

SECTION **MA**
 MAINTENANCE

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

CONTENTS

PREPARATION	3	AIR CLEANER FILTER	17
PREPARATION	3	AIR CLEANER FILTER : Removal and Installation17
Special Service Tool	3	ENGINE OIL	17
Commercial Service Tool	3	ENGINE OIL : Draining	17
PERIODIC MAINTENANCE	4	ENGINE OIL : Refilling	17
GENERAL MAINTENANCE	4	OIL FILTER	18
Explanation of General Maintenance	4	OIL FILTER : Removal and Installation	18
PERIODIC MAINTENANCE	6	SPARK PLUG	18
Introduction of Periodic Maintenance	6	SPARK PLUG : Removal and Installation	19
Schedule 1	6	SPARK PLUG : Inspection	19
Schedule 2	8	EVAP VAPOR LINES	20
RECOMMENDED FLUIDS AND LUBRI- CANTS	10	EVAP VAPOR LINES : Inspection	20
Fluids and Lubricants	10	CHASSIS MAINTENANCE	21
Engine Oil Recommendation	10	EXHAUST SYSTEM	21
Anti-Freeze Coolant Mixture Ratio	11	EXHAUST SYSTEM : Inspection	21
ENGINE MAINTENANCE	12	A/T FLUID	21
DRIVE BELTS	12	A/T FLUID : Inspection	21
DRIVE BELTS : Exploded View	12	TRANSFER FLUID	21
DRIVE BELTS : Checking	12	TRANSFER FLUID : Inspection	21
DRIVE BELTS : Tension Adjustment	12	TRANSFER FLUID : Draining	21
ENGINE COOLANT	12	TRANSFER FLUID : Refilling	22
ENGINE COOLANT : Inspection	12	FRONT PROPELLER SHAFT: 2F P15	22
ENGINE COOLANT : Draining	13	FRONT PROPELLER SHAFT: 2F P15 : Inspec- tion	22
ENGINE COOLANT : Refilling	13	REAR PROPELLER SHAFT: 2F P26	23
ENGINE COOLANT : Flushing	15	REAR PROPELLER SHAFT: 2F P26 : Inspection...	23
RESERVOIR TANK CAP	15	REAR PROPELLER SHAFT: 2S1410	23
RESERVOIR TANK CAP : Inspection	15	REAR PROPELLER SHAFT: 2S1410 : Inspection...	23
RADIATOR	16	FRONT DIFFERENTIAL GEAR OIL: R180A	24
RADIATOR : Inspection	16	FRONT DIFFERENTIAL GEAR OIL: R180A : In- spection	24
FUEL LINES	16		
FUEL LINES : Inspection	17		

MA

FRONT DIFFERENTIAL GEAR OIL: R180A : Draining	24	AXLE AND SUSPENSION PARTS : Inspection	32
FRONT DIFFERENTIAL GEAR OIL: R180A : Re- filling	25	DRIVE SHAFT	33
REAR DIFFERENTIAL GEAR OIL: R230	25	DRIVE SHAFT : Inspection	33
REAR DIFFERENTIAL GEAR OIL: R230 : Inspec- tion	25	BODY MAINTENANCE	34
REAR DIFFERENTIAL GEAR OIL: R230 : Drain- ing	25	LOCKS, HINGES AND HOOD LATCH	34
REAR DIFFERENTIAL GEAR OIL: R230 : Refill- ing	26	LOCKS, HINGES AND HOOD LATCH : Lubricat- ing	34
WHEELS (BONDING WEIGHT TYPE)	26	SEAT BELT, BUCKLES, RETRACTORS, AN- CHORS AND ADJUSTERS	34
WHEELS (BONDING WEIGHT TYPE) : Adjust- ment	26	SEAT BELT, BUCKLES, RETRACTORS, AN- CHORS AND ADJUSTERS : Inspection	34
BRAKE FLUID LEVEL AND LEAKS	27	SERVICE DATA AND SPECIFICATIONS (SDS)	35
BRAKE FLUID LEVEL AND LEAKS : Inspection ...	28	SERVICE DATA AND SPECIFICATIONS (SDS)	35
BRAKE LINES AND CABLES	28	DRIVE BELTS	35
BRAKE LINES AND CABLES : Inspection	28	DRIVE BELTS : Drive Belts	35
BRAKE FLUID	28	ENGINE COOLANT	35
BRAKE FLUID : Bleeding Brake System	28	ENGINE COOLANT : Periodical Maintenance Specification	35
DISC BRAKE	30	ENGINE OIL	35
DISC BRAKE : Inspection	30	ENGINE OIL : Periodical Maintenance Specifica- tion	35
DISC BRAKE : Front Disc Brake	31	SPARK PLUG	35
DISC BRAKE : Rear Disc Brake	31	SPARK PLUG : Spark Plug	35
STEERING GEAR AND LINKAGE	31	ROAD WHEEL	35
STEERING GEAR AND LINKAGE : Inspection	31	ROAD WHEEL : Road Wheel	35
POWER STEERING FLUID AND LINES	32		
POWER STEERING FLUID AND LINES : Inspec- tion	32		
AXLE AND SUSPENSION PARTS	32		

PREPARATION

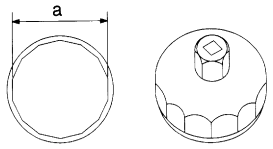
< PREPARATION >

PREPARATION

PREPARATION

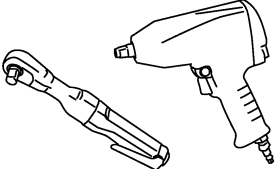
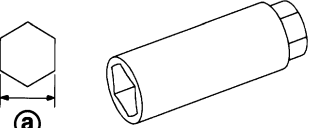
Special Service Tool

INFOID:000000006220960

Tool number (SPX-North America No.) Tool name	Description
KV10115801 (J-38956) Oil filter wrench  <p style="text-align: center;">S-NT375</p>	Removing and installing oil filter a: 64.3 mm (2.531 in)

Commercial Service Tool

INFOID:000000006220961

Tool name	Description
Power tool  <p style="text-align: center;">PBIC0190E</p>	Loosening nuts and bolts
Spark plug wrench  <p style="text-align: center;">JPBIA0399ZZ</p>	Removing and installing spark plug a : 14 mm (0.55 in)

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

MA

GENERAL MAINTENANCE

< PERIODIC MAINTENANCE >

PERIODIC MAINTENANCE

GENERAL MAINTENANCE

Explanation of General Maintenance

INFOID:000000006287728

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** dealers 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-69
Wheel nuts	When checking the tires, make sure no nuts are missing, and check for any loose nuts. Tighten if necessary.	—
Tire rotation	Tires should be rotated every 12,000km (7,500 miles). If the vehicle is equipped with different sized tires in the front and rear, tires cannot be rotated.	WT-63
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-66
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-7 RSU-6
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 smoothly as well as the back door. Also make sure that all latches lock securely. Lubricate if necessary. Make sure that the secondary latch keeps the hood from opening when the primary latch is released. When driving in areas using road salt or other corrosive materials, check lubrication frequently.	MA-34
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.	—
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-34
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.	—
Brakes	Check that the brake does not pull the vehicle to one side when applied.	—
Brake pedal and booster	Check the pedal for smooth operation and make sure it has the proper distance under it when depressed fully. Check the brake booster function. Be sure to keep the floor mats away from the pedal.	BR-7 BR-15
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-3
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.	—

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.	—
Engine coolant level	Check the coolant level when the engine is cold.	MA-12
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-16
Brake fluid levels	Make sure that the brake fluid level is between the "MAX" and "MIN" lines on the reservoir(s).	MA-28
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-159
Engine drive belts	Make sure that no belt is frayed, worn, cracked or oily.	MA-12
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-7
Power steering fluid level and lines	Check the level on the dipstick with the engine off. Check the lines for improper attachment, leaks, cracks, etc.	MA-32
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-21
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.	—

PERIODIC MAINTENANCE

< PERIODIC MAINTENANCE >

PERIODIC MAINTENANCE

Introduction of Periodic Maintenance

INFOID:000000006287729

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

Schedule 1	Follow Periodic Maintenance Schedule 1 if the driving habits frequently include one or more of the following driving conditions: <ul style="list-style-type: none"> • Repeated short trips of less than 5 miles (8 km). • Repeated short trips of less than 10 miles (16 km) with outside temperatures remaining below freezing. • Operating in hot weather in stop-and-go “rush hour” traffic. • 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. 	Emission Control System Maintenance	MA-6
		Chassis and Body Maintenance	
Schedule 2	Follow Periodic Maintenance Schedule 2 if none of driving conditions shown in Schedule 1 apply to the driving habits.	Emission Control System Maintenance	MA-8
		Chassis and Body Maintenance	

Schedule 1

INFOID:000000006287730

EMISSION CONTROL SYSTEM

Abbreviations: R = Replace. I = Inspect. Correct or replace if necessary. []: At the mileage intervals only

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference Section - Page or - Content Title	
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	3.75 (6) 3	7.50 (12) 6	11.25 (18) 9	15 (24) 12	18.75 (30) 15	22.5 (36) 18	26.25 (42) 21	30 (48) 24		
Drive belts	NOTE (1)									[R]	MA-12
Air cleaner filter	NOTE (2)									[R]	MA-17
EVAP vapor lines										I*	MA-20
Fuel lines										I*	MA-17
Fuel filter	NOTE (3)										—
Engine coolant*	NOTE (4)										MA-13
Engine oil		R	R	R	R	R	R	R	R	MA-17	
Engine oil filter (Use genuine NISSAN engine oil filter or equivalent.)		R	R	R	R	R	R	R	R	MA-18	
Spark plugs (Iridium-tipped type)		Replace every 105,000 miles (168,000 km).								MA-19	
Intake & exhaust valve clearance*	NOTE (5)										EM-12

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference Section - Page or - Content Title	
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	33.75 (54) 27	37.5 (60) 30	41.25 (66) 33	45 (72) 36	48.75 (78) 39	52.5 (84) 42	56.25 (90) 45	60 (96) 48		
Drive belts	NOTE (1)									I*	MA-12
Air cleaner filter	NOTE (2)									[R]	MA-17
EVAP vapor lines										I*	MA-20
Fuel lines										I*	MA-17

