

RADIATOR	40	WHEELS (BONDING WEIGHT TYPE) : Wheel	
RADIATOR : Inspection	40	Balance Adjustment (Aluminum Wheel)	54
FUEL LINES	40	WHEELS (BONDING WEIGHT TYPE) : Tire Rota-	
FUEL LINES : Inspection	40	tion	55
AIR CLEANER FILTER	40	BRAKE FLUID LEVEL AND LEAKS	56
AIR CLEANER FILTER : Removal and Installation		BRAKE FLUID LEVEL AND LEAKS : Inspection ...	57
.....	40	BRAKE LINES AND CABLES	57
ENGINE OIL	43	BRAKE LINES AND CABLES : Inspection	57
ENGINE OIL : Draining	43	BRAKE FLUID	57
ENGINE OIL : Refilling	43	BRAKE FLUID : Changing	57
OIL FILTER	44	DISC BRAKE	57
OIL FILTER : Removal and Installation	44	DISC BRAKE : Inspection	57
OIL FILTER : Inspection	45	DISC BRAKE : Front Disc Brake	58
SPARK PLUG	45	DISC BRAKE : Rear Disc Brake	58
SPARK PLUG : Removal and Installation	45	STEERING GEAR AND LINKAGE	59
SPARK PLUG : Inspection	46	STEERING GEAR AND LINKAGE : Inspection	59
EVAP VAPOR LINES	47	POWER STEERING FLUID AND LINES	59
EVAP VAPOR LINES : Inspection	47	POWER STEERING FLUID AND LINES : Inspec-	
CHASSIS MAINTENANCE	48	tion	59
EXHAUST SYSTEM	48	AXLE AND SUSPENSION PARTS	59
EXHAUST SYSTEM : Inspection	48	AXLE AND SUSPENSION PARTS : Inspection	60
A/T FLUID	48	DRIVE SHAFT	60
A/T FLUID : Inspection	48	DRIVE SHAFT : Inspection	60
A/T FLUID : Changing	48	BODY MAINTENANCE	61
A/T FLUID : Adjustment	50	LOCKS, HINGES AND HOOD LATCH	61
TRANSFER FLUID	50	LOCKS, HINGES AND HOOD LATCH : Lubricat-	
TRANSFER FLUID : Inspection	50	ing	61
TRANSFER FLUID : Draining	51	SEAT BELT, BUCKLES, RETRACTORS, AN-	
TRANSFER FLUID : Refilling	51	CHORS AND ADJUSTERS	61
FRONT PROPELLER SHAFT	51	SEAT BELT, BUCKLES, RETRACTORS, AN-	
FRONT PROPELLER SHAFT : Inspection	51	CHORS AND ADJUSTERS : Inspection	61
REAR PROPELLER SHAFT	51	SERVICE DATA AND SPECIFICATIONS	
REAR PROPELLER SHAFT : Inspection	51	(SDS)	62
FRONT DIFFERENTIAL GEAR OIL: F160A	52	SERVICE DATA AND SPECIFICATIONS	
FRONT DIFFERENTIAL GEAR OIL: F160A : In-		(SDS)	62
spection	52	DRIVE BELT (2.0L TURBO GASOLINE ENGINE)...	62
FRONT DIFFERENTIAL GEAR OIL: F160A :		DRIVE BELT (2.0L TURBO GASOLINE ENGINE)	
Draining	52	: Drive Belt	62
FRONT DIFFERENTIAL GEAR OIL: F160A : Re-		DRIVE BELT (VR30DDTT)	62
filling	53	DRIVE BELT (VR30DDTT) : Drive Belt	62
REAR DIFFERENTIAL GEAR OIL: R190	53	ENGINE COOLANT (2.0L TURBO GASOLINE EN-	
REAR DIFFERENTIAL GEAR OIL: R190 : Inspec-		GINE)	62
tion	53	ENGINE COOLANT (2.0L TURBO GASOLINE	
REAR DIFFERENTIAL GEAR OIL: R190 : Drain-		ENGINE) : Periodical Maintenance Specification...	62
ing	53	ENGINE COOLANT (VR30DDTT)	62
REAR DIFFERENTIAL GEAR OIL: R190 : Refill-		ENGINE COOLANT (VR30DDTT) :	
ing	54	Periodical Maintenance Specification	62
WHEELS (BONDING WEIGHT TYPE)	54		

ENGINE OIL (2.0L TURBO GASOLINE ENGINE)....	62	SPARK PLUG (2.0L TURBO GASOLINE ENGINE)	....63	A
ENGINE OIL (2.0L TURBO GASOLINE ENGINE)		SPARK PLUG (2.0L TURBO GASOLINE EN-		
: Periodical Maintenance Specification	62	GINE) : Spark Plug	63	
ENGINE OIL [VR30DDTT (2WD)]	63	SPARK PLUG (VR30DDTT)	63	B
ENGINE OIL [VR30DDTT (2WD)] :		SPARK PLUG (VR30DDTT) : Spark Plug	63	
Periodical Maintenance Specification	63			
ENGINE OIL [VR30DDTT (AWD)]	63	ROAD WHEEL	63	C
ENGINE OIL [VR30DDTT (AWD)] :		ROAD WHEEL : Road Wheel	63	
Periodical Maintenance Specification	63			

D

E

F

G

H

I

J

K

L

M

N

O

MA

PREPARATION

< PREPARATION >

PREPARATION

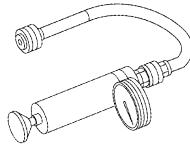
PREPARATION

Special Service Tool

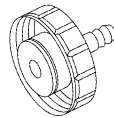
INFOID:000000012795987

2.0L TURBO GASOLINE ENGINE MODELS

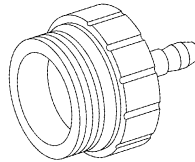
Tool number (DAIMLER tool No.) Tool name	Description
KV115H0870 (DAIMLER tool No. 124 589 24 21 00) Pump press	Cooling system check
KV115H0880 (DAIMLER tool No. 210 589 00 91 00) Cap	Test cap for cooling system check
KV115H0900 (DAIMLER tool No. 210 589 03 63 00) Adapter	Test cap for reservoir tank cap check



JSBIA3887ZZ



JSBIA3888ZZ

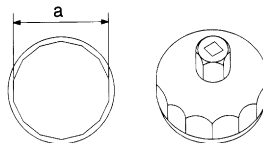


JSBIA3890ZZ

VR30DDTT ENGINE MODELS

The actual shapes of TechMate tools may differ from those of special service tools illustrated here.

Tool number (TechMate No.) Tool name	Description
KV10115801 (J-38956) Oil filter wrench	Removing and installing oil filter a: 64.3 mm (2.531 in)



S-NT375

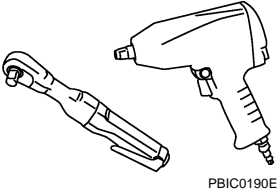
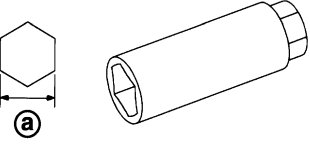
Commercial Service Tool

INFOID:000000012795988

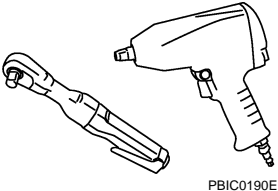
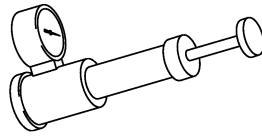
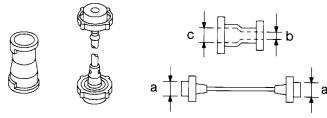
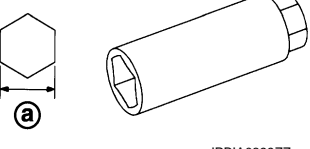
2.0L TURBO GASOLINE ENGINE MODELS

PREPARATION

< PREPARATION >

Tool name	Description	
Power tool  PBIC0190E	Loosening nuts and bolts	A B C
Spark plug wrench  JPBIA0399ZZ	Removing and installing spark plug Ⓐ: 14 mm (0.55 in)	D E F

VR30DDTT ENGINE MODELS

Tool name	Description	
Power tool  PBIC0190E	Loosening nuts and bolts	G H I
Radiator cap tester  PBIC1982E	Checking radiator and radiator cap	J K L
Radiator cap tester adapter  S-NT564	Adapting radiator cap tester to radiator cap and water outlet (front) filler neck a: 28 (1.10) dia. b: 31.4 (1.236) dia. c: 41.3 (1.626) dia. Unit: mm (in)	M N
Spark plug wrench  JPBIA0399ZZ	Removing and installing spark plug Ⓐ: 14 mm (0.55 in)	O MA

GENERAL MAINTENANCE

< PERIODIC MAINTENANCE >

PERIODIC MAINTENANCE

GENERAL MAINTENANCE FOR NORTH AMERICA

FOR NORTH AMERICA : Explanation of General Maintenance

INFOID:000000012795989

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 **INFINITI** retailers do them.

OUTSIDE THE VEHICLE

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

Item		Reference page
Tires	Check the pressure with a gauge often and always prior to long distance trips. Adjust the pressure in all tires, including the spare, to the pressure specified. Check carefully for damage, cuts or excessive wear.	WT-82
Wheel nuts	When checking the tires, make sure no nuts are missing, and check for any loose nuts. Tighten if necessary.	—
Tire rotation	Tires should be rotated every 5,000 miles (8,000 km). If your vehicle is equipped with different size tires in the front and rear, tires cannot be rotated.	MA-55
Tire Pressure Monitoring System (TPMS) transmitter components	Replace the TPMS transmitter grommet seal, valve core and cap when the tires are replaced due to wear or age.	WT-77
Wheel alignment and balance	If the vehicle should pull to either side while driving on a straight and level road, or if you detect uneven or abnormal tire wear, there may be a need for wheel alignment. If the steering wheel or seat vibrates at normal highway speeds, wheel balancing may be needed. For additional information regarding tires, refer to "Important Tire Safety Information" (US) or "Tire Safety Information" (Canada) in the INFINITI Warranty Information Booklet.	FSU-28 (2WD) FSU-29 (2WD) FSU-54 (AWD) FSU-55 (AWD) RSU-6 MA-54
Windshield	Clean the windshield on a regular basis. Check the windshield at least every six months for cracks or other damage. Repair as necessary.	—
Windshield wiper blades	Check for cracks or wear if they do not wipe properly.	—
Doors and engine hood	Check that all doors and the engine hood operate properly. Also make sure that all latches lock securely. Lubricate if necessary. Make sure that the secondary latch keeps the hood from opening when the primary latch is released. When driving in areas using road salt or other corrosive materials, check lubrication frequently.	MA-61
Lamps	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.	—

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

GENERAL MAINTENANCE

< PERIODIC MAINTENANCE >

Item		Reference page	
Seats	Check seat position controls such as seat adjusters, seatback recliner, etc. to make sure they operate smoothly and that all latches lock securely in every position. Check that the head restraints move up and down smoothly and that the locks (if equipped) hold securely in all latched positions. Check that the latches lock securely for folding-down rear seatbacks.	—	A
Seat belts	Check that all parts of the seat belt system (e.g. buckles, anchors, adjusters and retractors) operate properly and smoothly, and are installed securely. Check the belt webbing for cuts, fraying, wear or damage.	MA-61	B
Accelerator pedal	Check the pedal for smooth operation and make sure the pedal does not catch or require uneven effort. Keep the floor mats away from the pedal.	—	C
Brakes	Check that the brake does not pull the vehicle to one side when applied.	—	D
Brake pedal and booster	Check the pedal for smooth operation and make sure it has the proper distance under it when depressed fully. Check the brake booster function. Be sure to keep the floor mats away from the pedal.	BR-12 BR-19	E
Parking brake	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.	PB-6	F
Automatic transmission “Park” mechanism	Check that the lock release button on the selector lever operates properly and smoothly. On a fairly steep hill check that the vehicle is held securely with the selector lever in the P (Park) position without applying any brakes.	—	G

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	
Windshield washer fluid	Check that there is adequate fluid in the tank.	—	H
Engine coolant level	Check the coolant level when the engine is cold.	MA-28 MA-35	I
Intercooler coolant level (if so equipped)	Check the coolant level when the engine is cold.	—	J
Radiator and hoses	Check the front of the radiator and clean off any dirt, insects, leaves, etc., that may have accumulated. Make sure the hoses have no cracks, deformation, deterioration or loose connections.	MA-31 MA-40	K
Brake fluid level	Make sure that the brake fluid level is between the “MAX” and “MIN” lines on the reservoir.	MA-57	L
Battery	Check the fluid level in each cell. It should be between the “MAX” and “MIN” lines. Vehicles operated in high temperatures or under severe conditions require frequent checks of the battery fluid level.	PG-245 PG-248	M
Engine drive belts	Make sure that no belt is frayed, worn, cracked or oily.	MA-27 MA-35	N
Engine oil level	Check the level on the oil level gauge after parking the vehicle on a level spot and turning off the engine.	LU-8 LU-27	O
Power steering fluid level and lines (if so equipped)	Check the level when the fluid is cold, with the engine off. Check the lines for proper attachment, leaks, cracks, etc.	MA-59	MA
Exhaust system	Make sure there are no loose supports, cracks or holes. If the sound of the exhaust seems unusual or there is a smell of exhaust fumes, immediately locate the trouble and correct it.	MA-48	
Underbody	The underbody is frequently exposed to corrosive substances such as those used on icy roads or to control dust. It is very important to remove these substances, otherwise rust will form on the floor pan, frame, fuel lines and around the exhaust system. At the end of winter, the underbody should be thoroughly flushed with plain water, being careful to clean those areas where mud and dirt can easily accumulate.	—	
Fluid leaks	Check under the vehicle for fuel, oil, water or other fluid leaks after the vehicle has been parked for a while. Water dripping from the air conditioner after use is normal. If you should notice any leaks or gasoline fumes are evident, check for the cause and correct it immediately.	—	

FOR MEXICO

GENERAL MAINTENANCE

< PERIODIC MAINTENANCE >

FOR MEXICO : General Maintenance

INFOID:000000013732138

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 **INFINITI** dealers do them.

OUTSIDE THE VEHICLE

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

	Item	Reference page
Doors and hood	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.	MA-61
Lamps	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.	—
Tires	Check the pressure with a gauge often and always prior to long distance trips. Adjust the pressure in all tires, including the spare, to the pressure specified. Check carefully for damage, cuts or excessive wear.	WT-82
Tire rotation	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.	MA-55
Tire Pressure Monitoring System (TPMS) transmitter components (if so equipped)	Replace the TPMS transmitter grommet seal, valve core and cap when the tires are replaced due to wear or age.	WT-78
Wheel alignment and balance	If the vehicle should pull to either side while driving on a straight and level road, or if you detect uneven or abnormal tire wear, there may be a need for wheel alignment. If the steering wheel or seat vibrates at normal highway speeds, wheel balancing may be needed.	FSU-29 RSU-6 MA-54
Windshield	Clean the windshield on a regular basis. Check the windshield at least every six months for cracks or other damage. Repair as necessary.	—
Wiper blades	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
Accelerator pedal	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.	—
Brake pedal	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.	BR-12
Parking brake	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.	PB-6
Seat belts	Check that all parts of the seat belt system (for example, buckles, anchors, adjusters and retractors) operate properly and smoothly, and are installed securely. Check the belt webbing for cuts, fraying, wear or damage.	MA-61

GENERAL MAINTENANCE

< PERIODIC MAINTENANCE >

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

UNDER THE HOOD AND VEHICLE

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

Item		Reference page	
Battery (except for maintenance free batteries)	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.	PG-245	E
Brake (and clutch) fluid level(s)	For Manual Transmission (MT) model; make sure that the brake and clutch fluid levels are between the MAX and MIN lines on the reservoir(s). Except for Manual Transmission (MT) model; make sure that the brake fluid level is between the MAX and MIN lines on the reservoir.	MA-57	F
Engine coolant level	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.	MA-35	G
Intercooler coolant level	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.	MA-35	H
Engine drive belt(s)	Make sure that drive belt(s) is not frayed, worn, cracked or oily.	MA-35	
Engine oil level	Check the level after parking the vehicle (on a level ground) and turning off the engine.	LU-27	I
Fluid leaks	Check under the vehicle for fuel, oil, water or other fluid leaks after the vehicle has been parked for a while. Water dripping from the air conditioner after use is normal. If you should notice any leaks or if fuel fumes are evident, check for cause and have it corrected immediately.	—	J
Power steering fluid level and lines (if so equipped)	Check the level when the fluid is cold with the engine off. Check the lines for proper attachment, leaks, cracks, etc.	—	K
Windshield washer fluid	Check that there is adequate fluid in the reservoir.	—	

PERIODIC MAINTENANCE

< PERIODIC MAINTENANCE >

PERIODIC MAINTENANCE FOR NORTH AMERICA

FOR NORTH AMERICA : Introduction of Periodic Maintenance

INFOID:000000012795990

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 (VR30DDTT Engine models)

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	NOTE (6)		R		R		R		R	
Engine oil filter (Use genuine NISSAN engine oil filter or equivalent)	NOTE (6)		R		R		R		R	
Spark plugs (Iridium-tipped type)	NOTE (7)	Replace every 105,000 miles (168,000 km)								
Intake and exhaust valve clearance*	NOTE (8)									

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	NOTE (6)	R		R		R		R		R
Engine oil filter (Use genuine NISSAN engine oil filter or equivalent)	NOTE (6)	R		R		R		R		R
Spark plugs (Iridium-tipped type)	NOTE (7)	Replace every 105,000 miles (168,000 km)								
Intake and exhaust valve clearance*	NOTE (8)									

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*	MA-35
Air cleaner filter	NOTE (2)						R	MA-40
EVAP vapor lines			I*				I*	MA-47

PERIODIC MAINTENANCE

< PERIODIC MAINTENANCE >

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		120 (192) 144
Perform at number of miles, kilometers or months, whichever comes first.								
Fuel lines			I*					MA-40
Fuel filter	NOTE (3)							—
Engine coolant*	NOTE (4)(5)							MA-36
Engine oil	NOTE (6)		R			R		MA-43
Engine oil filter (Use genuine NISSAN engine oil filter or equivalent)	NOTE (6)		R			R		MA-44
Spark plugs (Iridium-tipped type)	NOTE (7)	Replace every 105,000 miles (168,000 km)						MA-45
Intake and exhaust valve clearance*	NOTE (8)							EM-145

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) If the oil replacement indicator is displayed, change the engine oil and filter as soon as possible. After replace the engine oil, reset the display.
- (7) Replace spark plug when the plug gap exceeds 1.1 mm (0.043 in) even if within specified periodic replacement mileage.
- (8) Periodic maintenance is not required. However, if valve noise increases, inspect valve clearance.

* Maintenance items and intervals with "*" are recommended by INFINITI 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 (VR30DDTT Engine models)

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

MAINTENANCE OPERATION		MAINTENANCE INTERVAL									
		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
Perform at number of miles, kilometers or months, whichever comes first.											
Brake lines & cables			I			I			I		I
Brake pads & rotors★			I			I			I		I
Brake fluid★						R					R
Automatic transmission fluid	NOTE (1)										
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
Stop lamp switch & brake pedal position switch	NOTE (4)		I			I			I		I
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	90 (144) 108
Perform at number of miles, kilometers or months, whichever comes first.										
Brake lines & cables			I		I		I		I	
Brake pads & rotors★			I		I		I		I	
Brake fluid★					R				R	
Automatic transmission fluid	NOTE (1)									
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
Stop lamp switch & brake pedal position switch	NOTE (4)		I		I		I		I	
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		120 (192) 144
Perform at number of miles, kilometers or months, whichever comes first.									
Brake lines & cables				I		I		I	MA-57
Brake pads & rotors★				I		I		I	MA-57 BR-20 BR-22
Brake fluid★				R				R	MA-57
Automatic transmission fluid	NOTE (1)								MA-48
Transfer fluid & differential gear oil	NOTE (2)			I		I		I	MA-50 MA-52(F160A) MA-53(R190)
Steering gear & linkage, axle & suspension parts★				I				I	MA-59 MA-60
Tire rotation	NOTE (3)								MA-6 MA-54
Propeller shaft & drive shaft boots (AWD models)★				I		I		I	MA-51 MA-51 MA-60
Exhaust system★				I				I	MA-48
In-cabin microfilter					R			R	VTL-18
Stop lamp switch & brake pedal position switch	NOTE (4)			I		I		I	BR-12
I-key battery					R			R	DLK-266

NOTE:

- Maintenance items with “★” should be performed more frequently according to “Maintenance Under Severe Driving Conditions”.
- (1) Automatic transmission fluid maintenance-free.

