

SECTION **MA**  
 MAINTENANCE

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
MA

CONTENTS

<b>PRECAUTION</b> .....	3	FOR MEXICO : Fluids and Lubricants .....	19
<b>PRECAUTIONS</b> .....	3	FOR MEXICO : SAE Viscosity Number .....	20
Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER" .....	3	FOR MEXICO : Engine Coolant Mixture Ratio .....	20
<b>PREPARATION</b> .....	4	<b>ENGINE MAINTENANCE (VQ35DE)</b> .....	21
<b>PREPARATION</b> .....	4	<b>DRIVE BELTS</b> .....	21
Special Service Tool .....	4	DRIVE BELTS : Exploded View .....	21
Commercial Service Tool .....	4	DRIVE BELTS : Checking Drive Belt .....	21
<b>PERIODIC MAINTENANCE</b> .....	6	DRIVE BELTS : Tension Adjustment .....	21
<b>GENERAL MAINTENANCE</b> .....	6	<b>ENGINE COOLANT</b> .....	21
<b>FOR USA AND CANADA</b> .....	6	ENGINE COOLANT : System Inspection .....	21
FOR USA AND CANADA : Explanation of General Maintenance .....	6	ENGINE COOLANT : Changing Engine Coolant ...	23
<b>FOR MEXICO</b> .....	7	<b>FUEL LINES</b> .....	25
FOR MEXICO : General Maintenance .....	8	FUEL LINES : Inspection .....	25
<b>PERIODIC MAINTENANCE</b> .....	10	<b>AIR CLEANER FILTER</b> .....	25
<b>FOR USA AND CANADA</b> .....	10	AIR CLEANER FILTER : Exploded View .....	26
FOR USA AND CANADA : Introduction of Periodic Maintenance .....	10	AIR CLEANER FILTER : Removal and Installation .....	26
<b>FOR MEXICO</b> .....	13	<b>ENGINE OIL</b> .....	26
FOR MEXICO : Periodic Maintenance .....	13	ENGINE OIL : Inspection .....	26
<b>RECOMMENDED FLUIDS AND LUBRICANTS</b> .....	17	ENGINE OIL : Changing Engine Oil .....	28
<b>FOR USA AND CANADA</b> .....	17	<b>OIL FILTER</b> .....	28
FOR USA AND CANADA : Fluids and Lubricants... 17	17	OIL FILTER : Removal and Installation .....	28
FOR USA AND CANADA : Engine Oil Recommendation .....	18	<b>SPARK PLUG</b> .....	29
FOR USA AND CANADA : Engine Coolant Mixture Ratio .....	18	SPARK PLUG : Exploded View .....	30
<b>FOR MEXICO</b> .....	18	SPARK PLUG : Removal and Installation .....	30
		<b>EVAP VAPOR LINES</b> .....	31
		EVAP VAPOR LINES : Inspection .....	31
		<b>CHASSIS AND BODY MAINTENANCE</b> .....	32
		<b>IN-CABIN MICROFILTER</b> .....	32
		IN-CABIN MICROFILTER : Removal and Installation .....	32
		<b>EXHAUST SYSTEM</b> .....	32

EXHAUST SYSTEM : Inspection .....	32	BRAKE FLUID : Drain and Refill .....	41
<b>CVT FLUID .....</b>	<b>32</b>	<b>FRONT BRAKE .....</b>	<b>42</b>
CVT FLUID : Inspection .....	33	FRONT BRAKE : Inspection of Pad .....	42
CVT FLUID : Replacement .....	33	FRONT BRAKE : Inspection of Rotor .....	42
CVT FLUID : Adjustment .....	34	<b>REAR BRAKE .....</b>	<b>43</b>
<b>TRANSFER OIL .....</b>	<b>35</b>	REAR BRAKE : Inspection of Pad .....	43
TRANSFER OIL : Inspection .....	35	REAR BRAKE : Inspection of Rotor .....	44
TRANSFER OIL : Draining .....	36	<b>STEERING GEAR AND LINKAGE .....</b>	<b>45</b>
TRANSFER OIL : Refilling .....	36	STEERING GEAR AND LINKAGE : Inspection .....	45
<b>REAR DIFFERENTIAL GEAR OIL .....</b>	<b>37</b>	<b>POWER STEERING FLUID AND LINES .....</b>	<b>45</b>
REAR DIFFERENTIAL GEAR OIL : Inspection .....	37	POWER STEERING FLUID AND LINES : Inspec-	
REAR DIFFERENTIAL GEAR OIL : Draining .....	37	tion .....	45
REAR DIFFERENTIAL GEAR OIL : Refilling .....	37	<b>AXLE AND SUSPENSION PARTS .....</b>	<b>46</b>
<b>PROPELLER SHAFT .....</b>	<b>38</b>	AXLE AND SUSPENSION PARTS : Inspection .....	46
PROPELLER SHAFT : Inspection .....	38	<b>DRIVE SHAFT .....</b>	<b>46</b>
<b>WHEELS .....</b>	<b>38</b>	DRIVE SHAFT : Inspection .....	46
WHEELS : Inspection .....	38	<b>LOCKS, HINGES AND HOOD LATCH .....</b>	<b>46</b>
WHEELS : Adjustment .....	38	LOCKS, HINGES AND HOOD LATCH : Lubricat-	
<b>BRAKE FLUID LEVEL AND LEAKS .....</b>	<b>40</b>	ing .....	47
BRAKE FLUID LEVEL AND LEAKS : Inspection ...	40	<b>SEAT BELT, BUCKLES, RETRACTORS, AN-</b>	
<b>BRAKE LINES AND CABLES .....</b>	<b>41</b>	<b>CHORS AND ADJUSTERS .....</b>	<b>47</b>
BRAKE LINES AND CABLES : Inspection .....	41	SEAT BELT, BUCKLES, RETRACTORS, AN-	
<b>BRAKE FLUID .....</b>	<b>41</b>	CHORS AND ADJUSTERS : Inspection .....	47

# PRECAUTIONS

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## PRECAUTION

### PRECAUTIONS

#### Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000012547542

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

**WARNING:**

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.
- Improper repair, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

#### PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

**WARNING:**

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery or batteries, and wait at least three minutes before performing any service.

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# PREPARATION

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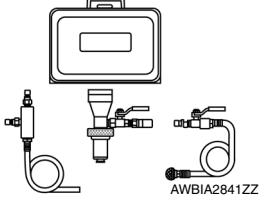
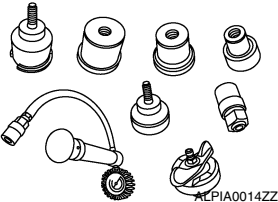

## PREPARATION

### PREPARATION

#### Special Service Tool

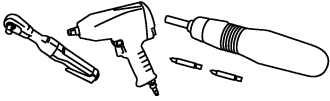
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The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
KV991J0070 (J-45695-A) Coolant refill tool	Refilling engine cooling system   AWBIA2841ZZ
— (J-51771) Cooling system pressure test kit	Checking cooling system and radiator cap   ALPIA0014ZZ
KV10115801 (J-38956) Oil filter wrench	Removing and installing oil filter   14 faces Inner span 64.3 mm (2.531 in) (Face to opposite face)  S-NT772

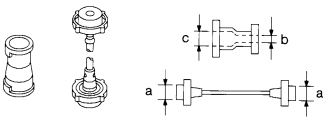
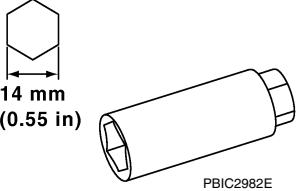
#### Commercial Service Tool

INFOID:000000012547544

Tool name	Description
Power tool	Loosening nuts, screws and bolts   PIIB1407E

# PREPARATION

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Tool name	Description
<p>— (J-33984-A) Radiator pressure adapter</p>  <p style="text-align: center;">S-NT564</p>	<p>Adapting cooling system pressure tester to radiator cap and reservoir tank cap  <b>a: 28 (1.10) diameter</b>  <b>b: 31.4 (1.236) diameter</b>  <b>c: 41.3 (1.626) diameter</b>            Unit: mm (in)</p>
<p>Spark plug wrench</p>  <p style="text-align: center;">PBIC2982E</p>	<p>Removing and installing spark plug</p>

A  
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C  
D  
E  
F  
G  
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# GENERAL MAINTENANCE

< PERIODIC MAINTENANCE >

## PERIODIC MAINTENANCE

### GENERAL MAINTENANCE FOR USA AND CANADA

#### FOR USA AND CANADA : Explanation of General Maintenance

INFOID:000000012547545

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
<b>Tires</b>	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.	<a href="#">MA-38</a>
<b>Wheel nuts</b>	When checking the tires, make sure no nuts are missing, and check for any loose nuts. Tighten if necessary.	<a href="#">MA-38</a>
<b>Tire rotation</b>	Tires should be rotated every 5,000 miles (8,000 km).	<a href="#">MA-38</a>
<b>Tire pressure monitoring system (TPMS) transmitter components</b>	Replace the TPMS transmitter grommet seal, valve core and cap when the tires are replaced due to wear or age.	<a href="#">MA-38</a>
<b>Wheel alignment and balance</b>	If the vehicle should pull to either side while driving on a straight and level road or if you detect uneven or abnormal tire wear, there may be a need for wheel alignment. If the steering wheel or seat vibrates at normal highway speeds, wheel balancing may be needed. For additional information regarding tires, refer to "Important Tire Safety Information" (US) or "Tire Safety Information" (Canada) in the NISSAN Warranty Information Booklet.	<a href="#">FSU-21, WT-58</a>
<b>Windshield</b>	Clean the windshield on a regular basis. Check the windshield at least every six months for cracks or other damage. Repair as necessary.	—
<b>Wiper blades</b>	Check for cracks or wear if they do not wipe properly. Repair as necessary.	—
<b>Doors and engine hood</b>	Check that all doors and the engine hood operate smoothly as well as the back door, trunk lid and glass hatch. 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 for lubrication frequently.	<a href="#">MA-47</a>
<b>Lamps</b>	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. Clean the headlamps on a regular basis.	<a href="#">EXL-145</a>

#### 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
<b>Warning lamps and chimes</b>	Make sure that all warning lamps and chimes are operating properly.	—
<b>Windshield wiper and washer</b>	Check that the wipers and washer operate properly and that the wipers do not streak.	—
<b>Windshield defroster</b>	Check that the air comes out of the defroster outlets properly and in sufficient quantity when operating the heater or air conditioner.	—
<b>Steering wheel</b>	Check that it has the specified play. Check for changes in the steering condition, such as excessive play, hard steering or strange noises. <b>Free play: Less than 35 mm (1.38 in)</b>	<a href="#">ST-45</a>

# GENERAL MAINTENANCE

## < PERIODIC MAINTENANCE >

Item		Reference page	
<b>Seats</b>	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 B
<b>Seat belts</b>	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.	<a href="#">MA-47</a>	C
<b>Accelerator pedal</b>	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.	—	D
<b>Brakes</b>	Check that the brake does not pull the vehicle to one side when applied.	—	D
<b>Brake pedal and booster</b>	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 sure to keep the floor mats away from the pedal.	<a href="#">BR-20</a> , <a href="#">BR-31</a>	E
<b>Parking brake</b>	Check that the lever or pedal has the proper travel and make sure that the vehicle is held securely on a fairly steep hill when only the parking brake is applied.	<a href="#">PB-7</a>	F
<b>CVT P (Park) position mechanism</b>	On a fairly steep hill check that the vehicle is held securely with the shift selector in the P (Park) position without applying any brakes.	—	F

## 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).

Item		Reference page	
<b>Windshield washer fluid</b>	Check that there is adequate fluid in the tank.	—	G H
<b>Engine coolant level</b>	Check the coolant level when the engine is cold.	<a href="#">CO-10</a>	I
<b>Radiator and hoses</b>	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.	—	I
<b>Brake fluid level</b>	Make sure that the brake fluid level is between the MAX and MIN lines on the reservoir.	<a href="#">MA-40</a>	J
<b>Battery</b>	Check the fluid level in each cell. It should be between the MAX and MIN lines. Vehicles operated in high temperatures or under severe conditions require frequent checks of the battery fluid level.	<a href="#">PG-93</a>	K
<b>Engine drive belts</b>	Make sure that no belt is frayed, worn, cracked or oily.	<a href="#">EM-12</a>	L
<b>Engine oil level</b>	Check the level on the oil level gauge after parking the vehicle on a level spot and turning off the engine.	<a href="#">LU-8</a>	L
<b>Power steering fluid level and lines</b>	Check the level on the dipstick with the engine off. Check the lines for improper attachment, leaks, cracks, etc.	<a href="#">MA-45</a>	M
<b>Exhaust system</b>	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.	<a href="#">MA-32</a>	N
<b>Underbody</b>	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 can easily accumulate.	—	N O
<b>Fluid leaks</b>	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 gasoline fumes are evident, check for the cause and correct it immediately.	—	MA

## FOR MEXICO

# GENERAL MAINTENANCE

< PERIODIC MAINTENANCE >

## FOR MEXICO : General Maintenance

INFOID:000000012547546

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 the checks and inspections themselves or they can 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
<b>Doors and hood</b>	Check that all doors and the hood operate smoothly as well as the back door, trunk lid and hatch. 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.	<a href="#">MA-47</a>
<b>Lamps</b>	Clean the headlamps on a regular basis. Make sure that the headlamps, stop lamps, tail lamps, turn signal lamps, and other lamps are all operating properly and installed securely. Also check the aim of the headlamps.	—
<b>Tires</b>	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.	<a href="#">WT-67</a>
<b>Tire rotation</b>	In the case that Two-Wheel Drive (2WD) and front and rear tires are same size; tires should be rotated every 10,000 km (6,000 miles). Tires marked with directional indicators can only be rotated between front and rear. Make sure that the directional indicators point in the direction of wheel rotation after the tire rotation is completed. In the case that Four-Wheel Drive and All Wheel Drive (4WD/AWD) and front and rear tires are same size; tires should be rotated every 5,000 km (3,000 miles). Tires marked with directional indicators can only be rotated between front and rear. Make sure that the directional indicators point in the direction of wheel rotation after the tire rotation is completed. In the case that front tires are different size from rear tires; tires cannot be rotated. The timing for tire rotation may vary according to your driving habits and the road surface conditions.	<a href="#">WT-59</a>
<b>Tire Pressure Monitoring System (TPMS) transmitter components (if so equipped)</b>	Replace the TPMS transmitter grommet seal, valve core and cap when the tires are replaced due to wear or age.	<a href="#">WT-62</a>
<b>Wheel alignment and balance</b>	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.	<a href="#">FSU-5</a>
<b>Windshield</b>	Clean the windshield on a regular basis. Check the windshield at least every six months for cracks or other damage. Repair as necessary.	—
<b>Wiper blades</b>	Check for cracks or wear if not functioning correctly. Replace as necessary.	—

### 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
<b>Accelerator pedal</b>	Check the pedal for smooth operation and make sure that the pedal does not catch or require uneven effort. Keep the floor mats away from the pedal.	—
<b>Brake pedal</b>	Check the pedal for smooth operation and make sure that it is the proper distance from the floor mat when depressed fully. Check the brake booster function. Be sure to keep the floor mats away from the pedal.	<a href="#">BR-7</a>
<b>Parking brake</b>	Check the parking brake operation regularly. Check that the lever (if so equipped) or the pedal (if so equipped) has the proper travel. Also make sure that the vehicle is held securely on a fairly steep hill when only the parking brake is applied.	<a href="#">PB-4</a>
<b>Seat belts</b>	Check that all parts of the seat belt system (for example, buckles, anchors, adjusters and retractors) operate properly and smoothly, and are installed securely. Check the belt webbing for cuts, fraying, wear or damage.	<a href="#">MA-47</a>



# GENERAL MAINTENANCE

## < PERIODIC MAINTENANCE >

Item		Reference page	
<b>Steering wheel</b>	Check for changes in the steering condition, such as excessive play, hard steering or strange noises. Check that it has the specified play. <b>Free play: Less than 35 mm (1.38 in)</b>	—	A
<b>Warning lamps and chimes</b>	Make sure that all warning lamps and chimes are operating properly.	—	B
<b>Windshield defogger</b>	Check that the air comes out of the defogger outlets properly and in good quantity when operating the heater or air conditioner.	—	C
<b>Windshield wiper and washer</b>	Check that the wipers and washer operate properly and that the wipers do not streak.	—	D

## UNDER THE HOOD AND VEHICLE

The maintenance items listed here should be checked periodically (for example, each time you check the engine oil or refuel.)

Item		Reference page	
<b>Battery (except for maintenance free batteries)</b>	Check the fluid level in each cell. It should be between the UPPER and LOWER lines. Vehicles operated in high temperatures or under severe conditions require frequent checks of the battery fluid level.	<a href="#">PG-84</a>	E
<b>Brake (and clutch) fluid level(s)</b>	For Manual Transmission (MT) model; make sure that the brake and clutch fluid levels are between the MAX and MIN lines on the reservoirs. Except for Manual Transmission (MT) model: make sure that the brake fluid level is between the MAX and MIN lines on the reservoir.	<a href="#">BR-8</a>	F
<b>Engine coolant level</b>	Check the coolant level when the engine is cold. Make sure that the coolant level is between the MAX and MIN lines on the reservoir.	<a href="#">CO-10</a>	G
<b>Engine drive belt(s)</b>	Make sure that drive belt(s) is not frayed, worn, cracked or oily.	<a href="#">EM-12</a>	H
<b>Engine oil level</b>	Check the level after parking the vehicle (on a level ground) and turning off the engine.	<a href="#">LU-8</a>	I
<b>Fluid leaks</b>	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 fuel fumes are evident, check for cause and have it corrected immediately.	—	J
<b>Power steering fluid level and lines</b>	Check the level when the fluid is cold, with the engine off. Check the lines for proper attachment, leaks, cracks, etc.	<a href="#">ST-18</a>	K
<b>Windshield washer fluid</b>	Check that there is adequate fluid in the reservoir.	—	L

# PERIODIC MAINTENANCE

< PERIODIC MAINTENANCE >

## PERIODIC MAINTENANCE FOR USA AND CANADA

### FOR USA AND CANADA : Introduction of Periodic Maintenance

INFOID:000000012547547

The following tables show the normal maintenance schedule. Depending upon weather and atmospheric conditions, varying road surfaces, individual driving habits and vehicle usage, additional or more frequent maintenance may be required.

