) or 15 years. After first replacement, replace every 75,000 miles (120,000 km) or 60 months. Use only Genuine NISSAN Long Life Antifreeze/Coolant (blue) or equivalent with proper mixture ratio of 50% anti-freeze and 50% demineralized or distilled water. Mixing any other type of coolant or the use of non-distilled water will reduce the life expectancy of the factory-fill coolant.

Chassis and Body Maintenance

PERIODIC MAINTENANCE

< PERIODIC MAINTENANCE >

Abbreviations: R = Replace. I = Inspect. Correct or replace if necessary.

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference Section - Page or - Content Title
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	3.75 (6) 3	7.50 (12) 6	11.25 (18) 9	15 (24) 12	18.75 (30) 15	22.5 (36) 18	26.25 (42) 21	30 (48) 24	
Brake lines & cables					I				I	MA-18
Brake pads & rotors			I		I		I		I	MA-19 BR-207 BR-209
Brake fluid					R				R	MA-19
Reduction gear oil					I				I	TM-11
Steering gear & linkage, axle & suspension parts			I		I		I		I	MA-20 MA-20
Tire rotation	NOTE (1)									MA-4 MA-18
Drive shaft boots			I		I		I		I	MA-21
In-cabin microfilter					R				R	VTL-20

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference Section - Page or - Content Title
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	33.75 (54) 27	37.5 (60) 30	41.25 (66) 33	45 (72) 36	48.75 (78) 39	52.5 (84) 42	56.25 (90) 45	60 (96) 48	
Brake lines & cables					I				I	MA-18
Brake pads & rotors			I		I		I		I	MA-19 BR-207 BR-209
Brake fluid					R				R	MA-19
Reduction gear oil					I				I	TM-11
Steering gear & linkage, axle & suspension parts			I		I		I		I	MA-20 MA-20
Tire rotation	NOTE (1)									MA-4 MA-18
Drive shaft boots			I		I		I		I	MA-21
In-cabin microfilter					R				R	VTL-20

NOTE:

(1) Refer to "Tire rotation" under the "General maintenance" heading earlier in this section.

Schedule 2

INFOID:000000006880545

EV System Maintenance

Abbreviations: R = Replace. I = Inspect. Correct or replace if necessary.

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference Section - Page or - Content Title
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	7.5 (12) 6	15 (24) 12	22.5 (36) 18	30 (48) 24	37.5 (60) 30	45 (72) 36	52.5 (84) 42	60 (96) 48	
Charging port			I		I		I		I	MA-12
Charging port sealing cap					I				I	—
Cooling system coolant	NOTE (1)									MA-10
Heating system coolant	NOTE (1)									MA-13
EV battery usage report			I		I		I		I	—

NOTE:

PERIODIC MAINTENANCE

< PERIODIC MAINTENANCE >

(1) First replacement interval is 125,000 miles (200,000 km) or 15 years. After first replacement, replace every 75,000 miles (120,000 km) or 60 months. Use only Genuine NISSAN Long Life Antifreeze/Coolant (blue) or equivalent with proper mixture ratio of 50% anti-freeze and 50% demineralized or distilled water. Mixing any other type of coolant or the use of non-distilled water will reduce the life expectancy of the factory-fill coolant.

Chassis and Body Maintenance

Abbreviations: R = Replace. I = Inspect. Correct or replace if necessary.

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference Section - Page or - Content Title
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	7.5 (12) 6	15 (24) 12	22.5 (36) 18	30 (48) 24	37.5 (60) 30	45 (72) 36	52.5 (84) 42	60 (96) 48	
Brake lines & cables			I		I		I		I	MA-18
Brake pads & rotors			I		I		I		I	MA-19 BR-207 BR-209
Brake fluid					R				R	MA-19
Reduction gear oil			I		I		I		I	IM-11
Steering gear & linkage, axle & suspension parts					I				I	MA-20 MA-20
Tire rotation	NOTE (1)									MA-4 MA-18
Drive shaft boots			I		I		I		I	MA-21
In-cabin microfilter			R		R		R		R	VTL-20

NOTE:

(1) Refer to "Tire rotation" under the "General maintenance" heading earlier in this section.

RECOMMENDED FLUIDS AND LUBRICANTS

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RECOMMENDED FLUIDS AND LUBRICANTS

Fluids and Lubricants

INFOID:000000006972585

		Capacity (Approximate)		Recommended Fluids/Lubricants
		Imp measure	Liter	
Cooling system	With reservoir tank	10-1/8 qt	11.5	Pre-diluted Genuine NISSAN Long Life Coolant (blue) or equivalent in its quality*1
	Reservoir tank	3/4 qt	0.8	
Heating system	With reservoir tank	10-1/8 qt	11.5	
	Reservoir tank	3/4 qt	0.8	
Reduction gear fluid		1-7/8	1.1	Genuine NISSAN Matic Fluid S*2
Brake fluid		—	—	Genuine NISSAN Super Heavy Duty Brake Fluid, or equivalent DOT3 (US FMVSS No. 116)
Air conditioning system refrigerant		—	—	HFC-134a (R-134a)
Air conditioning system lubricants		—	—	Compressor Oil ND-OIL11 or equivalent
Multi-purpose grease		—	—	NLGI No. 2 (Lithium soap base)

*1: Use Genuine NISSAN Long Life Coolant (blue) or equivalent in its quality, in order to avoid possible aluminium corrosion within the cooling/heating system caused by the use of non-genuine coolant.

Note that any repairs for the incidents within the cooling/heating system while using non-genuine coolant may not be covered by the warranty even if such incidents occurred during the warranty period.