PERIODIC MAINTENANCE

< PERIODIC MAINTENANCE >

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference Section - Page or - Content Title
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	33.75 (54) 27	37.5 (60) 30	41.25 (66) 33	45 (72) 36	48.75 (78) 39	52.5 (84) 42	56.25 (90) 45	60 (96) 48	
Fuel filter	NOTE (3)									—
Engine coolant*	NOTE (4)									MA-13
Engine oil		R	R	R	R	R	R	R	R	MA-17
Engine oil filter (Use genuine NISSAN engine oil filter or equivalent.)		R	R	R	R	R	R	R	R	MA-18
Spark plugs (Iridium-tipped type)		Replace every 105,000 miles (168,000 km).								MA-19
Intake & exhaust valve clearance*	NOTE (5)									EM-12

NOTE:

- (1) After 60,000 miles (96,000 km) or 48 months, inspect every 15,000 miles (24,000 km) or 12 months. Replace the drive belts if found damaged or if the auto belt tensioner reading reaches the maximum limit.
- (2) If operating mainly in dusty conditions, more frequent maintenance may be required.
- (3) Maintenance-free item. For service procedures, refer to 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. 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.
- (5) 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

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

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference Section - Page or - Content Title
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	3.75 (6) 3	7.50 (12) 6	11.25 (18) 9	15 (24) 12	18.75 (30) 15	22.5 (36) 18	26.25 (42) 21	30 (48) 24	
Brake lines & cables					I				I	MA-28
Brake fluid					R				R	MA-28
Brake pads & rotors			I		I		I		I	MA-30 BR-16 BR-18 BR-16 BR-18
Transfer fluid & differential gear oil	NOTE (1)				I				I	MA-21 MA-24 MA-25
Automatic transmission fluid	NOTE (2)									—
Steering gear & linkage, axle & suspension parts			I		I		I		I	MA-31 MA-32
Tire rotation	NOTE (3)									MA-4 WT-63
Drive shaft boots and propeller shaft (4WD models)			I		I		I		I	MA-33 MA-22 MA-23 MA-23

PERIODIC MAINTENANCE

< PERIODIC MAINTENANCE >

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference Section - Page or - Content Title
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	3.75 (6) 3	7.50 (12) 6	11.25 (18) 9	15 (24) 12	18.75 (30) 15	22.5 (36) 18	26.25 (42) 21	30 (48) 24	
Exhaust system			I		I		I		I	MA-21
In-cabin microfilter					R				R	VTL-17

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference Section - Page or - Content Title
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	33.75 (54) 27	37.5 (60) 30	41.25 (66) 33	45 (72) 36	48.75 (78) 39	52.5 (84) 42	56.25 (90) 45	60 (96) 48	
Brake lines & cables					I				I	MA-28
Brake fluid					R				R	MA-28
Brake pads & rotors			I		I		I		I	MA-30 BR-16 BR-18 BR-16 BR-18
Transfer fluid & differential gear oil	NOTE (1)				I				I	MA-21 MA-24 MA-25
Automatic transmission fluid	NOTE (2)									—
Steering gear & linkage, axle & suspension parts			I		I		I		I	MA-31 MA-32
Tire rotation	NOTE (3)									MA-4 WT-63
Drive shaft boots and propeller shaft (4WD models)			I		I		I		I	MA-33 MA-22 MA-23 MA-23
Exhaust system			I		I		I		I	MA-21
In-cabin microfilter					R				R	VTL-17

NOTE:

(1) If towing a trailer, using a camper or a car-top carrier, or driving on rough or muddy roads, change (not just inspect) fluid /oil at every 30,000 miles (48,000 km) or 24 months.

(2) Automatic transmission fluid is maintenance-free.

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

Schedule 2

INFOID:000000006287731

EMISSION CONTROL SYSTEM

Abbreviations: R = Replace. I = Inspect. Correct or replace if necessary. []: At the mileage intervals only

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference Section - Page or - Content Title
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	7.5 (12) 6	15 (24) 12	22.5 (36) 18	30 (48) 24	37.5 (60) 30	45 (72) 36	52.5 (84) 42	60 (96) 48	
Drive belts	NOTE (1)								I*	MA-12
Air cleaner filter					[R]				[R]	MA-17
EVAP vapor lines					I*				I*	MA-20
Fuel lines					I*				I*	MA-17
Fuel filter	NOTE (2)									—
Engine coolant*	NOTE (3)									MA-13

PERIODIC MAINTENANCE

< PERIODIC MAINTENANCE >

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference Section - Page or - Content Title
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	7.5 (12) 6	15 (24) 12	22.5 (36) 18	30 (48) 24	37.5 (60) 30	45 (72) 36	52.5 (84) 42	60 (96) 48	
Engine oil		R	R	R	R	R	R	R	R	MA-17
Engine oil filter (Use genuine NISSAN engine oil filter or equivalent.)		R	R	R	R	R	R	R	R	MA-18
Spark plugs (Iridium-tipped type)		Replace every 105,000 miles (168,000 km).								MA-19
Intake & exhaust valve clearance*	NOTE (4)									EM-12

NOTE:

(1) After 60,000 miles (96,000 km) or 48 months, inspect every 15,000 miles (24,000 km) or 12 months. Replace the drive belts if found damaged or if the auto belt tensioner reading reaches the maximum limit.

(2) Maintenance-free item. For service procedures, refer to FL section.

(3) 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. 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.

(4) 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

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

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference Section - Page or - Content Title
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	7.5 (12) 6	15 (24) 12	22.5 (36) 18	30 (48) 24	37.5 (60) 30	45 (72) 36	52.5 (84) 42	60 (96) 48	
Brake lines & cables			I		I		I		I	MA-28
Brake fluid					R				R	MA-28
Brake pads & rotors			I		I		I		I	MA-30 BR-16 BR-18 BR-16 BR-18
Transfer fluid & differential gear oil			I		I		I		I	MA-21 MA-24 MA-25
Automatic transmission fluid	NOTE (1)									—
Steering gear & linkage, axle & suspension parts					I				I	MA-31 MA-32
Tire rotation	NOTE (2)									MA-4 WT-63
Drive shaft boots and propeller shaft (4WD models)			I		I		I		I	MA-33 MA-22 MA-23 MA-23
Exhaust system					I				I	MA-21
In-cabin microfilter			R		R		R		R	VTL-17

NOTE:

(1) Automatic transmission fluid is maintenance-free.

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

RECOMMENDED FLUIDS AND LUBRICANTS

< PERIODIC MAINTENANCE >

RECOMMENDED FLUIDS AND LUBRICANTS

Fluids and Lubricants

INFOID:000000006220904

		Capacity (Approximate)			Recommended Fluids/Lubricants
		US measure	Imp measure	Liter	
Engine oil Drain and refill	With oil filter change	6-7/8 qt	5-3/4 qt	6.5	<ul style="list-style-type: none"> • Engine oil with API Certification Mark*¹ • Viscosity SAE 5W-30
	Without oil filter change	6-4/8 qt	5-1/2 qt	6.2	
Dry engine (engine overhaul)		8 qt	6-3/4 qt	7.6	
Cooling system	With reservoir tank	15-6/8 qt	13-1/8 qt	14.9	Genuine NISSAN Long Life Antifreeze/ Coolant (blue) or equivalent
	Reservoir tank	1 qt	7/8 qt	1.0	
Automatic transmission fluid		10-5/8 qt* ⁹	8-3/4 qt* ⁹	10.0* ⁹	Genuine NISSAN Matic S ATF * ²
Power steering fluid		1-1/8 qt	7/8 qt	1.0	Genuine NISSAN PSF or equivalent* ³
Brake fluid		—	—	—	Genuine NISSAN Super Heavy Duty Brake Fluid* ⁴ or equivalent DOT 3 (US FM- VSS No. 116)
Transfer fluid		3-1/8 pt	2-5/8 pt	1.5	Genuine NISSAN Transfer Fluid for ATX90A transfer* ⁵
Differential gear oil	Front	1-5/8 pt	1-3/8 pt	0.75	Genuine NISSAN Differential Oil Hypoid Super GL-5 80W-90 or API GL-5, Viscosity SAE 80W-90* ⁶
	Rear	3/3/4 pt	3-1/8 pt	1.75	Genuine NISSAN Differential Oil Synthetic 75W-90 or API GL-5 synthetic gear oil, Vis- cosity SAE 75W-90* ⁷
Suspension fluid		—	—	—	Genuine NISSAN Hydraulic Suspension Fluid* ⁸
Multi-purpose grease		—	—	—	NLGI No. 2 (Lithium soap base)

*1: For further details, see "Engine Oil Recommendation".

*2: Using automatic transmission fluid other than Genuine NISSAN Matic S ATF will 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.

*3: DEXRON™ VI type ATF may also be used.

*4: Available in mainland U.S.A. through an INFINITI dealer.

*5: Using transfer fluid other than Genuine NISSAN Transfer Fluid will damage the transfer, which is not covered by the INFINITI new vehicle limited warranty. See an INFINITI retailer for recommended transfer fluid.

*6: For hot climates, Viscosity SAE 90 is suitable for ambient temperatures above 0°C (32°F)

*7: See an INFINITI dealer for service for synthetic oil.

*8: Using Hydraulic Suspension fluid other than Genuine NISSAN Hydraulic Suspension fluid will damage the Hydraulic Suspension, which is not covered by the INFINITI new vehicle limited warranty. See an INFINITI retailer for recommended hydraulic suspension fluid.

*9: The fluid capacity is the reference value.

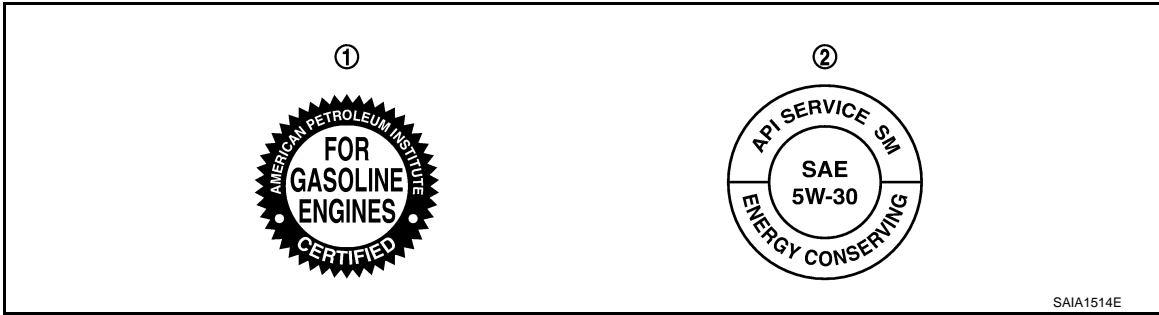
Engine Oil Recommendation

INFOID:000000006287732

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.