**Periodic maintenance beyond the last period shown on the tables requires similar maintenance.**

#### Emission Control System Maintenance

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

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000)	5	10	15	20	25	30	35	40	45
	Months	(8)	(16)	(24)	(32)	(40)	(48)	(56)	(64)	(72)
Drive belt	NOTE (1)								I*	
Air cleaner filter	NOTE (2)						R			
EVAP vapor lines					I*				I*	
Fuel lines					I*				I*	
Fuel filter	NOTE (3)									
Engine coolant*	NOTE (4)(5)									
Engine oil		R	R	R	R	R	R	R	R	R
Engine oil filter (Use genuine NISSAN engine oil filter or equivalent)		R	R	R	R	R	R	R	R	R
Spark plugs (Iridium - tipped type)	NOTE (6)	Replace every 105,000 miles (168,000 km)								
Intake and exhaust valve clearance*	NOTE (7)									

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000)	50	55	60	65	70	75	80	85	90
	Months	(80)	(88)	(96)	(104)	(112)	(120)	(128)	(136)	(144)
Drive belt	NOTE (1)	I*		I*		I*		I*		I*
Air cleaner filter	NOTE (2)			R						R
EVAP vapor lines				I*				I*		
Fuel lines				I*				I*		
Fuel filter	NOTE (3)									
Engine coolant*	NOTE (4)(5)									
Engine oil		R	R	R	R	R	R	R	R	R
Engine oil filter (Use genuine NISSAN engine oil filter or equivalent)		R	R	R	R	R	R	R	R	R
Spark plugs (Iridium - tipped type)	NOTE (6)	Replace every 105,000 miles (168,000 km)								
Intake and exhaust valve clearance*	NOTE (7)									

MAINTENANCE OPERATION		MAINTENANCE INTERVAL						Reference Page
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000)	95	100	105	110	115	120	
	Months	(152)	(160)	(168)	(176)	(184)	(192)	
Drive belt	NOTE (1)		I*		I*		I*	<a href="#">EM-12</a>
Air cleaner filter	NOTE (2)						R	<a href="#">EM-15</a>
EVAP vapor lines			I*				I*	<a href="#">EC-505</a>

# PERIODIC MAINTENANCE

## < PERIODIC MAINTENANCE >

MAINTENANCE OPERATION		MAINTENANCE INTERVAL						Reference Page
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	95 (152) 114	100 (160) 120	105 (168) 126	110 (176) 132	115 (184) 138	120 (192) 144	
Fuel lines			I*				I*	<a href="#">MA-25</a>
Fuel filter	NOTE (3)							—
Engine coolant*	NOTE (4)(5)							<a href="#">MA-23</a>
Engine oil		R	R	R	R	R	R	<a href="#">MA-28</a>
Engine oil filter (Use genuine NISSAN engine oil filter or equivalent)		R	R	R	R	R	R	<a href="#">MA-28</a>
Spark plugs (Iridium - tipped type)	NOTE (6)	Replace every 105,000 miles (168,000 km)						<a href="#">MA-30</a>
Intake and exhaust valve clearance*	NOTE (7)							<a href="#">EM-18</a>

### NOTE:

- (1) After 40,000 miles (64,000 km) or 48 months, inspect every 10,000 miles (16,000 km) or 12 months. Replace the drive belts if found damaged.
- (2) If operating mainly in dusty conditions, more frequent maintenance may be required.
- (3) Maintenance-free item. For service procedures, refer to the FL section.
- (4) First replacement interval is 105,000 miles (168,000 km) or 84 months. After first replacement, replace every 75,000 miles (120,000 km) or 60 months.
- (5) 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.
- (6) Replace spark plug when the plug gap exceeds 1.4 mm (0.055 in) even if within specified periodic replacement mileage.
- (7) Periodic maintenance is not required. However, if valve noise increases, inspect valve clearance.

\* 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.

## Chassis and Body Maintenance

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

MAINTENANCE OPERATION		MAINTENANCE INTERVAL									
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	5 (8) 6	10 (16) 12	15 (24) 18	20 (32) 24	25 (40) 30	30 (48) 36	35 (56) 42	40 (64) 48	45 (72) 54	
Brake lines & cables			I		I		I		I		
Brake pads & rotors★			I		I		I		I		
Brake fluid★					R				R		
CVT fluid	NOTE (1)		I		I		I		I		
Transfer fluid & differential gear oil	NOTE (2)		I		I		I		I		
Steering gear & linkage, axle & suspension parts★					I				I		
Tire rotation	NOTE (3)										
Propeller shaft & drive shaft boots (AWD models)★			I		I		I		I		
Exhaust system★					I				I		
In-cabin microfilter				R			R			R	
I-key battery				R			R			R	

## PERIODIC MAINTENANCE

### < PERIODIC MAINTENANCE >

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								
		Miles x 1,000 (km x 1,000) Months	50 (80) 60	55 (88) 66	60 (96) 72	65 (104) 78	70 (112) 84	75 (120) 90	80 (128) 96	85 (136) 102
Perform at number of miles, kilometers or months, whichever comes first.										
Brake lines & cables		I		I		I		I		I
Brake pads & rotors★		I		I		I		I		I
Brake fluid★				R				R		
CVT fluid	NOTE (1)	I		I		I		I		I
Transfer fluid & differential gear oil	NOTE (2)	I		I		I		I		I
Steering gear & linkage, axle & suspension parts★				I				I		
Tire rotation	NOTE (3)									
Propeller shaft & drive shaft boots (AWD models)★		I		I		I		I		I
Exhaust system★				I				I		
In-cabin microfilter				R			R			R
I-key battery				R			R			R

MAINTENANCE OPERATION		MAINTENANCE INTERVAL						Reference Page
		Miles x 1,000 (km x 1,000) Months	95 (152) 114	100 (160) 120	105 (168) 126	110 (176) 132	115 (184) 138	
Perform at number of miles, kilometers or months, whichever comes first.								
Brake lines & cables			I		I		I	<a href="#">MA-41</a>
Brake pads & rotors★			I		I		I	<a href="#">MA-42</a> <a href="#">MA-42</a> <a href="#">MA-43</a> <a href="#">MA-44</a>
Brake fluid★			R				R	<a href="#">MA-41</a>
CVT fluid	NOTE (1)		I		I		I	<a href="#">MA-33</a>
Transfer fluid & differential gear oil	NOTE (2)		I		I		I	<a href="#">MA-35</a> <a href="#">MA-37</a>
Steering gear & linkage, axle & suspension parts★			I				I	<a href="#">MA-45</a> <a href="#">MA-46</a>
Tire rotation	NOTE (3)							<a href="#">MA-38</a> <a href="#">MA-38</a>
Propeller shaft & drive shaft boots (AWD models)★			I		I		I	<a href="#">MA-38</a> <a href="#">MA-46</a>
Exhaust system★			I				I	<a href="#">MA-32</a>
In-cabin microfilter					R		R	<a href="#">MA-32</a>
I-key battery					R		R	<a href="#">MA-32</a>

**NOTE:**

- Maintenance items with “★” should be performed more frequently according to “Maintenance Under Severe Driving Conditions”.
- (1) Use only Genuine NISSAN CVT fluid. If towing a trailer, using a camper or a car-top carrier, or driving on rough or muddy roads, inspect CVT fluid deterioration at a NISSAN dealer every 60,000 miles (96,000 km), then change CVT fluid if necessary. And if the inspection is not performed, change (not just inspect) CVT fluid every 60,000 miles (96,000 km). Using transmission fluid other than Genuine NISSAN CVT fluid will damage the CVT, which is not covered by the NISSAN new vehicle limited warranty.
- (2) If towing a trailer, using a camper or car-top carrier, or driving on rough or muddy roads, change (not just inspect) oil at every 20,000 miles (32,000 km) or 24 months.
- (3) Refer to “Tire rotation” under the “GENERAL MAINTENANCE” heading earlier in this section.

# PERIODIC MAINTENANCE

## < PERIODIC MAINTENANCE >

### MAINTENANCE UNDER SEVERE DRIVING CONDITIONS

The maintenance intervals shown on the preceding pages are for normal operating conditions. If the vehicle is mainly operated under severe driving conditions as shown below, more frequent maintenance must be performed on the following items as shown in the table.

#### Severe 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.

Maintenance operation: Inspect = Inspect and correct or replace as necessary.

Maintenance item	Maintenance operation	Maintenance interval	Reference page
Brake fluid	Replace	Every 10,000 miles (16,000 km) or 12 months	<a href="#">MA-41</a>
Brake pads & rotors	Inspect	Every 5,000 miles (8,000 km) or 6 months	<a href="#">MA-42</a> <a href="#">MA-42</a> <a href="#">MA-43</a> <a href="#">MA-44</a>
Steering gear & linkage, axle & suspension parts	Inspect	Every 5,000 miles (8,000 km) or 6 months	<a href="#">MA-45</a> <a href="#">MA-46</a>
Propeller shaft & drive shaft boots (AWD models)	Inspect	Every 5,000 miles (8,000 km) or 6 months	<a href="#">MA-46</a> <a href="#">MA-38</a>
Exhaust system	Inspect	Every 5,000 miles (8,000 km) or 6 months	<a href="#">MA-32</a>

## FOR MEXICO

### FOR MEXICO : Periodic Maintenance

INFOID:000000012547548

The following tables show the normal maintenance schedule. Depending upon weather and atmospheric conditions, varying road surfaces, individual driving habits and vehicle usage, additional or more frequent maintenance may be required.

**Periodic maintenance beyond the last period shown on the tables requires similar maintenance.**

### ENGINE AND EMISSION CONTROL MAINTENANCE

Abbreviations: I = Inspect and correct or replace as necessary, R = Replace, E = Check and correct the engine coolant mixture ratio.

MAINTENANCE OPERATION	km × 1,000 (Miles × 1,000) Months	MAINTENANCE INTERVAL								Refer- ence page
		10 (6)	20 (12)	30 (18)	40 (24)	50 (30)	60 (36)	70 (42)	80 (48)	
Perform at a kilometers (miles) or month interval, whichever comes first.		6	12	18	24	30	36	42	48	
<b>Underhood and under vehicle</b>										
Intake & exhaust valve clearance	See NOTE (1)									<a href="#">EM-18</a>
Drive belt	See NOTE (2)				I				I	<a href="#">EM-12</a>
Engine oil (Use recommended oil.)★		R	R	R	R	R	R	R	R	<a href="#">LU-9</a>
Engine oil filter (Use genuine NISSAN engine oil filter or equivalent)★		R	R	R	R	R	R	R	R	<a href="#">LU-10</a>
Engine coolant	See NOTE (3)				E				E	<a href="#">CO-12</a>
Cooling system					I				I	<a href="#">CO-10</a>
Fuel lines					I				I	<a href="#">FL-5</a>
Air cleaner filter (Viscous paper type)★					R				R	<a href="#">EM-15</a>
Positive crankcase ventilation (PCV) system					I				I	<a href="#">EC-884</a>

# PERIODIC MAINTENANCE

## < PERIODIC MAINTENANCE >

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference page
	km × 1,000 (Miles × 1,000) Months	10 (6) 6	20 (12) 12	30 (18) 18	40 (24) 24	50 (30) 30	60 (36) 36	70 (42) 42	80 (48) 48	
Perform at a kilometers (miles) or month interval, whichever comes first.										
Fuel filter (In-tank type)	See NOTE (4)									—
Spark plugs (Iridium-tipped type)	See NOTE (5)	Replace every 100,000 km (60,000 miles)								<a href="#">EM-16</a>
EVAP vapor lines (With carbon canister)					I				I	<a href="#">EC-882</a>

### NOTE:

- Maintenance items with “★” should be performed more frequently according to “Maintenance Under Severe Driving Conditions”.
- (1) Periodic maintenance is not required. However, if valve noise increases, check valve clearance.
- (2) Replace the drive belts if found damaged or if the auto belt tensioner reading reaches the maximum limit.
- (3) Use Genuine NISSAN Engine Coolant (blue) or equivalent in its quality, in order to avoid possible aluminium corrosion within the engine cooling system caused by the use of non-genuine engine coolant. Check and correct the engine coolant mixture ratio every 40,000 km (24,000 miles) or 24 months. First replacement interval is 160,000 km (96,000 miles) or 96 months. After first replacement, replace every 80,000 km (48,000 miles) or 48 months.
- (4) Maintenance-free item. For service procedures, refer to FL section.
- (5) Replace spark plug when the spark plug gap exceeds 1.4 mm (0.055 in) even if within specified periodic replacement mileage.

## CHASSIS AND BODY MAINTENANCE

Abbreviations: I = Inspect and correct or replace as necessary, R = Replace

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference page
	km × 1,000 (Miles × 1,000) Months	10 (6) 6	20 (12) 12	30 (18) 18	40 (24) 24	50 (30) 30	60 (36) 36	70 (42) 42	80 (48) 48	
<b>Underhood and under vehicle</b>										
Brake line & cables			I		I		I		I	<a href="#">MA-41</a>
Brake fluid (For level and leaks)			I		I		I		I	<a href="#">MA-41</a>
Brake fluid ★					R				R	<a href="#">MA-41</a>
Exhaust system					I				I	<a href="#">MA-32</a>
Power steering fluid & lines (For level & leaks)			I		I		I		I	<a href="#">MA-45</a>
CVT fluid (For level & leaks)	See NOTE (1)		I		I		I		I	<a href="#">MA-33</a>
Transfer gear oil (For level & leaks)★			I		I		I		I	<a href="#">MA-35</a>
Rear differential gear oil (For level & leaks)★			I		I		I		I	<a href="#">MA-37</a>
Propeller shaft & drive shaft★			I		I		I		I	<a href="#">MA-38</a> <a href="#">MA-46</a>
Steering gear & linkage, axle & suspension parts★					I				I	<a href="#">MA-45</a> <a href="#">MA-46</a>
<b>Outside and inside</b>										
Wheel alignment (If necessary, rotate & balance wheels)			I		I		I		I	<a href="#">MA-38</a> <a href="#">MA-38</a>
Brake pads, rotors, drums & linings★			I		I		I		I	<a href="#">MA-42</a> <a href="#">MA-42</a> <a href="#">MA-43</a> <a href="#">MA-44</a>
Seat belts, buckles, retractors, anchors & adjusters			I		I		I		I	<a href="#">MA-47</a>

# PERIODIC MAINTENANCE

## < PERIODIC MAINTENANCE >

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference page
		10 (6) 6	20 (12) 12	30 (18) 18	40 (24) 24	50 (30) 30	60 (36) 36	70 (42) 42	80 (48) 48	
Perform at a kilometers (miles) or month interval, whichever comes first.	km × 1,000 (Miles × 1,000) Months									
Foot brake & parking brake (For free play, stroke & operation)			I		I		I		I	<a href="#">PB-8</a> <a href="#">BR-13</a>
Air conditioner filter★			R		R		R		R	<a href="#">VTL-6</a>

**NOTE:**

- Maintenance items with “★” should be performed more frequently according to “Maintenance Under Severe Driving Conditions”.
- (1) Use only Genuine NISSAN CVT fluid. If towing a trailer, using a camper or a car top carrier or driving on rough or muddy roads, inspect CVT fluid deterioration at NISSAN dealers every 100,000 km (60,000 miles), then change CVT fluid if necessary. And if the inspection is not performed, change (not just inspect) CVT fluid every 100,000 km (60,000 miles).

### MAINTENANCE UNDER SEVERE DRIVING CONDITIONS

The maintenance intervals shown on the preceding pages are for normal operating conditions. If the vehicle is mainly operated under severe driving conditions as shown below, more frequent maintenance must be performed on the following items as shown in the table.

#### Severe driving conditions

- A — Driving under dusty conditions
- B — Driving repeatedly short distances
- C — Towing a trailer or caravan
- D — Extensive idling
- E — Driving in extremely adverse weather conditions or in areas where ambient temperatures are either extremely low or extremely high
- F — Driving in high humidity or mountainous areas
- G — Driving in areas using salt or other corrosive areas
- H — Driving on rough and/or muddy roads or in the desert
- I — Driving with frequent use of braking or in mountainous areas
- J — Frequent driving in water

Maintenance operation: Inspect = Check and correct or replace as necessary

Driving condition										Maintenance item	Maintenance operation	Maintenance interval	Reference page
A	.	.	.	.	.	.	.	.	.	Air cleaner filter (Viscous paper type)	Replace	More frequently	<a href="#">EM-15</a>
A	B	C	D	.	.	.	.	.	.	Engine oil & engine oil filter	Replace	Every 5,000 km (3,000 miles) or 3 months	<a href="#">MA-28</a> <a href="#">MA-28</a>
.	.	.	.	.	F	.	.	.	.	Brake fluid	Replace	Every 20,000 km (12,000 miles) or 12 months	<a href="#">MA-40</a>
.	.	C	.	.	.	.	H	.	.	Rear differential gear oil	Replace	Every 40,000 km (24,000 miles) or 24 months	<a href="#">MA-37</a>
.	.	.	.	.	.	G	H	.	.	Propeller shaft & drive shafts	Inspect	Every 10,000 km (6,000 miles) or 6 months	<a href="#">MA-38</a> <a href="#">MA-46</a>
.	.	.	.	.	.	G	H	.	.	Steering gear & linkage, axle & suspension parts	Inspect	Every 20,000 km (12,000 miles) or 12 months	<a href="#">MA-45</a> <a href="#">MA-46</a>
A	.	C	.	.	.	G	H	I	.	Brake pads, rotors, drums & linings	Inspect	Every 10,000 km (6,000 miles) or 6 months	<a href="#">MA-42</a> <a href="#">MA-42</a> <a href="#">MA-43</a> <a href="#">MA-44</a>
A	.	.	.	.	.	.	.	.	.	Air conditioner filter	Replace	More frequently	<a href="#">VTL-6</a>

# RECOMMENDED FLUIDS AND LUBRICANTS

< PERIODIC MAINTENANCE >

## RECOMMENDED FLUIDS AND LUBRICANTS FOR USA AND CANADA

FOR USA AND CANADA : Fluids and Lubricants

INFOID:000000012547549

The following are approximate capacities. The actual capacities may be slightly different. When refilling, follow the procedures described elsewhere in this manual.