*2: Use only Genuine NISSAN Matic Fluid S. Use reduction gear fluid other than Genuine NISSAN Matic Fluid S will damage the reduction gear, which is not covered by the NISSAN new vehicle limited warranty.

Anti-Freeze Coolant Mixture Ratio

INFOID:000000006880715

The cooling/heating system is filled at the factory with a pre-diluted mixture of 50% Genuine NISSAN Long Life Antifreeze/Coolant (blue) and 50% water to provide year-round anti-freeze and coolant protection. The anti-freeze solution contains rust and corrosion inhibitors. Additional cooling/heating system additives are not necessary.

WARNING:

- **Never remove the coolant reservoir cap when the motor is hot. Wait until the motor and radiator cool down. Serious burns could be caused by high pressure fluid escaping from the radiator. See precautions in "If your vehicle overheats" found in the "In case of emergency" section of this manual.**
- **The coolant reservoir is equipped with a pressure type radiator cap. To prevent motor damage, use only a Genuine NISSAN coolant reservoir cap.**

CAUTION:

- **When adding or replacing coolant, be sure to use only Genuine NISSAN Long Life Antifreeze/Coolant (blue) or equivalent. Genuine NISSAN Long Life Antifreeze/Coolant (blue) is pre-diluted to provide antifreeze protection to -34°F (-37°C). If additional freeze protection is needed due to weather condition where you operate your vehicle, add Genuine NISSAN Long Life Antifreeze/Coolant (blue) concentrate following the directions on the container. If an equivalent coolant other than Genuine NISSAN Long Life Antifreeze/Coolant (blue) is used, follow the coolant manufacturer's instructions to maintain minimum antifreeze protection to -34°F (-37°C). The use of other types of coolant solutions other than Genuine NISSAN Long Life Antifreeze/Coolant (blue) or equivalent may damage the cooling/heating system.**
- **The life expectancy of the factory-fill coolant is 125,000 miles (200,000 km) or 15 years. Mixing any other type of coolant other than Genuine NISSAN Long Life Antifreeze/Coolant (blue), including Genuine NISSAN Long Life Antifreeze/Coolant (green), or the use of non-distilled water will reduce the life expectancy of the factory-fill coolant. Refer to the Nissan Service and Maintenance Guide for more details.**

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EV SYSTEM MAINTENANCE

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EV SYSTEM MAINTENANCE

COOLANT

COOLANT : Inspection

INFOID:000000007033232

COOLANT AMOUNT INSPECTION

- When coolant temperature is low (about 50°C or less), confirm that the coolant level of the reservoir tank is in the range from MIN (B) to MAX (A).

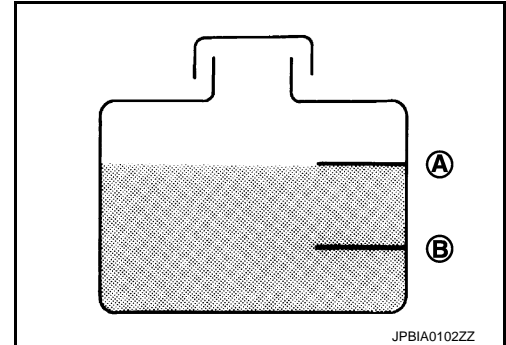
A : MAX

B : MIN

- Adjust level if it is outside the range.

CAUTION:

- Refill genuine NISSAN coolant or equivalent in its quality mixed with water (distilled or demineralized).
- Make sure not to dilute it with water.
- Confirm that the reservoir tank cap is tightened.



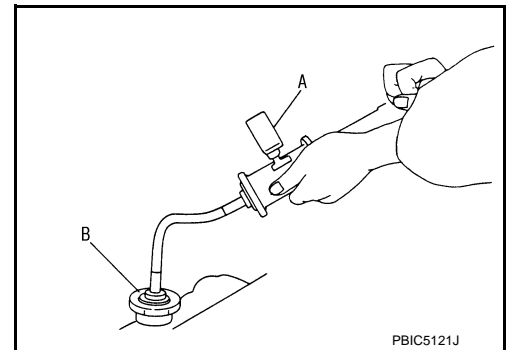
LEAKAGE CHECK

- Apply pressure to the cooling system using radiator cap tester (A) (commercial service tool). Check system for coolant leakage.

Maximum pressure : Refer to [HCO-25, "Radiator"](#).

CAUTION:

- Remove the degas tank cap when coolant temperature is low.
 - Perform the inspection with the radiator filled with water.
 - Use hose adapter (B) (commercial service tool) between radiator cap tester (A) (commercial service tool) and the filler neck so that the degas tank filler neck is not deformed.
 - Be sure to observe the maximum pressure standards. Otherwise, radiator may be damaged.
- If there is a malfunction, repair and replace applicable part.



COOLANT : Draining and Refilling

INFOID:000000007033233

CAUTION:

- Do not put additive such as waterleak preventive, since it may cause cooling waterway clogging.
- When refilling use genuine NISSAN coolant or equivalent in its quality mixed with water (distilled or demineralized).

DRAIN

CAUTION:

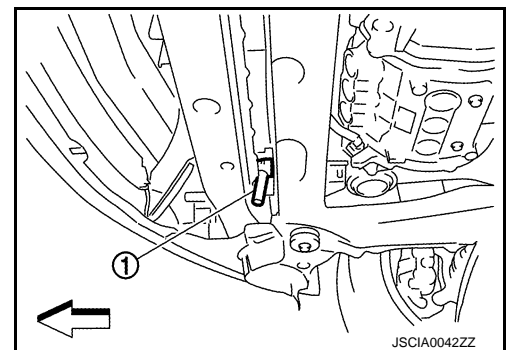
- Be sure to drain when coolant temperature is cold.
- This should be performed so that coolant does not come in contact with surrounding parts.