PERIODIC MAINTENANCE

< PERIODIC MAINTENANCE >

- (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.
- (4) Inspect the clearance between the brake pedal and the switches.

MAINTENANCE UNDER SEVERE DRIVING CONDITIONS (VR30DDTT Engine models)

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	MA-57
Brake pads & rotors	Inspect	Every 5,000 miles (8,000 km) or 6 months	MA-57 BR-20 BR-22
Steering gear & linkage, axle & suspension parts	Inspect	Every 5,000 miles (8,000 km) or 6 months	MA-59 MA-60
Propeller shaft & drive shaft boots (AWD models)	Inspect	Every 5,000 miles (8,000 km) or 6 months	MA-51 MA-51 MA-60
Exhaust system	Inspect	Every 5,000 miles (8,000 km) or 6 months	MA-48

Emission Control System Maintenance (2.0L turbo gasoline engine models)

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)	
Engine compartment	NOTE (1)				I				I		
V-belt	NOTE (2)				I*				I*		
Air cleaner filter		Replace every 45,000 miles (72,000 km) or 36 months									
Fuel lines					I*				I*		
Fuel filter	NOTE (3)										
Engine coolant*		Replace every 120,000 miles (192,000 km) or 120 months									
Engine oil			R		R		R		R		
Engine oil filter			R		R		R		R		
Spark plugs		Replace every 45,000 miles (72,000 km) or 36 months									

PERIODIC MAINTENANCE

< PERIODIC MAINTENANCE >

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000)	50 (80)	55 (88)	60 (96)	65 (104)	70 (112)	75 (120)	80 (128)	85 (136)	90 (144)
	Months	60	66	72	78	84	90	96	102	108
Engine compartment	NOTE (1)			I				I		
V-belt	NOTE (2)			I*				I*		
Air cleaner filter		Replace every 45,000 miles (72,000 km) or 36 months								
Fuel lines				I*				I*		
Fuel filter	NOTE (3)									
Engine coolant*		Replace every 120,000 miles (192,000 km) or 120 months								
Engine oil		R		R		R		R		R
Engine oil filter		R		R		R		R		R
Spark plugs		Replace every 45,000 miles (72,000 km) or 36 months								

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 (152)	100 (160)	105 (168)	110 (176)	115 (184)	120 (192)	
	Months	114	120	126	132	138	144	
Engine compartment	NOTE (1)		I				I	—
V-belt	NOTE (2)		I*				I*	MA-27
Air cleaner filter		Replace every 45,000 miles (72,000 km) or 36 months						MA-31
Fuel lines			I*				I*	MA-31
Fuel filter	NOTE (3)							—
Engine coolant*		Replace every 120,000 miles (192,000 km) or 120 months						MA-28
Engine oil			R		R		R	MA-32
Engine oil filter			R		R		R	MA-33
Spark plugs		Replace every 45,000 miles (72,000 km) or 36 months						MA-33

NOTE:

- (1) All visible parts checked for leaks and damage.
- (2) In visible area only.
- (3) Maintenance-free item. For service procedures, refer to the FL section.

* Maintenance items and intervals with "*" are recommended by INFINITI 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 (2.0L turbo gasoline engine models)

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 (8)	10 (16)	15 (24)	20 (32)	25 (40)	30 (48)	35 (56)	40 (64)	45 (72)
	Months	6	12	18	24	30	36	42	48	54
Brake lines & cables			I		I		I		I	
Brake pads & rotors★			I		I		I		I	
Brake fluid★					R				R	
Automatic transmission fluid	NOTE (1)									
Transfer fluid & differential gear oil	NOTE (2)		I		I		I		I	
Steering gear & linkage, axle & suspension parts★					I				I	
Tire rotation	NOTE (3)									

PERIODIC MAINTENANCE

< PERIODIC MAINTENANCE >

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000	5	10	15	20	25	30	35	40	45
	(km x 1,000)	(8)	(16)	(24)	(32)	(40)	(48)	(56)	(64)	(72)
	Months	6	12	18	24	30	36	42	48	54
Propeller shaft & drive shaft boots (AWD models)★			I		I		I		I	
Exhaust system★					I				I	
In-cabin microfilter				R			R			R
Stop lamp switch & brake pedal position switch	NOTE (4)		I		I		I		I	
I-key battery				R			R			R

A
B
C
D

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000	50	55	60	65	70	75	80	85	90
	(km x 1,000)	(80)	(88)	(96)	(104)	(112)	(120)	(128)	(136)	(144)
	Months	60	66	72	78	84	90	96	102	108
Brake lines & cables		I		I		I		I		I
Brake pads & rotors★		I		I		I		I		I
Brake fluid★				R				R		
Automatic transmission fluid	NOTE (1)									
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
Stop lamp switch & brake pedal position switch	NOTE (4)	I		I		I		I		I
I-key battery				R			R			R

E
F
G
H
I
J
K
L

MAINTENANCE OPERATION		MAINTENANCE INTERVAL						Reference Page
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000	95	100	105	110	115	120	
	(km x 1,000)	(152)	(160)	(168)	(176)	(184)	(192)	
	Months	114	120	126	132	138	144	
Brake lines & cables			I		I		I	MA-57
Brake pads & rotors★			I		I		I	MA-57 BR-20 BR-22
Brake fluid★			R				R	MA-57
Automatic transmission fluid	NOTE (1)							MA-48
Transfer fluid & differential gear oil	NOTE (2)		I		I		I	MA-50 MA-52 (F160A) MA-53 (R190)
Steering gear & linkage, axle & suspension parts★			I				I	MA-59 MA-60
Tire rotation	NOTE (3)							MA-6 MA-54

MA

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	
Propeller shaft & drive shaft boots (AWD models)★			I		I		I	MA-51 MA-51 MA-60
Exhaust system★			I				I	MA-48
In-cabin microfilter				R			R	VTL-18
Stop lamp switch & brake pedal position switch	NOTE (4)		I		I		I	BR-12
I-key battery				R			R	DLK-266

NOTE:

- Maintenance items with “★” should be performed more frequently according to “Maintenance Under Severe Driving Conditions”.
- (1) Automatic transmission fluid maintenance-free.
- (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.
- (4) Inspect the clearance between the brake pedal and the switches.

MAINTENANCE UNDER SEVERE DRIVING CONDITIONS (2.0L turbo gasoline engine models)

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	MA-57
Brake pads & rotors	Inspect	Every 5,000 miles (8,000 km) or 6 months	MA-57 BR-20 BR-22
Steering gear & linkage, axle & suspension parts	Inspect	Every 5,000 miles (8,000 km) or 6 months	MA-59 MA-60
Propeller shaft & drive shaft boots (AWD models)	Inspect	Every 5,000 miles (8,000 km) or 6 months	MA-51 MA-51 MA-60
Exhaust system	Inspect	Every 5,000 miles (8,000 km) or 6 months	MA-48

FOR MEXICO

FOR MEXICO : Periodic Maintenance

INFOID:000000013732305

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

< PERIODIC MAINTENANCE >

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

ENGINE AND EMISSION CONTROL MAINTENANCE (VR30DDTT ENGINE MODELS)

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

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference page
		km × 1,000 (Miles × 1,000) Months	12 (7.5) 6	24 (15) 12	36 (22.5) 18	48 (30) 24	60 (37.5) 30	72 (45) 36	84 (52.5) 42		96 (60) 48
Underhood and under vehicle										
Intake & exhaust valve clearance	See NOTE (1)									EM-145
Drive belt	See NOTE (2)				I				I	MA-35
Engine oil (Use recommended oil.)	See NOTE (3)	R	R	R	R	R	R	R	R	MA-43
Engine oil filter (Use genuine NISSAN engine oil filter or equivalent)	See NOTE (3)	R	R	R	R	R	R	R	R	MA-44
Engine coolant	See NOTE (4)				E				E	MA-36
Cooling system					I				I	MA-35 MA-39 MA-40
Fuel lines					I				I	MA-40
Air cleaner filter (Viscous paper type)★		Replace every 36,000 km (22,500 miles) or 24 months								MA-40
Fuel filter (In-tank type)	See NOTE (5)									—
Spark plugs (Iridium-tipped type)	See NOTE (6)	Replace every 96,000 km (60,000 miles)								MA-45
EVAP vapor lines (With carbon canister)					I				I	MA-47

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) If the oil replacement indicator is displayed, change the engine oil and filter as soon as possible. After replace the engine oil, reset the display.
- (4) 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 48,000 km (30,000 miles) or 24 months. First replacement interval is 168,000 km (105,000 miles) or 96 months. After first replacement, replace every 84,000 km (52,500 miles) or 48 months.
- (5) Maintenance-free item.
- (6) Replace spark plug when the spark plug gap exceeds 1.0 mm (0.039 in) even if within specified periodic replacement mileage.

CHASSIS AND BODY MAINTENANCE (VR30DDTT ENGINE MODELS)

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

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference page
		km × 1,000 (Miles × 1,000) Months	12 (7.5) 6	24 (15) 12	36 (22.5) 18	48 (30) 24	60 (37.5) 30	72 (45) 36	84 (52.5) 42		96 (60) 48
Underhood and under vehicle										
Brake line & cables			I		I		I		I	MA-57
Brake fluid (For level & leaks)			I		I		I		I	MA-57
Brake fluid★					R				R	MA-57
Exhaust system					I				I	MA-48
Automatic transmission fluid	See NOTE (1)									MA-48

PERIODIC MAINTENANCE

< PERIODIC MAINTENANCE >

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference page	
		km × 1,000 (Miles × 1,000) Months	12 (7.5) 6	24 (15) 12	36 (22.5) 18	48 (30) 24	60 (37.5) 30	72 (45) 36	84 (52.5) 42		96 (60) 48
Perform at a kilometers (miles) or month interval, whichever comes first.											
Differential gear oil (For level & leaks)★			I			I		I		I	MA-53
Steering gear & linkage, axle & suspension parts★						I				I	MA-59 MA-60
Outside and inside											
Wheel alignment (If necessary, balance wheels)			I			I		I		I	FSU-29 RSU-6 MA-54
Brake pads, rotors, drums & linings★			I			I		I		I	MA-57 BR-20 BR-22
Foot brake & parking brake (For free play, stroke & operation)			I			I		I		I	BR-12 PB-6
Brake lamp & cruise control switches	See NOTE (2)		I			I		I		I	BR-12
Air conditioner filter★			R			R		R		R	VTL-18

NOTE:

- Maintenance items with “★” should be performed more frequently according to “Maintenance Under Severe Driving Conditions”.
- (1) Automatic transmission fluid is maintenance-free.
- (2) Inspect the clearance between the brake pedal and the switches.

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 = Inspect 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	MA-40
.	.	.	.	.	F	.	.	.	.	Brake fluid		Replace	Every 24,000 km (15,000 miles) or 12 months	MA-57
.	.	C	.	.	.	.	H	.	.	Differential gear oil		Replace	Every 36,000 km (25,500 miles) or 24 months	MA-53
.	.	.	.	.	.	G	H	.	.	Steering gear & linkage, axle & suspension parts		Inspect	Every 24,000 km (15,000 miles) or 12 months	MA-59 MA-60

PERIODIC MAINTENANCE

< PERIODIC MAINTENANCE >

A	.	C	.	.	.	G	H	I	.	Brake pads, rotors, drums & linings	Inspect	Every 12,000 km (7,500 miles) or 6 months	MA-57 BR-20 BR-22
A	.	.	.	.	.	.	.	.	.	Air conditioner filter	Replace	More frequently	VTL-18

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

MA

RECOMMENDED FLUIDS AND LUBRICANTS

< PERIODIC MAINTENANCE >

RECOMMENDED FLUIDS AND LUBRICANTS

Recommended Fluids and Lubricants

INFOID:000000013796362

FOR USA AND CANADA

Fluids and Lubricants

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

Fluid types			Capacity (Approximate)			Recommended Fluids/Lubricants
			US measure	Imp measure	Liter	
Engine oil Drain and refill	With oil filter change	2.0L turbo gasoline engine (2WD models)	6-5/8 qt	5-4/8 qt	6.3	VR30DDTT engine: <ul style="list-style-type: none"> Genuine NISSAN motor oil or equivalent Engine oil with API Certification Mark^{*1}, Viscosity SAE 0W-20^{*2} *1: For additional information, see "Engine Oil Recommendation". *2: As an alternative to this recommended oil, SAE 5W-30 conventional petroleum oils may be used and meet all specifications and requirements necessary to maintain the INFINITI New Vehicle Limited Warranty.
		2.0L turbo gasoline engine (AWD models)	7 qt	5-6/8 qt	6.6	
		VR30DDTT engine (2WD models)	5-1/8 qt	4-2/8 qt	4.8	
		VR30DDTT engine (AWD models)	5-6/8 qt	4-6/8 qt	5.4	
	Without oil filter change	2.0L turbo gasoline engine (2WD models)	6-1/8 qt	5-1/8 qt	5.8	
		2.0L turbo gasoline engine (AWD models)	6-4/8 qt	5-3/8 qt	6.1	
		VR30DDTT engine (2WD models)	4-7/8 qt	4 qt	4.6	
		VR30DDTT engine (AWD models)	5-4/8 qt	4-5/8 qt	5.2	
Dry engine (Overhaul)	2.0L turbo gasoline engine (2WD models)	—	—	—		
	2.0L turbo gasoline engine (AWD models)	—	—	—		
	VR30DDTT engine (2WD models)	6-4/8 qt	5-3/8 qt	6.1		
	VR30DDTT engine (AWD models)	7 qt	5-6/8 qt	6.6		

RECOMMENDED FLUIDS AND LUBRICANTS

< PERIODIC MAINTENANCE >

Fluid types			Capacity (Approximate)			Recommended Fluids/Lubricants
			US measure	Imp measure	Liter	
Engine coolant	With reservoir tank	2.0L turbo gasoline engine	9-4/8 qt	7-7/8 qt	9.0	VR30DDTT engine: • Pre-diluted Genuine NISSAN Long Life Anti-freeze/ Coolant (blue) or equivalent 2.0 turbo gasoline engine: • BASF Glyscant [®] G48 [®] • Use BASF Glyscant [®] G48 [®] or equivalent in its quality, in order to avoid possible aluminium corrosion within the engine cooling system caused by the use of nongenuine engine coolant. Note that any repairs for the incidents within the engine cooling system while using non-genuine engine coolant may not be covered by the warranty even if such incidents occurred during the warranty period.
		VR30DDTT engine (3.0L turbo low pressure)	9-2/8 qt	7-6/8 qt	8.8	
		VR30DDTT engine (3.0L turbo high pressure)	10-7/8 qt	9-1/8 qt	10.3	
	Reservoir tank	2.0L turbo gasoline engine	1 qt	6/8 qt	0.9	
		VR30DDTT engine	5/8 qt	4/8 qt	0.6	
Intercooler coolant		With reservoir tank	3-3/8 qt	2-7/8 qt	3.2	• Pre-diluted Genuine NISSAN Long Life Anti-freeze/ Coolant (blue) or equivalent
		Reservoir tank	1/8 qt	1/8 qt	0.15	
Automatic transmission fluid (ATF)		2.0L turbo gasoline engine	10-5/8 qt* ⁴	8-7/8 qt* ⁴	10.1* ⁴	• Genuine NISSAN Matic S ATF • Using automatic transmission fluid other than Genuine NISSAN Matic S ATF may cause deterioration in driveability and automatic transmission durability, and may damage the automatic transmission, which is not covered by the INFINITI new vehicle limited warranty.
		VR30DDTT engine	10-5/8 qt* ⁴	8-3/4 qt* ⁴	10.0* ⁴	
Differential gear oil		Front	1-3/8 pt	1-1/8 pt	0.65	• Genuine NISSAN Differential Oil Hypoid Super GL-5 80W-90 or equivalent conventional (non-synthetic) oil. • API GL-5 Synthetic gear oil, Viscosity SAE 75W-90
		Rear	2-1/4 pt	1-7/8 pt	1.05	
Transfer fluid			2-1/8 pt	1-3/4 pt	1.0	• Genuine NISSAN Matic J ATF • Using transfer fluid other than Genuine NISSAN Matic J ATF may cause deterioration in driveability and transfer durability, and may damage the transfer. Damage caused by the use of fluids other than as recommended is not covered under the INFINITI new vehicle limited warranty.
Power steering fluid (PSF) ^{*5}			1-1/8 qt	7/8 qt	1.0	• Genuine NISSAN E-PSF or equivalent • Use of a power steering fluid other than Genuine NISSAN E-PSF will prevent the power steering system from operating properly.
Brake fluid			—	—	—	• Genuine NISSAN Super Heavy Duty Brake Fluid ^{*3} or equivalent DOT 3 (US FMVSS No. 116) *3: Available in mainland U.S.A. through an INFINITI retailer.
Multi-purpose grease			—	—	—	• NLGI No. 2 (Lithium soap base)
Windshield washer fluid			—	—	—	• Genuine NISSAN Windshield Washer Concentrate Cleaner & Antifreeze or equivalent
Fuel recommendation			—	—	—	• Refer to GI-29, "Fuel" .

*4: The fluid capacity is the reference value.

*5: With Hydraulic pump electric p/s models.

Engine Oil Recommendation

- For VR30DDTT engine

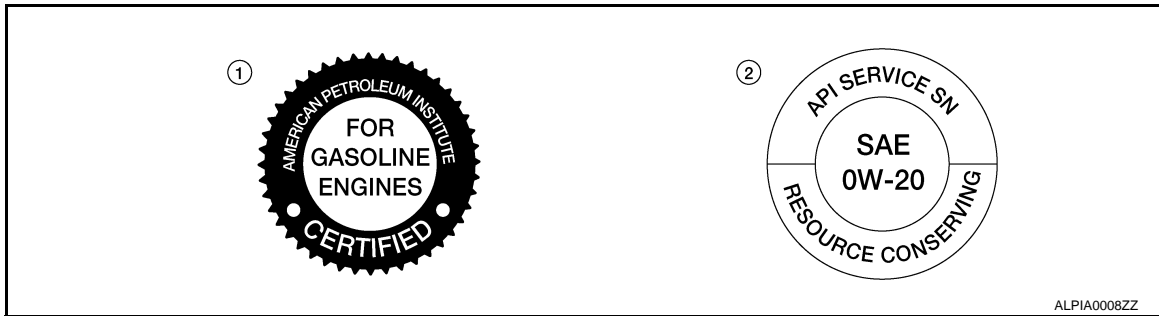
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

MA

RECOMMENDED FLUIDS AND LUBRICANTS

< PERIODIC MAINTENANCE >

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.

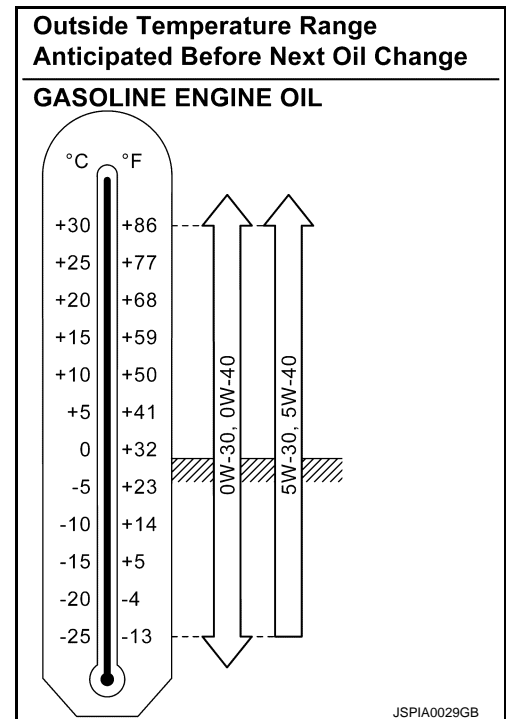


① API certification mark

② API service symbol

- For 2.0L turbo gasoline engine

It is essential to choose the correct grade, quality, and viscosity engine oil to ensure satisfactory engine life and performance. Select only engine oils that meet the MB229.5 and SAE viscosity standard. These oils have the MB229.5 on the container. Oils which do not have the specified quality label should not be used as they could cause engine damage.