Fluid types		Capacity (Approximate)			Recommended Fluids/Lubricants
		Metric	US measure	Imp measure	
Fuel		74.0 ℓ	19-1/2 gal	16-1/4 gal	<ul style="list-style-type: none"> <li>Unleaded gasoline with an octane rating of at least 87 AKI (RON 91)</li> </ul>
Engine oil Drain and refill	With oil filter change	4.8 ℓ	5-1/8 qt	4-1/4 qt	<ul style="list-style-type: none"> <li>Genuine NISSAN engine oil or equivalent</li> <li>Engine oil with API Certification Mark *1, Viscosity SAE 0W-20*2</li> </ul> <p>*1: For further details, see "Engine Oil Recommendation".</p> <p>*2: As an alternative to this recommended oil, SAE 5W-30 conventional petroleum based oils may be used and meet all specifications and requirements necessary to maintain the new vehicle limited warranty.</p>
	Without oil filter change	4.5 ℓ	4-3/4 qt	4 qt	
	Dry engine (Overhaul)	5.1 ℓ	5-3/8 qt	4-1/2 qt	
Engine coolant (with reservoir at MAX level)		9.8 ℓ	10-3/8 qt	8-5/8 qt	<ul style="list-style-type: none"> <li>Pre-diluted Genuine NISSAN Long Life Antifreeze/ Coolant (blue) or equivalent</li> </ul>
CVT fluid		8.8 ℓ	9-1/4 qt	7-3/4 qt	<ul style="list-style-type: none"> <li>Genuine NISSAN CVT Fluid NS-3</li> <li>NISSAN recommends using Genuine NISSAN CVT Fluid NS-3 ONLY in NISSAN CVTs. Do not mix with other fluids. Using fluids that are not equivalent to Genuine NISSAN CVT Fluid NS-3 may damage the CVT. Damage caused by the use of fluids other than as recommended is not covered under NISSAN's New Vehicle Limited Warranty.</li> </ul>
Differential gear oil		0.5 ℓ	1 pt	7/8 pt	<ul style="list-style-type: none"> <li>Genuine NISSAN Differential Oil Hypoid Super Semi-synthetic API GL-5, Viscosity SAE 75W-90</li> <li>The use of differential gear oil other than the specified may cause vehicle malfunctions and result non-warranty vehicle repairs.</li> </ul>
Transfer fluid		0.31 ℓ	5/8 pt	1/2 pt	<ul style="list-style-type: none"> <li>Genuine NISSAN Differential Oil Hypoid Super GL-5 80W-90 or equivalent conventional (non-synthetic) oil</li> </ul>
Power steering fluid (PSF)		1.0 ℓ	1-1/8 qt	7/8 qt	<ul style="list-style-type: none"> <li>Genuine NISSAN E-PSF or equivalent</li> <li>Use of a power steering fluid other than Genuine NISSAN E-PSF will prevent the power steering system from operating properly.</li> </ul>
Brake fluid		—	—	—	<ul style="list-style-type: none"> <li>Genuine NISSAN Super Heavy Duty Brake Fluid *3 or equivalent, DOT 3 (US FMVSS No. 116)</li> </ul> <p>*3: Available in mainland USA through a NISSAN dealer.</p>
Multi-purpose grease		—	—	—	<ul style="list-style-type: none"> <li>NLGI No. 2 (Lithium soap base)</li> </ul>
Windshield washer fluid		5 ℓ	5-1/4 qt	4-3/8 qt	<ul style="list-style-type: none"> <li>Genuine NISSAN Windshield Washer Concentrate Cleaner &amp; Antifreeze or equivalent</li> </ul>



# RECOMMENDED FLUIDS AND LUBRICANTS

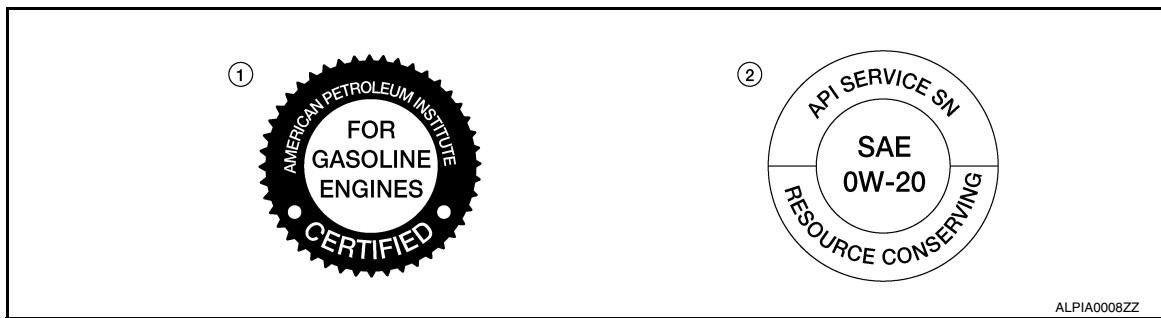
## < PERIODIC MAINTENANCE >

Fluid types	Capacity (Approximate)			Recommended Fluids/Lubricants
	Metric	US measure	Imp measure	
Air conditioning system refrigerant	0.80 ± 0.03 kg	1.80 ± 0.07 lb	1.80 ± 0.07 lb	<ul style="list-style-type: none"> <li>• HFC-134a (R-134a)</li> <li>- For further information, see "Air conditioning specification label" found under the hood.</li> </ul>
Air conditioning system oil	230 m ℓ	7.8 fl oz	8.1 fl oz	<ul style="list-style-type: none"> <li>• A/C System Oil Type S (DH-PS)</li> <li>- For further information, see "Air conditioning specification label" found under the hood.</li> </ul>

## FOR USA AND CANADA : Engine Oil Recommendation

INFOID:000000012547550

NISSAN recommends the use of an energy conserving oil in order to improve fuel economy. Select only engine oils that meet the American Petroleum Institute (API) certification and International Lubricant Standardization and Approval Committee (ILSAC) certification and SAE viscosity standard. These oils have the API certification mark on the front of the container. Oils which do not have the specified quality label should not be used as they could cause engine damage.



1. API certification mark

2. API service symbol

## FOR USA AND CANADA : Engine Coolant Mixture Ratio

INFOID:000000012547551

The engine cooling 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 engine cooling system additives are not necessary.

### WARNING:

- Do not remove the radiator cap when the engine is hot. Serious burns could occur from high pressure coolant escaping from the radiator. Wrap a thick cloth around the cap. Slowly turn it a quarter turn to allow built-up pressure to escape. Carefully remove the cap by turning it all the way.
- The radiator is equipped with a pressure type radiator cap. To prevent engine damage, use only a genuine NISSAN radiator cap.

### CAUTION:

- When adding or replacing coolant, be sure to use only 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 where the vehicle is operated, 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 engine cooling system.
- 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 filled coolant.

## FOR MEXICO

# RECOMMENDED FLUIDS AND LUBRICANTS

< PERIODIC MAINTENANCE >

## FOR MEXICO : Fluids and Lubricants

INFOID:000000012547552

The following are approximate capacities. The actual capacities may be slightly different. When refilling, follow the procedures described elsewhere in this manual.

Fluid types		Capacity (Approximate)			Recommended Fluids/Lubricants
		Liter	US measure	Imp measure	
Fuel		74.0 ℓ	19-1/2 gal	16-1/4 gal	<ul style="list-style-type: none"> <li>• Unleaded gasoline with an octane rating of at least 87 AKI (RON 91)</li> </ul>
Engine oil Drain and refill	With oil filter change	4.8	5-1/8 qt	4-1/4 qt	<ul style="list-style-type: none"> <li>• Genuine NISSAN engine oil</li> <li>• API grade SL, SM or SN</li> <li>• ILSAC grade GF-3, GF-4 or GF-5</li> <li>- For SAE Viscosity Number, see "SAE Viscosity Number".</li> </ul>
	Without oil filter change	4.5	4-3/4 qt	4 qt	
	Dry engine (engine overhaul)	5.1	5-3/8 qt	4-1/2 qt	
Engine coolant (with reservoir at MAX level)		9.8	10-3/8 qt	8-5/8 qt	<ul style="list-style-type: none"> <li>• Genuine NISSAN Engine Coolant (blue) or equivalent</li> <li>- Use Genuine NISSAN Engine Coolant or equivalent in its quality, in order to avoid possible aluminum corrosion within the engine cooling system caused by the use of non-genuine engine coolant.</li> </ul> <p>Note that any repairs for the incidents within the engine cooling system while using non-genuine engine coolant may not be covered by the warranty even if such incidents occurred during the warranty period.</p>
CVT fluid		8.8	9-1/4 qt	7-3/4 qt	<ul style="list-style-type: none"> <li>• Genuine NISSAN CVT fluid NS-3</li> <li>- Use only Genuine NISSAN CVT Fluid NS-3. Using transmission fluid other than Genuine NISSAN CVT fluid NS-3 will damage the CVT, which is not covered by the warranty.</li> </ul>
Differential gear oil		0.5	1 pt	7/8 pt	<ul style="list-style-type: none"> <li>• Genuine NISSAN Differential Oil Hypoid Super Semi-synthetic GL-5 75W-90</li> <li>- Use Genuine NISSAN Differential Oil Hypoid Super Semi-synthetic GL-5. Using differential gear oil other than Genuine NISSAN Differential Oil Hypoid Super Semi-synthetic GL-5 will damage the differential gear, which is not covered by the warranty.</li> </ul>
Transfer oil		0.31	5/8 pt	1/2 pt	<ul style="list-style-type: none"> <li>• Genuine NISSAN Differential Oil Hypoid Super GL-5 80W-90 or equivalent (mineral oil)</li> </ul>
Power steering fluid (PSF)		1.0 ℓ	1-1/8 qt	7/8 qt	<ul style="list-style-type: none"> <li>• Genuine NISSAN E-PSF or equivalent</li> <li>- Use of a power steering fluid other than Genuine NISSAN E-PSF will prevent the power steering system from operating properly.</li> </ul>
Brake fluid		—	—	—	<ul style="list-style-type: none"> <li>• Genuine NISSAN Brake Fluid or equivalent DOT 3 (US FMVSS No. 116)</li> </ul>
Multi-purpose grease		—	—	—	<ul style="list-style-type: none"> <li>• NLGI No. 2 (Lithium soap base)</li> </ul>
Windshield washer fluid		5 ℓ	5-1/4 qt	4-3/8 qt	<ul style="list-style-type: none"> <li>• Genuine NISSAN Windshield Washer Concentrate Cleaner &amp; Antifreeze or equivalent</li> </ul>
Air conditioning system refrigerant		0.80 ± 0.03 kg	1.80 ± 0.07 lb	1.80 ± 0.07 lb	<ul style="list-style-type: none"> <li>• HFC-134a (R-134a)</li> <li>- For further information, see "Air conditioning specification label" found under the hood.</li> </ul>
Air conditioning system oil		230 m ℓ	7.8 fl oz	8.1 fl oz	<ul style="list-style-type: none"> <li>• A/C System Oil Type S (DH-PS)</li> <li>- For further information, see "Air conditioning specification label" found under the hood.</li> </ul>

# RECOMMENDED FLUIDS AND LUBRICANTS

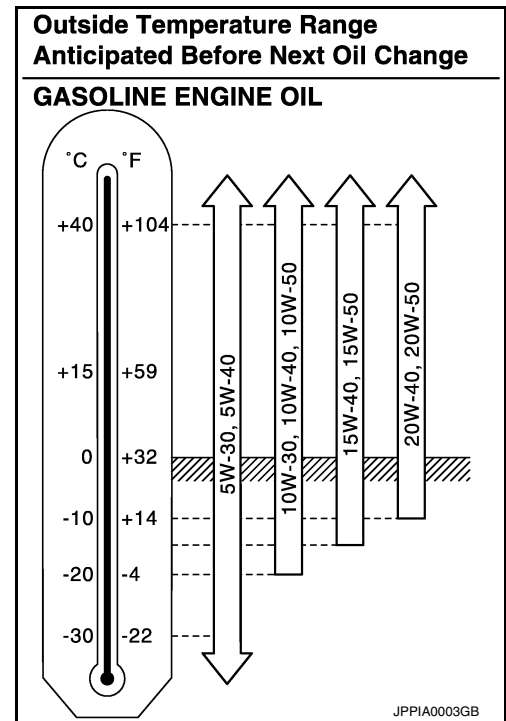
< PERIODIC MAINTENANCE >

FOR MEXICO : SAE Viscosity Number

INFOID:000000012547553

## GASOLINE ENGINE

- 10W-30 is preferable.
- 5W-30 is also preferable and will improve fuel economy.
- If 10W-30 or 5W-30 is not available, select the viscosity, from the chart, that is suitable for the outside temperature range.



## FOR MEXICO : Engine Coolant Mixture Ratio

INFOID:000000012547554

The engine cooling system is filled at the factory with a high-quality, year-round and extended life engine coolant. The high quality engine coolant contains the specific solutions effective for the anti-corrosion and the anti-freeze function. Therefore, additional cooling system additives are not necessary.

### Coolant Mixture Ratios

For outside temperatures down to:		Anti-freeze coolant mixture ratio	
° C	° F	Genuine NISSAN Engine Coolant or equivalent	Demineralized water or distilled water
- 15°	5°	30 %	70 %
- 35°	- 30°	50 %	50 %

### CAUTION:

- When adding or replacing coolant, be sure to use only Genuine NISSAN Engine Coolant or equivalent in its quality with the proper mixture ratio. See the examples shown right.
- The use of other types of engine coolant may damage the engine cooling system.
- When checking the engine coolant mixture ratio by the coolant hydrometer, use the chart below to correct your hydrometer reading (specific gravity) according to coolant temperature.

### Mixed coolant specific gravity

Unit: specific gravity

Engine coolant mixture ratio	Coolant temperature °C (°F)			
	15 (59)	25 (77)	35 (95)	45 (113)
30%	1.046 - 1.050	1.042 - 1.046	1.038 - 1.042	1.033 - 1.038
50%	1.076 - 1.080	1.070 - 1.076	1.065 - 1.071	1.059 - 1.065

### WARNING:

Do not remove the radiator cap when the engine is hot. Serious burns could occur from high pressure coolant escaping from the radiator. Wrap a thick cloth around the cap. Slowly turn it a quarter turn to allow built-up pressure to escape. Carefully remove the cap by turning it all the way.

# ENGINE MAINTENANCE (VQ35DE)

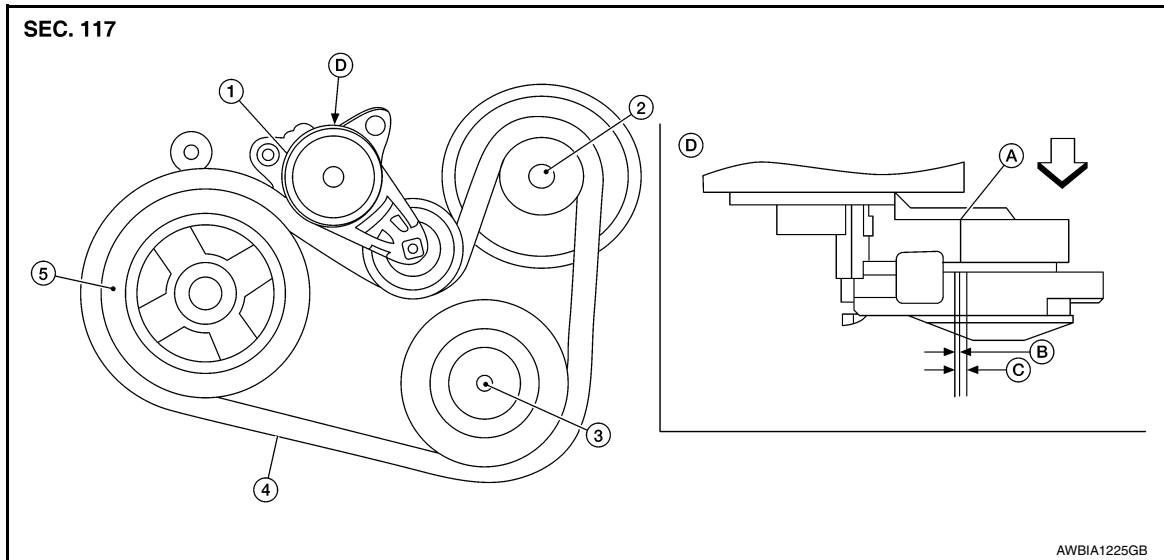
< PERIODIC MAINTENANCE >

## ENGINE MAINTENANCE (VQ35DE)

### DRIVE BELTS

#### DRIVE BELTS : Exploded View

INFOID:000000012547555



- |                              |                       |  |
|------------------------------|-----------------------|--|
| 1. Drive belt auto-tensioner | 2. Generator          | 3. A/C compressor                      |
| 4. Drive belt                | 5. Crankshaft pulley  | A. Drive belt auto-tensioner indicator |
| B. New drive belt range      | C. Possible use range | D. View D                              |
- ↶ Engine front

#### DRIVE BELTS : Checking Drive Belt

INFOID:000000012547556

##### **WARNING:**

**Inspect and check the drive belt with the engine off.**

1. Visually check entire drive belt for wear, damage or cracks.
2. Check that the drive belt auto-tensioner indicator is within the possible use range.