- Remove undercover, radiator drain plug (1) and degas tank cap and drain coolant.

1 : Radiator drain plug

⇐ : Vehicle front

- Remove reservoir tank and drain the coolant as per the following procedure.
 - Remove radiator upper grille cover.
 - Remove reservoir tank hose and reservoir tank mounting bolts.
 - Pull out the lower reservoir tank toward vehicle front. Remove the insertion area and raise the tank for removal.



EV SYSTEM MAINTENANCE

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REFILLING

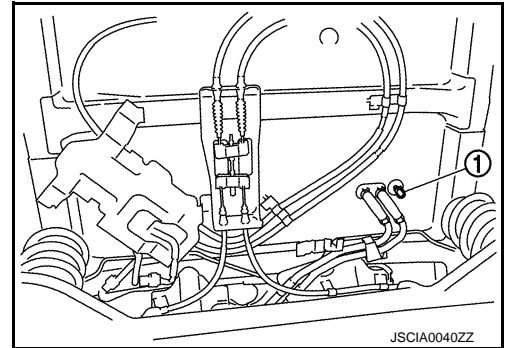
1. Install reservoir tank. (Install in the reverse order of removal.)
2. Install radiator drain plug.

CAUTION:

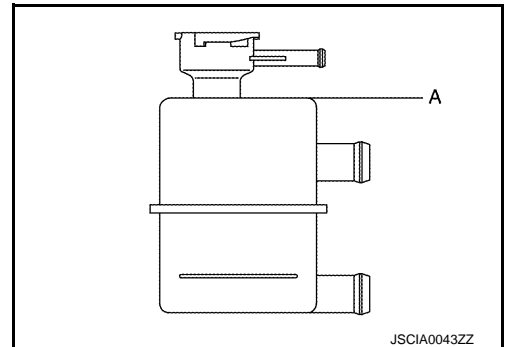
Be sure to clean drain plug and install with new O-ring.

Tightening torque : Refer to [HCO-13, "Exploded View"](#).

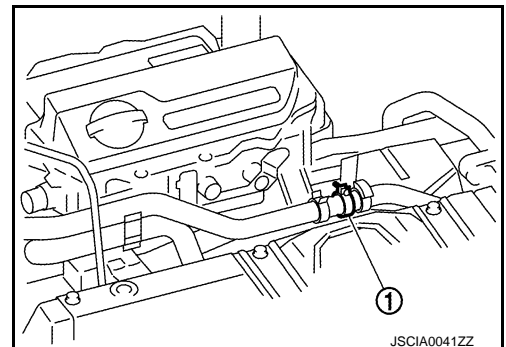
3. Check tightening of hose clamp.
4. Remove bleeder plug (1) of the on board charger.



5. Fill cooling water to line (A) from the degas tank cap.



6. Remove the hose joint (1) at the traction motor inverter front and bleed air. Check water flow visually and reconnect the hose.



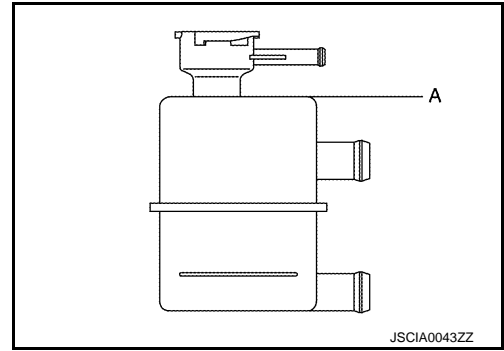
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EV SYSTEM MAINTENANCE

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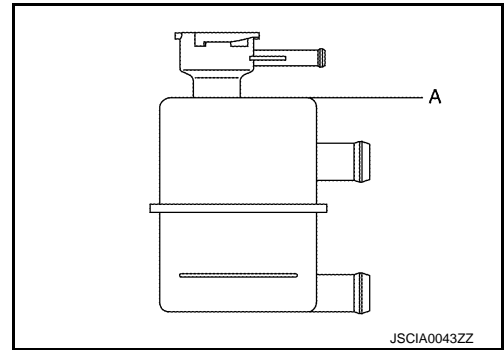
7. Fill cooling water to line (A) from the degas tank cap.



8. Close the bleeder plug of the on board charger and close the degas tank cap.

9. Set the vehicle to READY and operate the electric water pump.

10. When the degas tank level is low, open the degas tank cap and refill the tank with cooling water to line (A).



11. When the level is not lowered, close the degas tank cap and turn OFF the power switch (stop the electric water pump).

NOTE:

If the electric water pump is stopped with the degas tank open, LLC may be spilled.

12. Refill coolant to "MAX" line of reservoir tank.

CHECK WATER FLOW SOUND

CAUTION:

Prior to check, be sure to close windows, doors, and hood, and turn off audio system and other electrical loads.

1. Operate the electric water pump for 1 minute.
2. Check if water flow sound can be heard from the back of the compartment (near the on board charger).
3. If water flow sound is heard, operate the electric water pump until it cannot be heard.
4. When water flow sound cannot be heard, fill the reservoir tank up to "MAX" line.

CAUTION:

- Insufficient coolant may cause low power or stop of vehicle due to insufficient cooling of the traction motor inverter. Be sure to bleed air thoroughly.
- Never operate the electric water pump without coolant.