Anti-Freeze Coolant Mixture Ratio

- For VR30DDTT engine

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 antifreeze solution contains rust and corrosion inhibitors. Additional engine cooling system additives are not necessary.

WARNING:

- Never remove the radiator or coolant reservoir cap when the engine is hot. Wait until the engine and radiator cool down. Serious burns could be caused by high pressure fluid escaping from the radiator.
- 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 you operate your vehicle, add Genuine NISSAN Long Life Antifreeze/Coolant (blue) concen-

RECOMMENDED FLUIDS AND LUBRICANTS

< PERIODIC MAINTENANCE >

trate 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-fill coolant.**

- For 2.0L turbo gasoline engine

The engine cooling system is filled at the factory with a pre-diluted mixture of 50% BASF Glysantin® G48® 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:

- **Never remove the radiator or coolant reservoir cap when the engine is hot. Wait until the engine and radiator cool down. Serious burns could be caused by high pressure fluid escaping from the radiator.**
- **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 BASF Glysantin® G48® or equivalent. BASF Glysantin® G48® is pre-diluted to provide antifreeze protection to -34°F (-37°C). If additional freeze protection is needed due to weather where you operate your vehicle, add BASF Glysantin® G48® concentrate following the directions on the container. If an equivalent coolant other than BASF Glysantin® G48® is used, follow the coolant manufacturer's instructions to maintain minimum anti-freeze protection to -34°F (-37°C). The use of other types of coolant solutions other than BASF Glysantin® G48® or equivalent may damage the engine cooling system.**
- **Mixing any other type of coolant other than BASF Glysantin® G48®, or the use of non-distilled water will reduce the life expectancy of the factory-fill coolant.**

Intercooler cooling system

- For VR30DDTT engine

The intercooler 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 antifreeze solution contains rust and corrosion inhibitors. Additional engine cooling system additives are not necessary.

WARNING:

- **Never remove the radiator or coolant reservoir cap when the engine is hot. Wait until the engine cool down. Serious burns could be caused by high pressure fluid escaping from the radiator.**
- **The intercooler reservoir is equipped with a pressure type radiator cap. To prevent engine and intercooler damage, use only a genuine NISSAN intercooler reservoir cap.**

CAUTION:

- **When adding or replacing coolant, be sure to use only Genuine NISSAN Long Life Antifreeze/Coolant (blue) or equivalent. Genuine NISSAN Long Life Antifreeze/Coolant (blue) is pre-diluted to provide antifreeze protection to -34°F (-37°C). If additional freeze protection is needed due to weather where you operate your vehicle, add Genuine NISSAN Long Life Antifreeze/Coolant (blue) concentrate following the directions on the container. If an equivalent coolant other than Genuine NISSAN Long Life Antifreeze/Coolant (blue) is used, follow the coolant manufacturer's instructions to maintain minimum antifreeze protection to -34°F (-37°C). The use of other types of coolant solutions other than Genuine NISSAN Long Life Antifreeze/Coolant (blue) or equivalent may damage the engine cooling system.**
- **Never use any additives in the coolant such as radiator sealer in the cooling system. This may cause damage to the intercooler.**

- For 2.0L turbo gasoline engine

The engine cooling system is filled at the factory with a pre-diluted mixture of 50% BASF Glysantin® G48® 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:

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

RECOMMENDED FLUIDS AND LUBRICANTS

< PERIODIC MAINTENANCE >

- Never remove the radiator or coolant reservoir cap when the engine is hot. Wait until the engine and radiator cool down. Serious burns could be caused by high pressure fluid escaping from the radiator.
- 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 BASF Glysantin® G48® or equivalent. BASF Glysantin® G48® is pre-diluted to provide antifreeze protection to -34°F (-37°C). If additional freeze protection is needed due to weather where you operate your vehicle, add BASF Glysantin® G48® concentrate following the directions on the container. If an equivalent coolant other than BASF Glysantin® G48® is used, follow the coolant manufacture's instructions to maintain minimum anti-freeze protection to -34°F (-37°C). The use of other types of coolant solutions other than BASF Glysantin® G48® or equivalent may damage the engine cooling system.
- Mixing any other type of coolant other than BASF Glysantin® G48®, or the use of non-distilled water will reduce the life expectancy of the factory-fill coolant.

FOR MEXICO

Fluids and Lubricants

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

Fluid types		Capacity (Approximate)		Recommended Fluids/Lubricants	
		Liter	Imp measure		
Engine oil drain and refill	With oil filter change	4.8	4-2/8 qt	<ul style="list-style-type: none"> • Genuine NISSAN engine oil • API grade SL, SM or SN • ILSAC grade GF-3, GF-4 or GF-5 • For SAE Viscosity Number, see "SAE Viscosity Number". 	
	Without oil filter change	4.6	4 qt		
Dry engine (Overhaul)		6.1	5-3/8 qt		
Engine coolant	With reservoir	10.3	9-1/8 qt		<ul style="list-style-type: none"> • Genuine NISSAN Engine Coolant (blue) or equivalent • Use Genuine NISSAN Engine Coolant or equivalent in its quality, in order to avoid possible aluminum corrosion within the engine cooling system caused by the use of non-genuine engine coolant. Note that any repairs for the incidents within the engine cooling system while using non-genuine engine coolant may not be covered by the warranty even if such incidents occurred during the warranty period.
	Reservoir tank	0.6	4/8 qt		
Intercooler coolant	With reservoir tank	3.2	2-7/8 qt		
	Reservoir tank	0.15	1/8 qt		
Automatic transmission fluid (ATF)		10.0*1	8-3/4 qt*1	<ul style="list-style-type: none"> • Genuine NISSAN Matic S ATF • INFINITI recommends using Genuine NISSAN Matic S ATF ONLY in INFINITI automatic transmissions. Do not mix with other fluids. Using fluids that are not equivalent to Genuine NISSAN Matic S ATF may damage the automatic transmission. Damage caused by the use of fluids other than as recommended is not covered under the warranty. 	
Differential gear oil		1.05	1-7/8 pt	<ul style="list-style-type: none"> • Genuine NISSAN Differential Oil Hypoid Super-S GL-5 synthetic 75W-90 or equivalent. 	
Brake fluid		—	—	<ul style="list-style-type: none"> • Genuine NISSAN Brake Fluid, or equivalent DOT 3 or DOT 4 (US FMVSS No.116) • Never mix different types of fluids (DOT 3 and DOT 4). 	
Multi-purpose grease		—	—	<ul style="list-style-type: none"> • NLGI No. 2 (Lithium soap base) 	

*1: The fluid capacity is the reference value.

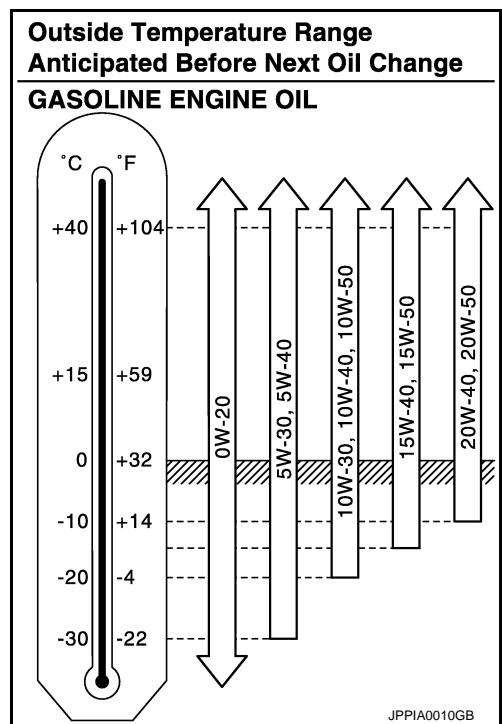
SAE Viscosity Number

- 0W-20 is preferable

RECOMMENDED FLUIDS AND LUBRICANTS

< PERIODIC MAINTENANCE >

If 0W-20 is not available, select the viscosity, from the chart, that is suitable for the outside temperature range.



Engine Coolant Mixture Ratio

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.

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.

Outside temperature down to		Composition	
°C	°F	Engine coolant (Concentrated)	Demineralized water or distilled water
-15	5	30%	70%
-35	-30	50%	50%

SMA089D

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:

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

Intercooler Cooling System

WARNING:

Never remove the radiator, coolant reservoir cap or reservoir when the engine is hot. Serious burns could be caused by high pressure fluid escaping from the radiator or reservoir. Wait until the engine and radiator or reservoir cool down.

The intercooler cooling system is filled at the factory with a high-quality, year-round, anti-freeze coolant solution. The anti-freeze solution contains rust and corrosion inhibitors, therefore additional cooling system additives are not necessary.

RECOMMENDED FLUIDS AND LUBRICANTS

< PERIODIC MAINTENANCE >

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.
The use of other types of engine coolant may damage the engine cooling system.
- Never use any cooling system additives such as radiator sealer. Additives may clog the cooling system and cause damage to the intercooler.

Outside temperature to down to		Coolant	Demineralized or distilled water
°C	°F		
-15	5	30 %	70 %
-5	-0	50 %	50 %

The use of other types of coolant solutions may damage the intercooler cooling system. The intercooler reservoir is equipped with a pressure type cap. To prevent engine and intercooler damage, use only a Genuine NISSAN intercooler reservoir cap or its equivalent when replacement is required.

ENGINE MAINTENANCE (2.0L TURBO GASOLINE ENGINE)

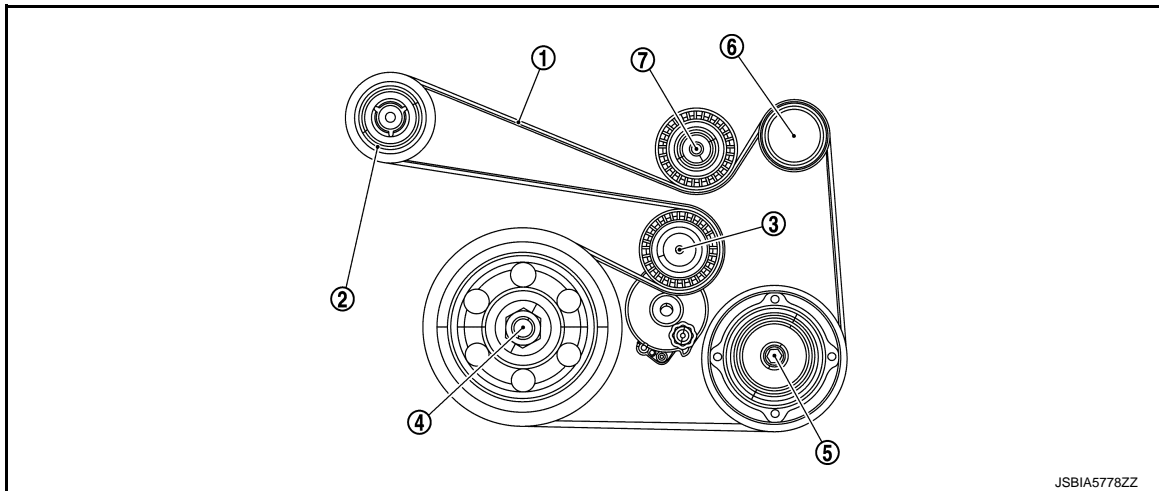
< PERIODIC MAINTENANCE >

ENGINE MAINTENANCE (2.0L TURBO GASOLINE ENGINE)

DRIVE BELT

DRIVE BELT : Exploded View

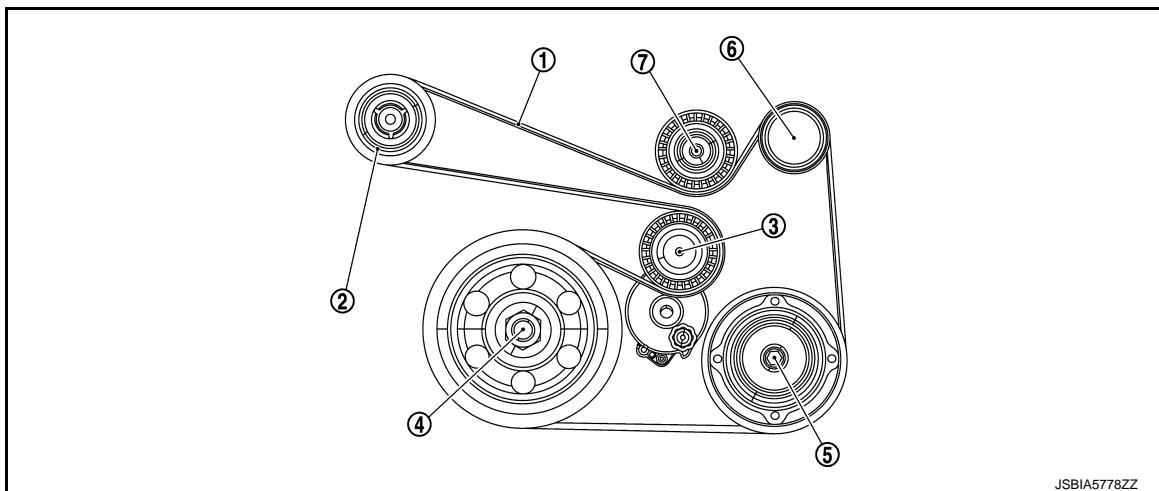
INFOID:000000013496500



- | | | |
|---------------------|------------------|-----------------------------|
| ① Drive belt | ② Water pump | ③ Drive belt auto-tensioner |
| ④ Crankshaft pulley | ⑤ A/C compressor | ⑥ Alternator |
| ⑦ Idler pulley | | |

DRIVE BELT : Inspection

INFOID:000000013496501



- | | | |
|---------------------|------------------|-----------------------------|
| ① Drive belt | ② Water pump | ③ Drive belt auto-tensioner |
| ④ Crankshaft pulley | ⑤ A/C compressor | ⑥ Alternator |
| ⑦ Idler pulley | | |

CAUTION:

Never use the indicator of drive belt auto-tensioner.

NOTE:

- Visually check entire drive belt for wear, damage or cracks.
- Replace drive belt if belt is damaged.

ENGINE MAINTENANCE (2.0L TURBO GASOLINE ENGINE)

< PERIODIC MAINTENANCE >

DRIVE BELT : Adjustment

INFOID:000000013496502

Refer to : [EM-132, "Drive Belt"](#).

ENGINE COOLANT

ENGINE COOLANT : Inspection

INFOID:000000013496535

LEVEL

- Check if the reservoir tank engine coolant level is within the "MIN" to "MAX" when the engine is cool.

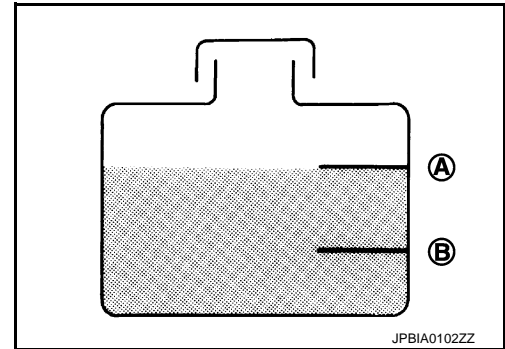
Ⓐ : MAX

Ⓑ : MIN

- Adjust the engine coolant level if necessary.
- Check that the reservoir tank cap is tightened.

CAUTION:

Refill Genuine NISSAN Long Life Antifreeze/Coolant (BASF Glystantin® G48®) or equivalent in its quality mixed with water (distilled or demineralized). Refer to [MA-20, "Recommended Fluids and Lubricants"](#).



LEAKAGE

- To check for leakage, apply pressure to the cooling system with the pump press [SST: KV115H0870 (124 589 24 21 00)] (A) and cap [SST: KV115H0880 (201 589 00 91 00)] (B).

Testing pressure : Refer to [CO-21, "Radiator"](#).

WARNING:

Never remove reservoir tank cap when engine is hot. Serious burns could occur from high-pressure engine coolant escaping from engine cooling system.

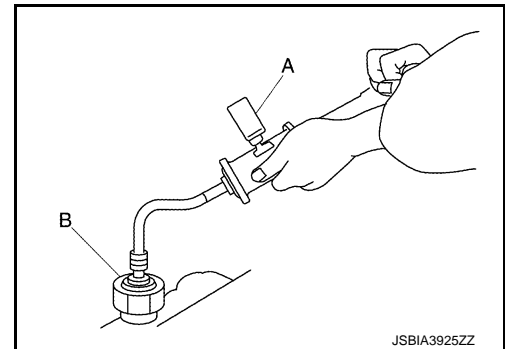
CAUTION:

Higher test pressure than specified may cause radiator damage.

NOTE:

In a case that engine coolant decreases, replenish radiator with engine coolant.

- If anything is found, repair or replace damaged parts.



ENGINE COOLANT : Draining

INFOID:000000013496536

WARNING:

- To avoid being scalded, never change engine coolant when the engine is hot.
- Wrap a thick cloth around reservoir tank cap and carefully remove reservoir tank cap. First, turn reservoir tank cap a quarter of a turn to release built-up pressure. Then turn reservoir tank cap all the way.

1. Remove front under cover. Refer to [EXT-35, "FRONT UNDER COVER : Removal and Installation"](#).
2. Connect drain hose.

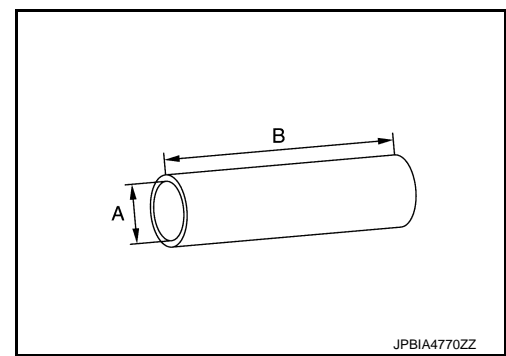
NOTE:

ENGINE MAINTENANCE (2.0L TURBO GASOLINE ENGINE)

< PERIODIC MAINTENANCE >

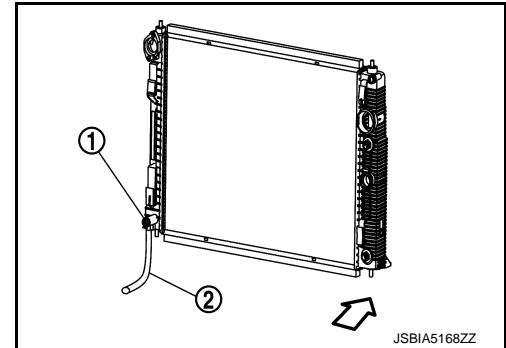
Use a general-purpose hose with the dimensions shown in the figure.

- A : ϕ 8 - 9 mm (0.31 - 0.35 in)
B : 145 mm (5.71 in)



3. Open radiator drain cock ① at the bottom of radiator, and then remove reservoir tank cap.

- ② : Drain hose
↙ : Vehicle front



4. Check drained engine coolant for contaminants such as rust, corrosion or discoloration.
If contaminated, flush the engine cooling system. Refer to [CO-9, "Flushing"](#).
5. Disconnect drain hose.

ENGINE COOLANT : Refilling

INFOID:000000013496537

CAUTION:

When refilling use Genuine NISSAN Long Life Antifreeze/Coolant (BASF Glysantin® G48®) or equivalent in its quality mixed with water (distilled or demineralized). Refer to [MA-20, "Recommended Fluids and Lubricants"](#).

1. Install radiator drain cock if removed.

CAUTION:

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

Tightening torque : Refer to [CO-11, "Exploded View"](#).

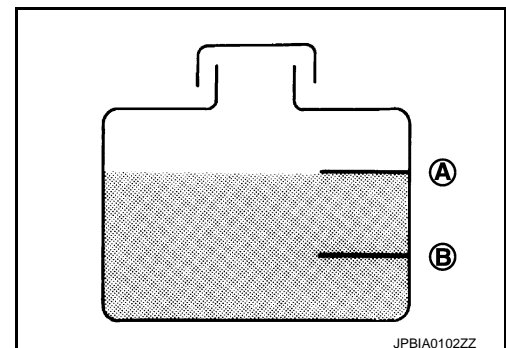
2. Check that each hose clamp has been firmly tightened.
3. Refill reservoir tank to "MAX" level line with engine coolant.