##### **NOTE:**

- When new drive belt is installed, the drive belt auto-tensioner indicator should be within the new drive belt range.
  - Check the drive belt auto-tensioner indicator when the engine is cold.
3. If the drive belt auto-tensioner indicator is out of the possible use range or drive belt is damaged, replace drive belt.

#### DRIVE BELTS : Tension Adjustment

INFOID:000000012547557

- Drive belt tension is automatically adjusted by the drive belt auto-tensioner.
- Drive belt tension is not manually adjustable.

### ENGINE COOLANT

#### ENGINE COOLANT : System Inspection

INFOID:000000012547558

##### **WARNING:**

- **Do not remove the radiator cap or reservoir tank cap when the engine is hot. Serious burns could occur from high-pressure engine coolant escaping from the cooling system.**
- **When removing the radiator cap or reservoir tank cap, wrap a thick cloth around the cap and slowly turn it a quarter turn to allow built-up pressure to escape. Then carefully remove the cap by turning it all the way.**

#### CHECKING COOLING SYSTEM HOSES

# ENGINE MAINTENANCE (VQ35DE)

## < PERIODIC MAINTENANCE >

Check hoses for the following:

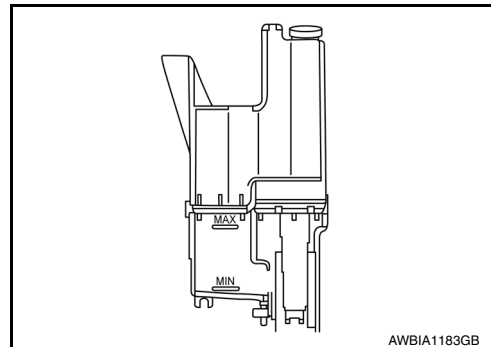
- Improper attachment
- Leaks
- Cracks
- Dents
- Bulges
- Internal obstruction
- Damage
- Loose connections
- Chafing
- Deterioration

### CHECKING RESERVOIR LEVEL

- Check if the reservoir tank coolant level is within MIN to MAX when the engine is cool.
- Adjust engine coolant level (if necessary), to ensure that the engine coolant level is within the MIN to MAX range.

#### **CAUTION:**

Refill Genuine NISSAN Long Life Antifreeze/Coolant (blue) or equivalent in its quality mixed with water (distilled or demineralized). Refer to [MA-17, "FOR USA AND CANADA : Fluids and Lubricants"](#) (FOR USA AND CANADA) or [MA-19, "FOR MEXICO : Fluids and Lubricants"](#) (FOR MEXICO).



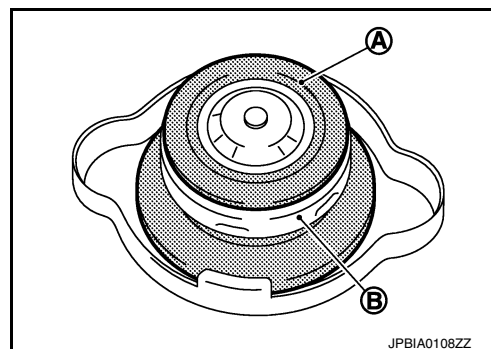
### CHECKING RADIATOR CAP

#### **WARNING:**

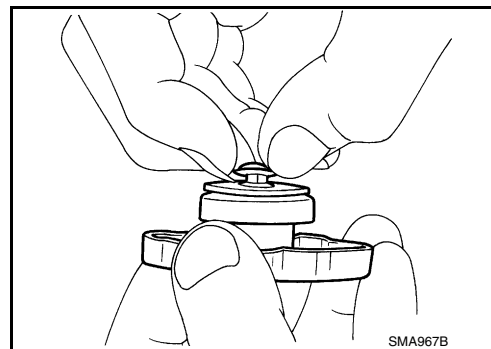
- Do not remove the radiator cap or reservoir tank cap when the engine is hot. Serious burns could occur from high-pressure engine coolant escaping from the cooling system.
- When removing the radiator cap or reservoir tank cap, wrap a thick cloth around the cap and slowly turn it a quarter turn to allow built-up pressure to escape. Then carefully remove the cap by turning it all the way.
- Check the pressure valve of the radiator cap.
- Replace the radiator cap if the metal plunger (B) on the pressure valve cannot be seen around the edge of the rubber gasket (A).
- Replace the radiator cap if there is damage or deposits of foreign material on the rubber gasket or pressure valve.

#### **CAUTION:**

Thoroughly wipe out the radiator filler neck to remove any waxy residue or foreign material.



- Check the negative-pressure valve of the radiator cap.
- Replace the radiator cap if the negative-pressure valve does not close completely when pulled open and released.
- Replace the radiator cap if there is damage or deposits of foreign material on the valve seat of the negative-pressure valve.
- Replace the radiator cap if there is an abnormality in the operation of the negative-pressure valve.



- Check radiator cap relief pressure.

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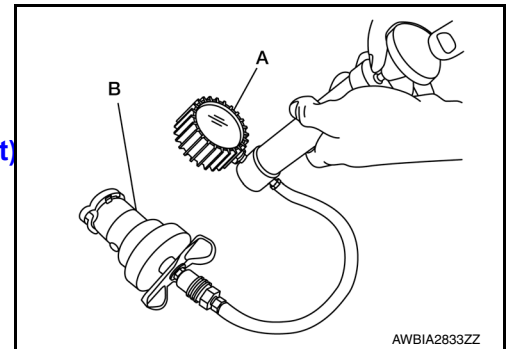
## ENGINE MAINTENANCE (VQ35DE)

### < PERIODIC MAINTENANCE >

- Check the radiator cap relief pressure using Tool (A) and suitable tool (B).

**Tool number (A)** : — (J-51771)  
**Tool number (B)** : — (J-33984-A or equivalent)  
(commercially available)  
**Radiator cap relief pressure** : Refer to [CO-28, "Radiator"](#).

- When connecting the radiator cap to tool (B), apply water or coolant to the radiator cap seal surface.
- Replace the radiator cap if the radiator cap relief pressure is outside of specification.



### CHECKING RADIATOR

Check radiator for mud or clogging. If necessary, clean radiator as follows:

#### **CAUTION:**

- Do not bend or damage the radiator fins.
- When radiator is cleaned on-vehicle, remove surrounding parts in order to access the radiator core. Tape the harness and harness connectors to prevent water from entering.

1. Spray water to the back side of the radiator core using a side to side motion from the top down.
2. Stop spraying when debris no longer flows from radiator core.
3. Blow air into the back side of radiator core using a side to side motion from the top down.
  - Use compressed air lower than 490 kPa (5.00 kg/cm<sup>2</sup>, 71.1 psi) and keep distance more than 30 cm (11.8 in).
4. Continue to blow air until no water sprays out.
5. Check for engine coolant leaks. Repair as necessary.

### ENGINE COOLANT : Changing Engine Coolant

INFOID:000000012547559

#### **WARNING:**

Do not remove the radiator cap when the engine is hot. Serious burns could occur from high-pressure engine coolant escaping from the radiator. Wrap a thick cloth around the cap. Slowly push down and turn it a quarter turn to allow built-up pressure to escape. Carefully remove the cap by pushing it down and turning it all the way.

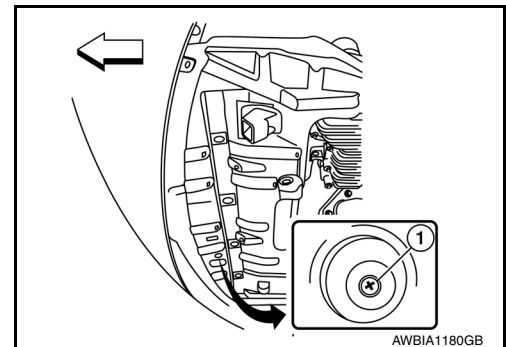
### DRAINING ENGINE COOLANT

1. Open radiator drain plug (1) at the bottom of radiator and remove the radiator filler cap.

#### **CAUTION:**

Do not allow the engine coolant to contact the drive belt.

⇐ : Front



# ENGINE MAINTENANCE (VQ35DE)

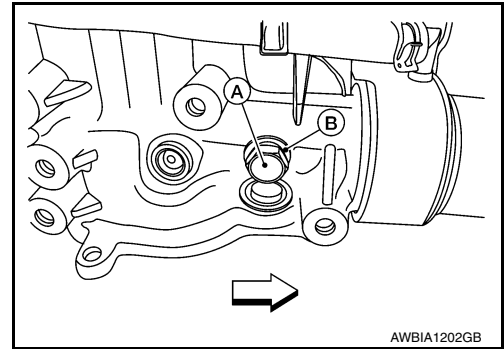
## < PERIODIC MAINTENANCE >

2. Remove cylinder block blind plug (A) and copper sealing washer (B).

**CAUTION:**

**Do not reuse copper sealing washers.**

← : Engine front



3. For a complete cooling system drain, remove the reservoir tank and drain the engine coolant, and then clean the reservoir tank before installation.

**CAUTION:**

**Do not allow the engine coolant to contact the drive belt.**

4. When performing a complete cooling system drain, remove the water drain plug (B), connector bolt (C), and copper sealing washer (A) on the cylinder block.

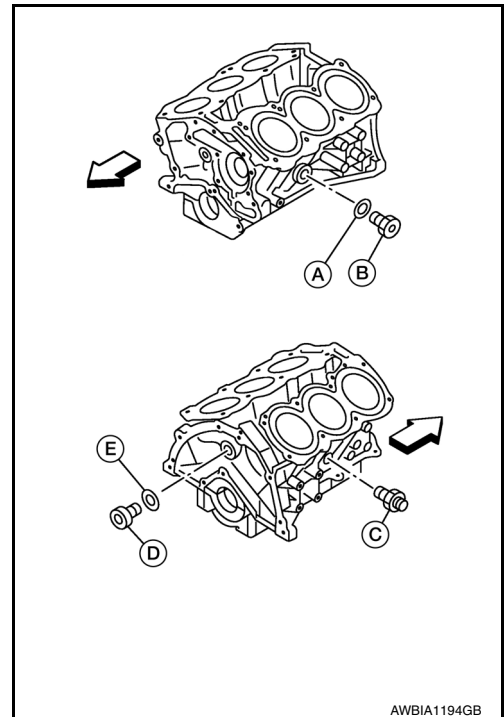
**CAUTION:**

**Do not reuse copper sealing washers.**

**NOTE:**

- For Canada, water drain plug (B) is a block heater, not a drain plug.
- Remove water drain plug (D) and copper sealing washer (E) during engine overhaul.

← : Engine front



5. Check the drained engine coolant for contaminants such as rust, corrosion or discoloration.
  - If contaminated, flush the engine cooling system. Refer to FLUSHING COOLING SYSTEM.

## REFILLING ENGINE COOLANT

1. Install the following, if removed:
  - Cylinder block drain plugs, refer to [EM-116, "Exploded View"](#).
  - Reservoir tank, refer to [CO-15, "Exploded View"](#).
  - Cooling system hoses, refer to [CO-15, "Exploded View"](#).
  - Radiator drain plug, refer to [CO-15, "Exploded View"](#).
2. Set the vehicle heater controls to the full HOT and heater ON positions. Turn the vehicle ignition ON with the engine OFF as necessary to activate the heater mode.

## ENGINE MAINTENANCE (VQ35DE)

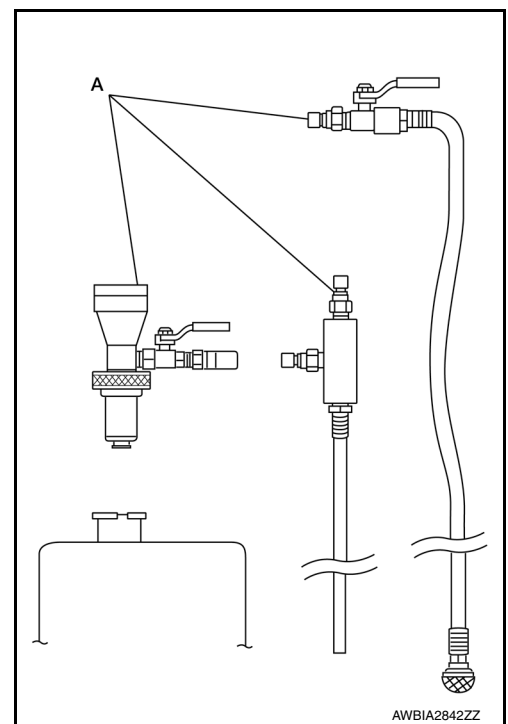
### < PERIODIC MAINTENANCE >

- Fill the cooling system with engine coolant using Tool (A), following the manufacturer's instructions included with the tool.

**Tool number** : KV991J0070 (J-45695-A)  
**Engine Coolant** : Refer to [MA-17, "FOR USA AND CANADA : Fluids and Lubricants"](#) (FOR USA AND CANADA) or [MA-19, "FOR MEXICO : Fluids and Lubricants"](#) (FOR MEXICO).

#### CAUTION:

- Use recommended coolant or equivalent.
  - Do not use any cooling system additives such as radiator sealer. Additives may clog the cooling system and cause damage to the engine, transmission or cooling system.
  - The compressed air supply must be equipped with an air dryer.
- Remove the Tool (A) and top off the cooling system with engine coolant as necessary.



- Install the radiator cap and reservoir tank cap.
- Run the engine until it reaches normal operating temperature.

#### CAUTION:

**Do not allow the engine to exceed normal operating temperature or engine damage may occur.**

- Stop the engine and allow it to cool.
- Check the engine coolant level and adjust if necessary.

### FLUSHING COOLING SYSTEM

- Fill the radiator from the filler neck above the radiator upper hose and reservoir tank with clean water and reinstall radiator filler cap.
- Run the engine until it is at normal operating temperature.
- Rev the engine two or three times under no-load.
- Stop the engine and wait until it cools down.
- Drain the water from the system. Refer to [MA-23, "ENGINE COOLANT : Changing Engine Coolant"](#).
- Repeat steps 1 through 5 until clear water begins to drain from the radiator.

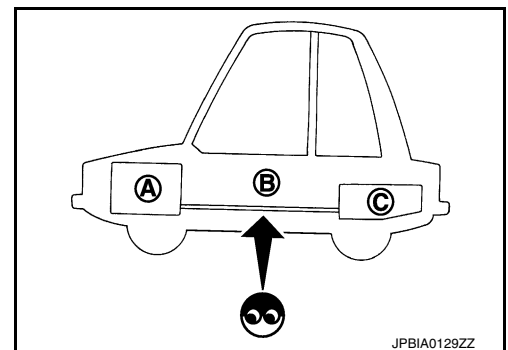
### FUEL LINES

#### FUEL LINES : Inspection

Inspect fuel lines, fuel filler cap, and fuel tank for improper attachment, leaks, cracks, damage, loose connections, chafing or deterioration.

- (A) : Engine  
(B) : Fuel line  
(C) : Fuel tank

If necessary, repair or replace damaged parts.



### AIR CLEANER FILTER

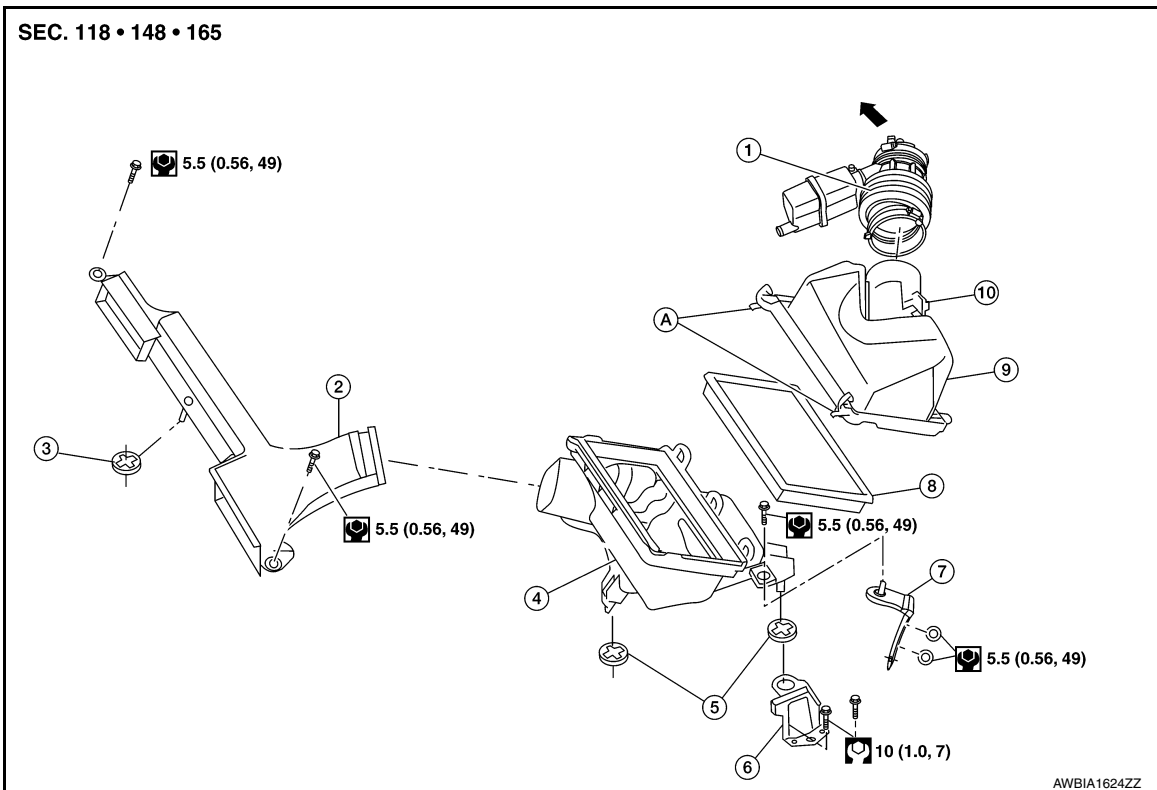


# ENGINE MAINTENANCE (VQ35DE)

< PERIODIC MAINTENANCE >

## AIR CLEANER FILTER : Exploded View

INFOID:000000012547561



- |   |                                |   |
|---|--------------------------------|---|
| 1. Air duct hose and resonator assembly | 2. Front air duct              | 3. Grommet                                    |
| 4. Air cleaner case (lower)             | 5. Grommets                    | 6. Air cleaner case mounting bracket          |
| 7. Bracket                              | 8. Air cleaner filter          | 9. Air cleaner case (upper)                   |
| 10. Mass air flow sensor                | A. Air cleaner case side clips | ← To electric throttle control actuator clips |

## AIR CLEANER FILTER : Removal and Installation

INFOID:000000012547562

### REMOVAL

#### CAUTION:

It is not necessary to remove the front air duct to replace the air cleaner filter.