CHARGE PORT

CHARGE PORT : Inspection

INFOID:000000007033236

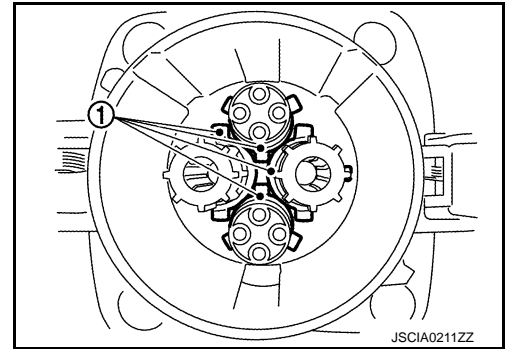
Inspection method

1. Visually check for the items listed below:

EV SYSTEM MAINTENANCE

< PERIODIC MAINTENANCE >

- Cracks in the packing of quick charge port



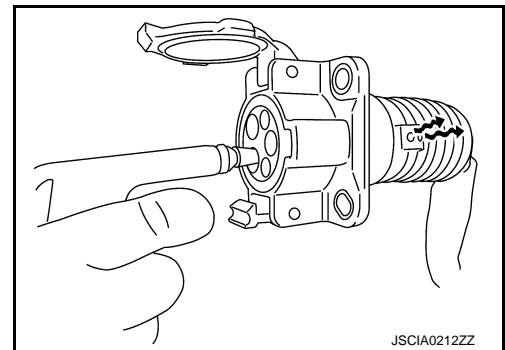
- Dust and foreign matter in the quick charge port and standard charge port
- Damage in the quick charge port and normal charge port
- Malfunction in opening/closing the charge port caps and looseness when closed and locked.

2. Check the inside of rubber cap.

Blow air to the normal charge port to check that air exits through the rubber cap hole located on the back of the port.

NOTE:

- This inspection must be performed without disconnecting the normal charge port.
- The rubber cap hole is located on the lower part of the cap.



Handling of charge port

Cleaning of charge port

If the charge port becomes dirty, clean the port with an air blow gun.

Handling of damaged cap

Perform the following procedure if the cap becomes damaged:

- Replace charge port cap if the charge port cap becomes damaged
- Replace charge port if the packing of quick charge port becomes cracked.
- Replace charge port if the terminal of quick charge port or standard charge port becomes damaged.

Cleaning of the inside of rubber cap

At Step 2, if air does not exit through the rubber cap hole, remove the rubber cap from the port and clean the inside so that air exits through the rubber cap hole.

HEATER FLUID

HEATER FLUID : Inspection

INFOID:000000007033237

COOLANT AMOUNT INSPECTION

NOTE:

Heater system and high voltage cooling system share the reservoir tank.

Refer to [MA-10. "COOLANT : Inspection"](#)

LEAKAGE CHECK

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EV SYSTEM MAINTENANCE

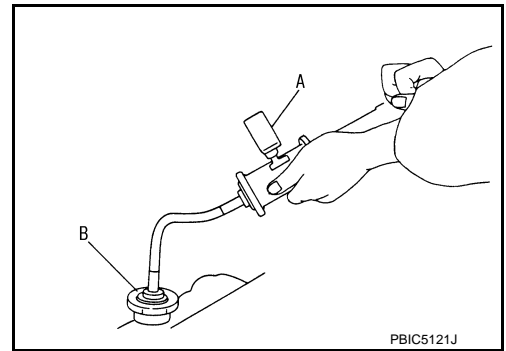
< PERIODIC MAINTENANCE >

- Apply pressure to the heater cycle using radiator cap tester (A) (commercial service tool). Check cycle for heater fluid leakage.

Maximum pressure : Refer to [HCO-25, "Radiator"](#).

CAUTION:

- Remove the degas tank cap when heater fluid temperature is low.
 - Perform the inspection with the heater cycle filled with water.
 - Use hose adapter (B) (commercial service tool) between radiator cap tester (A) (commercial service tool) and the filler neck so that the degas tank filler neck is not deformed.
 - Be sure to observe the maximum pressure standards. Otherwise, Component parts may be damaged.
- If there is a malfunction, repair and replace applicable part.



HEATER FLUID : Draining and Refilling

INFOID:000000007033238

CAUTION:

- Do not put additive such as waterleak preventive, since it may cause waterway clogging.
- When refilling use genuine NISSAN coolant or equivalent in its quality mixed with water (distilled or demineralized).
- Make sure not to dilute it with water.

DRAIN

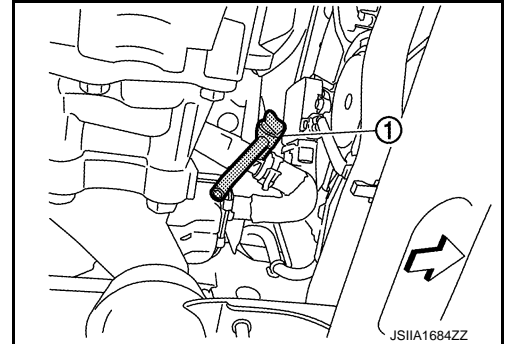
CAUTION:

- Be sure to drain when heater fluid temperature is cold.
- This should be performed so that heater fluid does not come in contact with surrounding parts.

1. Remove front under cover. Refer to [EXT-21, "FRONT UNDER COVER : Removal and Installation"](#).
2. Open the drain cock (1), remove degas tank cap and drain heater fluid.

1 : Drain cock

⇐ : Vehicle front



3. Remove reservoir tank and drain the heater fluid as per the following procedure.
 1. Remove radiator upper grille. Refer to [DLK-148, "RADIATOR UPPER GRILLE : Removal and Installation"](#).
 2. Remove reservoir tank hose and reservoir tank mounting bolts.
 3. Pull out the lower reservoir tank toward vehicle front. Remove the insertion area and raise the tank for removal.