RECOMMENDED FLUIDS AND LUBRICANTS

< PERIODIC MAINTENANCE >



1. API certification mark 2. API service symbol

Anti-Freeze Coolant Mixture Ratio

INFOID:000000006287733

The engine 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.

For outside temperatures down to:		Genuine NISSAN Anti-freeze Coolant or equivalent	Demineralized water or distilled water
°C	°F		
-35	-30	50%	50%

CAUTION:

When adding or replacing coolant, be sure to use only Genuine NISSAN Long Life Antifreeze/Coolant (blue) or equivalent with the 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.

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

MA

ENGINE MAINTENANCE

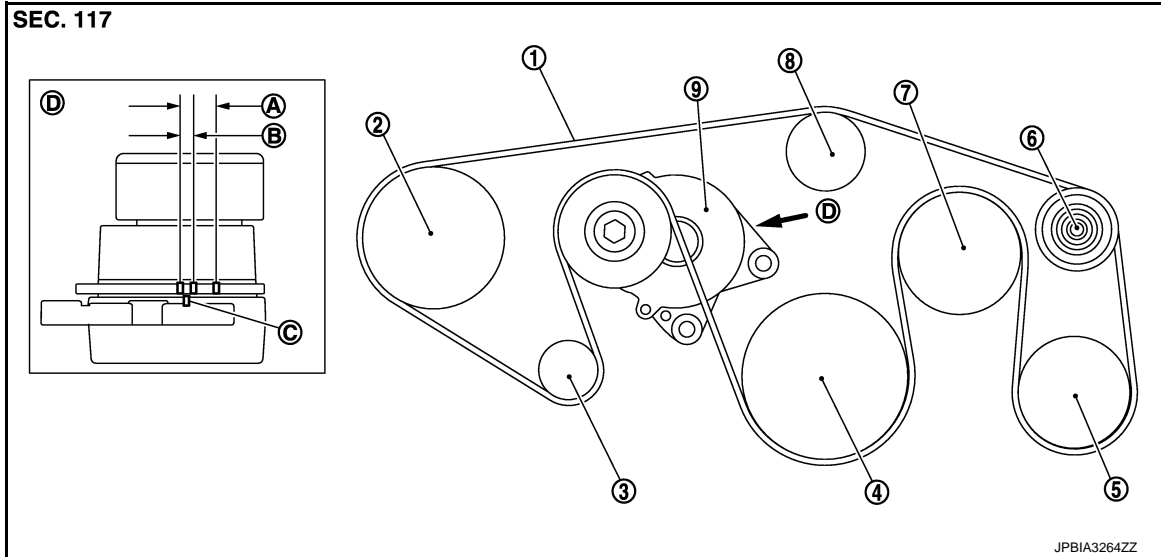
< PERIODIC MAINTENANCE >

ENGINE MAINTENANCE

DRIVE BELTS

DRIVE BELTS : Exploded View

INFOID:000000006394835



- | | | |
|-----------------------|---|------------------------------|
| 1. Drive belt | 2. Power steering oil pump pulley | 3. Alternator pulley |
| 4. Crankshaft pulley | 5. A/C compressor | 6. Idler pulley |
| 7. Cooling fan pulley | 8. Water pump pulley | 9. Drive belt auto-tensioner |
| A. Possible use range | B. Range when new drive belt is installed | C. Indicator |

D. View D

DRIVE BELTS : Checking

INFOID:000000006394836

WARNING:

Be sure to perform the these steps when engine is stopped.

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

NOTE:

- Check the each auto-tensioners indication when the engine is cold.
- When new drive belts is installed, the indicator (notch on fixed side) should be within the range (B) in the figure.
- Visually check all drive belts for wear, damage or cracks.
- If the indicator (notch on fixed side) is out of the possible use range or drive belts are damaged, replace drive belts.

DRIVE BELTS : Tension Adjustment

INFOID:000000006394837

Refer to [EM-132. "Drive Belts"](#).

ENGINE COOLANT

ENGINE COOLANT : Inspection

INFOID:000000006394844

LEVEL

ENGINE MAINTENANCE

< PERIODIC MAINTENANCE >

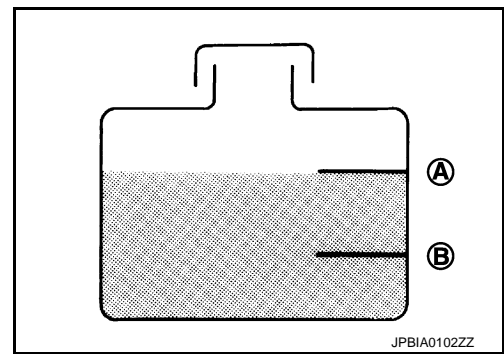
- Check if the reservoir tank engine coolant level is within the “MIN” to “MAX” when the engine is cool.

A : MAX
B : MIN

- Adjust the engine coolant level if necessary.

WARNING:

Never remove reservoir tank cap when engine is hot.



LEAKAGE

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

Testing pressure : Refer to [CO-23. "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 water inlet.

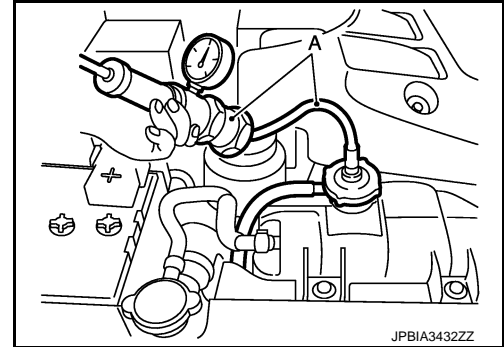
CAUTION:

Higher test pressure than specified may cause radiator damage.

NOTE:

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

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



ENGINE COOLANT : Draining

INFOID:000000006394845

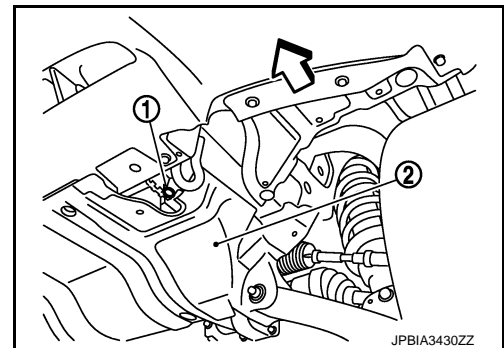
WARNING:

- **Never remove radiator cap and reservoir tank cap when engine is hot. Serious burns could occur from high-pressure engine coolant escaping from radiator.**
- **Wrap a thick cloth around the caps. Slowly turn them a quarter of a turn to release built-up pressure. Carefully remove the caps by turning it all the way.**

1. Open radiator drain plug (1) at the bottom of radiator, and then remove radiator cap and reservoir tank cap.

2 : Front under cover

← : Vehicle front



When draining all of engine coolant in the system, open water drain plug on cylinder block. Refer to [EM-103. "Setting"](#).

2. Remove reservoir tank if necessary, and drain engine coolant and clean reservoir tank before installing.
3. Check drained engine coolant for contaminants such as rust, corrosion or discoloration. If contaminated, flush the engine cooling system. Refer to [MA-15. "ENGINE COOLANT : Flushing"](#).

ENGINE COOLANT : Refilling

INFOID:000000006394846

1. Install reservoir tank if removed, and radiator drain plug.

CAUTION:

Be sure to clean drain plug and install with new O-ring. Refer to [CO-13. "Exploded View"](#).

ENGINE MAINTENANCE

< PERIODIC MAINTENANCE >

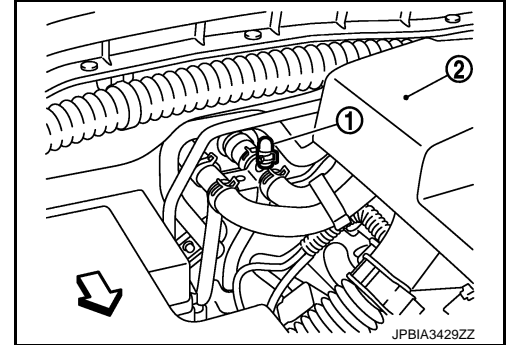
 : 1.96 N-m (0.2 kg-m, 17 in-lb)

If water drain plug on cylinder block is removed, close and tighten it. Refer to [EM-107, "Disassembly and Assembly"](#).

2. Check that each hose clamp is firmly tightened.
3. Remove air relief plug (1) on heater hose.

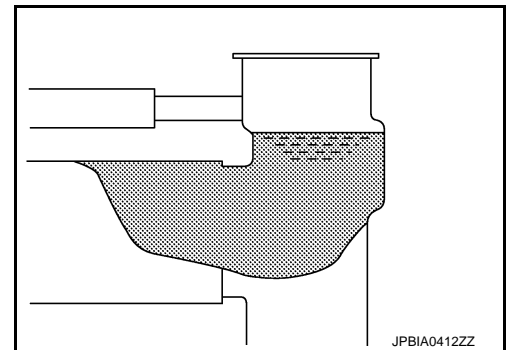
2. Engine cover

 : Vehicle front

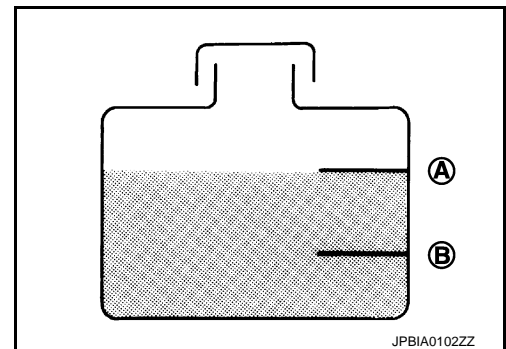


4. Fill radiator, and reservoir tank, to specified level.
 - Pour engine coolant through engine coolant filler neck slowly of less than 3 ℓ (2-5/8 Imp qt) a minute to allow air in system to escape.
 - Use Genuine NISSAN Long Life Antifreeze/Coolant or equivalent mixed with water (distilled or demineralized). Refer to [MA-10, "Fluids and Lubricants"](#).