- Ⓐ : MAX
Ⓑ : MIN

CAUTION:

Never adhere the engine coolant to electronic equipments (alternator etc.).

- Pour coolant slowly of less than 2 ℓ (1-6/8 Imp qt, 2-1/8 US qt) a minute to allow air in system to escape.
- When engine coolant overflows disconnected heater hose, connect heater hose, and continue filling the engine coolant.



ENGINE MAINTENANCE (2.0L TURBO GASOLINE ENGINE)

< PERIODIC MAINTENANCE >

Engine coolant capacity (With reservoir tank at "MAX" level)

Refer to [CO-21](#),
["Periodical Maintenance Specification"](#).

4. Install reservoir tank cap.
5. Warm up engine until opening thermostat. Standard for warming-up time is approximately 10 minutes at 3,000 rpm.
 - Check thermostat opening condition by touching radiator hose (lower) to see a flow of warm water.**CAUTION:**
Watch water temperature gauge so as not to overheat engine.
6. Stop the engine and cool down to less than approximately 50°C (122°F).
 - Cool down using fan to reduce the time.
 - If necessary, refill radiator up to filler neck with engine coolant.**CAUTION:**
Never adhere the engine coolant to electronic equipments (alternator etc.).
7. Refill reservoir tank to "MAX" level line with engine coolant.
8. Repeat steps 3 through 6 two or more times with radiator cap installed until engine coolant level no longer drops.
9. Check cooling system for leakage with engine running.
10. Warm up the engine, and check for sound of engine coolant flow while running engine from idle up to 3,000 rpm with heater temperature controller set at several position between "COOL" and "WARM".
 - Sound may be noticeable at heater unit.
11. Repeat step 10 three times.
12. If sound is heard, bleed air from cooling system by repeating step 5 through 10 until reservoir tank level no longer drops.

ENGINE COOLANT : Flushing

INFOID:000000013496538

1. Install reservoir tank if removed, and radiator drain cock.
CAUTION:
Be sure to clean drain cock and install with new O-ring.
2. Fill radiator and reservoir tank with water and reinstall reservoir tank cap.
3. Run the engine and warm it up to normal operating temperature.
4. Rev the engine two or three times under no-load.
5. Stop the engine and wait until it cools down.
6. Drain water from the system. Refer to [CO-7](#), "[Draining](#)".
7. Repeat steps 1 through 6 until clear water begins to drain from radiator.
8. Check that the reservoir tank cap is tightened.

RESERVOIR TANK CAP

RESERVOIR TANK CAP : Inspection

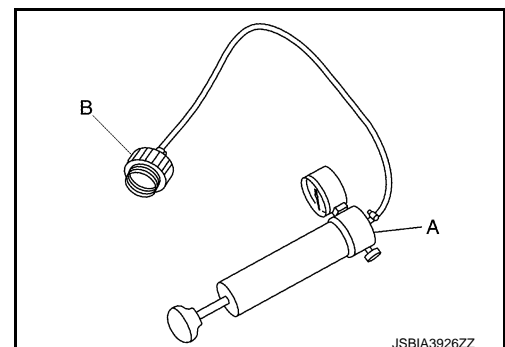
INFOID:000000013496538

- Fit the adapter [SST: KV115H0900 (210 589 03 63 00)] (B) to the reservoir tank cap tester [SST: KV115H0870 (124 589 24 21 00)] (A) as shown.
- When connecting the reservoir tank cap to the reservoir tank cap tester, apply water or LLC to the reservoir tank cap seal part.
- Check reservoir tank cap relief pressure.

Standard: Refer to [CO-21](#),
["Periodical Maintenance Specification"](#).

- Replace the reservoir tank cap if the engine coolant passes through it, or if any fur signs is detected.

CAUTION:



ENGINE MAINTENANCE (2.0L TURBO GASOLINE ENGINE)

< PERIODIC MAINTENANCE >

When installing reservoir tank cap, thoroughly wipe out the reservoir tank to remove any waxy residue or foreign material.

RADIATOR

RADIATOR : Inspection

INFOID:000000013496540

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

- Never bend or damage radiator fins.
 - When radiator is cleaned without removal, remove all surrounding parts such as radiator cooling fan assembly and horns. Then tape harness and connectors to prevent water from entering.
1. Apply water by hose to the back side of the radiator core vertically downward.
 2. Apply water again to all radiator core surfaces once per minute.
 3. Stop washing if any stains no longer flow out from radiator.
 4. Blow air into the back side of radiator core vertically downward.
 - Use compressed air lower than 490 kPa (5 kg/cm², 71 psi) and keep distance more than 30 cm (11.8 in).
 5. Blow air again into all the radiator core surfaces once per minute until no water sprays out.

FUEL LINES

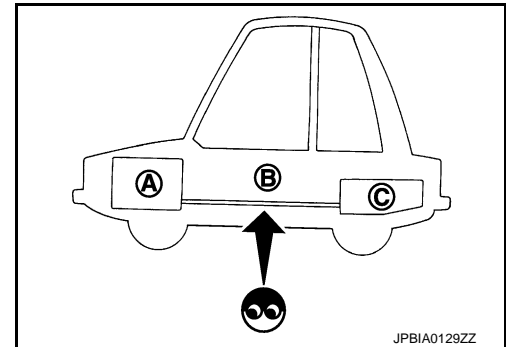
FUEL LINES : Inspection

INFOID:000000013496541

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

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

If necessary, repair or replace damaged parts.



AIR CLEANER FILTER

AIR CLEANER FILTER : Removal and Installation

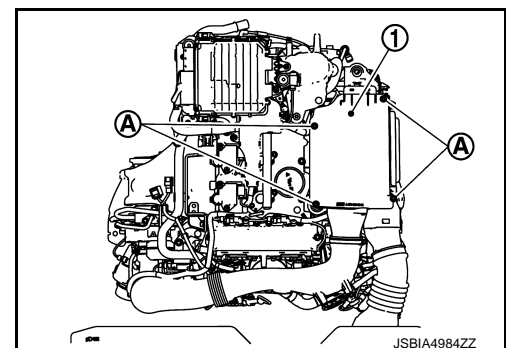
INFOID:000000013496503

REMOVAL

1. Remove engine cover. Refer to [EM-22. "Removal and Installation"](#)
2. Loosen air cleaner housing cover mounting bolt Ⓐ to remove air cleaner housing cover ①.

NOTE:

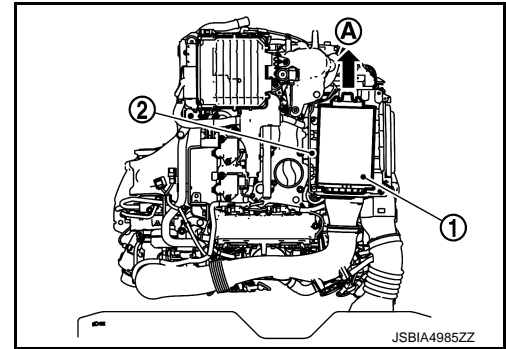
The bolts remain the air cleaner housing cover.



ENGINE MAINTENANCE (2.0L TURBO GASOLINE ENGINE)

< PERIODIC MAINTENANCE >

3. Pull up air cleaner filter element ① backward Ⓐ and remove it, from air cleaner housing ②.



INSTALLATION

Note the following, and install in the reverse order of removal.

NOTE:

If a sensor is replaced, carry out the reset of adaption of sensors. Refer to [EC4-216, "Description"](#).
Clean the inside of air cleaner housing and the air cleaner housing cover.

ENGINE OIL

ENGINE OIL : Draining

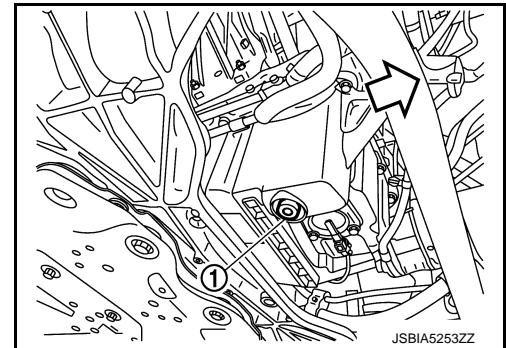
INFOID:000000013496511

WARNING:

- Never get burn yourself, as 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. Warm up the engine, and check for engine oil leakage from engine components. Refer to [LU-8, "Inspection"](#).
2. Remove oil filter.
3. Loosen oil filler cap.
4. Remove drain plug ① and then drain engine oil and wait for 5 minutes.

⇐ : Engine front



ENGINE OIL : Refilling

INFOID:000000013496512

1. Install drain plug with new seal ring. Refer to [EM-109, "2WD : Exploded View"](#) (2WD), [EM-79, "Exploded View"](#) (AWD).

CAUTION:

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

Tightening torque : Refer to [EM-109, "2WD : Exploded View"](#) (2WD), [EM-79, "Exploded View"](#) (AWD).

2. Install engine oil filter. Refer to [LU-11, "Removal and Installation"](#).
3. Refill with new engine oil.
Engine oil specification and viscosity: Refer to [MA-20, "Recommended Fluids and Lubricants"](#).

Engine oil capacity : Refer to [LU-18, "Periodical Maintenance Specification"](#).

CAUTION:

ENGINE MAINTENANCE (2.0L TURBO GASOLINE ENGINE)

< PERIODIC MAINTENANCE >

- When filling engine oil, do not pull out oil level gauge.
 - The refill capacity depends on the engine oil temperature and drain time. Use these specifications for reference only.
 - Always use oil level gauge to determine the proper amount of engine oil in engine.
4. Warm up the engine and check area around drain plug and oil filter for engine oil leakage.
 5. Stop the engine and wait for 10 minutes.
 6. Check the engine oil level. Refer to [LU-8, "Inspection"](#).

OIL FILTER

OIL FILTER : Removal and Installation

INFOID:000000013496533

REMOVAL

CAUTION:

- Never get burned when engine and engine oil may be hot.
 - Completely wipe off any engine oil that adheres to engine and vehicle.
1. Remove engine cover. Refer to [EM-22, "Removal and Installation"](#).
 2. Remove engine oil level gauge. Refer to [EM-109, "2WD : Exploded View"](#) (2WD), [EM-79, "Exploded View"](#) (AWD).
 3. Place a tray or an equivalent around the oil filter housing in case engine oil spills.
 4. Remove oil filter screw cap.
- CAUTION:**
Never spill engine oil on drive belt.
5. Remove oil filter from oil filter screw cap.

INSTALLATION

1. Remove foreign materials adhering to oil filter installation surface.
 2. Apply engine oil to the oil ring contact surface of new oil filter.
- CAUTION:**
Do not reuse O-rings.
3. Screw oil filter screw cap manually until it touches the installation surface, then tighten to the specification.

Oil filter screw cap:

: 25.0 N-m (2.6 kg-m, 18 ft-lb)

OIL FILTER : Inspection

INFOID:000000013496534

INSPECTION AFTER INSTALLATION

1. Check the engine oil level. Refer to [LU-8, "Inspection"](#).
2. Start the engine, and check there is no leak of engine oil.
3. Stop the engine and wait for 10 minutes.
4. Check the engine oil level, and adjust the level. Refer to [LU-8, "Inspection"](#).

SPARK PLUG

SPARK PLUG : Removal and Installation

INFOID:000000013496504

REMOVAL

1. Remove engine cover. Refer to [EM-22, "Removal and Installation"](#).
2. Remove ignition coil. Refer to [EM-62, "Removal and Installation"](#).

MA

ENGINE MAINTENANCE (2.0L TURBO GASOLINE ENGINE)

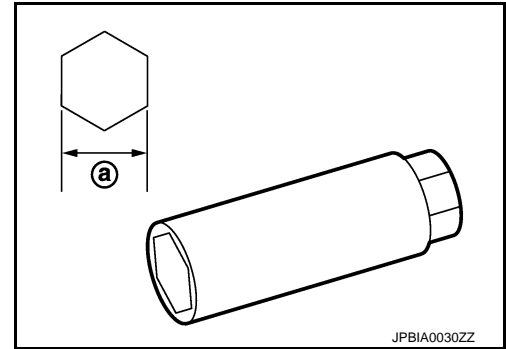
< PERIODIC MAINTENANCE >

3. Remove spark plug with spark plug wrench (commercial service tool).

Ⓐ: 14 mm (0.55 in)

CAUTION:

- Never drop or shock spark plug.
- Never disassemble ignition coil.



INSTALLATION

Note the following, and install in the reverse order of removal.

NOTE:

If an sensor is replaced, carry out the reset of adaptation of sensors. Refer to [EC4-216. "Description"](#).

SPARK PLUG : Inspection

INFOID:000000013496505

INSPECTION AFTER REMOVAL

Use standard type spark plug for normal condition.

Spark plug (standard) : Refer to [EM-132. "Spark Plug"](#).

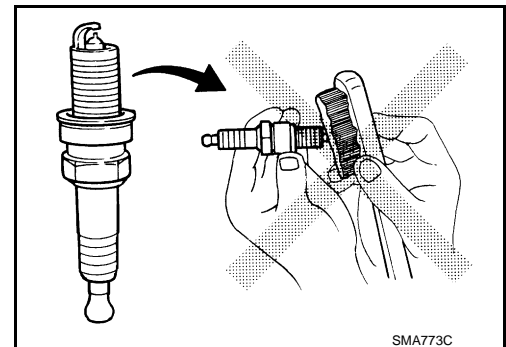
Visually check the electrode for dirt and wear and the insulator for burning.

CAUTION:

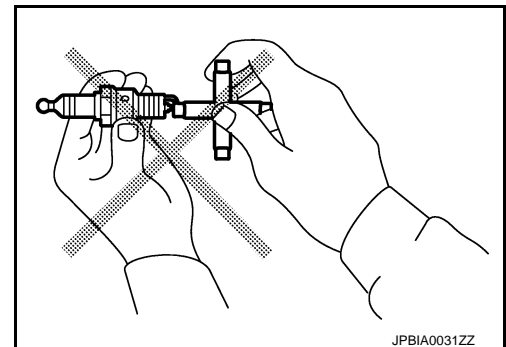
- Never drop or shock spark plug.
- Never use wire brush for cleaning.
- If plug tip is covered with carbon, spark plug cleaner may be used.

Cleaner air pressure: Less than 588 kPa (5.9 bar , 6 kg/cm², 85 psi)

Cleaning time: Less than 20 seconds



- Checking and adjusting plug gap is not required between change intervals.



EVAP VAPOR LINES

EVAP VAPOR LINES : Inspection

INFOID:000000013475607

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. Refer to [EC4-965. "Inspection"](#).

ENGINE MAINTENANCE (VR30DDTT)

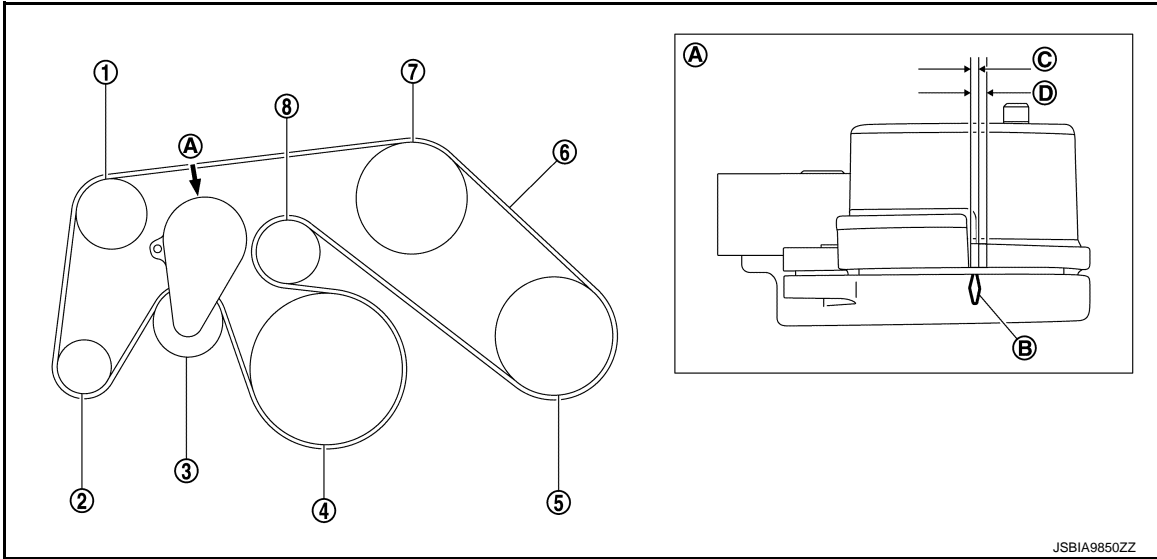
< PERIODIC MAINTENANCE >

ENGINE MAINTENANCE (VR30DDTT)

DRIVE BELT

DRIVE BELT : Exploded View

INFOID:0000000013613482



- | | | |
|----------------------|------------------|--|
| ① Idler pulley | ② Alternator | ③ Drive belt auto-tensioner |
| ④ Crankshaft pulley | ⑤ A/C compressor | ⑥ Drive belt |
| ⑦ Water pump | ⑧ Idler pulley | |
| Ⓐ View | Ⓑ Indicator | Ⓒ Range when new drive belt is installed |
| Ⓓ Possible use range | | |

DRIVE BELT : Inspection

INFOID:0000000013613484

INSPECTION BEFORE REMOVAL

WARNING:

Be sure to perform the this step when engine is stopped.

- Check that the indicator (notch on fixed side) of drive belt auto-tensioner is within the possible use range.

NOTE:

- Check the drive belt auto-tensioner indication when the engine is cold.
- Visually check the entire drive belt for wear, damage or crack.
- If the indicator (notch on fixed side) is out of the possible use range or belt is damaged, replace drive belt.

INSPECTION AFTER INSTALLATION

- Turn crankshaft pulley clockwise several times to equalize tension between each pulley, and then confirm tension of drive belt at indicator (notch on fixed side) is within the possible use range. Refer to [EM-154](#), "[Exploded View](#)".

DRIVE BELT : Adjustment

INFOID:0000000013613485

Refer to [EM-296](#), "[Drive Belt](#)".

ENGINE COOLANT

ENGINE COOLANT : Inspection

INFOID:0000000013613542

LEVEL

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

ENGINE MAINTENANCE (VR30DDTT)

< PERIODIC MAINTENANCE >

- Check if the reservoir tank coolant level is within the “MIN” to “MAX” when the engine is cool.

Ⓐ : MAX

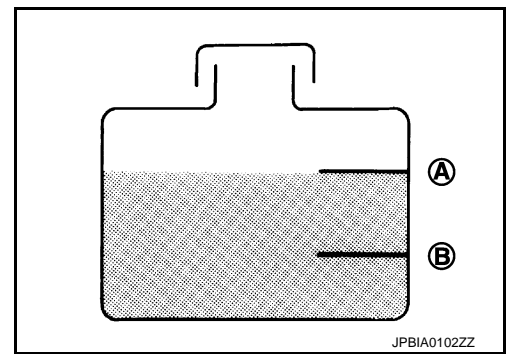
Ⓑ : MIN

- Adjust the coolant level if necessary.

CAUTION:

Refill Genuine NISSAN Long Life Antifreeze/Coolant (blue) or equivalent in its quality mixed with water (distilled or demineralized). Refer to [MA-20, "Recommended Fluids and Lubricants"](#).

- Check that the reservoir tank cap is tightened.



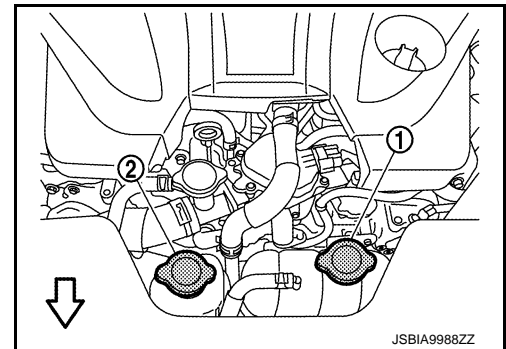
LEAKAGE

- Open the reservoir tank cap.