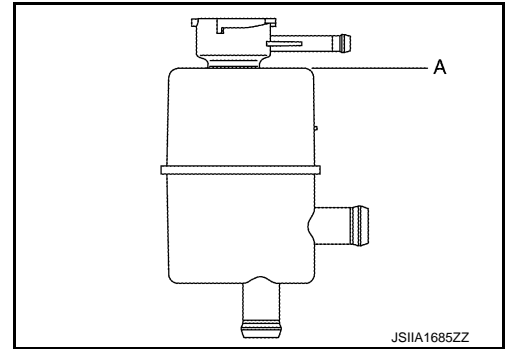
REFILLING

1. Install reservoir tank. (Install in the reverse order of removal.)
2. Close drain cock.
3. Check tightening of hose clamp.

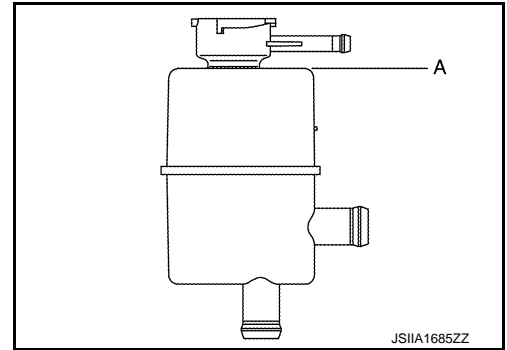
EV SYSTEM MAINTENANCE

< PERIODIC MAINTENANCE >

4. Fill water to line (A) from the degas tank cap.



5. Set the vehicle to READY and operate the heater pump.
6. When the degas tank level is low, open the degas tank cap and refill the tank with water to line (A).



7. When the level is not lowered, close the degas tank cap and turn OFF the push start switch (stop the heater pump).

NOTE:

If the heater pump is stopped with the degas tank open, heater fluid may be spilled.

8. Refill heater fluid to "MAX" line of reservoir tank.

CHECK WATER FLOW SOUND

CAUTION:

Prior to check, be sure to close windows, doors, and hood, and turn off audio system and other electrical loads.

1. Operate the heater pump for 1 minute.
2. Check if water flow sound can be heard from the instrument panel.
3. If water flow sound is heard, operate the heater pump until it cannot be heard.
4. When water flow sound cannot be heard, fill the reservoir tank up to "MAX" line.

CAUTION:

- **Insufficient heater fluid may cause overheat, water flow sound of heater core, and malfunction of heater and defroster. Be sure to bleed air thoroughly.**
- **Never operate the heater pump without heater fluid.**

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CHASSIS MAINTENANCE

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CHASSIS MAINTENANCE

WHEELS (BONDING WEIGHT TYPE)

WHEELS (BONDING WEIGHT TYPE) : Wheel Balance Adjustment

INFOID:000000007033251

PREPARATION BEFORE ADJUSTMENT

Using releasing agent, remove double-faced adhesive tape from the road wheel.

CAUTION:

- Be careful not to scratch the road wheel during removal.
- After removing double-faced adhesive tape, wipe clean traces of releasing agent from the road wheel.

ADJUSTMENT

- The details of the adjustment procedure are different for each model of wheel balancer. Therefore, refer to each instruction manual.
- If a tire balance machine has adhesion balance weight mode settings and drive-in weight mode setting, select and adjust a drive-in weight mode suitable for aluminum wheels.

1. Set road wheel on tire balance machine using the center hole as a guide. Start the tire balance machine.
2. When inner and outer unbalance values are shown on the tire balance machine indicator, multiply outer unbalance value by $5/3$ to determine balance weight that should be used. Select the outer balance weight with a value closest to the calculated value above and install to the designated outer position of, or at the designated angle in relation to the road wheel.

CAUTION:

- Never install the inner balance weight before installing the outer balance weight.
- Before installing the balance weight, always to clean the mating surface of the road wheel.

- a. Indicated unbalance value $\times 5/3$ = balance weight to be installed

Calculation example:

$23 \text{ g (0.81 oz)} \times 5/3 = 38.33 \text{ g (1.35 oz)} \Rightarrow 40 \text{ g (1.41 oz)}$ balance weight (closer to calculated balance weight value)

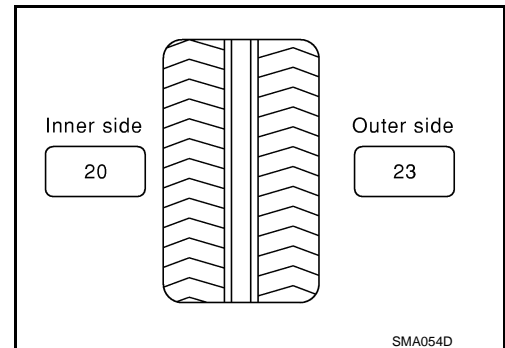
NOTE:

Note that balance weight value must be closer to the calculated balance weight value.

Example:

$37.4 \Rightarrow 35 \text{ g (1.23 oz)}$

$37.5 \Rightarrow 40 \text{ g (1.41 oz)}$



- b. Installed balance weight in the position.