Engine coolant capacity : Refer to [CO-23, "Periodical Maintenance Specification"](#).
(With reservoir tank at "MAX" level)



Reservoir tank engine coolant capacity : Refer to [CO-23, "Periodical Maintenance Specification"](#).
(At "MAX" level)



A : MAX

B : MIN

5. When engine coolant overflows air relief hole on heater hose, install air relief plug with clamp. Then refill radiator with engine coolant.
6. Install radiator cap.
7. Install reservoir tank cap.
8. Warm up engine until opening thermostat less than 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.
9. 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.
10. Refill reservoir tank to "MAX" level line with engine coolant if necessary.
11. Repeat steps 6 through 10 two or more times with reservoir tank cap installed until engine coolant level no longer drops.

ENGINE MAINTENANCE

< PERIODIC MAINTENANCE >

12. Check cooling system for leakage with engine running.
13. 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.
14. Repeat step 13 three times.
15. If sound is heard, bleed air from cooling system by repeating step 4, and steps from 6 to 14 until engine coolant level no longer drops.

ENGINE COOLANT : Flushing

INFOID:000000006394847

1. Install reservoir tank if removed, and radiator drain plug.

CAUTION:

Be sure to clean drain plug and install with new O-ring. Refer to [CO-13. "Exploded View"](#).

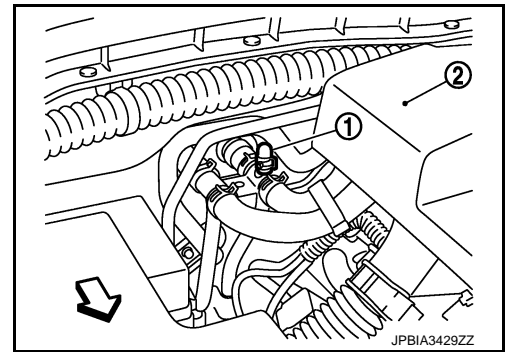
 : 1.96 N·m (0.2 kg-m, 17 in-lb)

If water drain plug on cylinder block is removed, close and tighten it. Refer to [EM-107. "Disassembly and Assembly"](#).

2. Remove air relief plug (1) on heater hose.

2. Engine cover

 : Vehicle front



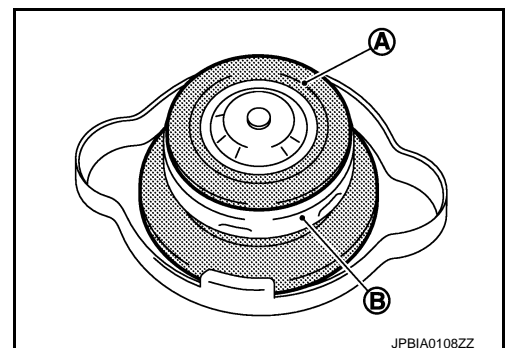
3. Fill radiator and reservoir tank with water until water spills from the air relief holes, then close air relief plugs with clamp. Fill radiator and reservoir tank with water and reinstall caps.
4. Run the engine and warm it up to normal operating temperature.
5. Rev the engine two or three times under no-load.
6. Stop the engine and wait until it cools down.
7. Drain water from the system. Refer to [MA-13. "ENGINE COOLANT : Draining"](#).
8. Repeat steps 1 through 7 until clear water begins to drain from radiator.

RESERVOIR TANK CAP

RESERVOIR TANK CAP : Inspection

INFOID:000000006394848

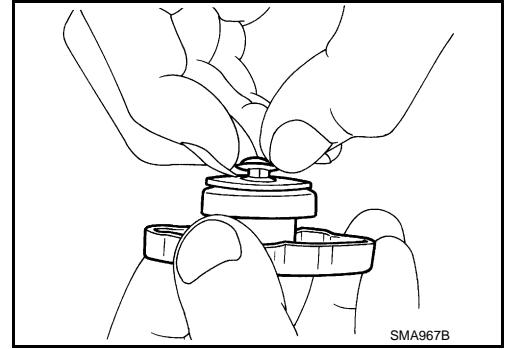
- Check valve seat of reservoir tank cap.
- Check if valve seat (A) is swollen to the extent that the edge of the metal plunger (B) cannot be seen when watching it vertically from the top.
- Check if valve seat has no soil and damage.



ENGINE MAINTENANCE

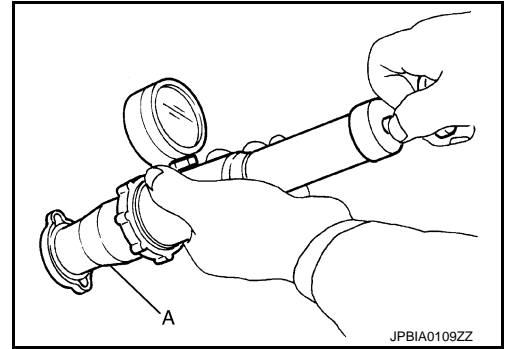
< PERIODIC MAINTENANCE >

- 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.



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

Standard and limit : Refer to [CO-23. "Radiator"](#).



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

CAUTION:

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

RADIATOR

RADIATOR : Inspection

INFOID:000000006394849

Check radiator for mud or clogging. If necessary, clean radiator as per the following:

- Be careful not to bend or damage radiator fins.
 - When radiator is cleaned without removal, remove all surrounding parts such as radiator cooling fan shroud. 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 (4.9 bar, 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

ENGINE MAINTENANCE

< PERIODIC MAINTENANCE >

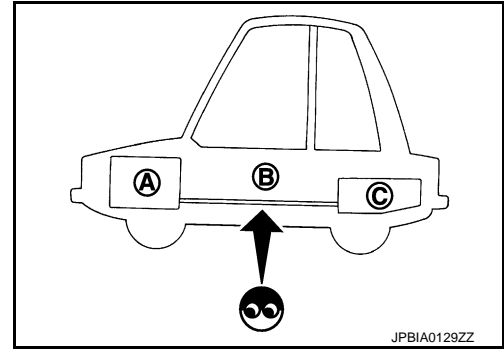
FUEL LINES : Inspection

INFOID:000000006394850

- 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:000000006394838

REMOVAL

NOTE:

- The viscous paper type filter does not need cleaning between replacement intervals.
- Replace the air filter as necessary for periodic maintenance. Refer to [MA-6, "Introduction of Periodic Maintenance"](#).

1. Unhook clips, and lift air cleaner case (upper).
2. Remove air cleaner filter from air cleaner case.

INSTALLATION

Install is the reverse order of removal.

ENGINE OIL

ENGINE OIL : Draining

INFOID:000000006394841

WARNING:

- **Be careful not to burn yourself, as the engine and 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 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 any oil leaks.
2. Stop the engine and wait for at least 10 minutes.
3. Remove drain plug and oil filler cap to drain the old oil.

ENGINE OIL : Refilling

INFOID:000000006394842

1. Install drain plug with new washer.

CAUTION:

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

Tightening torque : Refer to [EM-54, "Exploded View"](#).

2. Refill with new engine oil.

Engine oil specification and viscosity:

Refer to [MA-10, "Fluids and Lubricants"](#).

Engine oil capacity : Refer to [LU-17, "Periodical Maintenance Specification"](#).

CAUTION:

- **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.**

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

MA

ENGINE MAINTENANCE

< PERIODIC MAINTENANCE >

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-7. "Inspection"](#).

OIL FILTER

OIL FILTER : Removal and Installation

INFOID:000000006394843

REMOVAL

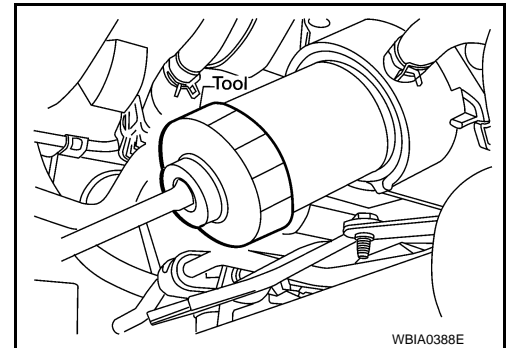
1. Remove front under cover.
2. Drain engine oil. Refer to [MA-17. "ENGINE OIL : Draining"](#).
3. Remove oil filter using oil filter wrench [SST: KV10115801 (J-38956)].

WARNING:

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

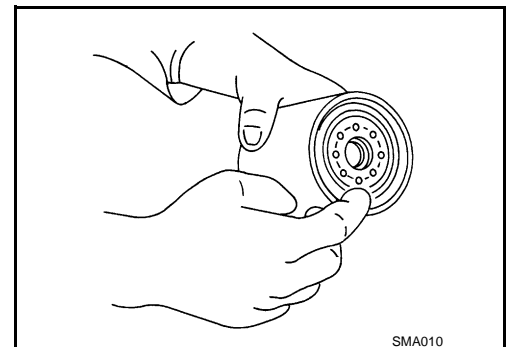
CAUTION:

- The oil filter is equipped with a pressure relief valve.
- Use Genuine NISSAN oil filter or equivalent.
- When removing, prepare a shop cloth to absorb any engine oil leaks or spills.
- Do not allow engine oil to adhere to the drive belts.
- Completely wipe off any engine oil that adheres to the engine and the vehicle.



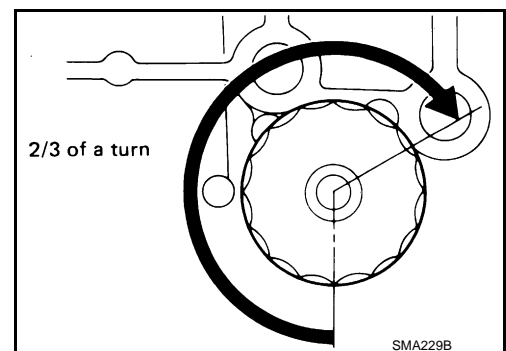
INSTALLATION

1. Remove foreign materials adhering to the oil filter seal mating surface.
2. Apply clean engine oil to the oil filter seal circumference of the new oil filter as shown.