① : Reservoir tank cap (for engine)

② : Reservoir tank cap (for charge air cooler)

⇐ : Vehicle front



- To check for leakage, apply pressure to the cooling system with the radiator cap tester (commercial service tool) (A) and radiator cap tester adapter (commercial service tool) (B).

Testing pressure : Refer to [CO-68, "Radiator"](#).

WARNING:

Never remove radiator cap and reservoir tank cap when engine is hot. Serious burns could occur from high-pressure engine coolant escaping from engine cooling system.

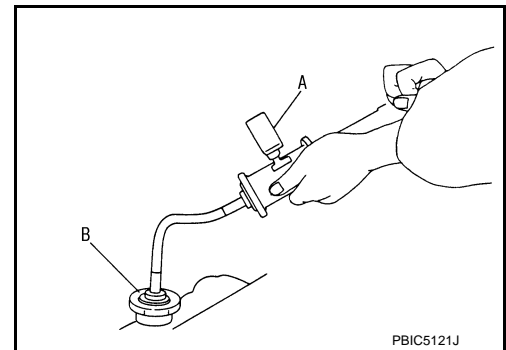
CAUTION:

Higher test pressure than specified may cause radiator damage.

NOTE:

In a case that engine coolant decreases, replenish radiator with coolant.

- If anything is found, repair or replace damaged parts.



ENGINE COOLANT : Draining

INFOID:000000013613543

WARNING:

- To avoid being scalded, never change engine coolant when the engine is hot.
- Wrap a thick cloth around reservoir tank cap and carefully remove reservoir tank cap. First, turn reservoir tank cap a quarter of a turn to release built-up pressure. Then turn reservoir tank cap all the way.
- Never spill engine coolant on drive belt.

NOTE:

This procedure is engine cooling system. For procedure of charge air cooler system, refer to [CO-51, "Draining and Refilling"](#).

Engine cooling system

1. Turn ignition switch ON and wait for 10 seconds.
2. Turn ignition switch OFF.
3. Remove front under cover using a power tool. Refer to [EXT-33, "FRONT UNDER COVER : Exploded View"](#).

ENGINE MAINTENANCE (VR30DDTT)

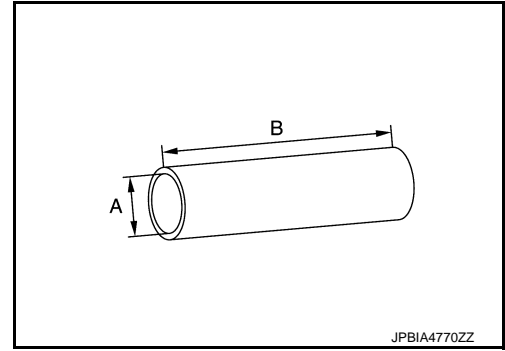
< PERIODIC MAINTENANCE >

4. Connect drain hose.

NOTE:

Use a general-purpose hose with the dimensions shown in the figure.

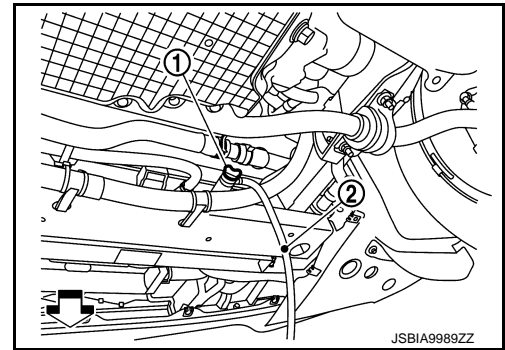
- A : ϕ 8 - 9 mm (0.31 - 0.35 in)
B : 145 mm (5.71 in) or more



5. Open radiator drain cock ① at the bottom of radiator, and then remove radiator cap and reservoir tank cap.

- ② : Drain hose
← : Vehicle front

When draining all of engine coolant in the system, open water drain plugs on cylinder block. Refer to [EM-215. "Setting"](#).



6. Remove reservoir tank if necessary, and drain engine coolant and clean reservoir tank before installing.
7. Check drained engine coolant for contaminants such as rust, corrosion or discoloration. If contaminated, flush the engine cooling system. Refer to [CO-36. "Flushing"](#).
8. Disconnect drain hose.

ENGINE COOLANT : Refilling

INFOID:000000013613544

CAUTION:

- Do not reuse O-rings.
- Do not put additive such as waterleak preventive, since it may cause cooling waterway clogging.
- When refilling use Genuine NISSAN Long Life Antifreeze/Coolant (blue) or equivalent in its quality mixed with water (distilled or demineralized). Refer to [MA-20. "Recommended Fluids and Lubricants"](#).
- Do not start engine when reservoir tank (for engine and sub-radiator) does not contain engine coolant.
- Electric water pump may be activated under the status of ignition switch ON. To prevent damage, electric water pump must not be activated when engine coolant is insufficient.

NOTE:

This procedure is engine cooling system. For procedure of charge air cooler system, refer to [CO-51. "Draining and Refilling"](#).

Engine cooling system

1. Check that radiator cap on the top center of the engine is certainly fastened, before charge the engine with coolant.

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

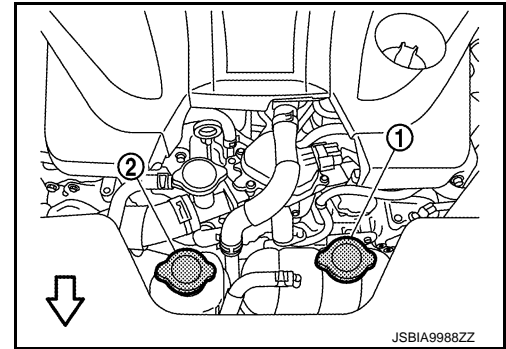
MA

ENGINE MAINTENANCE (VR30DDTT)

< PERIODIC MAINTENANCE >

2. Open the reservoir tank cap.

- ① : Reservoir tank cap (engine cooling system)
- ② : Reservoir tank cap (charge air cooling system)
- ↔ : Vehicle white

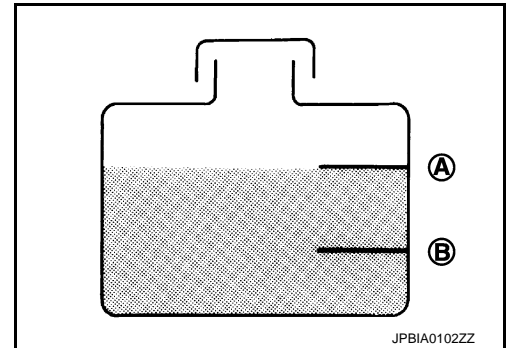


3. Fill up the engine cooling system with engine coolant.

- Ⓐ : MAX
- Ⓑ : MIN

Pour engine coolant through reservoir tank filler neck slowly of less than 3 ℓ (3-1/8 US qt, 2-5/8 Imp qt) a minute to allow air in system to escape.

Engine coolant capacity : Refer to [CO-68](#),
(With reservoir tank at "MAX" level) "[Periodical Maintenance Specification](#)".



Reservoir tank engine coolant capacity : Refer to [CO-68](#),
(At "MAX" level) "[Periodical Maintenance Specification](#)".

4. Install reservoir tank cap.
 5. Start the engine. And stop at once.
 6. Leave engine for about 10sec. Then check the coolant level at the reservoir tank.
 7. Refill reservoir tank to "MAX" level line with engine coolant.
 8. Repeat step 5 through 8 until engine coolant level no longer drops.
 9. Warm up engine until opening thermostat. Standard for warming-up time is approximately 10 minutes at 2,000 rpm.
 - Check thermostat opening condition by touching radiator hose (lower) to see a flow of warm water.
- CAUTION:**
- Watch water temperature gauge so as not to overheat engine.
 - Do not start engine when reservoir tank (for engine and sub-radiator) does not contain engine coolant.
 - Electric water pump may be activated under the status of ignition switch ON. To prevent damage, electric water pump must not be activated when engine coolant is insufficient.
10. Stop the engine and cool down to less than approximately 50°C (122°F).
 - Cool down using fan to reduce the time.
 - Check the engine coolant level. If the level is low, refill with engine coolant and repeat the steps from Step 4.
 11. Refill reservoir tank to "MAX" level line with engine coolant.
 12. Check cooling system for leakage with engine running.
 13. Check flow noise, according to the following steps.

CAUTION:
To check flow noise, turn OFF the radio and close the windows, doors, and the hood.

 - a. Allow the engine to become cold [approximately 50°C (122°F) or less].
 - b. Start the engine, maintain 1000 rpm for approximately 30 seconds, and increase the engine speed from 1000 to 3000 rpm. Repeat this cycle three times.
 - c. Check that flow noise can be heard from the heater core during the Step b operation.

ENGINE MAINTENANCE (VR30DDTT)

< PERIODIC MAINTENANCE >

- d. If flow noise can be heard, repeat from Step 11 to 13 of Refilling to Step c of Flow Noise Verification Method.
- e. Check that the reservoir tank cap is tightened.

ENGINE COOLANT : Flushing

INFOID:000000013613545

1. Install reservoir tank if removed, and radiator drain plug.
CAUTION:
Be sure to clean drain plug and install with new O-ring.

Tightening torque : Refer to [CO-39, "Exploded View"](#).

If water drain plugs on cylinder block are removed, close and tighten them. Refer to [EM-215, "Setting"](#).

2. Fill radiator and reservoir tank with water and reinstall reservoir tank cap.
3. Run the engine and warm it up to normal operating temperature.
4. Rev the engine two or three times under no-load.
5. Stop the engine and wait until it cools down.
6. Drain water from the system. Refer to [CO-33, "Draining"](#).
7. Repeat steps 1 through 6 until clear water begins to drain from radiator.
8. Check that the reservoir tank cap is tightened.

RESERVOIR TANK CAP

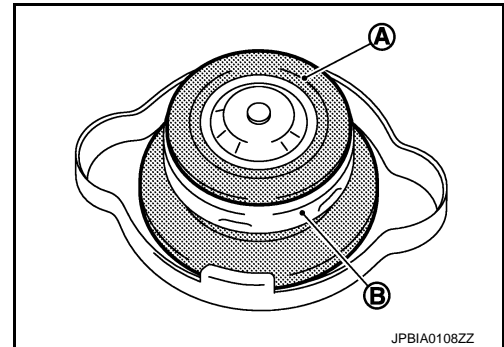
RESERVOIR TANK CAP : Inspection

INFOID:000000013613547

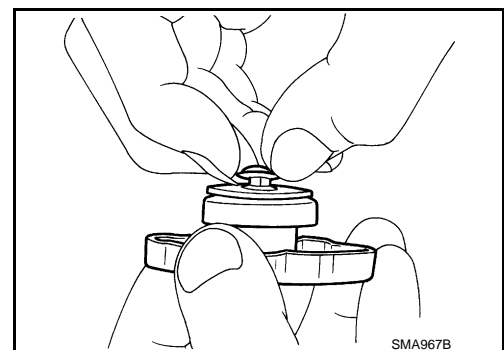
- Check valve seat ① of reservoir tank cap.

② : Metal plunger

- Check if valve seat is swollen to the extent that the edge of the plunger ② cannot be seen when watching it vertically from the top.
- Check if valve seat has no soil and damage.



- Pull negative-pressure valve to open it, and check that it close completely when released.
- Check that there is no dirt or damage on the valve seat of reservoir tank cap negative-pressure valve.
- Check that there are no unusualness in the opening and closing conditions of negative-pressure valve.



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

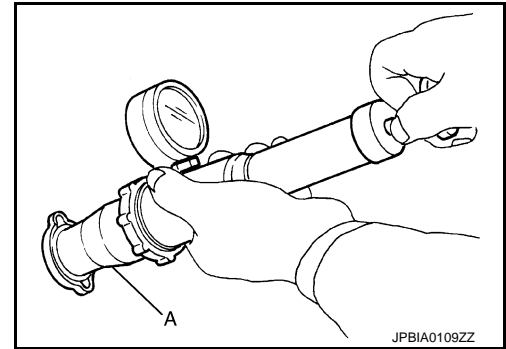
ENGINE MAINTENANCE (VR30DDTT)

< PERIODIC MAINTENANCE >

- Check reservoir tank cap relief pressure.

Standard and limit : Refer to [CO-68, "Radiator"](#).

- When connecting reservoir tank cap to the radiator cap tester and the radiator cap tester adapter (commercial service tool) (A), apply engine coolant to the cap seal surface.



- Replace reservoir tank cap if there is an unusualness related to the above three.

CAUTION:

When installing reservoir tank cap, thoroughly wipe out the reservoir tank to remove any waxy residue or foreign material.

RADIATOR

RADIATOR : Inspection

INFOID:000000013613548

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

- Be careful not to bend or damage radiator fins.
 - When radiator is cleaned without removal, remove all surrounding parts such as radiator cooling fan assembly and horns. Then tape harness and connectors to prevent water from entering.
1. Apply water by hose to the back side of the radiator core vertically downward.
 2. Apply water again to all radiator core surfaces once per minute.
 3. Stop washing if any stains no longer flow out from radiator.
 4. Blow air into the back side of radiator core vertically downward.
 - Use compressed air lower than 490 kPa (5 kg/cm², 71 psi) and keep distance more than 30 cm (11.8 in).
 5. Blow air again into all the radiator core surfaces once per minute until no water sprays out.

FUEL LINES

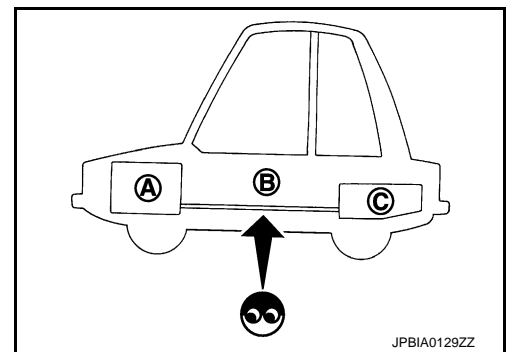
FUEL LINES : Inspection

INFOID:000000013613575

Inspect fuel lines, fuel filler cap and fuel tank for improper attachment, leakage, 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

AIR CLEANER FILTER : Removal and Installation

INFOID:000000013613512

REMOVAL

Bank 1 side

1. Remove engine cover. Refer to [EM-163, "Removal and Installation"](#).
2. Loosen bolts (A) of fuel tube protector (1).

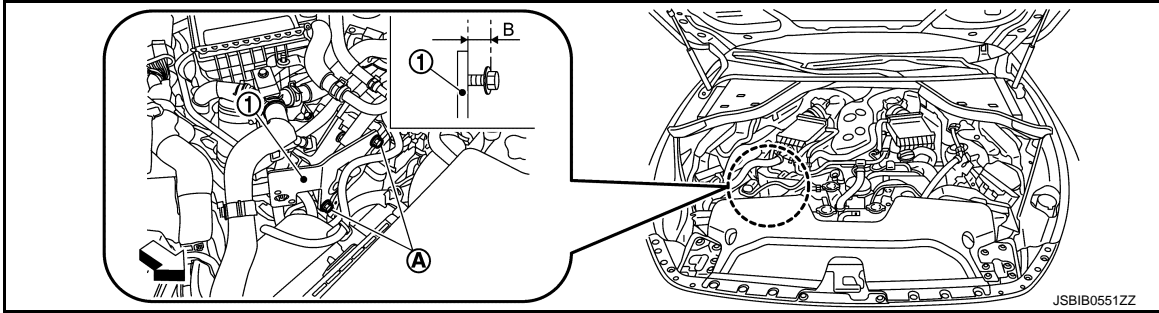
NOTE:

- Loosen mounting bolt from fuel tube protector to position (B).

ENGINE MAINTENANCE (VR30DDTT)

< PERIODIC MAINTENANCE >

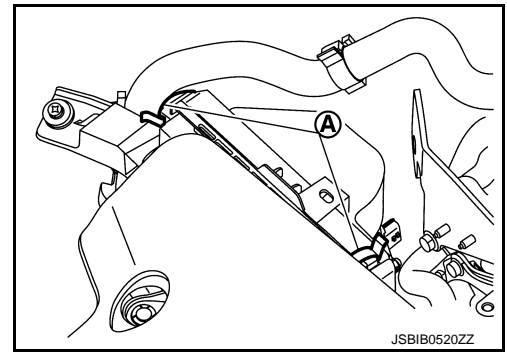
- This step must be performed for securing the clearance for removing / installing air cleaner filter.



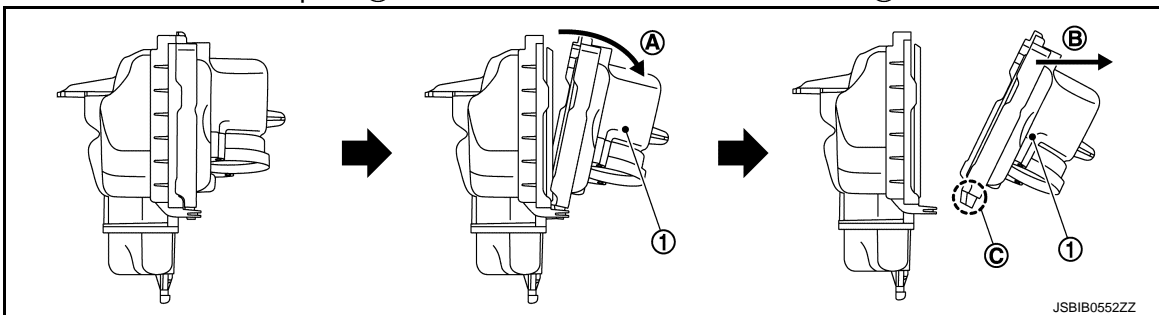
B 8 - 10 mm (0.31 - 0.39 in)

↔ : Vehicle front

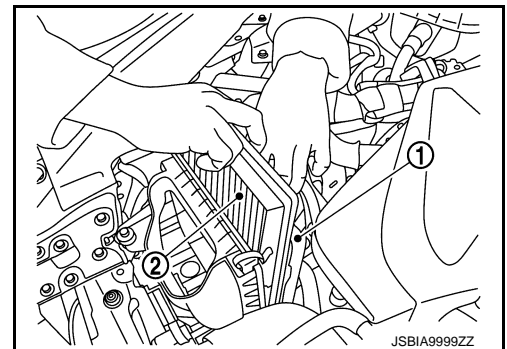
3. Unhook clips (A).



4. Separate air cleaner cover (1) from air cleaner body according to the following instructions:
 - Tilt air cleaner cover backward (A).
 - Pull out air cleaner cover pawl (C) and move air cleaner cover backward (B).



5. To remove air cleaner filter (2), widen the clearance between air cleaner body and air cleaner cover (1).



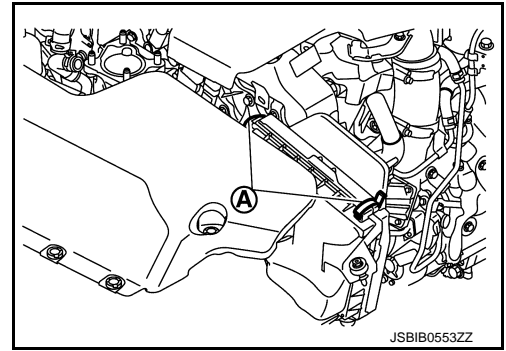
Bank 2 side

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

ENGINE MAINTENANCE (VR30DDTT)

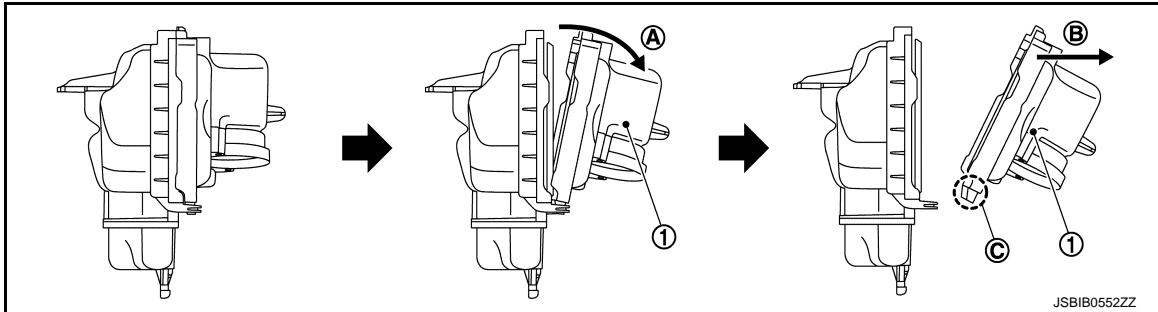
< PERIODIC MAINTENANCE >

1. Unhook clips (A).

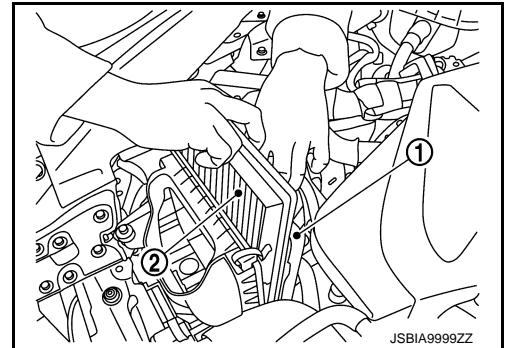


2. Separate air cleaner cover (1) from air cleaner body according to the following instructions:

- Tilt air cleaner cover backward (A).
- Pull out air cleaner cover pawl (C) and move air cleaner cover backward (B).