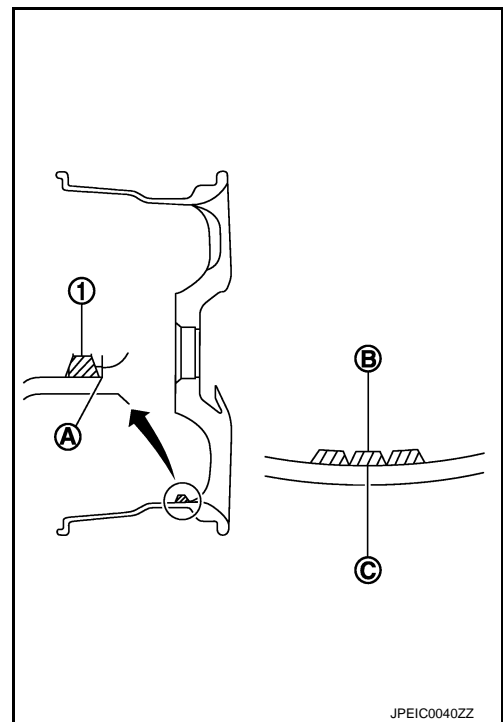
CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

- When installing balance weight (1) to road wheels, set it into the grooved area (A) on the inner wall of the road wheel as shown in the figure so that the balance weight center (B) is aligned with the tire balance machine indication position (angle) (C).

CAUTION:

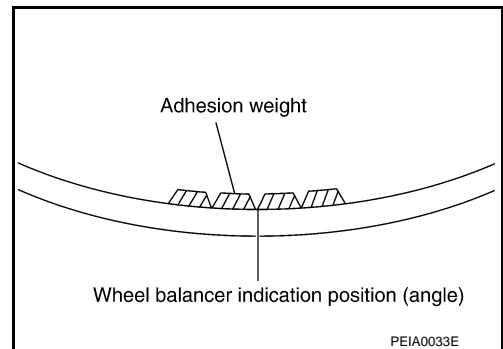
- Always use genuine NISSAN balance weights.
- Balance weights are non-reusable; always replace with new ones.
- Never install three or more sheets of balance weight.



- c. If calculated balance weight value exceeds 50 g (1.76 oz), install two balance weight sheets in line with each other as shown in the figure.

CAUTION:

Never install one balance weight sheet on top of another.



- Start the tire balance machine again.
- Install drive-in balance weight on inner side of road wheel in the tire balance machine indication position (angle).

CAUTION:

Never install three or more balance weight.

- Start the tire balance machine. Check that the inner and outer residual unbalance value is within the allowable unbalance value.

CAUTION:

If either residual unbalance value exceeds limit, repeat installation procedures.

Allowable unbalance value

Dynamic (At flange) : Refer to [WT-50, "Road Wheel"](#).

Static (At flange) : Refer to [WT-50, "Road Wheel"](#).

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CHASSIS MAINTENANCE

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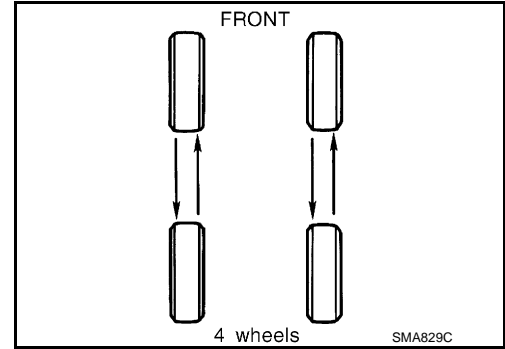
WHEELS (BONDING WEIGHT TYPE) : Tire Rotation

INFOID:000000007033252

- Follow the maintenance schedule for tire rotation service intervals. Refer to [MA-4. "Explanation of General Maintenance"](#).
- When installing the wheel, tighten wheel nuts to the specified torque. Refer to [WT-45. "Exploded View"](#).

CAUTION:

- **Never include the T-type spare tire when rotating the tires.**
 - **When installing wheels, tighten them diagonally by dividing the work two to three times in order to prevent the wheels from developing any distortion.**
 - **Be careful not to tighten wheel nut at torque exceeding the criteria.**
 - **Use NISSAN genuine wheel nut.**
- Perform the ID registration, after tire rotation. Refer to [WT-23. "Work Procedure"](#).

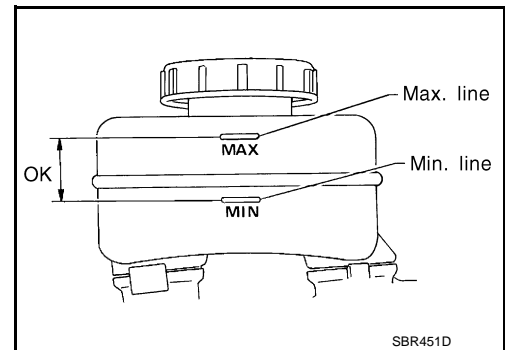


BRAKE FLUID LEVEL AND LEAKS

BRAKE FLUID LEVEL AND LEAKS : Inspection

INFOID:000000006847386

- If fluid level is extremely low, check brake system for leaks.

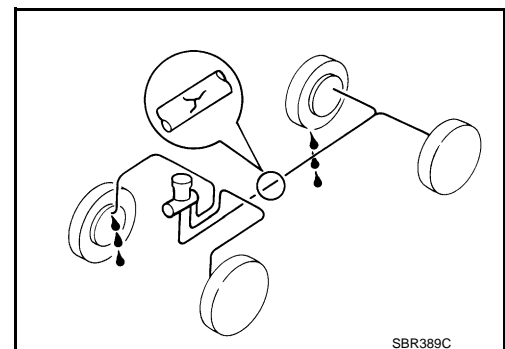


BRAKE LINES AND CABLES

BRAKE LINES AND CABLES : Inspection

INFOID:000000006847387

- Check brake fluid lines and parking brake cables for improper attachment, leaks, chafing, abrasions, deterioration, etc.