#### NOTE:

Replace the air cleaner filter per the periodic maintenance schedule or as necessary. Refer to [MA-10, "FOR USA AND CANADA : Introduction of Periodic Maintenance"](#) (United States and Canada) or [MA-13, "FOR MEXICO : Periodic Maintenance"](#) (Mexico).

1. Unhook air cleaner case side clips and lift air cleaner case (upper).
2. Remove the air cleaner filter.

### INSTALLATION

Installation is in the reverse order of removal.

## ENGINE OIL

### ENGINE OIL : Inspection

INFOID:000000012547563

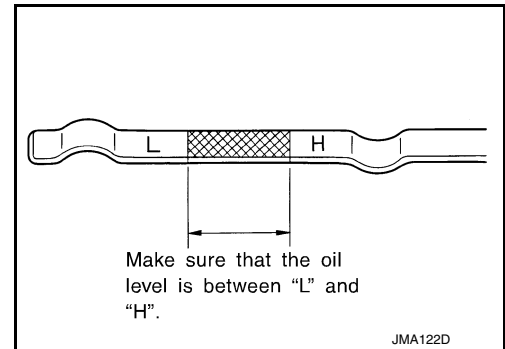
### ENGINE OIL LEVEL

#### NOTE:

# ENGINE MAINTENANCE (VQ35DE)

## < PERIODIC MAINTENANCE >

- Before starting the engine, check the engine oil level. If the engine is already started, stop it and allow 10 minutes before checking.
- Check that the engine oil level is within the range as indicated on the dipstick.
- If engine oil level is out of range, add oil as necessary until the dipstick indicates the correct level.



## ENGINE OIL APPEARANCE

- Check engine oil for white milky appearance or excessive contamination.
- If engine oil becomes milky, it is highly probable that it is contaminated with engine coolant. Repair or replace damaged parts.

## ENGINE OIL LEAKS

Check for engine oil leaks around the following areas:

- Oil pan
- Oil pan drain plug
- Oil pressure switch
- Oil filter
- Oil cooler
- Intake valve timing control cover
- Front timing chain cover
- Mating surface between cylinder block and cylinder head
- Mating surface between cylinder head and rocker cover
- Crank oil seal (front and rear)

## ENGINE OIL PRESSURE CHECK

### WARNING:

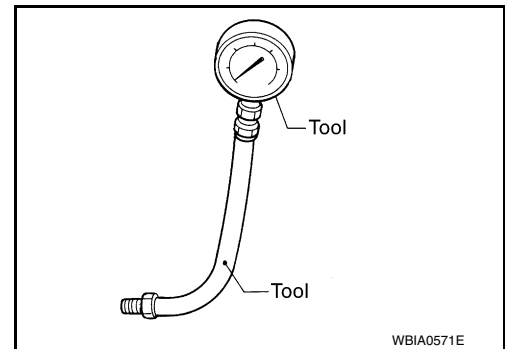
- **Be careful not to burn yourself, as engine oil may be hot.**
- **Put the CVT shift selector in the Park "P" position.**

1. Check the engine oil level. Refer to OIL LEVEL.
2. Remove front under cover. Refer to [EXT-16, "Exploded View"](#).
3. Disconnect the harness connector from engine oil pressure switch. Remove oil pressure switch using suitable tool and install Tools.

### CAUTION:

**Do not drop or shock oil pressure switch.**

**Tool numbers** : ST25051001 (J-25695-1)  
: ST25052000 (J-25695-2)



4. Start the engine and warm it up to normal operating temperature.
5. Check engine oil pressure with engine running under no-load, using Tool.  
**If difference is extreme, check oil passage and oil pump for oil leaks.**
6. After the inspections, install the oil pressure switch using suitable tool as follows:
  - a. Remove the old sealant adhering to oil pressure switch and engine.
  - b. Apply thread sealant and tighten the oil pressure switch to specification.  
**Use Genuine High Performance Thread Sealant, or equivalent. Refer to [GI-22, "Recommended Chemical Products and Sealants"](#).**

**Oil pressure switch** : Refer to [EM-36, "Exploded View"](#).

- c. After warming up engine, make sure there are no engine oil leaks.

# ENGINE MAINTENANCE (VQ35DE)

## < PERIODIC MAINTENANCE >

7. Install front under cover. Refer to [EXT-16, "Exploded View"](#).

## ENGINE OIL : Changing Engine Oil

INFOID:000000012547564

### WARNING:

- Be careful not to burn yourself, as the engine oil may be hot.
  - Prolonged and repeated contact with used engine oil may cause skin cancer; try to avoid direct skin contact with used engine oil. If skin contact is made, wash thoroughly with soap or hand cleaner as soon as possible.
1. Position the vehicle so it is level on the hoist.
  2. Warm up the engine and check for engine oil leaks.
  3. Stop engine and wait for 10 minutes.
  4. Remove the oil pan drain plug and oil filler cap.
  5. Drain the engine oil.
  6. Install the oil pan drain plug with a new washer and refill the engine with new engine oil.

**Engine oil specification and viscosity** : Refer to [MA-18, "FOR USA AND CANADA : Engine Oil Recommendation"](#) (United States and Canada) or [MA-19, "FOR MEXICO : Fluids and Lubricants"](#) (Mexico).

**Oil pan drain plug** : 34.3 N·m (3.5 kg-m, 25 ft-lb)

### CAUTION:

- Be sure to clean the oil pan drain plug and install with a new washer.
  - The refill capacity depends on the engine oil temperature and drain time. Use the specifications for reference only. Always use the dipstick to determine when the proper amount of engine oil is in the engine.
7. Warm up the engine and check around the oil pan drain plug and oil filter for engine oil leaks.
  8. Stop engine and wait for 10 minutes.
  9. Check the engine oil level using the dipstick.

### CAUTION:

Do not overfill the engine with engine oil.

## OIL FILTER

## OIL FILTER : Removal and Installation

INFOID:000000012547565

### REMOVAL

1. Drain engine oil. Refer to [MA-28, "ENGINE OIL : Changing Engine Oil"](#).
2. Remove front fender protector side cover (RH). Refer to [EXT-28, "FENDER PROTECTOR : Exploded View"](#).
3. Remove the oil filter using Tool (A) as shown.

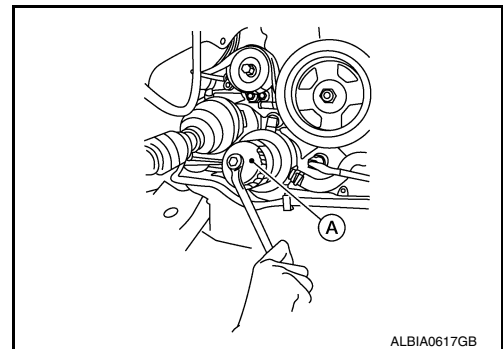
**Tool number (A)** : KV10115801 (J-38956)

### WARNING:

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

### CAUTION:

- When removing, prepare a shop cloth to absorb any engine oil leaks or spills.
- Do not allow engine oil to adhere to the drive belts.
- Completely wipe off any engine oil that adheres to the engine and the vehicle.



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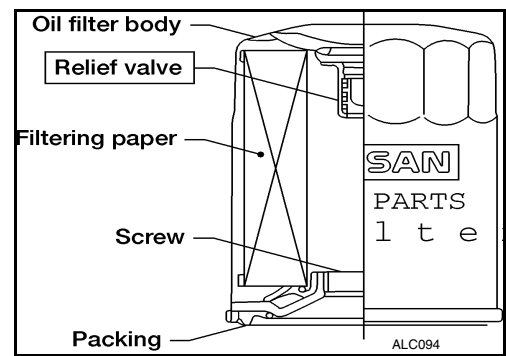
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# ENGINE MAINTENANCE (VQ35DE)

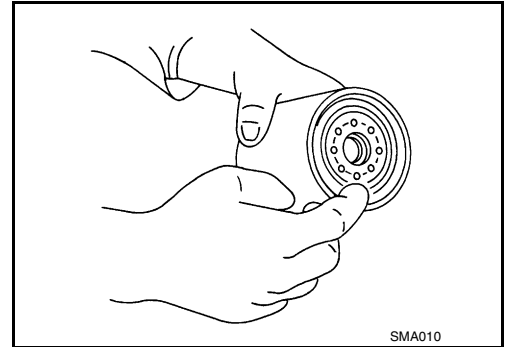
## < PERIODIC MAINTENANCE >

- The oil filter is provided with a relief valve. Use a Genuine NISSAN oil filter or equivalent.



## INSTALLATION

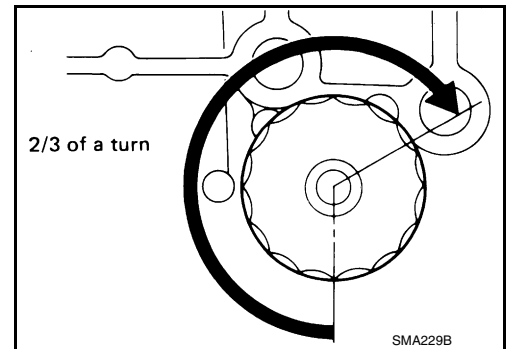
1. Remove foreign materials adhering to the oil filter installation surface.
2. Apply clean engine oil to the oil seal contact surface of the new oil filter.



3. Screw the oil filter manually until it touches the installation surface, then tighten it by turning another 2/3 turn or tighten to specification using Tool.

**Oil filter : 18.0 N·m (1.8 kg-m, 13 ft-lb)**

**Tool number : KV10115801 (J-38956)**



4. Refill the engine with new engine oil. Refer to [MA-28, "ENGINE OIL : Changing Engine Oil"](#).
5. Check the engine oil level and add engine oil as necessary. Refer to [MA-26, "ENGINE OIL : Inspection"](#).
6. After warming up the engine, check for engine oil leaks.
7. Install front fender protector side cover (RH). Refer to [EXT-28, "FENDER PROTECTOR : Exploded View"](#).

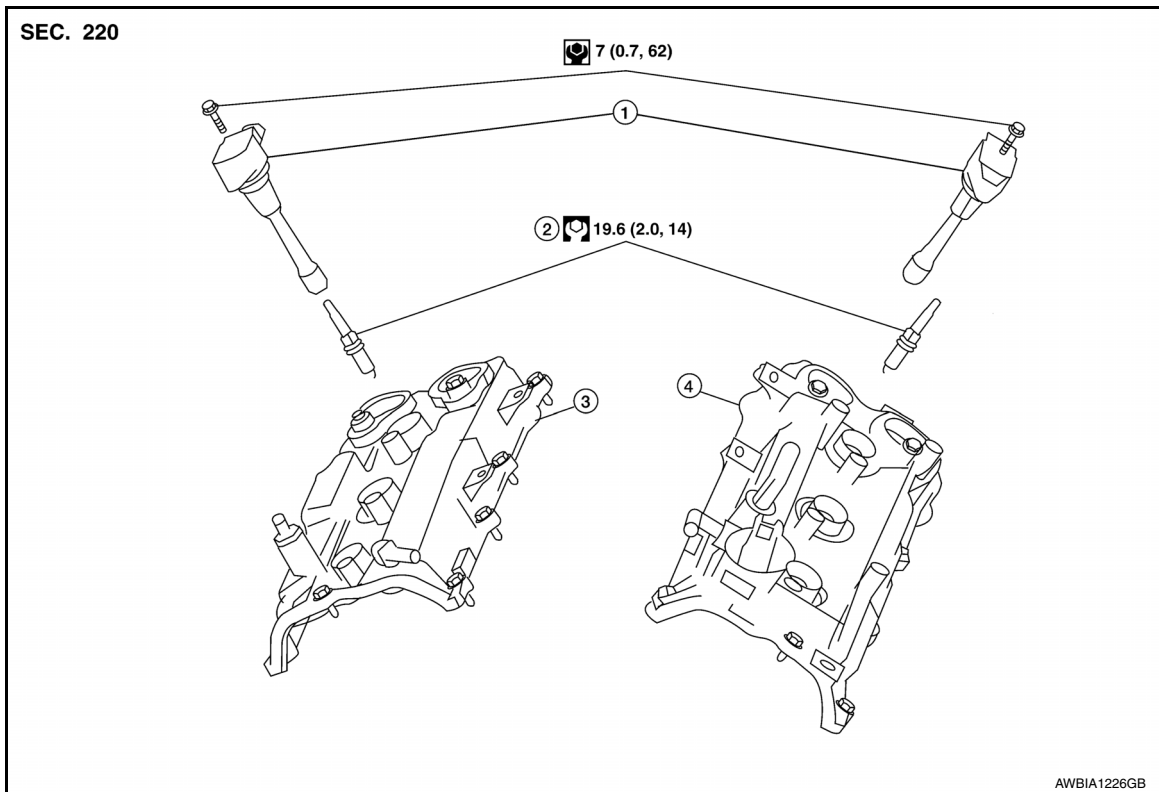
## SPARK PLUG

# ENGINE MAINTENANCE (VQ35DE)

< PERIODIC MAINTENANCE >

## SPARK PLUG : Exploded View

INFOID:000000012547566



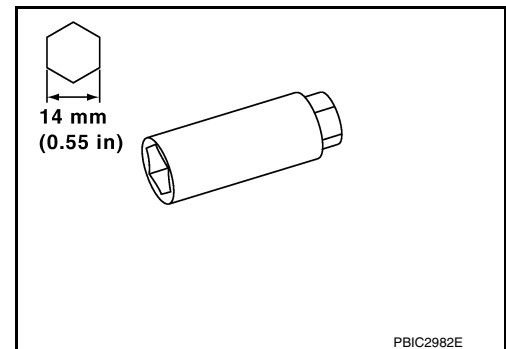
- 1. Ignition coil
- 2. Spark plug
- 3. Rocker cover (RH)
- 4. Rocker cover (LH)

## SPARK PLUG : Removal and Installation

INFOID:000000012547567

### REMOVAL

1. Remove the ignition coil. Refer to [EM-42. "Removal and Installation \(LH\)"](#) (LH) and [EM-42. "Removal and Installation \(RH\)"](#) (RH).
2. Remove the spark plug with a suitable tool.



### INSPECTION AFTER REMOVAL

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# ENGINE MAINTENANCE (VQ35DE)

## < PERIODIC MAINTENANCE >

Use the standard type spark plug for normal condition.

**Spark plug** : Refer to [EM-139, "Spark Plug"](#).

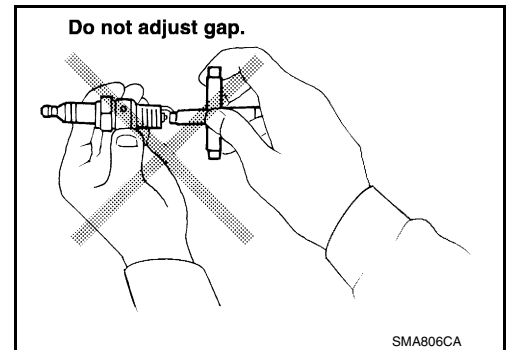
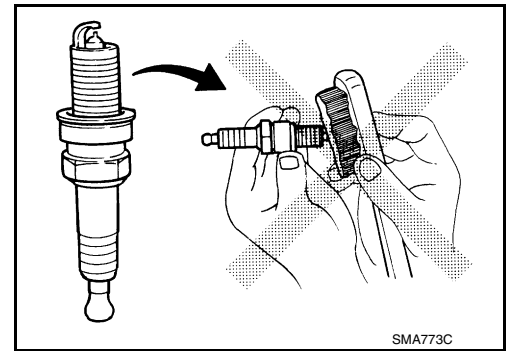
### CAUTION:

- Do not drop or shock spark plug. Discard spark plug if dropped.
- Do not use a wire brush for cleaning.
- If plug is covered with carbon, a spark plug cleaner may be used.

**Cleaner air pressure** : less than 588 kPa (6 kg/cm<sup>2</sup>, 85 psi)

**Cleaning time** : less than 20 seconds

- Spark plug gap adjustment is not required between replacement intervals.
- Measure spark plug gap. When it exceeds the limit, replace spark plug even if it is within the specified replacement mileage. Refer to [EM-139, "Spark Plug"](#).



## INSTALLATION

Installation is in the reverse order of removal.

Make	DENSO
Standard type*	FXE22HR11
Gap (nominal)	1.1 mm (0.043 in)

\*: Always check with the Parts Department for the latest parts information.

## EVAP VAPOR LINES

### EVAP VAPOR LINES : Inspection

INFOID:000000012547568

1. Visually inspect EVAP vapor lines for improper attachment and for cracks, damage, loose connections, chafing and deterioration.
2. Inspect fuel tank filler cap vacuum relief valve for clogging, sticking, etc.