3. To remove air cleaner filter (2), widen the clearance between air cleaner body and air cleaner cover (1).



INSTALLATION

Note the following, and install in the reverse order of removal.

- Install the air cleaner filter by aligning the seal with the notch of air cleaner body.

ENGINE MAINTENANCE (VR30DDTT)

< PERIODIC MAINTENANCE >

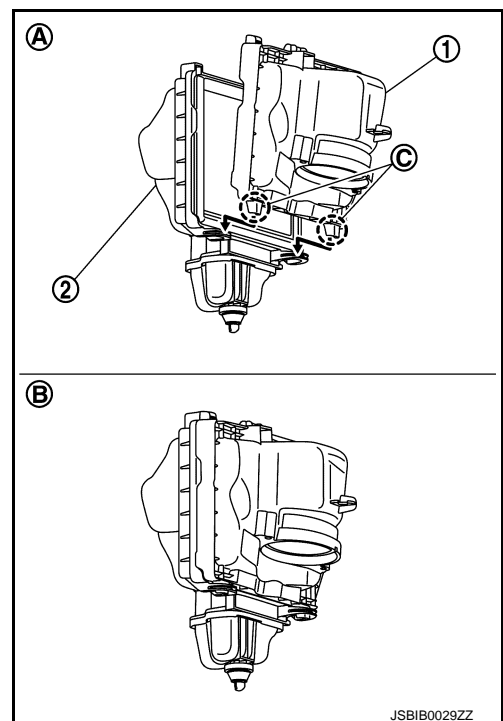
- Insert the pawl ③ of air cleaner cover ① into air cleaner body ② and fix with clip.

Ⓐ : Before installation

Ⓑ : After installation

NOTE:

Tilt air cleaner cover backward and insert pawl into air cleaner body.



- Tighten mounting bolts of fuel tube protector to the specified torque. Refer to [EM-178, "Exploded View"](#).

ENGINE OIL

ENGINE OIL : Draining

INFOID:000000013613577

WARNING:

- **Never get burn yourself, as 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. Warm up the engine, and check for engine oil leakage from engine components. Refer to [LU-27, "Inspection"](#).
2. Stop the engine and wait for 10 minutes.
3. Loosen oil filler cap.
4. Remove front under cover. Refer to [EXT-35, "FRONT UNDER COVER : Removal and Installation"](#).
5. Remove drain plug and then drain engine oil.

ENGINE OIL : Refilling

INFOID:000000013613578

1. Install drain plug with new washer. Refer to [EM-189, "2WD : Exploded View"](#) (2WD) or [EM-190, "AWD : Exploded View"](#) (AWD).

CAUTION:

Be sure to clean drain plug and install with new washer.

2. Refill with new engine oil.
Engine oil specification and viscosity: Refer to [MA-20, "Recommended Fluids and Lubricants"](#).

Engine oil capacity

: Refer to [LU-41, "2WD : Periodical Maintenance Specification"](#) (2WD).

: Refer to [LU-41, "AWD : Periodical Maintenance Specification"](#) (AWD).

CAUTION:

- **When filling engine oil, do not pull out oil level gauge.**

ENGINE MAINTENANCE (VR30DDTT)

< PERIODIC MAINTENANCE >

- The refill capacity depends on the engine oil temperature and drain time. Use these specifications for reference only.
 - Always use oil level gauge to determine the proper amount of engine oil in engine.
3. Warm up the engine and check area around drain plug and oil filter for engine oil leakage.
 4. Stop the engine and wait for 10 minutes.
 5. Check the engine oil level. Refer to [LU-27, "Inspection"](#).
 6. Perform the "Engine Oil Data Reset". Refer to [EC6-278, "Description"](#) (FOR USA AND CANADA) or [EC6-1211, "Description"](#) (FOR MEXICO).

OIL FILTER

OIL FILTER : Removal and Installation

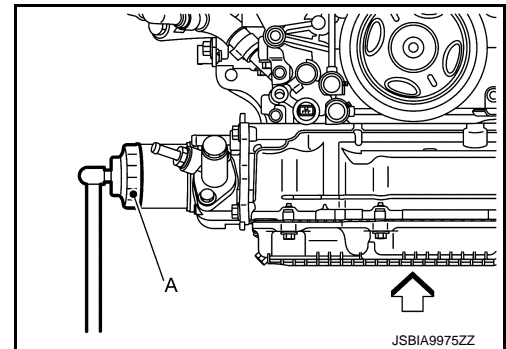
INFOID:000000013613580

REMOVAL

CAUTION:

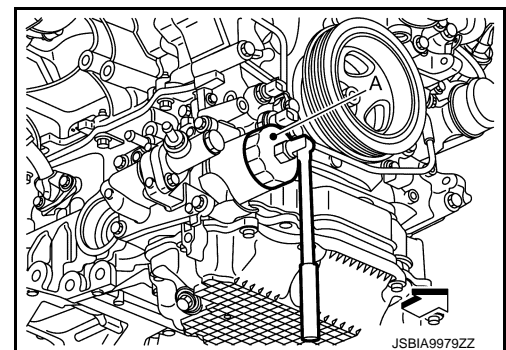
- Oil filter is provided with relief valve. Use genuine NISSAN oil filter or equivalent.
 - Never get burned when engine and engine oil may be hot.
 - When removing, prepare a shop cloth to absorb any engine oil leakage or spillage.
 - Never allow engine oil to adhere to drive belt.
 - Completely wipe off any engine oil that adheres to engine and vehicle.
1. Remove front under cover, using a power tool. Refer to [EXT-35, "FRONT UNDER COVER : Removal and Installation"](#).
 2. Using oil filter wrench [SST: KV10115801 (J-38956)] (A), remove oil filter.
 - 2WD models

⇐ : Engine front



- AWD models

⇐ : Engine front



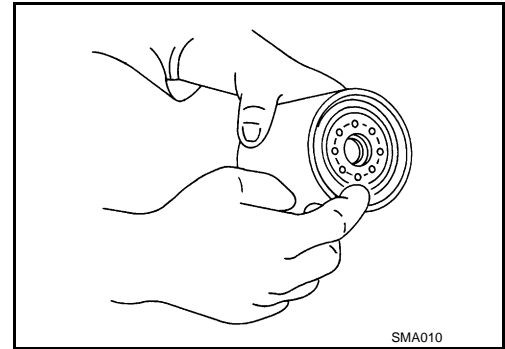
INSTALLATION

1. Remove foreign materials adhering to oil filter installation surface.

ENGINE MAINTENANCE (VR30DDTT)

< PERIODIC MAINTENANCE >

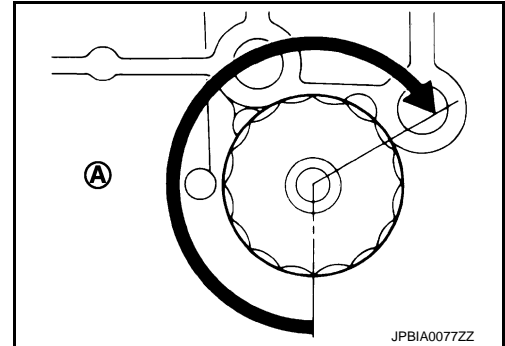
2. Apply engine oil to the oil seal contact surface of new oil filter.



3. Screw oil filter manually until it touches the installation surface, then tighten it by 2/3 turn (A). Or tighten to the specification.

Oil filter:

: 17.7 N·m (1.8 kg·m, 13 ft·lb)



OIL FILTER : Inspection

INFOID:000000013613581

INSPECTION AFTER INSTALLATION

1. Check the engine oil level. Refer to [LU-27, "Inspection"](#).
2. Start the engine, and check there is no leak of engine oil.
3. Stop the engine and wait for 10 minutes.
4. Check the engine oil level, and adjust the level. Refer to [LU-27, "Inspection"](#).

SPARK PLUG

SPARK PLUG : Removal and Installation

INFOID:000000013613513

REMOVAL

NOTE:

Do not drain coolant to remove spark plug.

1. Remove engine cover. Refer to [EM-163, "Removal and Installation"](#).
2. Disconnect turbocharger boost sensor (bank1 and 2) harness connector. Refer to [EM-167, "Exploded View"](#).
3. Loosen air inlet hose clamp between charge air cooler and turbocharger. (charge air cooler side only). Refer to [EM-167, "Exploded View"](#).
4. Loosen air inlet hose clamp between charge air cooler and electric throttle actuator. Refer to [EM-167, "Exploded View"](#).
5. Remove mounting bolts of charge air cooler bracket and temporarily secure them on engine. Refer to [EM-167, "Exploded View"](#).

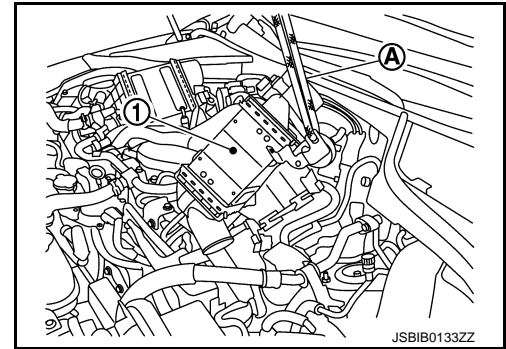
NOTE:

MA

ENGINE MAINTENANCE (VR30DDTT)

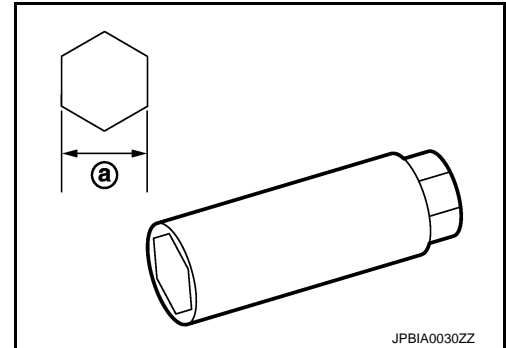
< PERIODIC MAINTENANCE >

Lift up the charge air cooler ① and fix this condition with a rope ② to secure work space.



6. Remove ignition coil. Refer to [EM-193. "Removal and Installation"](#).
7. Remove spark plug with a spark plug wrench (commercial service tool).

Ⓐ : 14 mm (0.55 in)



INSTALLATION

Note the following and installation is the reverse order of removal. Install air inlet hose. Refer to [EM-168. "Removal and Installation"](#).

SPARK PLUG : Inspection

INFOID:000000013613514

INSPECTION AFTER REMOVAL

Use the standard type spark plug for normal condition.

Spark plug (Standard type) : Refer to [EM-296. "Spark Plug"](#).

CAUTION:

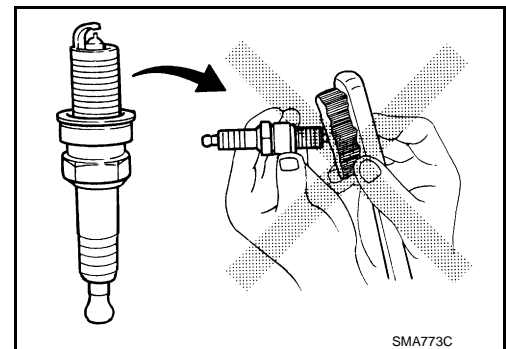
- Never drop or shock spark plug.
- Never use a wire brush for cleaning.
- If plug tip is covered with carbon, use spark plug cleaner to clean.

Cleaner air pressure

: Less than 588 kPa (6 kg/cm², 85 psi)

Cleaning time

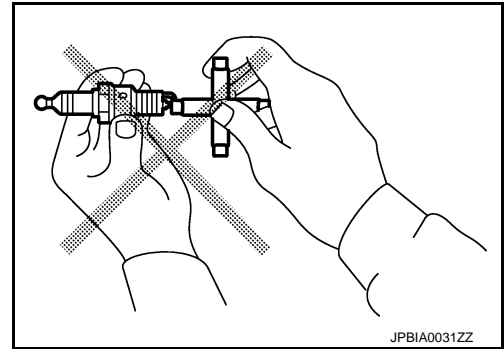
: Less than 20 seconds



ENGINE MAINTENANCE (VR30DDTT)

< PERIODIC MAINTENANCE >

- Check and adjustment of plug gap is not required between change intervals.



EVAP VAPOR LINES

EVAP VAPOR LINES : Inspection

INFOID:000000013613786

1. Visually inspect EVAP vapor lines for improper attachment and for cracks, damage, loose connections, chafing and deterioration. Refer to [EC6-1011, "Inspection"](#).
2. Inspect fuel tank filler cap vacuum relief valve for clogging, sticking, etc. Refer to [EC6-585, "Component Inspection"](#).

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

MA

CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

CHASSIS MAINTENANCE

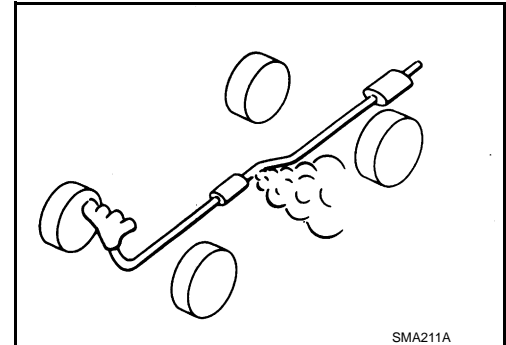
EXHAUST SYSTEM

EXHAUST SYSTEM : Inspection

INFOID:000000013496557

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

- If anything is found, repair or replace damaged parts.



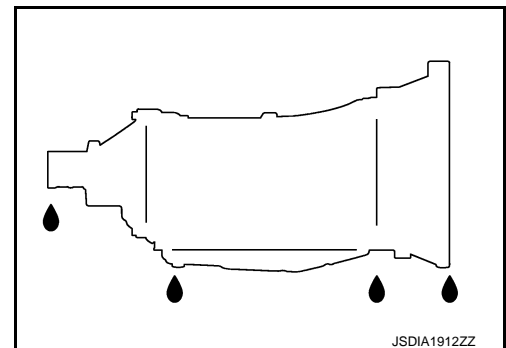
A/T FLUID

A/T FLUID : Inspection

INFOID:000000013496558

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 A/T fluid level. Refer to [TM-287, "Adjustment"](#).



A/T FLUID : Changing

INFOID:000000013496559

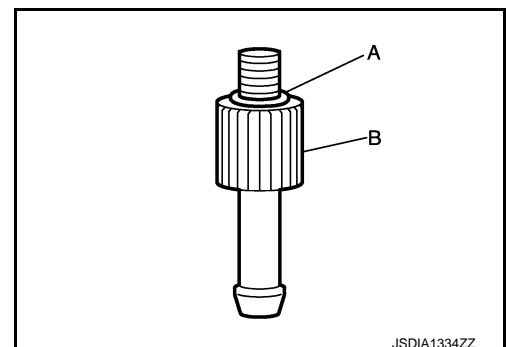
Recommended fluid and fluid capacity : Refer to [MA-20, "Recommended Fluids and Lubricants"](#).

CAUTION:

- Use only recommended ATF. Never mix with other ATF.
- Using ATF other than recommended ATF will cause deterioration in driveability and A/T durability, and may damage the A/T, which is not covered by the INFINITI new vehicle limited warranty.
- When filling ATF, be careful not to scatter heat generating parts such as exhaust.

1. Step 1

- a. Install the O-ring (315268E000) (A) to the charging pipe (310811EA5A) (B).



2. Step 2

- a. Use CONSULT to check that the ATF temperature is 40°C (104°F) or less.
- b. Lift up the vehicle.

CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

- c. Remove the drain plug from the oil pan, and then drain the ATF.
- d. When the ATF starts to drip, temporarily tighten the drain plug to the oil pan.

NOTE:

Never replace drain plug and drain plug gasket with new ones yet.

- e. Remove overflow plug from oil pan.
- f. Install the charging pipe (A) to the overflow plug hole.

CAUTION:

Tighten the charging pipe by hand.

- g. Install the bucket pump hose (B) to the charging pipe.

CAUTION:

Insert the bucket pump hose all the way to the end of the charging pipe.

- h. Fill approximately 3 liters (3-1/8 US qt, 2-5/8 Imp qt) of the ATF.
- i. Remove the bucket pump hose to remove the charging pipe, and then temporarily tighten the overflow plug to the oil pan.

CAUTION:

Quickly perform the procedure to avoid ATF leakage from the oil pan.

- j. Lift down the vehicle.
- k. Start the engine and wait for approximately 3 minutes.
- l. Stop the engine.

3. Step 3

- a. Repeat "Step 2".

4. Final Step

- a. Use CONSULT to check that the ATF temperature is 40°C (104°F) or less.

- b. Lift up the vehicle.

- c. Remove the drain plug from the oil pan, and then drain the ATF.

- d. When the ATF starts to drip, tighten the drain plug to the oil pan to the specified torque. Refer to [TM-295](#), "Exploded View".

CAUTION:

Never reuse drain plug and drain plug gasket.

- e. Remove overflow plug from oil pan.

- f. Install the charging pipe (A) to the overflow plug hole.

CAUTION:

Tighten the charging pipe by hand.

- g. Install the bucket pump hose (B) to the charging pipe.

CAUTION:

Insert the bucket pump hose all the way to the end of the charging pipe.

- h. Fill approximately 3 liters (3-1/8 US qt, 2-5/8 Imp qt) of the ATF.
- i. Remove the bucket pump hose to remove the charging pipe, and then temporarily tighten the overflow plug to the oil pan.

CAUTION:

Quickly perform the procedure to avoid ATF leakage from the oil pan.

- j. Lift down the vehicle.

- k. Start the engine.

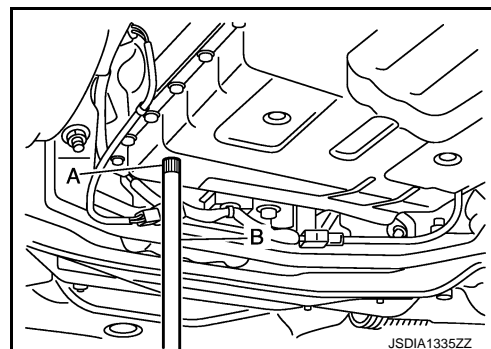
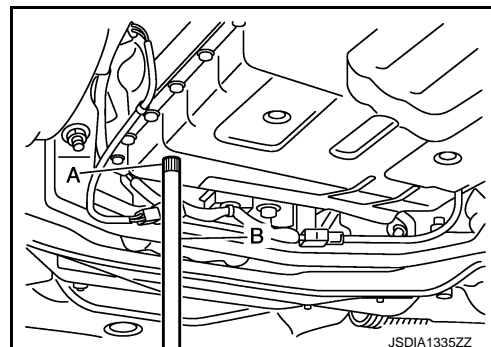
- l. Make the ATF temperature approximately 40°C (104°F).

NOTE:

The ATF level is greatly affected by the temperature. Always check the ATF temperature on "ATF TEMP 1" of "Data Monitor" using CONSULT.

- m. Park vehicle on level surface and set parking brake.

- n. Shift the selector lever through each gear position. Leave selector lever in "P" position.