BRAKE FLUID

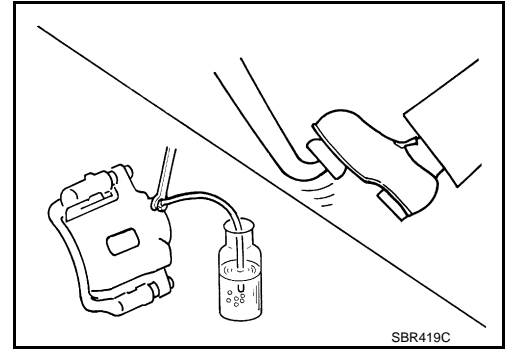
CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

BRAKE FLUID : Changing

INFOID:000000006847388

1. Drain brake fluid from each bleed valve.
2. Refill until new brake fluid comes out from each bleed valve. Use same procedure as in bleeding hydraulic system to refill brake fluid.
Refer to [BR-205. "Bleeding Brake System"](#).
 - Refill with recommended brake fluid.
Refer to [MA-9. "Fluids and Lubricants"](#).
 - Never reuse drained brake fluid.
 - Be careful not to splash brake fluid on painted areas.



DISC BRAKE

DISC BRAKE : Inspection

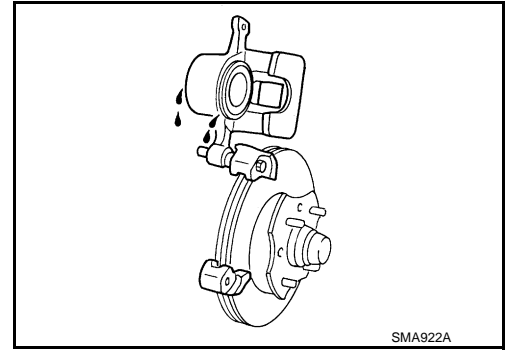
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DISC ROTOR

Check condition, wear, and damage.

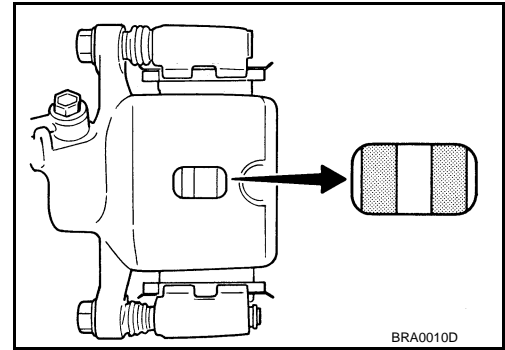
CALIPER

- Check for leakage.



BRAKE PAD

- Check for wear or damage.



DISC BRAKE : Front Disc Brake

INFOID:000000007033536

Unit: mm (in)

Item		Limit
Brake pad	Wear thickness	2.0 (0.079)
	Wear thickness	26.0 (1.024)
Disc rotor	Thickness variation (measured at 8 positions)	0.015 (0.0006)
	Runout (with it attached to the vehicle)	0.035 (0.0014)

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CHASSIS MAINTENANCE

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DISC BRAKE : Rear Disc Brake

INFOID:000000007033537

Unit: mm (in)

Item		Limit
Brake pad	Wear thickness	2.0 (0.079)
	Wear thickness	14.0 (0.051)
Disc rotor	Thickness variation (measured at 8 positions)	0.015 (0.0006)
	Runout (with it attached to the vehicle)	0.1 (0.04)

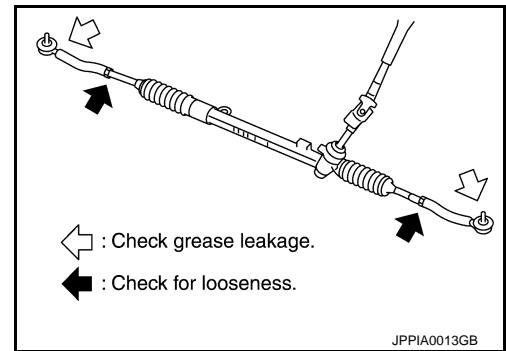
STEERING GEAR AND LINKAGE

STEERING GEAR AND LINKAGE : Inspection

INFOID:000000006847392

STEERING GEAR

- Check gear housing and boots for looseness, damage and grease leakage.
- Check connection with steering column for looseness.



STEERING LINKAGE

Check ball joint, dust cover and other component parts for looseness, wear, damage and grease leakage.

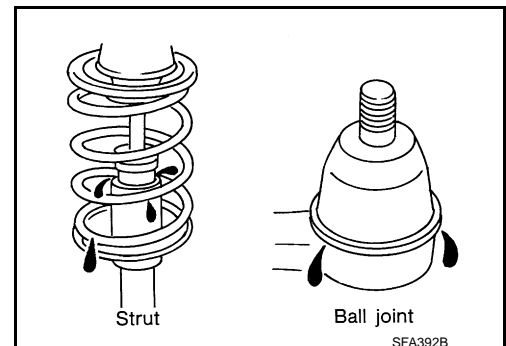
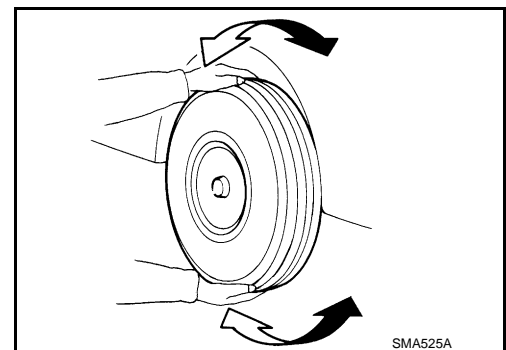
AXLE AND SUSPENSION PARTS

AXLE AND SUSPENSION PARTS : Inspection

INFOID:000000006847394

Check front and rear axle and suspension parts for excessive play, cracks, wear or other damage.