# CHASSIS AND BODY MAINTENANCE

< PERIODIC MAINTENANCE >

## CHASSIS AND BODY MAINTENANCE

### IN-CABIN MICROFILTER

#### IN-CABIN MICROFILTER : Removal and Installation

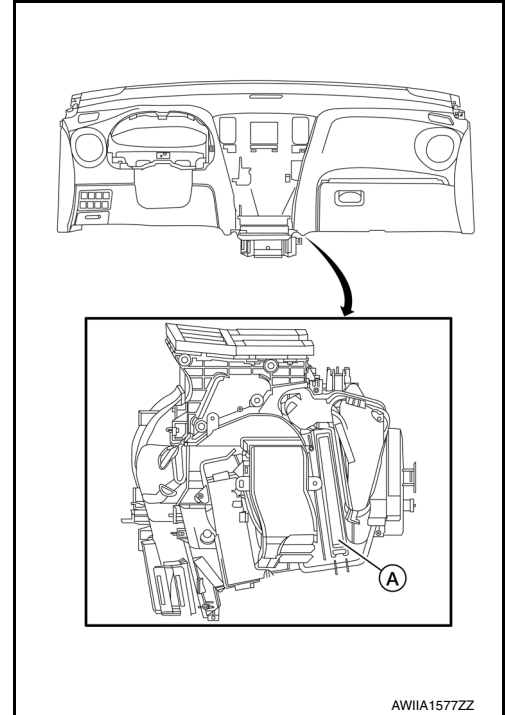
INFOID:000000012547569

##### REMOVAL

1. Remove center console side finisher (RH). Refer to [IP-18. "Exploded View"](#).
2. Release the in-cabin microfilter cover tab (A) and remove the cover from under the (RH) side of the instrument panel.

**CAUTION:**

Use care when lifting up on the tab to avoid damaging it.



3. Remove the in-cabin microfilter.

**CAUTION:**

If the filter is deformed/damaged when removing, replace it with a new one. A deformed or damaged filter may affect the dust collecting performance.

##### INSTALLATION

Installation is in the reverse order of removal.

**CAUTION:**

When installing, handle the filter with extreme care to avoid deforming or damaging the filter.

**NOTE:**

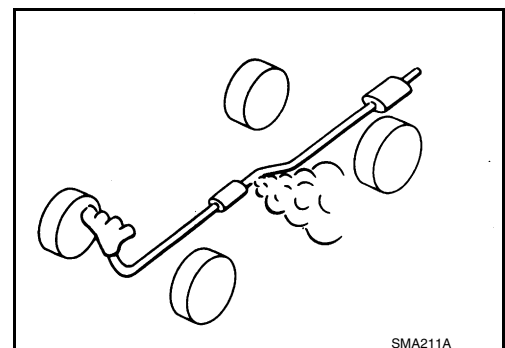
The in-cabin microfilter is marked with an air flow arrow. The end of the microfilter with the arrow should face the passenger side of the vehicle. The arrow should point towards the rear of the vehicle.

### EXHAUST SYSTEM

#### EXHAUST SYSTEM : Inspection

INFOID:000000012547570

Check exhaust pipes, muffler and mounting for improper attachment, leaks, cracks, damage or deterioration. Repair or replace as necessary.



### CVT FLUID

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# CHASSIS AND BODY MAINTENANCE

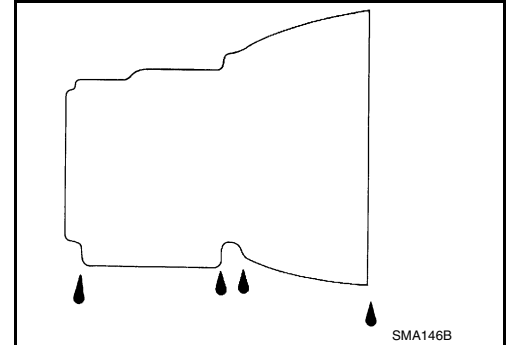
< PERIODIC MAINTENANCE >

## CVT FLUID : Inspection

INFOID:000000012547571

### FLUID LEAKAGE

- Check transaxle surrounding area (oil seal and plug etc.)for fluid leakage.
- If anything is found, repair or replace damaged parts and adjust CVT fluid level. Refer to [MA-34. "CVT FLUID : Adjustment"](#).



## CVT FLUID : Replacement

INFOID:000000012547572

- CVT fluid** : Refer to [TM-232. "General Specification"](#).  
**Fluid capacity** : Refer to [TM-232. "General Specification"](#).

### CAUTION:

- Always use shop paper. Never use shop cloth.
- Replace a drain plug gasket with new ones at the final stage of the operation when installing.
- Use caution when looking into the drain hole as there is a risk of dripping fluid entering the eye.
- After replacement, always perform CVT fluid leakage check.

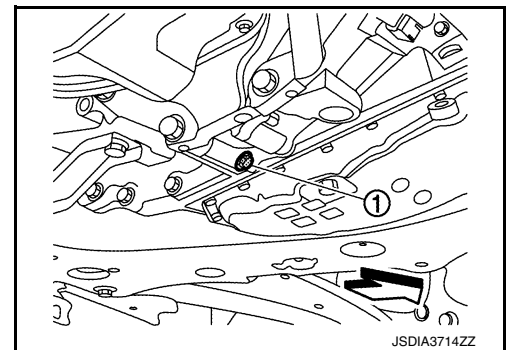
1. Select "Data Monitor" in "TRANSMISSION" using CONSULT.
2. Select "FLUID TEMP" and confirm that the CVT fluid temperature is 40°C (104°F) or less.
3. Check that the selector lever is in the "P" position, then completely engage the parking brake.
4. Lift up the vehicle.
5. Remove the drain plug and drain the CVT fluid from the oil pan. Refer to [TM-206. "Exploded View"](#).
6. Install the drain plug to oil pan.

### CAUTION:

**Drain plug gasket use the old one.**

7. Remove the overflow plug ① from converter housing.

← : Vehicle front



8. Install the charging pipe set (KV311039S0) (A) into the overflow plug hole.

### CAUTION:

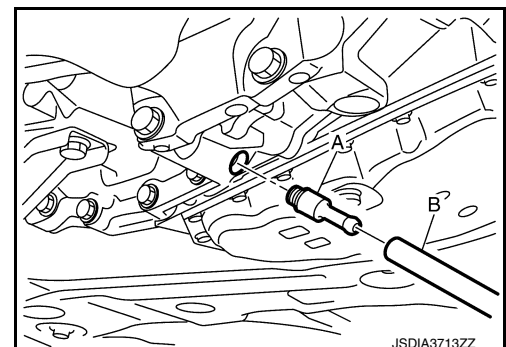
**Tighten the charging pipe by hand.**

9. Install the ATF changer hose (B) to the charging pipe.

### CAUTION:

**Press the ATF changer hose all the way onto the charging pipe until it stops.**

10. Fill approximately 3 liter (3-1/8 US qt, 2-5/8 Imp qt) of the CVT fluid.
11. Remove the ATF changer hose and charging pipe, then install the overflow plug.





# CHASSIS AND BODY MAINTENANCE

## < PERIODIC MAINTENANCE >

**NOTE:**

Perform this work quickly because CVT fluid leaks.

- 12. Lift down the vehicle. A
- 13. Start the engine.
- 14. While depressing the brake pedal, shift the selector lever to the entire position from “P” to “L”, and shift it to the “P” position. B

**NOTE:**

Hold the lever at each position for 5 seconds. C

- 15. Check that the CONSULT “Data Monitor” in “FLUID TEMP” is 35°C (95°F) to 45°C (113°F).
- 16. Stop the engine.
- 17. Lift up the vehicle. D
- 18. Remove the drain plug, and then drain CVT fluid from oil pan.
- 19. Repeat steps 8 to 18 (one time).
- 20. Tighten the drain plug to the specified torque. Refer to [TM-206, "Exploded View"](#). E
- 21. Remove the overflow plug.
- 22. Install the charging pipe set (KV311039S0) into the overflow plug hole. F

**CAUTION:**

**Tighten the charging pipe by hand.**

- 23. Install the ATF changer hose to the charging pipe. G
- 24. Fill approximately 3 liter (3-1/8 US qt, 2-5/8 Imp qt) of the CVT fluid.
- 25. Remove the ATF changer hose and charging pipe, then install the overflow plug. H

**NOTE:**

Perform this work quickly because CVT fluid leaks.

- 26. Lift down the vehicle. I
- 27. Start the engine.
- 28. While depressing the brake pedal, shift the selector lever to the entire position from “P” to “L”, and shift it to the “P” position. J

**NOTE:**

Hold the lever at each position for 5 seconds.

- 29. Check that the CONSULT “Data Monitor” in “FLUID TEMP” is 35°C (95°F) to 45°C (113°F). K
- 30. Lift up the vehicle.
- 31. Remove the overflow plug and confirm that the CVT fluid is drained from the overflow plug hole. L

**CAUTION:**

**Perform this work with the vehicle idling.**

**NOTE:**

If the CVT fluid is not drained, refer to “Adjustment” and refill with the CVT fluid. M

- 32. When the flow of CVT fluid slows to a drip, tighten the overflow plug to the specified torque. Refer to [TM-206, "Exploded View"](#). N

**CAUTION:**

**Never reuse O-ring.**

- 33. Lift down the vehicle.
- 34. Select “Data Monitor” in “TRANSMISSION” using CONSULT. O
- 35. Select “CONFORM CVTF DETERIORATION”.
- 36. Select “Erase”.
- 37. Stop the engine.

## CVT FLUID : Adjustment

INFOID:000000012547573

**CVT fluid** : Refer to [TM-232, "General Specification"](#).

**Fluid capacity** : Refer to [TM-232, "General Specification"](#).

**CAUTION:**

# CHASSIS AND BODY MAINTENANCE

## < PERIODIC MAINTENANCE >

- During adjustment of the CVT fluid level, check CONSULT so that the oil temperature may be maintained from 35 to 45°C (95 to 113°F).
- During adjustment of the CVT fluid level, check that the engine speed is maintaining 500 rpm.
- Use caution when looking into the drain hole as there is a risk of dripping fluid entering the eye.

1. Check that the selector lever is in the “P” position, then completely engage the parking brake.
2. Start the engine.
3. Adjust the CVT fluid temperature to be approximately 40°C (104°F).

**NOTE:**

The CVT fluid is largely affected by temperature. Therefore be sure to use CONSULT and check the “FLUID TEMP” under “TRANSMISSION” in “Data Monitor” while adjusting.

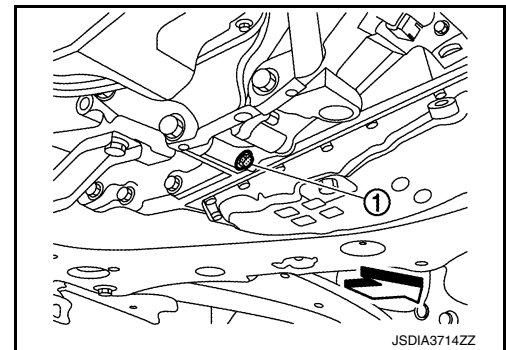
4. While depressing the brake pedal, shift the selector lever to the entire position from “P” to “L”, and shift it to the “P” position.

**NOTE:**

Hold the lever at each position for 5 seconds.

5. Lift up the vehicle.
6. Check that there is no CVT fluid leakage.
7. Remove the overflow plug ① from converter housing.

← : Vehicle front



8. Install the charging pipe set (KV311039S0) (A) into the overflow plug hole.

**CAUTION:**

**Tighten the charging pipe by hand.**

9. Install the ATF changer hose (B) to the charging pipe.

**CAUTION:**

**Press the ATF changer hose all the way onto the charging pipe until it stops.**

10. Fill approximately 0.5 liter (1/2 US qt, 1/2 Imp qt) of the CVT fluid.

11. Remove the ATF changer hose from the charging pipe, and check that the CVT fluid drains out from the charging pipe. If it does not drain out, perform charging again.

**CAUTION:**

**Perform this work with the vehicle idling.**

12. When the flow of CVT fluid slows to a drip, remove the charging pipe from the converter housing.

13. Tighten the overflow plug to the specified torque. Refer to [TM-206. "Exploded View"](#).

**CAUTION:**

**Never reuse O-ring.**

14. Lift down the vehicle.
15. Stop the engine.

## TRANSFER OIL

### TRANSFER OIL : Inspection

INFOID:000000012547574

### OIL LEAKS

Check that oil is not leaking from transfer assembly or around it.

### OIL LEVEL

# CHASSIS AND BODY MAINTENANCE

## < PERIODIC MAINTENANCE >

### CAUTION:

Do not start engine while checking oil level.

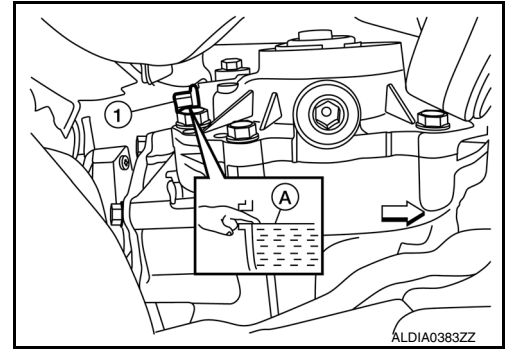
1. Remove filler plug (1) and gasket.

← : Front

2. Transfer oil level (A) should be level with bottom of filler plug hole. Add oil if necessary. Refer to [MA-17, "FOR USA AND CANADA : Fluids and Lubricants"](#) (United States and Canada) or [MA-19, "FOR MEXICO : Fluids and Lubricants"](#) (Mexico).
3. Clean threads of filler plug (1) and transfer case.
4. Set a new gasket onto the filler plug (1), and install it in the transfer and tighten to specified torque. Refer to [DLN-93, "Exploded View"](#).

### CAUTION:

Do not reuse gasket.



## TRANSFER OIL : Draining

INFOID:000000012547575

### CAUTION:

Do not start engine while checking oil level.

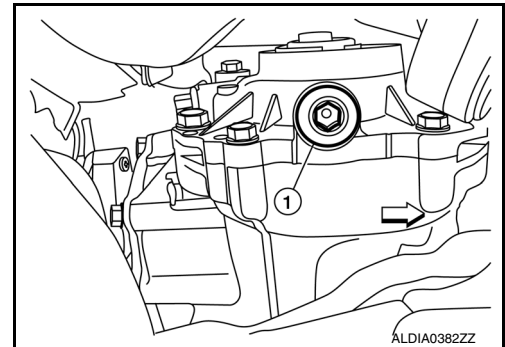
1. Run the vehicle to warm up the transfer unit sufficiently.
2. Stop the engine and remove drain plug (1) and drain the transfer oil.

← : Front

3. Clean threads of drain plug (1) and transfer case.
4. Set a new gasket onto drain plug (1), and install it in the transfer and tighten to specified torque. Refer to [DLN-93, "Exploded View"](#).

### CAUTION:

Do not reuse gasket.



## TRANSFER OIL : Refilling

INFOID:000000012547576

### CAUTION:

Do not start engine while checking oil level.

1. Remove filler plug (1).
2. Fill with new oil to the specified level near the filler plug hole.

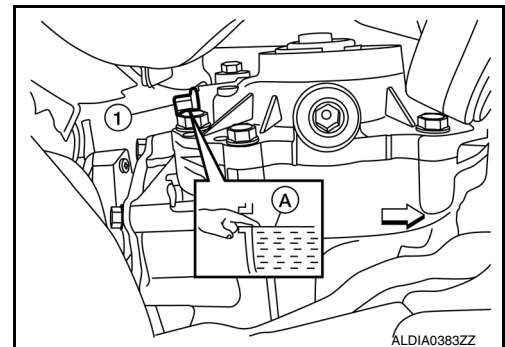
← : Front

**Oil grade and viscosity**

: Refer to [MA-17, "FOR USA AND CANADA : Fluids and Lubricants"](#) (United States and Canada) or [MA-19, "FOR MEXICO : Fluids and Lubricants"](#) (Mexico).

**Oil capacity**

: Refer to [DLN-97, "General Specifications"](#).



3. Clean threads of filler plug (1) and transfer case.
4. Set a new gasket onto filler plug (1), and install it in the transfer and tighten to specified torque. Refer to [DLN-93, "Exploded View"](#).

### CAUTION:

Do not reuse gasket.

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# CHASSIS AND BODY MAINTENANCE

< PERIODIC MAINTENANCE >

## REAR DIFFERENTIAL GEAR OIL

### REAR DIFFERENTIAL GEAR OIL : Inspection

INFOID:000000012547577

#### OIL LEAKS

Check that oil is not leaking from final drive assembly or around it.

#### OIL LEVEL

##### **CAUTION:**

**Do not start engine while checking oil level.**

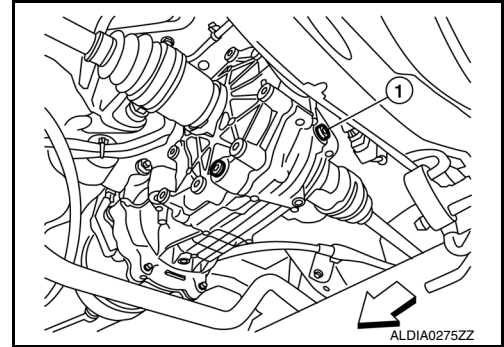
1. Remove and discard filler plug (1).

##### **CAUTION:**

**Do not reuse filler plug.**

⇐ : Front

2. Oil level should be level with the bottom of filler plug hole. Add oil if necessary. Refer to [MA-17. "FOR USA AND CANADA : Fluids and Lubricants"](#) (United States and Canada) or [MA-19. "FOR MEXICO : Fluids and Lubricants"](#) (Mexico).
3. Install filler plug (1) and tighten to specified torque. Refer to [DLN-130. "Exploded View"](#).



### REAR DIFFERENTIAL GEAR OIL : Draining

INFOID:000000012547578

##### **CAUTION:**

**Do not start engine while checking oil level.**

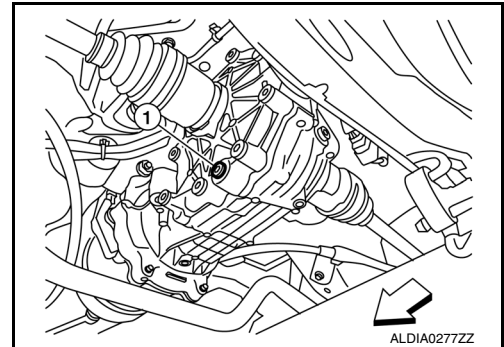
1. Remove and discard drain plug (1), and drain gear oil.