A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

MA

CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

- o. Lift up the vehicle when the ATF temperature reaches 40°C (104°F), and remove the overflow plug from the oil pan.
- p. When the ATF starts to drip, tighten the overflow plug to the oil pan to the specified torque. Refer to [TM-295, "Exploded View"](#).

CAUTION:

Never reuse overflow plug.

A/T FLUID : Adjustment

INFOID:000000013496560

Recommended fluid and fluid capacity : Refer to [MA-20, "Recommended Fluids and Lubricants"](#).

CAUTION:

- Use only recommended ATF. Never mix with other ATF.
- Using ATF other than recommended ATF will cause deterioration in driveability and A/T durability, and may damage the A/T, which is not covered by the INFINITI new vehicle limited warranty.
- When filling ATF, be careful not to scatter heat generating parts such as exhaust.
- Always maintain the ATF temperature within between 35°C (95°F) and 45°C (113°F) while checking with CONSULT when the ATF level adjustment is performed.

1. Install the O-ring (315268E000) (A) to the charging pipe (310811EA5A) (B).
2. Start the engine.
3. Make the ATF temperature approximately 40°C (104°F).

NOTE:

The ATF level is greatly affected by the temperature. Always check the ATF temperature on "ATF TEMP 1" of "Data Monitor" using CONSULT.

4. Park vehicle on level surface and set parking brake.
5. Shift the selector lever through each gear position. Leave selector lever in "P" position.
6. Lift up the vehicle.
7. Check the ATF leakage from transmission.
8. Remove overflow plug from oil pan.
9. Install the charging pipe (A) to the overflow plug hole.

CAUTION:

Tighten the charging pipe by hand.

10. Install the bucket pump hose (B) to the charging pipe.
- CAUTION:**
Insert the bucket pump hose all the way to the end of the charging pipe.
11. Fill approximately 0.5 liters (1/2 US qt, 1/2 Imp qt) of the ATF.
 12. Check that the ATF leaks when removing the charging pipe and the bucket pump hose. If the ATF does not leak, refill the ATF.
 13. When the ATF starts to drip, tighten the overflow plug to the oil pan to the specified torque. Refer to [TM-295, "Exploded View"](#).

CAUTION:

Never reuse overflow plug.

TRANSFER FLUID

TRANSFER FLUID : Inspection

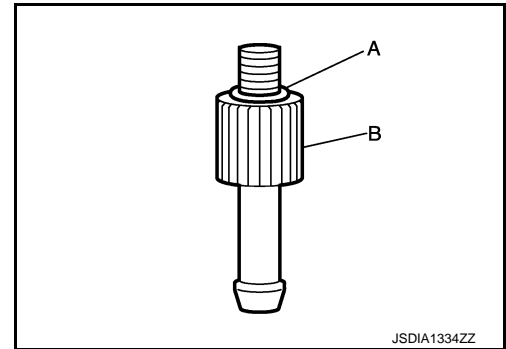
INFOID:000000013496561

FLUID LEAKAGE

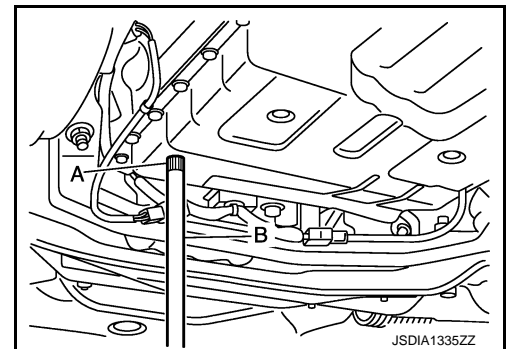
Check transfer surrounding area (oil seal, drain plug, and filler plug etc.) for fluid leakage. Repair or replace parts causing fluid leakage, if necessary.

FLUID LEVEL

If there is no fluid leakage, the fluid level is judged as normal.



JSDIA1334ZZ



JSDIA1335ZZ

CHASSIS MAINTENANCE

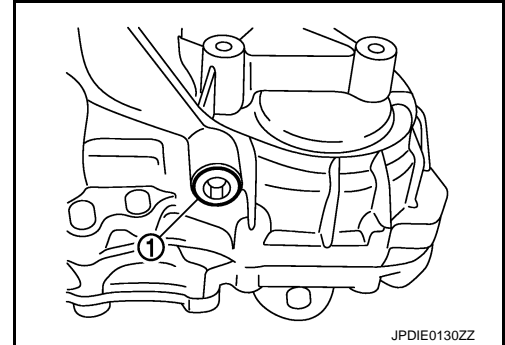
< PERIODIC MAINTENANCE >

TRANSFER FLUID : Draining

INFOID:000000013496562

1. Run the vehicle to warm up the transfer unit sufficiently.
2. Turn the ignition switch OFF, and remove the drain plug ① to drain the transfer fluid.
3. Set a new gasket onto drain plug, and install it on the transfer and tighten to the specified torque. Refer to [DLN-77, "Exploded View"](#).

CAUTION:
Never reuse gasket.



TRANSFER FLUID : Refilling

INFOID:000000013496563

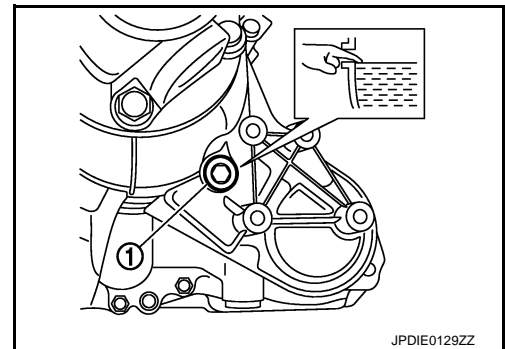
1. Remove filler plug ① and gasket. Then fill fluid up to mounting hole for the filler plug.

Recommended fluid and capacity : Refer to [MA-20, "Recommended Fluids and Lubricants"](#).

CAUTION:
Carefully fill the fluid. (Fill up for approximately 3 minutes.)

2. Leave the vehicle for 3 minutes, and check the fluid level again.
3. Set a new gasket onto filler plug, and install it on transfer and tighten to the specified torque. Refer to [DLN-77, "Exploded View"](#).

CAUTION:
Never reuse gasket.



FRONT PROPELLER SHAFT

FRONT PROPELLER SHAFT : Inspection

INFOID:000000013496573

APPEARANCE AND NOISE

Check the propeller shaft tube surface for dents or cracks. If malfunction is detected, replace propeller shaft assembly.

VIBRATION

If vibration is present at high speed, adjust the propeller shaft phase first.

1. Check the propeller shaft for bend and damage. If damaged, replace propeller shaft assembly.
2. Perform a cruise test drive to check the propeller shaft for runout. If vibration occurs, separate propeller shaft at final drive companion flange; then change the phase between companion flange and propeller shaft by the one bolt hole at a time and install propeller shaft.
3. If vibration is still detected, measure propeller shaft runout after removing it. Refer to [DLN-102, "Inspection"](#).

REAR PROPELLER SHAFT

REAR PROPELLER SHAFT : Inspection

INFOID:000000013496574

APPEARANCE AND NOISE

- Check the propeller shaft tube surface for dents or cracks. If malfunction is detected, replace propeller shaft assembly.
- If center bearing is noisy or damaged, replace propeller shaft assembly.

VIBRATION

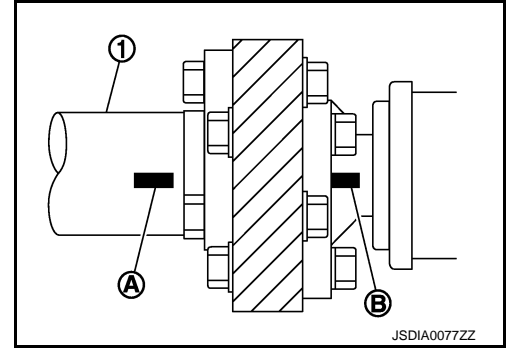
If vibration is present at high speed, adjust the propeller shaft phase first.

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

CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

1. Check the propeller shaft for bend and damage. If damaged, replace propeller shaft assembly.
2. If the alignment mark ① of the propeller shaft ① and the alignment mark ② of the companion flanges on the final drive are not on an axis, re-install these parts to a closer position as possible.
3. Perform a cruise test drive to check the propeller shaft for runout after installation. If vibration still occurs, separate propeller shaft at final drive companion flange; then change the phase between companion flange and propeller shaft by the one bolt hole at a time and install propeller shaft.
4. If vibration is still detected, measure propeller shaft runout after removing it. Refer to [DLN-114, "2WD : Inspection"](#) (2WD), [DLN-118, "AWD : Inspection"](#) (AWD).



FRONT DIFFERENTIAL GEAR OIL: F160A

FRONT DIFFERENTIAL GEAR OIL: F160A : Inspection

INFOID:000000013496576

OIL LEAKAGE

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

OIL LEVEL

1. Remove filler plug ① and check oil level from filler plug mounting hole as shown in the figure.

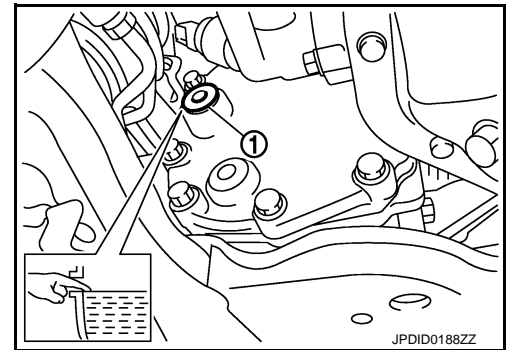
CAUTION:

Turn the ignition switch OFF while checking oil level.

2. Set a gasket on filler plug and install it on final drive assembly. Refer to [DLN-145, "Exploded View"](#).

CAUTION:

Never reuse gasket.



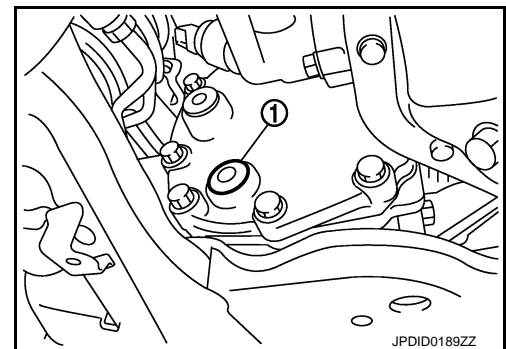
FRONT DIFFERENTIAL GEAR OIL: F160A : Draining

INFOID:000000013496577

1. Turn the ignition switch OFF.
2. Remove drain plug ① and drain gear oil.
3. Set a gasket on drain plug and install it to final drive assembly and tighten to the specified torque. Refer to [DLN-145, "Exploded View"](#).

CAUTION:

Never reuse gasket.



CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

FRONT DIFFERENTIAL GEAR OIL: F160A : Refilling

INFOID:000000013496578

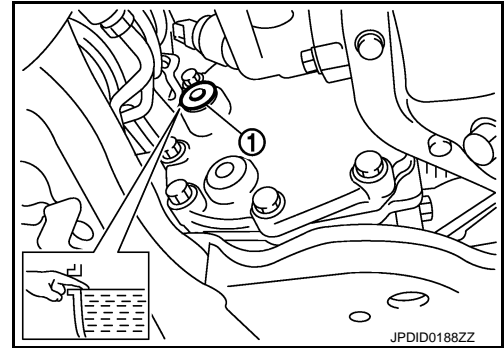
1. Remove filler plug ①. Fill with new gear oil until oil level reaches the specified level near filler plug mounting hole.

Recommended oil and capacity : Refer to [MA-20, "Recommended Fluids and Lubricants"](#).

2. After refilling oil, check oil level. Set a gasket to filler plug, then install it to final drive assembly. Refer to [DLN-145, "Exploded View"](#).

CAUTION:

Never reuse gasket.



REAR DIFFERENTIAL GEAR OIL: R190

REAR DIFFERENTIAL GEAR OIL: R190 : Inspection

INFOID:000000013496580

OIL LEAKAGE

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

OIL LEVEL

1. Remove filler plug ① and check oil level from filler plug mounting hole as shown in the figure.

CAUTION:

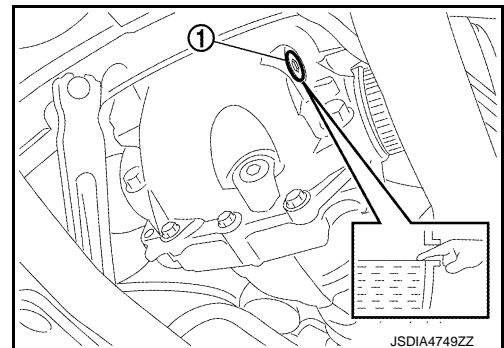
Turn the ignition switch OFF while checking oil level.

- Oil level should be level with bottom of filler plug hole. Add gear oil if necessary.

2. Set a gasket on filler plug and install it on final drive assembly. Refer to [DLN-185, "Exploded View"](#).

CAUTION:

Never reuse gasket.



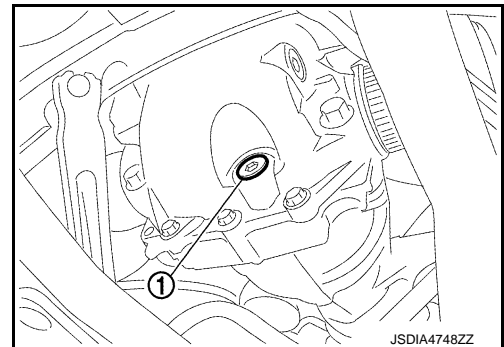
REAR DIFFERENTIAL GEAR OIL: R190 : Draining

INFOID:000000013496581

1. Turn the ignition switch OFF.
2. Remove drain plug ① and drain gear oil.
3. Set a gasket on drain plug and install it to final drive assembly and tighten to the specified torque. Refer to [DLN-185, "Exploded View"](#).

CAUTION:

Never reuse gasket.



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

MA

CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

REAR DIFFERENTIAL GEAR OIL: R190 : Refilling

INFOID:000000013496582

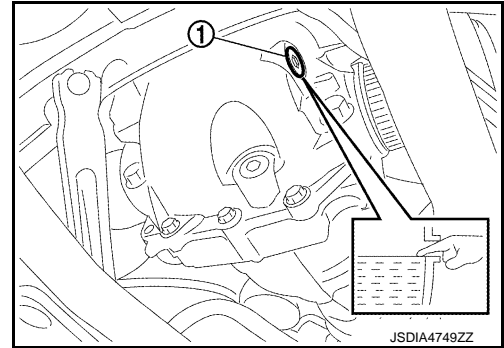
1. Remove filler plug ①. Fill with new gear oil until oil level reaches the specified level near filler plug mounting hole.

Recommended oil and capacity : Refer to [MA-20, "Recommended Fluids and Lubricants"](#).

2. After refilling oil, check oil level. Set a gasket to filler plug, then install it to final drive assembly. Refer to [DLN-185, "Exploded View"](#).

CAUTION:

Never reuse gasket.



WHEELS (BONDING WEIGHT TYPE)

WHEELS (BONDING WEIGHT TYPE) : Wheel Balance Adjustment (Aluminum Wheel)

INFOID:000000013616426

PREPARATION BEFORE ADJUSTMENT

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

CAUTION:

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

ADJUSTMENT

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

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

CAUTION:

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

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

Calculation example:

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

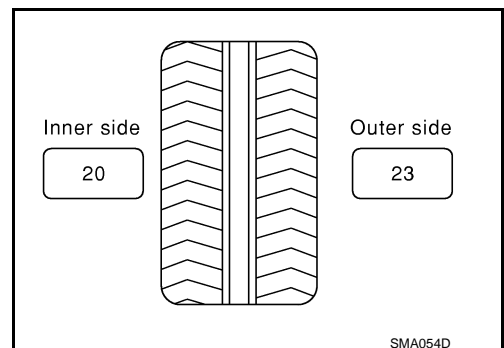
NOTE:

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

Example:

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

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



- b. Installed balance weight in the position.

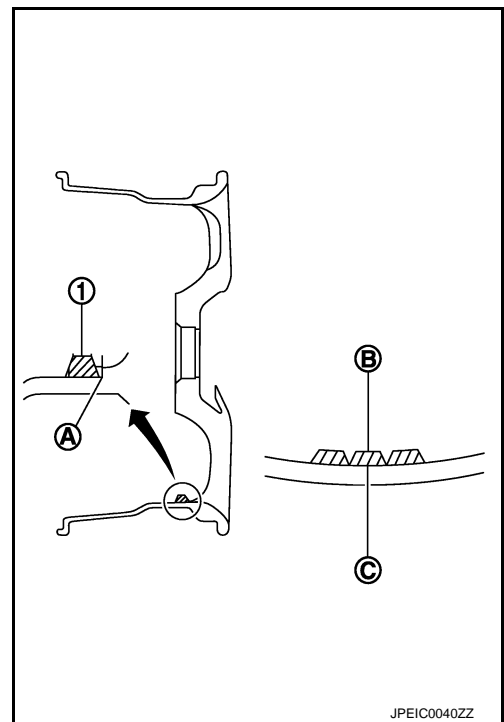
CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

- When installing balance weight ① to road wheels, set it into the grooved area ① on the inner wall of the road wheel as shown in the figure so that the balance weight center ② is aligned with the tire balance machine indication position (angle) ③.

CAUTION:

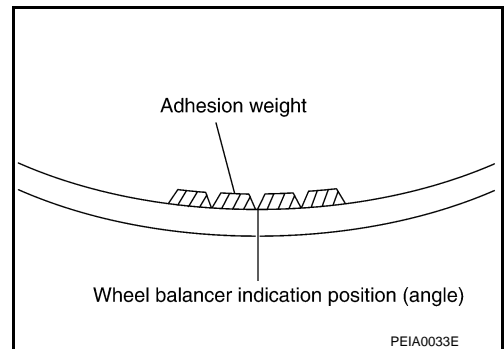
- Always use genuine NISSAN balance weights.
- Balance weights are non-reusable; always replace with new ones.
- Never install three or more sheets of balance weight.



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

CAUTION:

Never install one balance weight sheet on top of another.



- Start the tire balance machine again.
- Install drive-in balance weight on inner side of road wheel in the tire balance machine indication position (angle).
- Start the tire balance machine. Check that the inner and outer residual unbalance value is within the allowable unbalance value.

CAUTION:

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

Allowable unbalance value

Dynamic (At flange) : Refer to [WT-82, "Road Wheel"](#).

Static (At flange) : Refer to [WT-82, "Road Wheel"](#).

WHEELS (BONDING WEIGHT TYPE) : Tire Rotation

INFOID:000000013616427

MA

EXCEPT FRONT AND REAR WHEEL SIZE DIFFERENT MODELS

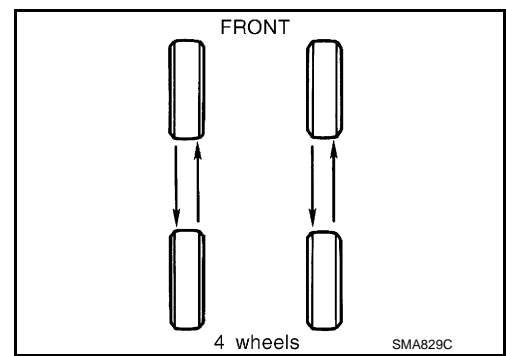
CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

- Follow the maintenance schedule for tire rotation service intervals. Refer to [MA-6, "FOR NORTH AMERICA : Explanation of General Maintenance"](#).
- When installing the wheel, tighten wheel nuts to the specified torque. Refer to [WT-74, "Exploded View"](#).

CAUTION:

- When installing wheels, tighten them diagonally by dividing the work two to three times in order to prevent the wheels from developing any distortion.
 - Be careful not to tighten wheel nut at torque exceeding the criteria.
 - Use NISSAN genuine wheel nut.
- After tire rotation, perform ID registration. Refer to [WT-40, "Description"](#).