- Shake each wheel to check for excessive play.
- Check wheel bearings for smooth operation.
- Check axle and suspension nuts and bolts for looseness.
- Check strut (shock absorber) for oil leakage or other damage.
- Check suspension ball joint for grease leakage and ball joint dust cover for cracks or other damage.



DRIVE SHAFT

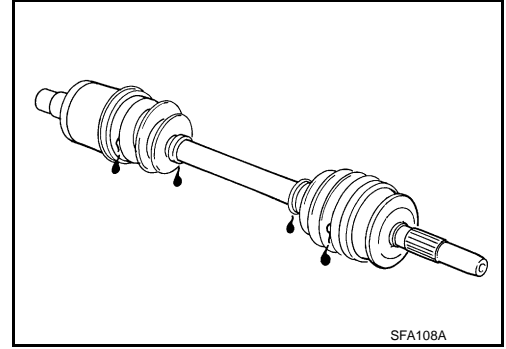
CHASSIS MAINTENANCE

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DRIVE SHAFT : Inspection

INFOID:000000006847395

Check boot and drive shaft for cracks, wear, damage and grease leakage.



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BODY MAINTENANCE

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BODY MAINTENANCE

LOCKS, HINGES AND HOOD LATCH

LOCKS, HINGES AND HOOD LATCH : Lubricating

INFOID:000000006847396

For hood and hood lock illustration.

- Hood: Refer to [DLK-136, "Exploded View"](#).
- Hood lock: Refer to [DLK-170, "Exploded View"](#).

For front door and front door lock illustration.

- Front door: Refer to [DLK-153, "Exploded View"](#).
- Front door lock: Refer to [DLK-175, "Exploded View"](#).

For rear door and rear door lock illustration.

- Rear door: Refer to [DLK-158, "Exploded View"](#).
- Rear door lock: Refer to [DLK-179, "Exploded View"](#).

For back door and back door lock illustration.

- Back door: Refer to [DLK-163, "Exploded View"](#).
- Back door lock: Refer to [DLK-183, "Exploded View"](#).

SEAT BELT, BUCKLES, RETRACTORS, ANCHORS AND ADJUSTERS

SEAT BELT, BUCKLES, RETRACTORS, ANCHORS AND ADJUSTERS : Inspection

INFOID:000000006847397

For front seat belt illustration. Refer to [SB-4, "Exploded View"](#).

For rear seat belt illustration. Refer to [SB-11, "Exploded View"](#).

CAUTION:

- **After any collision, inspect all seat belt assemblies, including retractors and other attached hardware (i.e. anchor bolt, guide rail set). Nissan recommends to replace all seat belt assemblies in use during a collision, unless not damaged and properly operating after minor collision.**

Also inspect seat belt assemblies not in use during a collision, and replace if damaged or improperly operating.

Seat belt pre-tensioner should be replaced even if the seat belts are not in use during a frontal collision where the driver and passenger air bags are deployed.

- **If any component of seat belt assembly is questionable, do not repair.**

Replace as seat belt assembly.

- **If webbing is cut, frayed, or damaged, replace belt assembly.**
- **Never oil tongue and buckle.**
- **Use a genuine NISSAN seat belt assembly.**

For details, refer to [SB-8, "SEAT BELT RETRACTOR : Inspection"](#), [SB-13, "SEAT BELT RETRACTOR : Inspection"](#) in SB section.

- Check anchors for loose mounting
- Check belts for damage
- Check retractor for smooth operation
- Check function of buckles and tongues when buckled and released

BODY CORROSION

BODY CORROSION : Checking Body Corrosion

INFOID:000000006847398

Visually check body panels for collision damage (scratches, chipping, rubbing, etc.) or damage to the anti-corrosion materials. In particular, check the following locations.

HEMMED PANELS

Hood front end, door lower end, trunk lid rear end, etc.

PANEL JOINT

Side sill of rear fender and center pillar, rear wheel housing of rear fender, around strut tower in engine compartment, etc.

PANEL EDGE

Trunk lid opening, sunroof opening, fender wheel-arch flange, charge port lid flange, around holes in panel, etc.

PARTS CONTACT

BODY MAINTENANCE

< PERIODIC MAINTENANCE >

Waist moulding, windshield moulding, bumper, etc.

PROTECTORS

Damage or condition of mudguard, fender protector, chipping protector, etc.

ANTI-CORROSION MATERIALS

Damage or separation of anti-corrosion materials under the body.

DRAIN HOLES

Condition of drain holes at door and side sill. When repairing corroded areas, refer to the Corrosion Repair Manual.

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SERVICE DATA AND SPECIFICATIONS (SDS)

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SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

COOLANT

COOLANT : Periodical Maintenance Specification

INFOID:000000007033584

COOLANT CAPACITY (APPROXIMATE)

Unit: ℓ (US qt, Imp qt)

Coolant capacity (With reservoir tank at "MAX" level)	6.6 (7, 5-6/8)
Reservoir tank coolant capacity (At "MAX" level)	0.8 (7/8, 6/8)

ROAD WHEEL

ROAD WHEEL : Road Wheel

INFOID:000000007033590

Item		Limit
Radial runout	Lateral deflection	Less than 0.3 mm (0.012 in)
	Vertical deflection	
Allowable unbalance	Dynamic (At flange)	Less than 10 g (0.35 oz) (one side)
	Static (At flange)	Less than 20 g (0.70 oz)