3. Screw on the oil filter manually until it touches the installation surface, then tighten it by 2/3 turn as shown. Or tighten to specification.

Oil filter : 17.7 N-m (1.8 kg-m, 13 ft-lb)



4. Refill engine with new engine oil. Refer to [MA-17. "ENGINE OIL : Refilling"](#).
5. Inspect engine for oil leaks. Refer to [LU-7. "Inspection"](#).
6. Install front under cover.

SPARK PLUG

ENGINE MAINTENANCE

< PERIODIC MAINTENANCE >

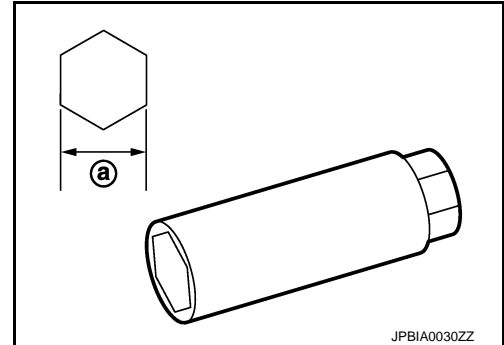
SPARK PLUG : Removal and Installation

INFOID:000000006394839

REMOVAL

1. Remove engine cover. Refer to [EM-25, "Exploded View"](#).
2. Remove ignition coil. Refer to [EM-29, "Exploded View"](#).
3. Remove spark plug with a spark plug wrench (commercial service tool).

a : 14 mm (0.55 in)



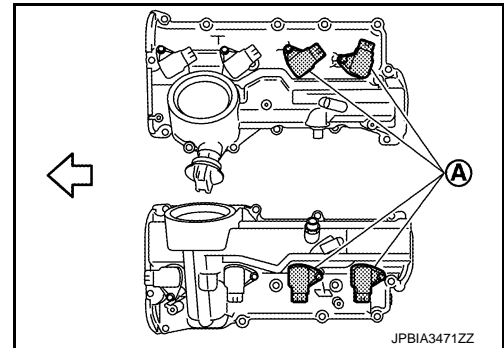
INSTALLATION

Note the following item, installa is the reverse order of removal.

CAUTION:

Install ignition coil marked with an identification mark (A) on cylinder No. 5, 6, 7 and 8.

← : Engine front



SPARK PLUG : Inspection

INFOID:000000006394840

INSPECTION AFTER REMOVAL

Use the standard type spark plug for normal condition.

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

CAUTION:

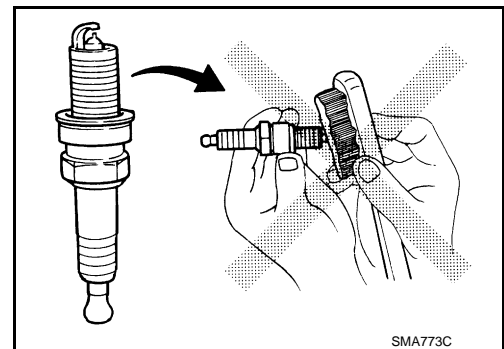
- Never drop or impact spark plug.
- Never use a wire brush for cleaning.
- If plug tip is covered with carbon, use spark plug cleaner to clean.

Cleaner air pressure

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

Cleaning time

: Less than 20 seconds



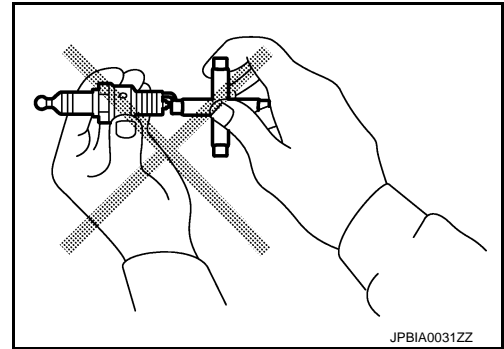
- Measure spark plug gap. When it exceeds the limit, replace spark plug even if it is within the specified replacement mileage. Refer to [EM-132, "Spark Plug"](#).

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

ENGINE MAINTENANCE

< PERIODIC MAINTENANCE >

- Spark plug gap adjustment is not required between replacement intervals.



EVAP VAPOR LINES

EVAP VAPOR LINES : Inspection

INFOID:000000006220923

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 [EC-532, "Inspection"](#).

CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

CHASSIS MAINTENANCE

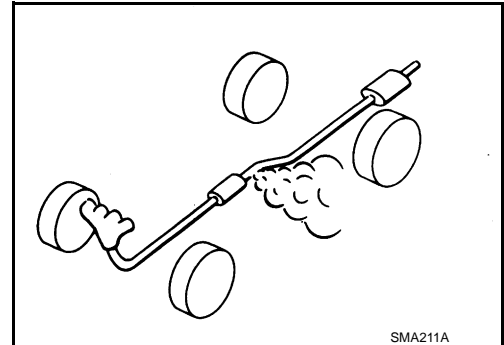
EXHAUST SYSTEM

EXHAUST SYSTEM : Inspection

INFOID:000000006220926

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

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



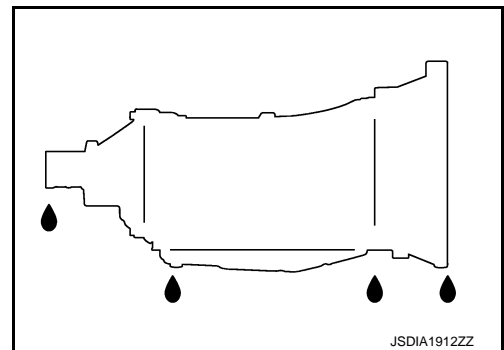
A/T FLUID

A/T FLUID : Inspection

INFOID:000000006376364

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-95. "Adjustment"](#).



TRANSFER FLUID

TRANSFER FLUID : Inspection

INFOID:000000006394468

FLUID LEAKAGE

Check transfer surrounding area (oil seal, drain plug, and filler plug etc.) for fluid leakage.

FLUID LEVEL

1. Remove filler plug (1) and gasket. Then check that fluid is filled up from mounting hole for the filler plug.

CAUTION:

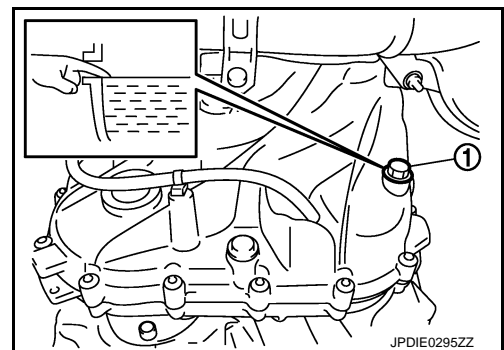
Never start engine while checking fluid level.

2. Set a new gasket onto filler plug (1), and install it on transfer and then tighten to the specified torque.

Specified torque : 33 N·m (3.4 kg-m, 24 ft-lb)

CAUTION:

Never reuse gasket.



INFOID:000000006394469

TRANSFER FLUID : Draining

1. Run the vehicle to warm up the transfer unit sufficiently.
2. Stop the engine.

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

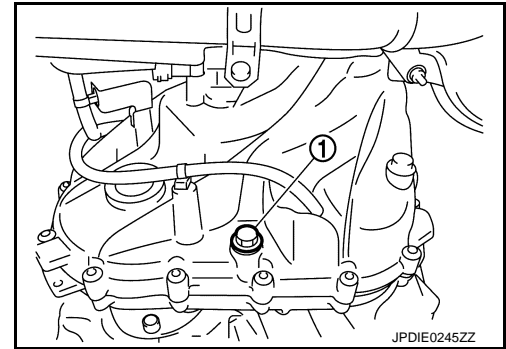
CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

3. Remove the drain plug (1) and drain transfer fluid.
4. Set a new gasket onto drain plug (1), and install it to transfer and tighten to the specified torque.

Specified torque : 33 N-m (3.4 kg-m, 24 ft-lb)

CAUTION:
Never reuse gasket.



INFOID:000000006394470

TRANSFER FLUID : Refilling

1. Remove filler plug (1). Fill up with new transfer fluid up to mounting hole for the filler plug.

Fluid grade and Viscosity : Refer to [MA-10, "Fluids and Lubricants"](#).

Fluid capacity : Refer to [DLN-124, "General Specifications"](#).

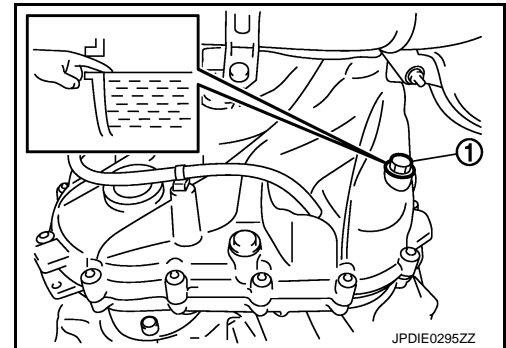
CAUTION:
Carefully fill the fluid. (Fill up for approximately 3 minutes.)

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.

Specified torque : 33 N-m (3.4 kg-m, 24 ft-lb)

CAUTION:
Never reuse gasket.

4. Perform learning of transfer fluid viscosity. Refer to [DLN-47, "Work Procedure"](#).



FRONT PROPELLER SHAFT: 2F P15

FRONT PROPELLER SHAFT: 2F P15 : Inspection

INFOID:000000006220930

NOISE

Check the propeller shaft tube surface for dents or cracks. If damaged, replace propeller shaft assembly.

VIBRATION

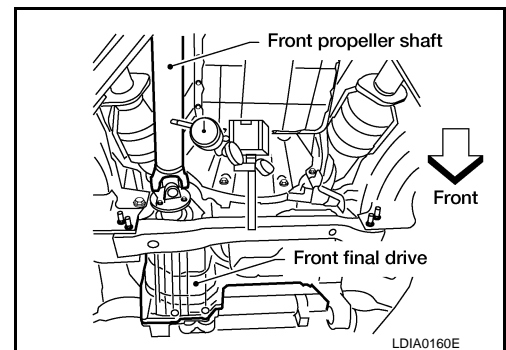
If vibration is present at high speed, inspect propeller shaft runout first.