FRONT AND REAR WHEEL SIZE DIFFERENT MODELS

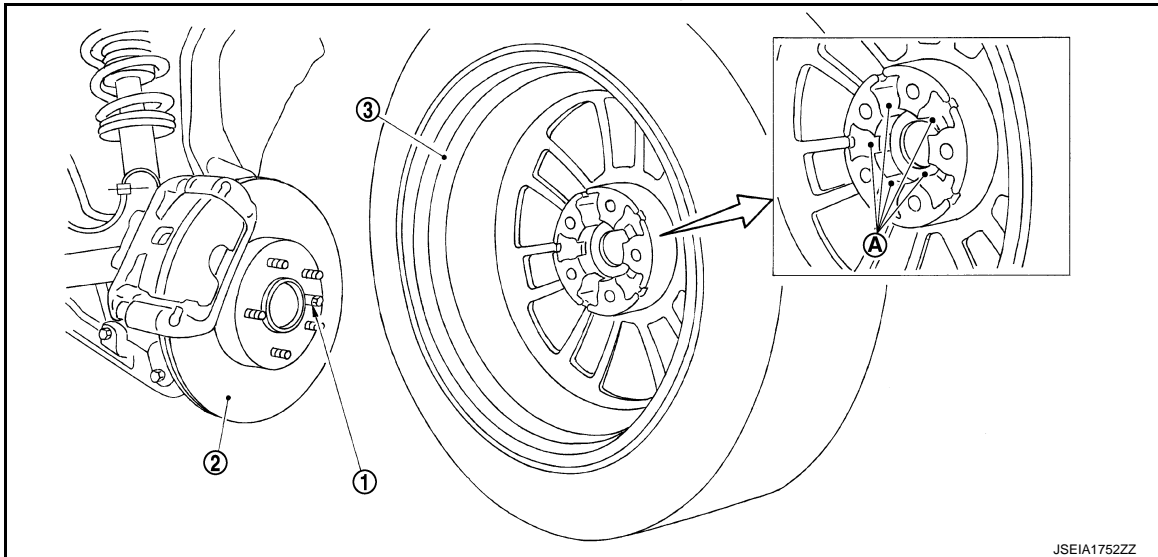
CAUTION:

- Tire cannot be rotated in vehicle, as front tire are different size from rear tire and the direction of wheel rotation is fixed in each tire.
- When installing wheels, tighten them diagonally by dividing the work two to three times in order to prevent the wheels from developing any distortion.
- Be careful not to tighten wheel nut at torque exceeding the criteria.
- Use NISSAN genuine wheel nut.

Safety Device Preventing from Being Incorrectly installed

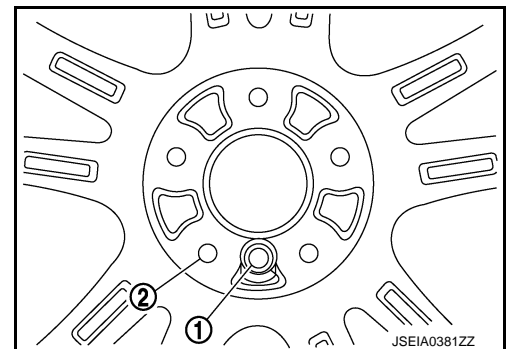
FRONT BRAKE DISC ROTOR AND FRONT WHEEL

- Front and rear wheel size for this model differs, therefore special pin ① is adopted to the front brake disc rotor ②. And a hole ③ that matches to this pin is adopted to the front wheel ③ (the rear wheel does not have this wheel). This structure prevents the rear wheel from being mistakenly installed on the front.



T-TYPE SPARE TIRE WHEEL

- Regarding spare tire (for emergency) wheel, wrong assembly protection pin through hole ① has been set in addition to regular bolt holes ② in order to enable installation to front wheel.



BRAKE FLUID LEVEL AND LEAKS

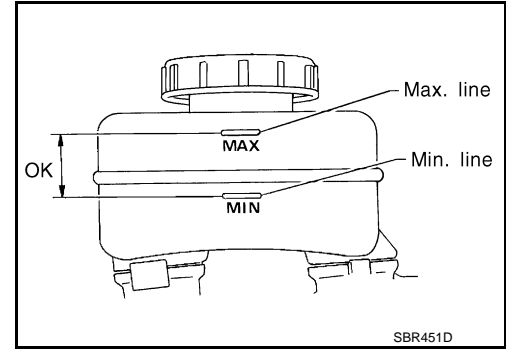
CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

BRAKE FLUID LEVEL AND LEAKS : Inspection

INFOID:0000000012796030

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

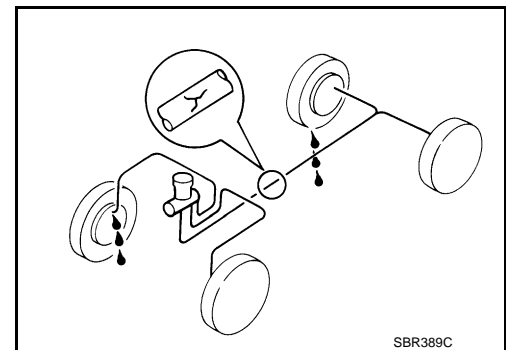


BRAKE LINES AND CABLES

BRAKE LINES AND CABLES : Inspection

INFOID:0000000012796031

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



BRAKE FLUID

BRAKE FLUID : Changing

INFOID:0000000012796032

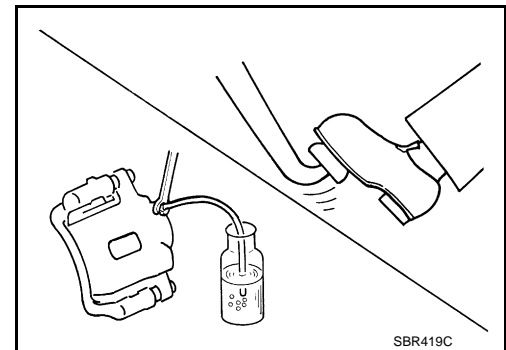
1. Drain brake fluid from each bleed valve.
2. Refill until new brake fluid comes out from each bleed valve. Use same procedure as in bleeding hydraulic system to refill brake fluid.
Refer to [BR-17, "Bleeding Brake System"](#).
 - Never reuse drained brake fluid.
 - Be careful not to splash brake fluid on painted areas.

For USA and Canada

- Refill with recommended Genuine NISSAN Super Heavy Duty Brake Fluid or equivalent DOT 3 (US FMVSS No. 116).
Refer to [MA-20, "Recommended Fluids and Lubricants"](#).

For Mexico

- Refill with recommended Genuine NISSAN Brake Fluid, or equivalent DOT 3 or DOT (US FMVSS No. 116).
Refer to [MA-20, "Recommended Fluids and Lubricants"](#).



DISC BRAKE

DISC BRAKE : Inspection

INFOID:0000000012796033

DISC ROTOR

Check condition, wear, and damage.

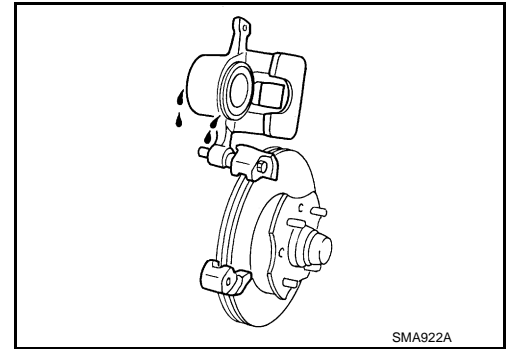
CALIPER

- Check for leakage.

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

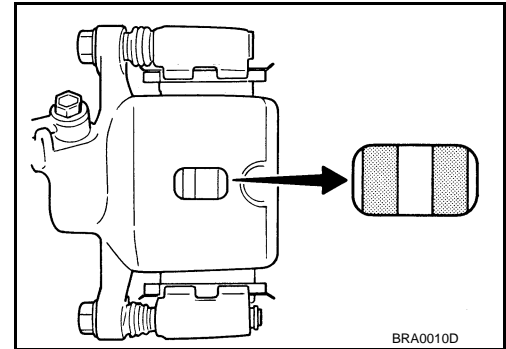
CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >



BRAKE PAD

- Check for wear or damage.



DISC BRAKE : Front Disc Brake

INFOID:000000013496583

BRAKE CALIPER 2 PISTON TYPE

Unit: mm (in)

Item		Limit
Brake pad	Wear thickness	1.5 (0.059)
	Wear thickness	26.0 (1.024)
Disc rotor	Thickness variation (measured at 8 positions)	0.015 (0.0006)
	Runout (with it attached to the vehicle)	0.035 (0.0014)

BRAKE CALIPER 4 PISTON TYPE

Unit: mm (in)

Item		Limit
Brake pad	Wear thickness	2.0 (0.079)
	Wear thickness	30.0 (1.181)
Disc rotor	Thickness variation (measured at 8 positions)	0.015 (0.0006)
	Runout (with it attached to the vehicle)	0.035 (0.0014)

DISC BRAKE : Rear Disc Brake

INFOID:000000013496584

BRAKE CALIPER 1 PISTON TYPE

Unit: mm (in)

Item		Limit
Brake pad	Wear thickness	2.0 (0.079)
	Wear thickness	14.0 (0.551)
Disc rotor	Thickness variation (measured at 8 positions)	0.015 (0.0006)
	Runout (with it attached to the vehicle)	0.055 (0.0022)

BRAKE CALIPER 2 PISTON TYPE

CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

Unit: mm (in)

Item		Limit
Brake pad	Wear thickness	2.0 (0.079)
	Wear thickness	18.0 (0.709)
Disc rotor	Thickness variation (measured at 8 positions)	0.015 (0.0006)
	Runout (with it attached to the vehicle)	0.055 (0.0022)

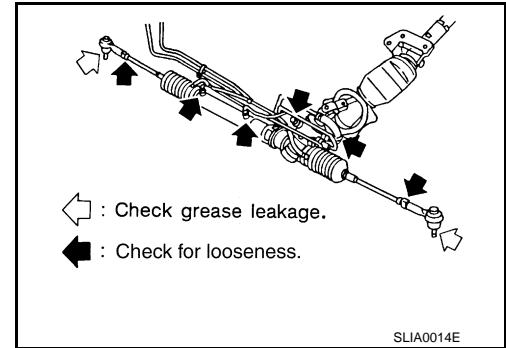
STEERING GEAR AND LINKAGE

STEERING GEAR AND LINKAGE : Inspection

INFOID:0000000012796036

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

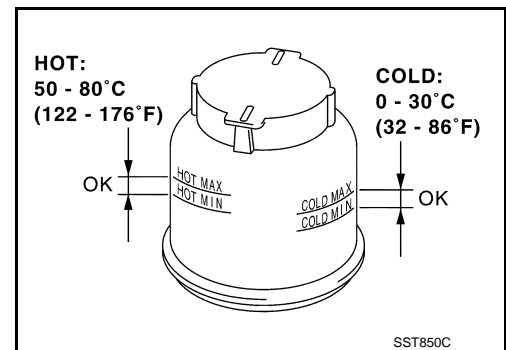
INFOID:0000000012796037

Check fluid level in reservoir tank with engine off.

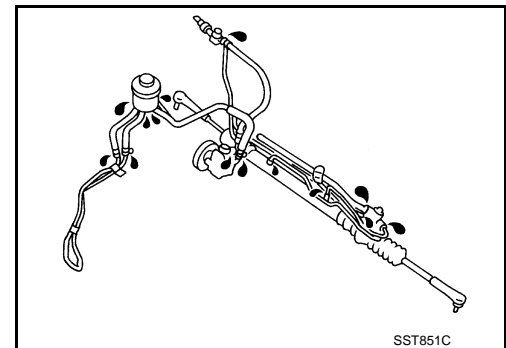
Use "HOT" range at fluid temperatures of 50 to 80°C (122 to 176°F) or "COLD" range at fluid temperatures of 0 to 30°C (32 to 86°F).

CAUTION:

- Do not overfill.
- Recommended fluid is Genuine NISSAN PSF or equivalent. Refer to [MA-20, "Recommended Fluids and Lubricants"](#).



- Check lines for improper attachment, leaks, cracks, damage, loose connections, chafing and deterioration.
- Check rack boots for accumulation of power steering fluid.



AXLE AND SUSPENSION PARTS

CHASSIS MAINTENANCE

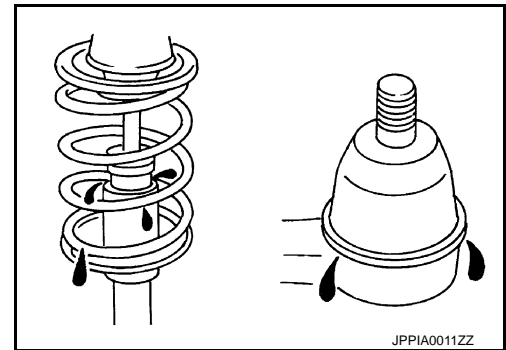
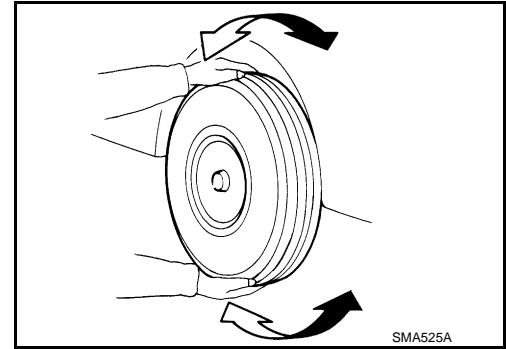
< PERIODIC MAINTENANCE >

AXLE AND SUSPENSION PARTS : Inspection

INFOID:000000012796038

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.

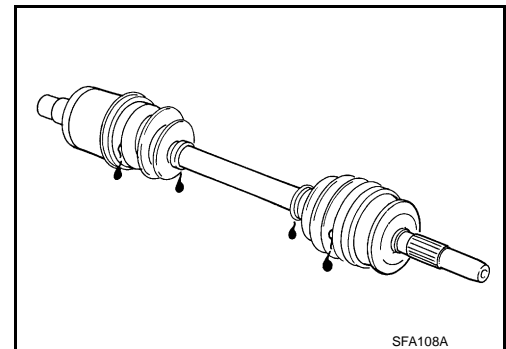


DRIVE SHAFT

DRIVE SHAFT : Inspection

INFOID:000000012796039

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



BODY MAINTENANCE

< PERIODIC MAINTENANCE >

BODY MAINTENANCE

LOCKS, HINGES AND HOOD LATCH

LOCKS, HINGES AND HOOD LATCH : Lubricating

INFOID:000000012796040

For hood and hood lock control illustration.

- Hood: Refer to [DLK-181, "Exploded View"](#).
- Hood lock control: Refer to [DLK-227, "Exploded View"](#).

For door and door lock illustration.

- Front door: Refer to [DLK-203, "Exploded View"](#).
- Front door lock: Refer to [DLK-235, "Exploded View"](#).
- Rear door: Refer to [DLK-211, "Exploded View"](#).
- Rear door lock: Refer to [DLK-240, "Exploded View"](#).

For trunk lid and trunk lid lock illustration.

- Trunk lid: Refer to [DLK-220, "Exploded View"](#).
- Trunk lid lock: Refer to [DLK-244, "Exploded View"](#).

SEAT BELT, BUCKLES, RETRACTORS, ANCHORS AND ADJUSTERS

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

INFOID:000000012796041

For front seat belt illustration. Refer to [SB-8, "Exploded View"](#).

For rear seat belt illustration. Refer to [SB-13, "Exploded View"](#).

CAUTION:

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

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

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

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

Replace as seat belt assembly.

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

For details, refer to [SB-10, "SEAT BELT RETRACTOR : Inspection"](#), [SB-14, "SEAT BELT RETRACTOR : Inspection"](#) in SB section.

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

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

MA

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

DRIVE BELT (2.0L TURBO GASOLINE ENGINE)

DRIVE BELT (2.0L TURBO GASOLINE ENGINE) : Drive Belt

INFOID:000000013496587

DRIVE BELT

Tension of drive belt	Belt tension is not necessary, as it is automatically adjusted by drive belt auto-tensioner.
-----------------------	--

DRIVE BELT (VR30DDTT)

DRIVE BELT (VR30DDTT) : Drive Belt

INFOID:000000013613663

DRIVE BELT

Tension of drive belt	Belt tension is not necessary, as it is automatically adjusted by drive belt auto-tensioner.
-----------------------	--

ENGINE COOLANT (2.0L TURBO GASOLINE ENGINE)

ENGINE COOLANT (2.0L TURBO GASOLINE ENGINE) :

Periodical Maintenance Specification

INFOID:000000013496594

ENGINE COOLANT CAPACITY (APPROXIMATE)

Unit: ℓ (US qt, Imp qt)

Engine coolant capacity [With reservoir tank ("MAX" level)]	9.0 (9-4/8, 7-7/8)
Reservoir tank engine coolant capacity (At "MAX" level)	0.9 (1, 6/8)

ENGINE COOLANT (VR30DDTT)

ENGINE COOLANT (VR30DDTT) : Periodical Maintenance Specification

INFOID:000000013613664

ENGINE COOLANT CAPACITY (APPROXIMATE)

Unit: ℓ (US qt, Imp qt)

Engine coolant capacity [With reservoir tank ("MAX" level)]	Type 1	10.3 (10-7/8, 9-1/8)
	Type 2	8.8 (9-2/8, 7-6/8)
Reservoir tank engine coolant capacity (At "MAX" level)		0.6 (5/8, 4/8)

CHARGE AIR COOLER COOLANT VAPACITY (APPROXIMATE)

Unit: ℓ (US qt, Imp qt)

Charge air cooler coolant capacity [With reservoir tank ("MAX" level)]	3.2 (3-3/8, 2-7/8)
Reservoir tank charge air cooler coolant capacity (At "MAX" level)	0.15 (1/8, 1/8)

ENGINE OIL (2.0L TURBO GASOLINE ENGINE)

ENGINE OIL (2.0L TURBO GASOLINE ENGINE) :

Periodical Maintenance Specification

INFOID:000000013496592

ENGINE OIL CAPACITY (APPROXIMATE)

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

Unit: ℓ (US qt, Imp qt)

Drain and refill	2WD	With oil filter change	6.3 (6 -5/8, 5 -4/8)
		Without oil filter change	5.8 (6 -1/8, 5 -1/8)
	AWD	With oil filter change	6.6 (7, 5 -6/8)
		Without oil filter change	6.1 (6 -4/8, 5 -3/8)

ENGINE OIL [VR30DDTT (2WD)]

ENGINE OIL [VR30DDTT (2WD)] : Periodical Maintenance Specification INFOID:0000000013613750

ENGINE OIL CAPACITY (APPROXIMATE)

Unit: ℓ (US qt, Imp qt)

Drain and refill	With oil filter change	4.8 (5-1/8, 4-2/8)
	Without oil filter change	4.6 (4-7/8, 4)
Dry engine (Overhaul)		6.1 (6-4/8, 5-3/8)

ENGINE OIL [VR30DDTT (AWD)]

ENGINE OIL [VR30DDTT (AWD)] : Periodical Maintenance Specification INFOID:0000000013613751

ENGINE OIL CAPACITY (APPROXIMATE)

Unit: ℓ (US qt, Imp qt)

Drain and refill	With oil filter change	5.4 (5-6/8, 4-6/8)
	Without oil filter change	5.2 (5-4/8, 4-5/8)
Dry engine (Overhaul)		6.6 (7, 5-6/8)

SPARK PLUG (2.0L TURBO GASOLINE ENGINE)

SPARK PLUG (2.0L TURBO GASOLINE ENGINE) : Spark Plug INFOID:0000000013496589

SPARK PLUG

Unit: mm (in)

Make	DENSO
Standard type*	SILZKFR8C7S

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

SPARK PLUG (VR30DDTT)

SPARK PLUG (VR30DDTT) : Spark Plug INFOID:0000000013613752

SPARK PLUG

Unit: mm (in)

Make	NGK
Standard type	DILKAR8K8G
Gap (Nominal)	0.8 (0.031)

ROAD WHEEL

ROAD WHEEL : Road Wheel INFOID:0000000013496596

CONVENTIONAL

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

Item		Limit
Runout	Axial runout	Less than 0.3 mm (0.012 in)
	Radial runout	
Allowable unbalance	Dynamic (At flange)	Less than 5 g (0.17 oz) (one side)
	Static (At flange)	Less than 10 g (0.35 oz)

EMERGENCY

Item		Limit
Runout	Axial runout	Less than 1.5 mm (0.059 in)
	Radial runout	