##### **CAUTION:**

**Do not reuse drain plug.**

⇐ : Front

2. Install drain plug (1) and tighten to specified torque. Refer to [DLN-130. "Exploded View"](#).



### REAR DIFFERENTIAL GEAR OIL : Refilling

INFOID:000000012547579

##### **CAUTION:**

**Do not start engine while checking oil level.**

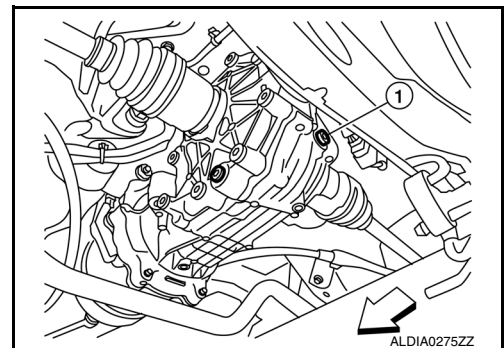
1. Remove and discard filler plug (1).

##### **CAUTION:**

**Do not reuse filler plug.**

⇐ : Front

2. Fill with new oil to the specified level near the filler plug hole.



# CHASSIS AND BODY MAINTENANCE

## < PERIODIC MAINTENANCE >

**Oil grade and viscosity** : Refer to [MA-17, "FOR USA AND CANADA : Fluids and Lubricants"](#) (United States and Canada) or [MA-19, "FOR MEXICO : Fluids and Lubricants"](#) (Mexico).

**Oil capacity** : Refer to [DLN-135, "General Specification"](#).

3. Install filler plug (1) and tighten to specified torque. Refer to [DLN-130, "Exploded View"](#).

## PROPELLER SHAFT

### PROPELLER SHAFT : Inspection

INFOID:000000012547580

### APPEARANCE AND NOISE INSPECTION

- Inspect the propeller shaft tube for dents or cracks. If damaged, replace the propeller shaft assembly.
- Check bearings for noise or damage. If damaged, replace as necessary.

## WHEELS

### WHEELS : Inspection

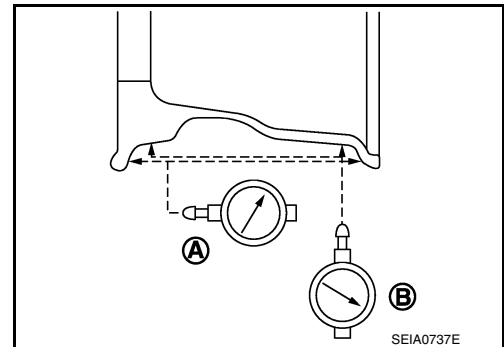
INFOID:000000012547581

1. Check tires for wear and improper inflation.
2. Check wheels for deformation, cracks and other damage. If deformed, remove wheel and check wheel runout.
3. Remove tire from wheel and mount wheel on a tire balance machine.

#### **CAUTION:**

**DO NOT use center hole cone-type clamping machines to hold the wheel assembly during tire removal/installation or balancing or damage to the wheel paint, cladding or chrome may result. Use only rim-type or universal lug-type clamping machines to hold the wheel assembly during servicing.**

- a. Set dial indicator as shown.
- b. Check runout, if the lateral runout (A) or radial runout (B) exceeds the limit, replace wheel.



**Lateral runout (A)**

Refer to [WT-67, "Road Wheel"](#)

**Radial runout (B)**

Refer to [WT-67, "Road Wheel"](#)

### WHEELS : Adjustment

INFOID:000000012547582

### BALANCING WHEELS (ADHESIVE WEIGHT TYPE)

#### Preparation Before Adjustment

Remove inner and outer balance weights from the road wheel. 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 all traces of releasing agent from the road wheel.

#### Wheel Balance Adjustment

#### **CAUTION:**

# CHASSIS AND BODY MAINTENANCE

## < PERIODIC MAINTENANCE >

**DO NOT use center hole cone-type clamping machines to hold the wheel assembly during tire removal/installation or balancing or damage to the wheel paint, cladding or chrome may result. Use only rim-type or universal lug-type clamping machines to hold the wheel assembly during servicing.**

- If a balancer machine has an adhesive weight mode setting, select the adhesive weight mode setting and skip Step 2 below. If a balancer machine only has the clip-on (rim flange) weight mode setting, follow Step 2 to calculate the correct size adhesive weight.

1. Set road wheel on balancer machine using the center hole as a guide. Start the balancer machine.
2. For balancer machines that only have a clip-on (rim flange) weight mode setting, follow this step to calculate the correct size adhesive weight to use. When inner and outer imbalance values are shown on the balancer machine indicator, multiply outer imbalance value by 5/3 (1.67) to determine balance weight that should be used. Select the outer balance weight with a value closest to the calculated value above and install in to the designated outer position of or at the designated angle in relation to the road wheel.

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

**Calculation example:**

$23 \text{ g (0.81 oz)} \times 5/3 (1.67) = 38.33 \text{ g (1.35 oz)} \Rightarrow 40 \text{ g (1.41 oz)}$   
balance weight (closer to calculated balance weight value)

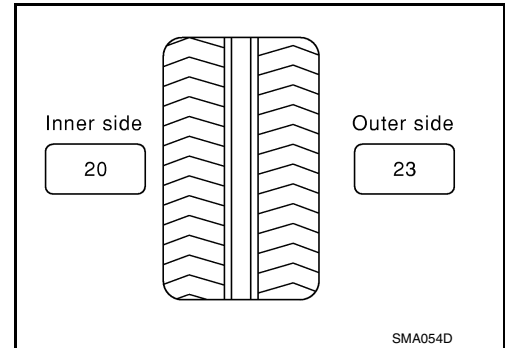
**NOTE:**

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

**Example:**

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

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



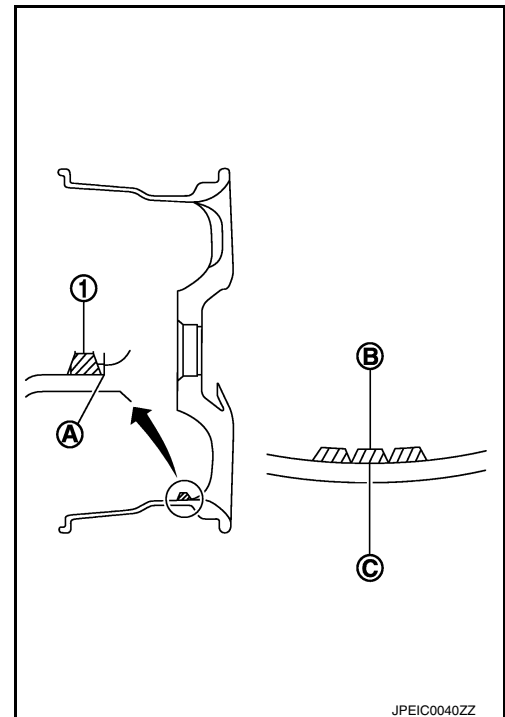
3. Install balance weight in the position shown.

**CAUTION:**

- Do not install the inner balance weight before installing the outer balance weight.
- Before installing the balance weight, be sure to clean the mating surface of the road wheel.
- When installing balance weight (1) to road wheel, set it into the grooved area (A) on the inner wall of the road wheel as shown so that the balance weight center (B) is aligned with the balancer machine indication position (angle) (C).

**CAUTION:**

- Always use Genuine NISSAN adhesive balance weights.
- Balance weights are non-reusable; always replace with new ones.
- Do not install more than three sheets of balance weights.



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

**CAUTION:**

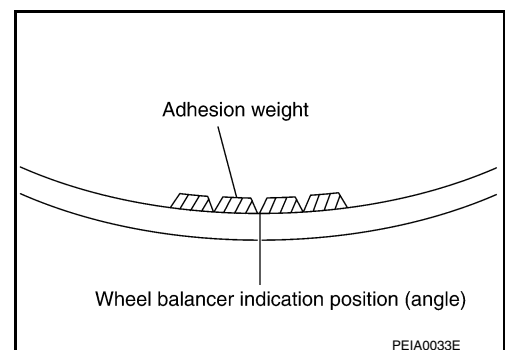
**Do not install one balance weight sheet on top of another.**

5. Start balancer machine again.
6. Install balance weight on inner side of road wheel in the balancer machine indication position (angle).

**CAUTION:**

**Do not install more than two balance weights.**

7. Start balancer machine. Make sure that inner and outer residual imbalance values are 7 g (0.25 oz) each or below.



# CHASSIS AND BODY MAINTENANCE

## < PERIODIC MAINTENANCE >

- If either residual imbalance value exceeds 7 g (0.25 oz), repeat installation procedures.

Wheel balance	Dynamic (At flange)	Static (At flange)
Maximum allowable imbalance	Refer to <a href="#">WT-67. "Road Wheel"</a> .	

### TIRE ROTATION

- Follow the maintenance schedule for tire rotation service intervals. Refer to [MA-10. "FOR USA AND CANADA : Introduction of Periodic Maintenance"](#) (United States and Canada) or [MA-13. "FOR MEXICO : Periodic Maintenance"](#) (Mexico).

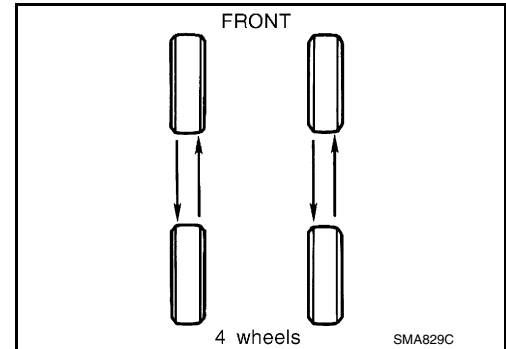
- When installing the wheel, tighten wheel nuts to the specified torque.

#### CAUTION:

- Do not include the 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 for preventing strain of disc rotor.
- Use NISSAN genuine wheel nuts for aluminum wheels.

**Wheel nut tightening : 113 N·m (12 kg-m, 83 ft-lb) torque**

- Perform the ID registration after tire rotation. Refer to [WT-30. "Description"](#).



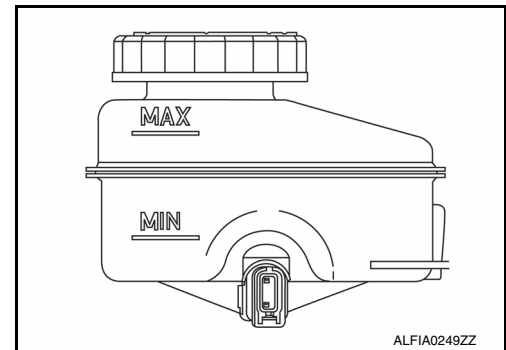
### BRAKE FLUID LEVEL AND LEAKS

#### BRAKE FLUID LEVEL AND LEAKS : Inspection

INFOID:0000000012547583

#### BRAKE FLUID LEVEL

- Make sure that the brake fluid level in the reservoir sub tank is between the MAX and MIN lines.
- Visually check around the reservoir sub tank and reservoir tank for brake fluid leakage.
- If the brake fluid level is excessively low, check the brake system for leakage.
- If brake warning lamp remains illuminated after parking brake pedal is released, check the brake system for brake fluid leakage.

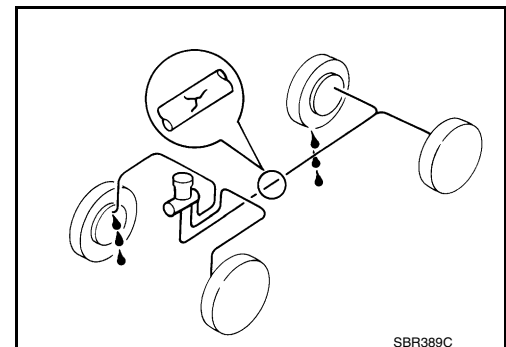


#### BRAKE LINE

- Check brake line (tubes and hoses) for cracks, deterioration or other damage. Replace any damaged parts.
- Check for brake fluid leakage by fully depressing brake pedal while engine is running.

#### CAUTION:

**If brake fluid leakage occurs around joints, retighten or replace damaged parts as necessary.**



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# CHASSIS AND BODY MAINTENANCE

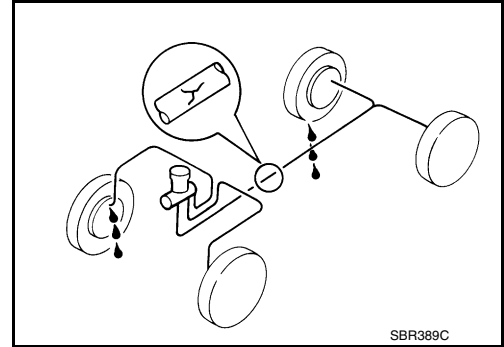
< PERIODIC MAINTENANCE >

## BRAKE LINES AND CABLES

### BRAKE LINES AND CABLES : Inspection

INFOID:000000012547584

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



## BRAKE FLUID

### BRAKE FLUID : Drain and Refill

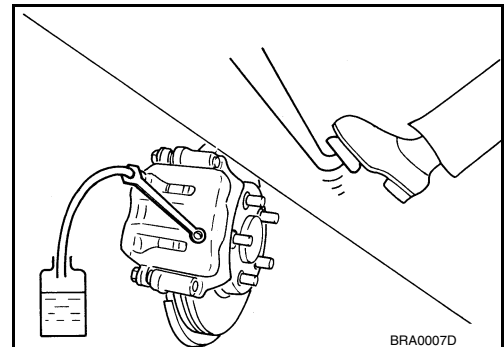
INFOID:000000012547585

#### CAUTION:

- Do not spill or splash brake fluid on painted surfaces. Brake fluid may damage paint. If brake fluid is splashed on painted areas, wash it away with water immediately.
- Prior to repair, turn the ignition switch OFF, disconnect the ABS actuator and electric unit (control unit) connector or negative battery terminal. Refer to [PG-93, "Removal and Installation"](#).
- Refill brake system with new brake fluid. Refer to [MA-17, "FOR USA AND CANADA : Fluids and Lubricants"](#) (United States and Canada) or [MA-19, "FOR MEXICO : Fluids and Lubricants"](#) (Mexico).
- Do not reuse drained brake fluid.

#### DRAINING

1. Turn ignition switch OFF and disconnect ABS actuator and electric unit (control unit) connector or negative battery terminal. Refer to [PG-93, "Removal and Installation"](#).
2. Connect a vinyl tube to bleeder valve.
3. Depress brake pedal, loosen bleeder valve, and gradually remove brake fluid.



#### REFILLING

1. Make sure no foreign material is in the reservoir sub-tank, and refill with new brake fluid.

#### CAUTION:

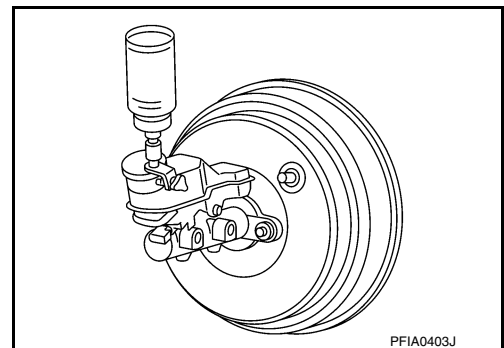
**Do not reuse drained brake fluid.**

2. Refill the brake system as follows:

- Depress the brake pedal.
- Loosen bleeder valve.
- Slowly depress brake pedal to 2/3 of the brake pedal full stroke.
- Tighten bleeder valve.
- Release brake pedal.

Repeat this operation at intervals of two or three seconds until all old brake fluid is discharged. Add new brake fluid to master cylinder reservoir sub tank frequently.

#### CAUTION:





# CHASSIS AND BODY MAINTENANCE

## < PERIODIC MAINTENANCE >

**Do not allow master cylinder reservoir to empty as this may cause damage to master cylinder internal components.**

3. Bleed the air out of the brake hydraulic system. Refer to [BR-14, "Bleeding Brake System"](#).

## FRONT BRAKE

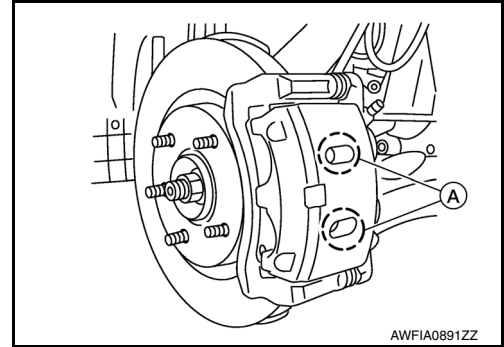
### FRONT BRAKE : Inspection of Pad

INFOID:000000013020492

#### PAD WEAR

Check brake pad wear thickness from an inspection hole (A) on cylinder body. Check using a scale if necessary.

**Wear thickness** : Refer to [BR-51, "Front Disc Brake"](#).



#### ADJUSTMENT

Burnish contact surfaces between disc brake rotor and brake pads according to the following procedure after refinishing disc brake rotors, replacing disc brake rotors, replacing brake pads, or if a soft pedal occurs at very low mileage:

#### **CAUTION:**

- **Be careful of vehicle speed because the brake pedal does not operate firmly/securely until pads and disc brake rotor are securely seated.**
  - **Only perform this procedure under safe road and traffic conditions. Use extreme caution.**
1. Drive vehicle on straight, flat road.
  2. Depress brake pedal with the power to stop vehicle within 3 to 5 seconds until the vehicle stops.
  3. Drive without depressing brake pedal for a few minutes to cool the brakes.
  4. Repeat steps 1 to 3 until pad and disc brake rotor are securely seated.

### FRONT BRAKE : Inspection of Rotor

INFOID:000000013020493

#### INSPECTION

##### Appearance

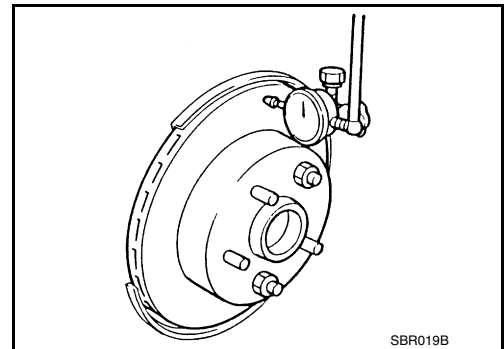
Check surface of disc rotor for uneven wear, cracks, and serious damage. Replace as necessary.