1. With a dial indicator, measure propeller shaft runout at runout measuring points by rotating final drive companion flange with hands.

←: Vehicle front

Propeller shaft runout : Refer to [DLN-133, "Propeller Shaft Runout"](#).

2. If runout still exceeds specifications, separate propeller shaft at final drive companion flange; then rotate companion flange 90, 180, 270 degrees and install propeller shaft.
3. Check runout again. If runout still exceeds specifications, replace propeller shaft assembly.
4. Check the vibration by driving vehicle.



RUNOUT MEASURING POINT

CHASSIS MAINTENANCE

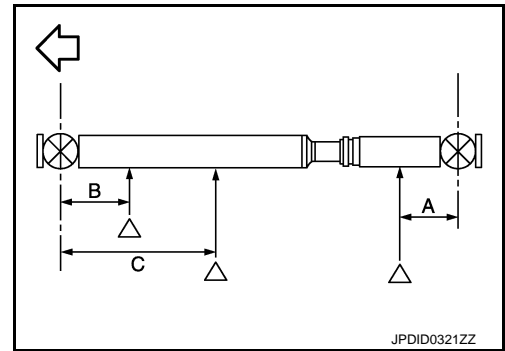
< PERIODIC MAINTENANCE >

Propeller shaft runout measuring point (Point "△").

↶: Vehicle front

Dimension

- A** : 80 – 100 mm (3.15 – 3.94 in)
- B** : 100 – 120 mm (3.94 – 4.72 in)
- C** : 254.5 mm (10.02 in)



REAR PROPELLER SHAFT: 2F P26

REAR PROPELLER SHAFT: 2F P26 : Inspection

INFOID:000000006220931

NOISE

Check the propeller shaft tube surface for dents or cracks. If damaged, replace propeller shaft assembly.

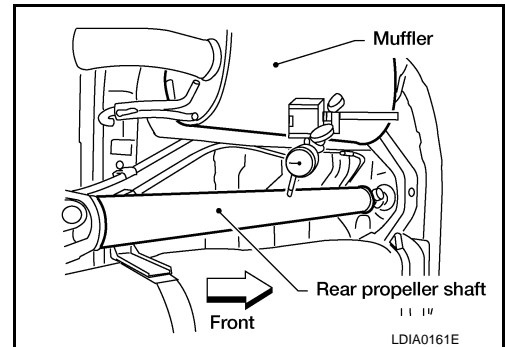
VIBRATION

If vibration is present at high speed, inspect propeller shaft runout first.

1. With a dial indicator, measure propeller shaft runout at runout measuring points by rotating final drive companion flange with hands.

↶: Vehicle front

Propeller shaft runout : Refer to [DLN-140, "Propeller Shaft Runout"](#).



2. If runout still exceeds specifications, separate propeller shaft at final drive companion flange; then rotate companion flange 90, 180, 270 degrees and install propeller shaft.
3. Check runout again. If runout still exceeds specifications, replace propeller shaft assembly.
4. Check the vibration by driving vehicle.

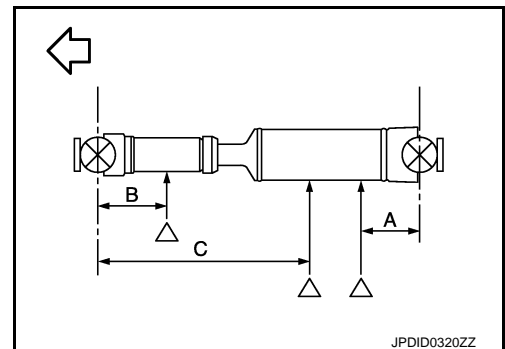
RUNOUT MEASURING POINT

Propeller shaft runout measuring point (Point "△").

↶: Vehicle front

Dimension

- A** : 120 – 150 mm (4.72 – 5.91 in)
- B** : 150 – 180 mm (5.91 – 7.09 in)
- C** : 703.5 mm (27.70 in)



REAR PROPELLER SHAFT: 2S1410

REAR PROPELLER SHAFT: 2S1410 : Inspection

INFOID:000000006223430

NOISE

Check the propeller shaft tube surface for dents or cracks. If damaged, replace propeller shaft assembly.

VIBRATION

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

MA

CHASSIS MAINTENANCE

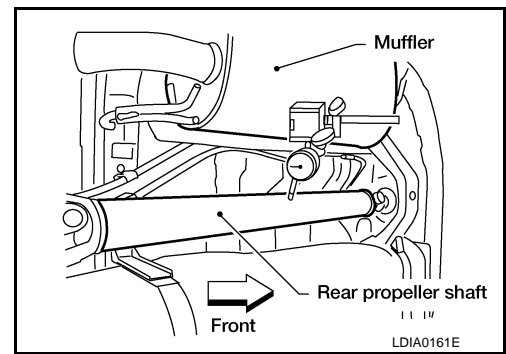
< PERIODIC MAINTENANCE >

If vibration is present at high speed, inspect propeller shaft runout first.

1. With a dial indicator, measure propeller shaft runout at runout measuring points by rotating final drive companion flange with hands.

Propeller shaft runout : Refer to [DLN-147, "Propeller Shaft Runout"](#).

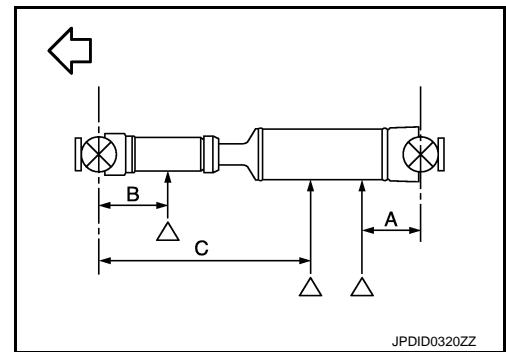
2. If runout still exceeds specifications, separate propeller shaft at final drive companion flange; then rotate companion flange 90, 180, 270 degrees and install propeller shaft.
3. Check runout again. If runout still exceeds specifications, replace propeller shaft assembly.
4. Check the vibration by driving vehicle.



RUNOUT MEASURING POINT

Propeller shaft runout measuring range.

←: Vehicle front



FRONT DIFFERENTIAL GEAR OIL: R180A

FRONT DIFFERENTIAL GEAR OIL: R180A : Inspection

INFOID:000000006220932

OIL LEAKAGE

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

OIL LEVEL

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

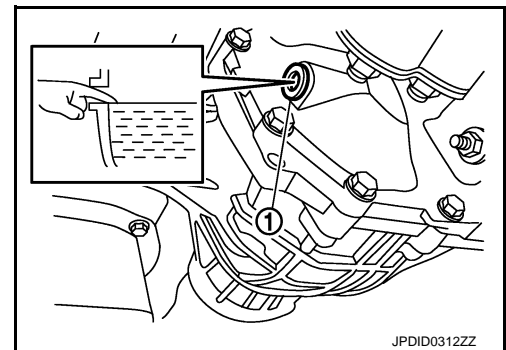
CAUTION:

Never start engine while checking oil level.

- Set a gasket on filler plug (1) and install it on final drive assembly. Refer to [DLN-164, "Exploded View"](#).

CAUTION:

Never reuse gasket.



FRONT DIFFERENTIAL GEAR OIL: R180A : Draining

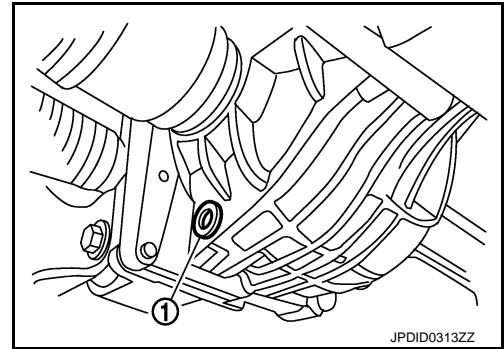
INFOID:000000006220933

1. Stop engine.

CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

2. Remove drain plug (1) and drain gear oil.
3. Set a gasket on drain plug (1) and install it to final drive assembly and tighten to the specified torque. Refer to [DLN-164, "Exploded View"](#).
CAUTION:
Never reuse gasket.



FRONT DIFFERENTIAL GEAR OIL: R180A : Refilling

INFOID:000000006220934

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

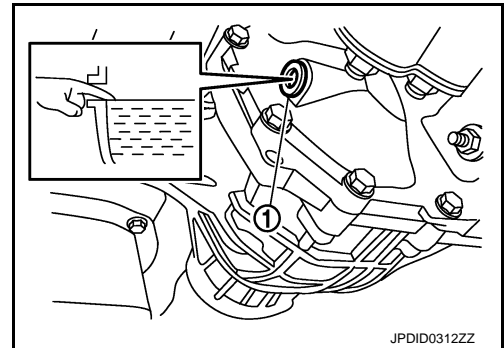
Oil grade and Viscosity : Refer to [MA-10, "Fluids and Lubricants"](#).

Oil capacity : Refer to [DLN-185, "General Specifications"](#).

2. After refilling oil, check oil level. Set a gasket to filler plug (1), then install it to final drive assembly. Refer to [DLN-164, "Exploded View"](#).

CAUTION:

Never reuse gasket.



REAR DIFFERENTIAL GEAR OIL: R230

REAR DIFFERENTIAL GEAR OIL: R230 : Inspection

INFOID:000000006220935

OIL LEAKAGE

Check that differential gear oil is not leaking from the rear final drive assembly or around it.

OIL LEVEL

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

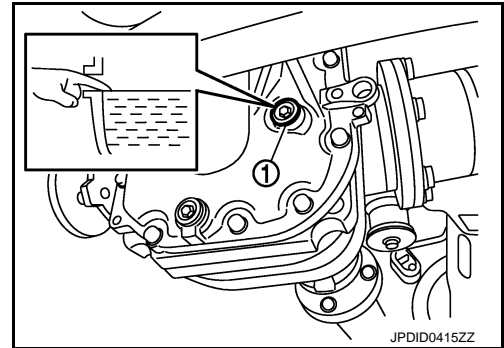
CAUTION:

Never start engine while checking oil level.

- Set a gasket on filler plug (1) and install it on final drive assembly. Refer to [DLN-203, "Exploded View"](#).

CAUTION:

Never reuse gasket.



REAR DIFFERENTIAL GEAR OIL: R230 : Draining

INFOID:000000006220936

1. Stop the engine.

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

MA

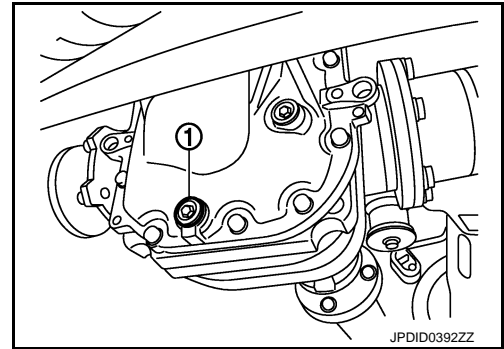
CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

2. Remove drain plug (1) and drain gear oil.
3. Set a gasket on drain plug (1) and install it to final drive assembly and tighten to the specified torque. Refer to [DLN-203, "Exploded View"](#).

CAUTION:

Never reuse gasket.



REAR DIFFERENTIAL GEAR OIL: R230 : Refilling

INFOID:000000006220937

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

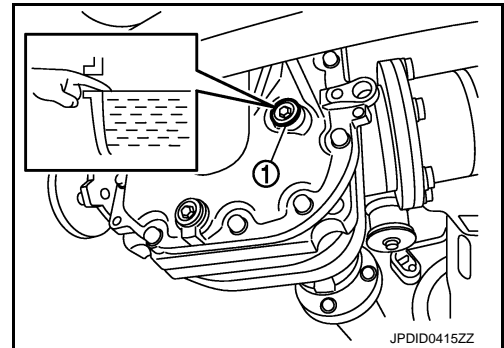
Oil grade and viscosity : Refer to [MA-10, "Fluids and Lubricants"](#).

Oil capacity : Refer to [DLN-222, "General Specification"](#).

2. After refilling oil, check oil level. Set a gasket to filler plug (1), then install it to final drive assembly. Refer to [DLN-203, "Exploded View"](#).

CAUTION:

Never reuse gasket.



WHEELS (BONDING WEIGHT TYPE)

WHEELS (BONDING WEIGHT TYPE) : Adjustment

INFOID:000000006394852

BALANCING WHEELS (BONDING WEIGHT TYPE)

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.

Wheel Balance Adjustment

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 road 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.

CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

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

Calculation example:

23 g (0.81 oz) $\times 5/3 = 38.33$ g (1.35 oz) $\Rightarrow 37.5$ g (1.32 oz) balance weight (closer to calculated balance weight value)

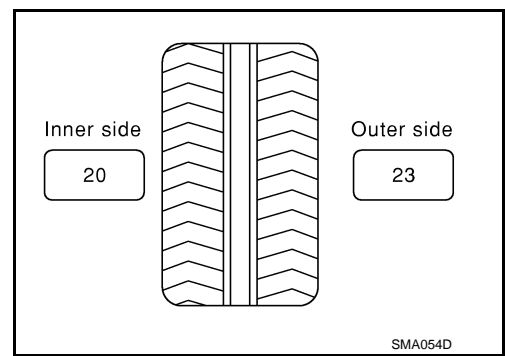
NOTE:

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

Example:

36.2 $\Rightarrow 35$ g (1.23 oz)

36.3 $\Rightarrow 37.5$ g (1.32 oz)

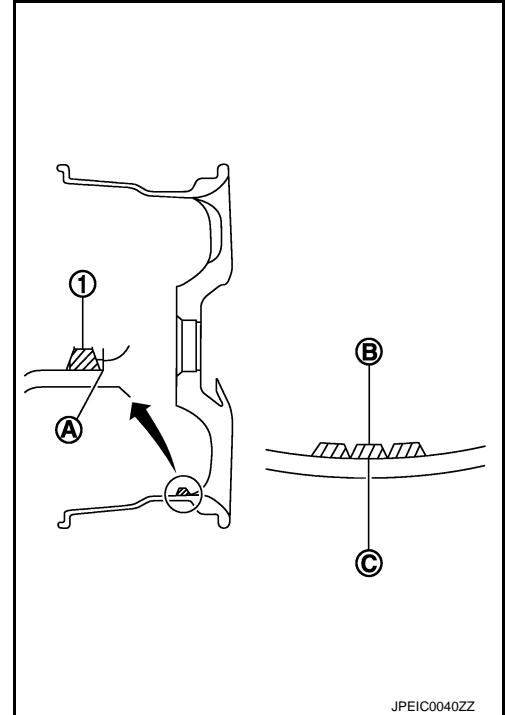


- b. Installed balance weight in the position.

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

CAUTION:

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



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

CAUTION:

Never install one balance weight sheet on top of another.

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

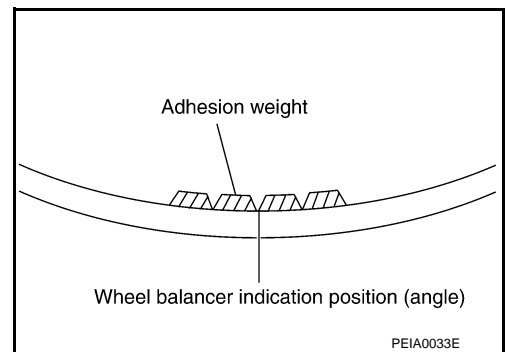
CAUTION:

Never install more than two balance weight.

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

CAUTION:

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



Allowable unbalance value

Dynamic (At flange) : Refer to [WT-69, "Road Wheel"](#).

Static (At flange) : Refer to [WT-69, "Road Wheel"](#).

BRAKE FLUID LEVEL AND LEAKS

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

MA

CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

BRAKE FLUID LEVEL AND LEAKS : Inspection

INFOID:000000006220939

- Check that the fluid level in the sub tank is within the specified range (MAX – MIN lines).

CAUTION:

Turn OFF the ignition switch and depress the brake pedal 20 times or more to check brake fluid level.

NOTE:

Since brake fluid is in the accumulator in pressurized condition, the reservoir tank brake fluid level should be lower than the MAX line.

- Visually check for any brake fluid leakage around the reservoir tank.
- Check the brake system for any leakage if the fluid level is extremely low (lower than MIN).
- Check the brake system for fluid leakage if the warning lamp remains illuminated even after the parking brake is released.
- Check the sub tank for the mixing of foreign matter (e.g. dust) and oils other than brake fluid.

BRAKE LINES AND CABLES

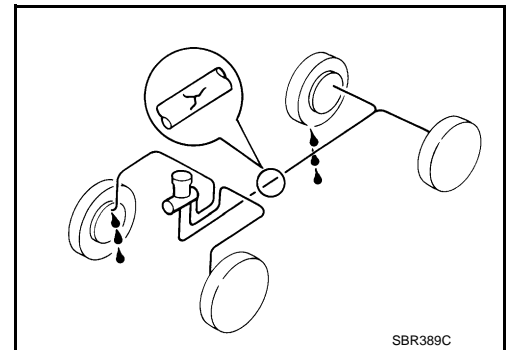
BRAKE LINES AND CABLES : Inspection

INFOID:000000006220940

1. Check brake line (tubes and hoses) for cracks, deterioration or other damage. Replace any damaged parts.
2. Depress the brake pedal with a force of 490 N (50 kg, 110lb) and hold down the pedal for approx. 5 seconds with the engine running. Check for any fluid leakage.

CAUTION:

Retighten the applicable connection to the specified torque and repair any abnormal (damaged, worn or deformed) part if any brake fluid leakage is present).



BRAKE FLUID

BRAKE FLUID : Bleeding Brake System

INFOID:000000006220941

CAUTION:

- Bleed air in the following order: motor/accumulator assembly → front right brake → front left brake → rear left brake → and rear right brake.
- The VDC warning lamp, ABS warning lamp and brake warning lamp turn ON and DTC “C118E” may be detected in self-diagnosis result for “ABS” with CONSULT-III when the brake pedal is excessively operated, such as air bleeding. This is not a system malfunction because this occurs due to the temporary decrease in accumulator fluid pressure. The system returns to normal condition when the accumulator fluid pressure reaches the specified pressure with the ignition switch ON and the VDC warning lamp, ABS warning lamp, and brake warning lamp turn OFF. After these steps, erase self-diagnosis results for “ABS” with CONSULT-III.
- DTC other than “C118E” is detected: Refer to [BRC-51, "DTC Index"](#).

NOTE:

When the ignition switch is ON, the brake warning lamp may turn ON even when the parking brake pedal is released with the brake fluid within the specified level. This indicates the decrease in accumulator fluid pressure.

MOTOR/ACCUMULATOR ASSEMBLY

CAUTION:

- If the brake fluid adheres to the brake caliper assembly and disc rotor, quickly wipe it off.
- Never spill or splash brake fluid on painted surfaces. Brake fluid may seriously damage paint. Wipe it off immediately and wash with water if it gets on a painted surface.
- Never operate the brake pedal with the reservoir cap removed. Failure to do this may cause the scattering of brake fluid.
- Never operate the brake pedal excessively during the work procedure.
- Monitor the fluid level in the reservoir tank while performing the air bleeding.

CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

- **Bleed air in the following order: motor/accumulator assembly → front right brake → front left brake → rear left brake → and rear right brake.**

1. Turn the ignition switch OFF.
2. Depress the brake pedal 20 times or more.
3. Check that there is no foreign material in the reservoir tank, and refill with new brake fluid.
CAUTION:
 - **Never reuse drained brake fluid.**
 - **Never allow oils other than brake fluid to enter the reservoir tank.**
4. Turn the ignition switch ON.
NOTE:

The motor is activated and automatically stops.
5. Turn the ignition switch OFF.
6. Depress the brake pedal 20 times or more.
NOTE:

The pressure loss in the accumulator results in a large brake pedal stroke. In addition to this, the brake pedal depression becomes lighter in initial stage.
7. Repeat steps 4 to 6 for 5 times.
8. Turn the ignition switch ON to check that the time between motor activation and automatic stop is less than 18 seconds. If the time is 18 seconds or more, repeat from Step 4 to 8.