##### Runout

1. Check the wheel bearing axial end play before the inspection. Refer to [FAX-6, "Inspection"](#).
2. Secure the disc rotor to the wheel hub and bearing with wheel nuts at two wheel nut locations.
3. Inspect the runout with a dial gauge, measured at 10 mm (0.39 in) inside the disc edge.

**Runout** : Refer to [BR-51, "Front Disc Brake"](#).

4. Find the installation position with a minimum runout by shifting the disc rotor-to-wheel hub and bearing installation position by one hole at a time if the runout exceeds the limit value.
5. Refinish the disc rotor if the runout is outside the limit even after performing the above operation. When refinishing, use Tool.



**Tool number** : 38-PFM92 ( — )

#### **CAUTION:**

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# CHASSIS AND BODY MAINTENANCE

## < PERIODIC MAINTENANCE >

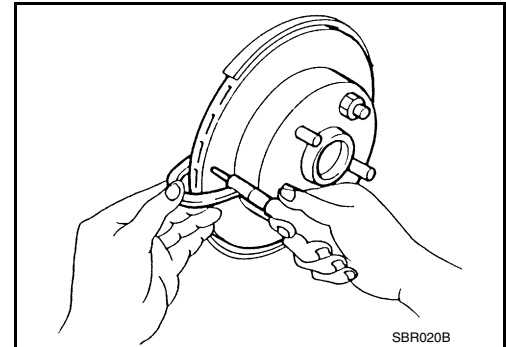
- Check in advance that the thickness of the disc rotor is wear thickness + 0.3 mm (0.012 in) or more.
- If the thickness is less than wear thickness + 0.3 mm (0.012 in), replace the disc rotor. Refer to [RAX-7, "Removal and Installation"](#).

**Wear thickness** : Refer to [BR-51, "Front Disc Brake"](#).

### Thickness

Check the thickness of the disc rotor using a micrometer. Replace the disc rotor if the thickness is below the wear limit.

**Wear thickness** : Refer to [BR-51, "Front Disc Brake"](#).



## ADJUSTMENT

Burnish contact surfaces between disc brake rotor and brake pads according to the following procedure after refinishing disc brake rotors, replacing disc brake rotors, replacing brake pads, or if a soft pedal occurs at very low mileage:

### CAUTION:

- Be careful of vehicle speed because the brake pedal does not operate firmly/securely until pads and disc brake rotor are securely seated.
  - Only perform this procedure under safe road and traffic conditions. Use extreme caution.
1. Drive vehicle on straight, flat road.
  2. Depress brake pedal with the power to stop vehicle within 3 to 5 seconds until the vehicle stops.
  3. Drive without depressing brake pedal for a few minutes to cool the brakes.
  4. Repeat steps 1 to 3 until pad and disc brake rotor are securely seated.

## REAR BRAKE

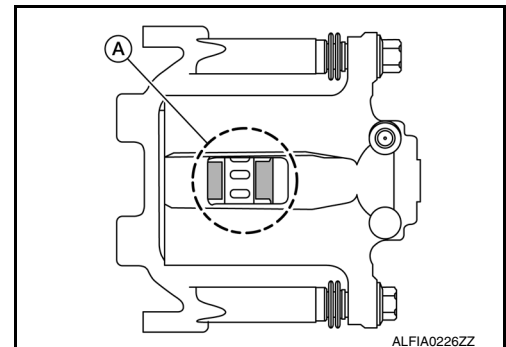
### REAR BRAKE : Inspection of Pad

INFOID:000000013020497

### INSPECTION

Check brake pad wear thickness from an inspection hole (A) on cylinder body. Check using a scale if necessary.

**Wear thickness** : Refer to [BR-51, "Rear Disc Brake"](#).



## ADJUSTMENT

Burnish contact surfaces between disc brake rotor and brake pads according to the following procedure after refinishing disc brake rotors, replacing disc brake rotors, replacing brake pads, or if a soft pedal occurs at very low mileage:

### CAUTION:

- Be careful of vehicle speed because the brake pedal does not operate firmly/securely until pads and disc brake rotor are securely seated.
  - Only perform this procedure under safe road and traffic conditions. Use extreme caution.
1. Drive vehicle on straight, flat road.

# CHASSIS AND BODY MAINTENANCE

## < PERIODIC MAINTENANCE >

2. Depress brake pedal with the power to stop vehicle within 3 to 5 seconds until the vehicle stops.
3. Drive without depressing brake pedal for a few minutes to cool the brakes.
4. Repeat steps 1 to 3 until pad and disc brake rotor are securely seated.

## REAR BRAKE : Inspection of Rotor

INFOID:000000013020498

### INSPECTION

#### Appearance

Check surface of disc rotor for uneven wear, cracks, and serious damage. Replace as necessary.

#### Runout

1. Check the wheel bearing axial end play before the inspection. Refer to [RAX-5, "Inspection"](#).
2. Secure the disc rotor to the wheel hub and bearing with wheel nuts at two wheel nut locations.
3. Measure the runout with a dial gauge 10 mm (0.39 in) from the disc rotor edge.

**Runout** : Refer to [BR-51, "Rear Disc Brake"](#).

4. Find the installation position with a minimum runout by shifting the disc rotor-to-wheel hub and bearing installation position by one hole at a time if the runout exceeds the limit value.
5. Refinish the disc rotor if the runout is outside the limit even after performing the above operation. When refinishing, use Tool.

**Tool number** : 38-PFM92 ( — )

#### CAUTION:

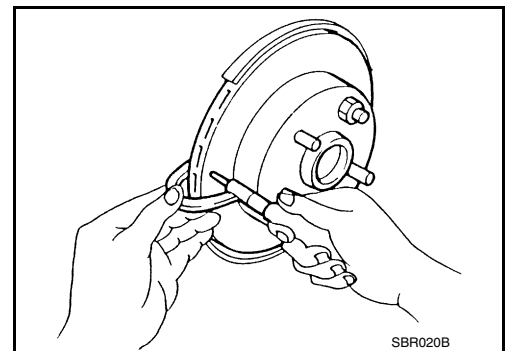
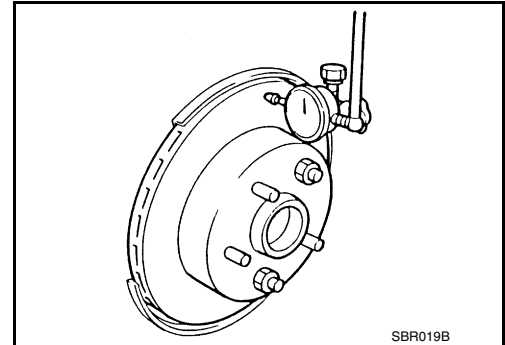
- Check in advance that the thickness of the disc rotor is wear thickness + 0.3 mm (0.012 in) or more.
- If the thickness is less than wear thickness + 0.3 mm (0.012 in), replace the disc rotor. Refer to [FAX-11, "WHEEL SIDE : Removal and Installation"](#).

**Wear thickness** : Refer to [BR-51, "Rear Disc Brake"](#).

#### Thickness

Check the thickness of the disc rotor using a micrometer. Replace the disc rotor if the thickness is below the minimum thickness.

**Minimum thickness** : Refer to [BR-51, "Rear Disc Brake"](#).



### ADJUSTMENT

Burnish contact surfaces between disc brake rotor and brake pads according to the following procedure after refinishing disc brake rotors, replacing disc brake rotors, replacing brake pads, or if a soft pedal occurs at very low mileage:

#### CAUTION:

- Be careful of vehicle speed because the brake pedal does not operate firmly/securely until pads and disc brake rotor are securely seated.
  - Only perform this procedure under safe road and traffic conditions. Use extreme caution.
1. Drive vehicle on straight, flat road.
  2. Depress brake pedal with the power to stop vehicle within 3 to 5 seconds until the vehicle stops.

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# CHASSIS AND BODY MAINTENANCE

## < PERIODIC MAINTENANCE >

3. Drive without depressing brake pedal for a few minutes to cool the brakes.
4. Repeat steps 1 to 3 until pad and disc brake rotor are securely seated.

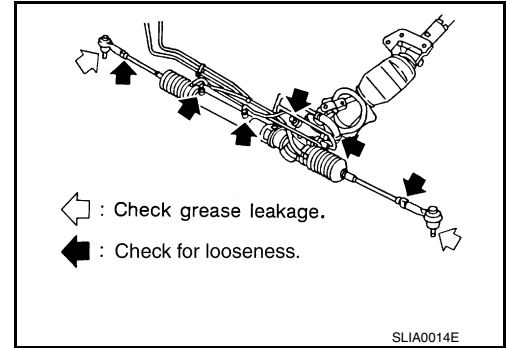
## STEERING GEAR AND LINKAGE

### STEERING GEAR AND LINKAGE : Inspection

INFOID:0000000012547590

#### 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.

## POWER STEERING FLUID AND LINES

### POWER STEERING FLUID AND LINES : Inspection

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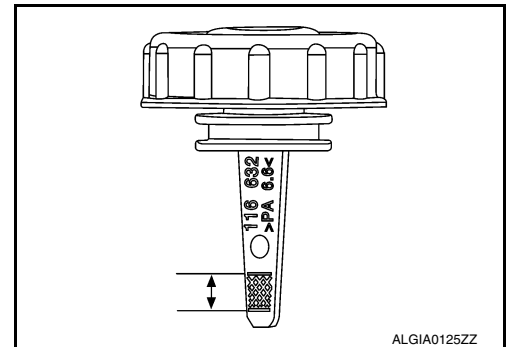
#### FLUID LEVEL

Check power steering fluid level at the scale on reservoir tank cap indicator.

- Check power steering fluid level with engine stopped and the fluid temp between 0 – 30° C (32 – 86° F).
- Power steering fluid level should be between the hatching area of the indicator on the power steering reservoir tank cap.

#### CAUTION:

- Do not overfill.
- Do not reuse used power steering fluid.
- Recommended power steering fluid is Genuine NISSAN E-PSF or equivalent. Refer to [MA-17, "FOR USA AND CANADA : Fluids and Lubricants"](#) (United States and Canada) or [MA-19, "FOR MEXICO : Fluids and Lubricants"](#) (Mexico).



#### FLUID LEAKAGE

Check the power steering hydraulic system for leaks, cracks, damage, loose connections, chafing or deterioration. Repair or replace as necessary.

1. Start engine and allow engine to idle.
2. Turn steering wheel right-to-left several times.
3. Hold steering wheel at each "lock" position for five seconds to check fluid leakage.

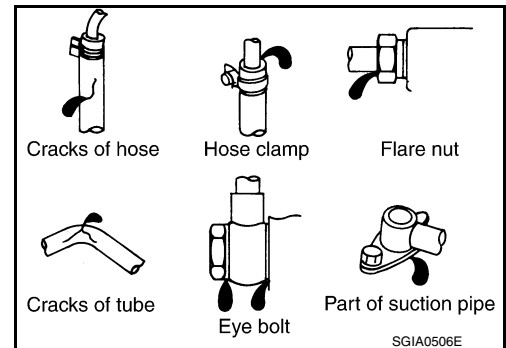
#### CAUTION:

**Do not hold steering wheel in a locked position for more than 10 seconds. Damage to power steering oil pump may occur.**

4. If power steering fluid leakage at connections is noticed, loosen flare nut and retighten.

#### CAUTION:

**Do not over tighten flare nut as damage to O-ring and connection can occur.**



# CHASSIS AND BODY MAINTENANCE

## < PERIODIC MAINTENANCE >

5. If power steering fluid leakage from the power steering oil pump is noticed, repair connection or replace power steering oil pump. Refer to [ST-53, "Removal and Installation"](#).
6. Check steering gear boots for accumulation of power steering fluid. Power steering fluid indicates a leak from the power steering gear, replace as necessary. Refer to [ST-58, "Removal and Installation - 2WD"](#) (2WD) or [ST-60, "Removal and Installation - 4WD"](#) (4WD).

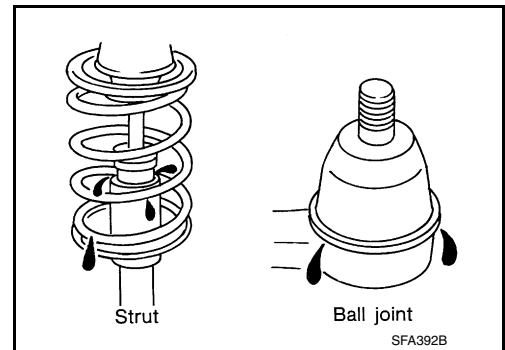
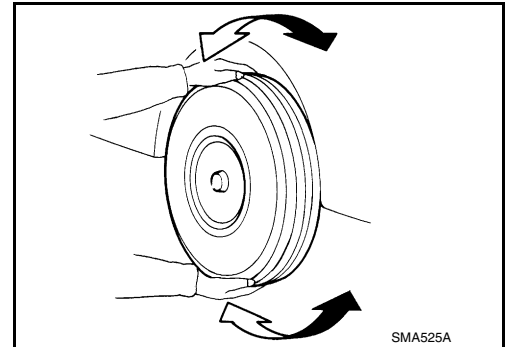
## AXLE AND SUSPENSION PARTS

### AXLE AND SUSPENSION PARTS : Inspection

INFOID:000000012547592

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.

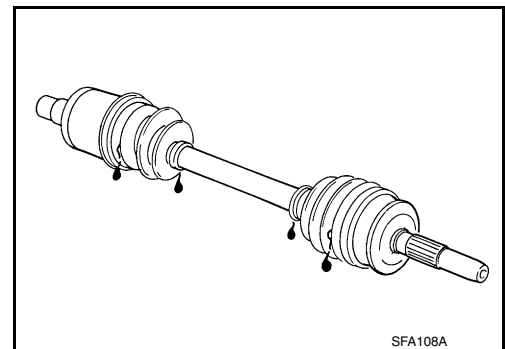


## DRIVE SHAFT

### DRIVE SHAFT : Inspection

INFOID:000000012547593

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



## LOCKS, HINGES AND HOOD LATCH

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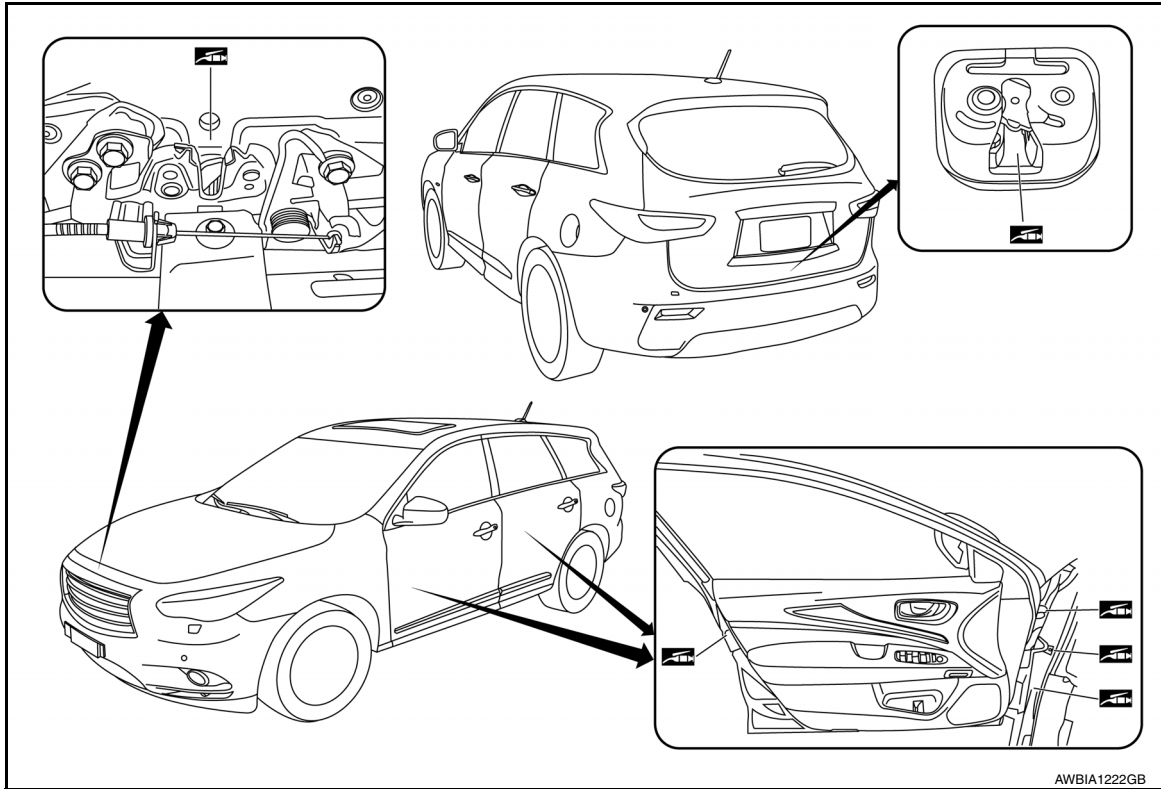
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## CHASSIS AND BODY MAINTENANCE

< PERIODIC MAINTENANCE >

### LOCKS, HINGES AND HOOD LATCH : Lubricating

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### SEAT BELT, BUCKLES, RETRACTORS, ANCHORS AND ADJUSTERS

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

INFOID:000000012547595

For details, refer to [SB-5. "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.

#### **CAUTION:**

- **After any collision, inspect all seat belt assemblies, including retractors and other attached hardware (i.e., anchor bolt, guide rail set). NISSAN recommends replacing 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.**
- **Do not oil tongue and buckle.**
- **Use a Genuine NISSAN seat belt assembly.**

# CHASSIS AND BODY MAINTENANCE

< PERIODIC MAINTENANCE >

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