FRONT BRAKE

CAUTION:

- **If the brake fluid adheres to the brake caliper assembly and disc rotor, quickly wipe it off.**
- **Never spill or splash brake fluid on painted surfaces. Brake fluid may seriously damage paint. Wipe it off immediately and wash with water if it gets on a painted surface.**
- **Never operate the brake pedal with the reservoir cap removed. Failure to do this may cause the scattering of brake fluid.**
- **Never operate the brake pedal excessively during the work procedure.**
- **Monitor the fluid level in the reservoir tank while performing the air bleeding.**
- **Bleed air in the following order: motor/accumulator assembly → front right brake → front left brake → rear left brake → and rear right brake.**

1. Turn the ignition switch OFF.
2. Depress the brake pedal 20 times or more.
NOTE:

The pressure loss in the accumulator results in a large brake pedal stroke. In addition to this, the brake pedal depression becomes lighter in initial stage.
3. Check that there is no foreign material in the reservoir tank, and refill with new brake fluid.
CAUTION:
 - **Never reuse drained brake fluid.**
 - **Never allow oils other than brake fluid to enter the reservoir tank.**
4. Turn the ignition switch ON.
5. Connect a vinyl tube to the bleed valve.
6. Depress the brake pedal and loosen the bleeder valve.
7. Repeat steps 1 to 6 until all of the air is out of the brake line and tighten the air bleeder to the specified torque with the brake pedal depressed. Refer to [BR-36, "BRAKE CALIPER ASSEMBLY : Exploded View"](#).
8. Check that no drag feel is present for the front disc brake. Refer to [BR-39, "BRAKE CALIPER ASSEMBLY : Inspection"](#).
9. Check each item of brake pedal. Adjust it if the measurement value is not the standard. Refer to [BR-7, "Inspection and Adjustment"](#).

REAR BRAKE

CAUTION:

- **If the brake fluid adheres to the brake caliper assembly and disc rotor, quickly wipe it off.**
- **Never spill or splash brake fluid on painted surfaces. Brake fluid may seriously damage paint. Wipe it off immediately and wash with water if it gets on a painted surface.**
- **Never operate the brake pedal with the reservoir cap removed. Failure to do this may cause the scattering of brake fluid.**

CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

- Never operate the brake pedal excessively during the work procedure.
- Monitor the fluid level in the reservoir tank while performing the air bleeding.
- Bleed air in the following order: motor/accumulator assembly → front right brake → front left brake → rear left brake → and rear right brake.

1. Turn the ignition switch OFF.
2. Depress the brake pedal 20 times or more.

NOTE:

The pressure loss in the accumulator results in a large brake pedal stroke. In addition to this, the brake pedal depression becomes lighter in initial stage.

3. Check that there is no foreign material in the reservoir tank, and refill with new brake fluid.

CAUTION:

- Never reuse drained brake fluid.
- Never allow oils other than brake fluid to enter the reservoir tank.

4. Turn the ignition switch ON.
5. Connect a vinyl tube to the bleed valve.
6. Depress the brake pedal and loosen the bleeder valve.
7. Depress and hold the brake pedal depression to discharge 100 cc of brake fluid before tightening the air bleeder to the specified torque. Refer to [BR-42, "BRAKE CALIPER ASSEMBLY : Exploded View"](#).

NOTE:

Since brake fluid is conveyed by the motor, the brake pedal is not necessarily depressed.

8. Release the brake pedal.
9. Repeat steps 1 to 8 until all of the air is out of the brake line and tighten the air bleeder to the specified torque with the brake pedal depressed. Refer to [BR-42, "BRAKE CALIPER ASSEMBLY : Exploded View"](#).
10. Check that no drag feel is present for the rear disc brake. Refer to [BR-45, "BRAKE CALIPER ASSEMBLY : Inspection"](#).
11. Check each item of brake pedal. Adjust it if the measurement value is not the standard. Refer to [BR-7, "Inspection and Adjustment"](#).

BRAKE FLUID LEVEL ADJUSTMENT AFTER AIR BLEEDING

1. Turn the ignition switch OFF.
2. Depress the brake pedal 20 times or more.

NOTE:

The pressure loss in the accumulator results in a large brake pedal stroke. In addition to this, the brake pedal depression becomes lighter in initial stage.

3. Adjust brake fluid level to the reservoir tank MAX line.

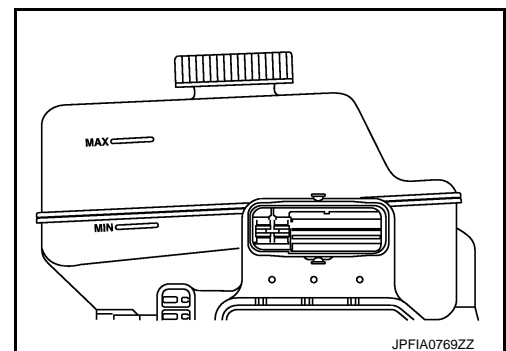
CAUTION:

Never adjust with the ignition switch ON.

4. Turn the ignition switch ON.
5. Check that the reservoir tank brake fluid level is 4 – 12 mm (0.16 – 0.47 in) lower than the MAX line.

NOTE:

Since brake fluid is in the accumulator in pressurized condition, the reservoir tank brake fluid level should be lower than the MAX line.



DISC BRAKE

DISC BRAKE : Inspection

DISC ROTOR

Check condition, wear, and damage.

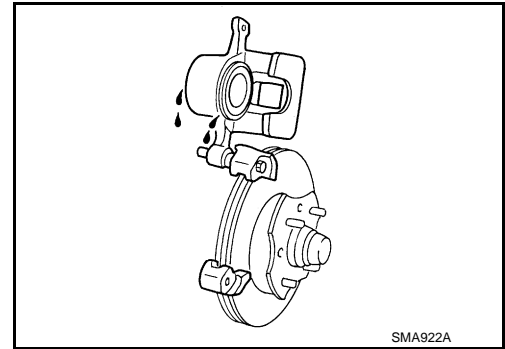
CALIPER

- Check for leakage.

INFOID:000000006220942

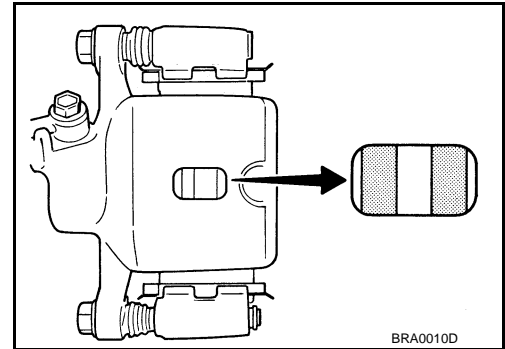
CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >



BRAKE PAD

- Check for wear or damage.



DISC BRAKE : Front Disc Brake

INFOID:000000006220943

Unit: mm (in)

Item		Limit
Brake pad	Wear thickness	1.5 (0.059)
	Wear thickness	28.5 (1.122)
Disc rotor	Thickness variation (measured at 8 positions)	0.015 (0.0006)
	Runout (with it attached to the vehicle)	0.053 (0.0021)

DISC BRAKE : Rear Disc Brake

INFOID:000000006220944

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)	0.05 (0.0020)

STEERING GEAR AND LINKAGE

STEERING GEAR AND LINKAGE : Inspection

INFOID:000000006220945

STEERING GEAR

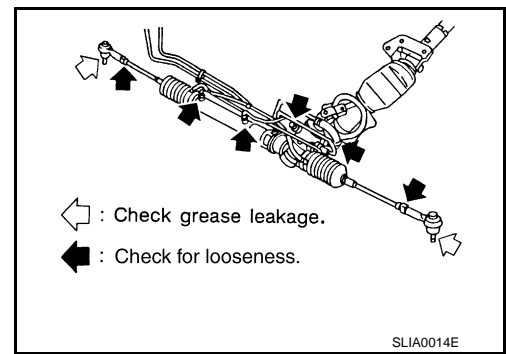
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

MA

CHASSIS MAINTENANCE

< PERIODIC MAINTENANCE >

- 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

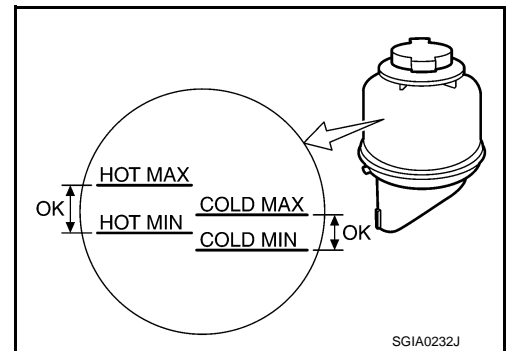
INFOID:000000006220946

Check fluid level in reservoir tank with engine off.

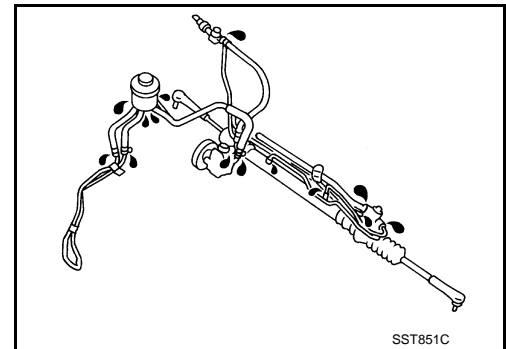
Use "HOT" range at fluid temperatures of 50 to 80°C (122 to 176°F) or "COLD" range at fluid temperatures of 0 to 30°C (32 to 86°F).

CAUTION:

- Do not overfill.
- Recommended fluid is Genuine NISSAN PSF or equivalent. Refer to [MA-10, "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.



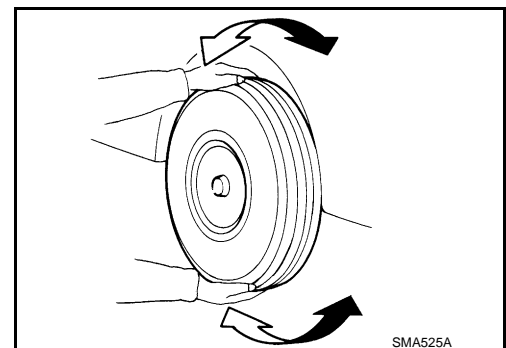
AXLE AND SUSPENSION PARTS

AXLE AND SUSPENSION PARTS : Inspection

INFOID:000000006220947

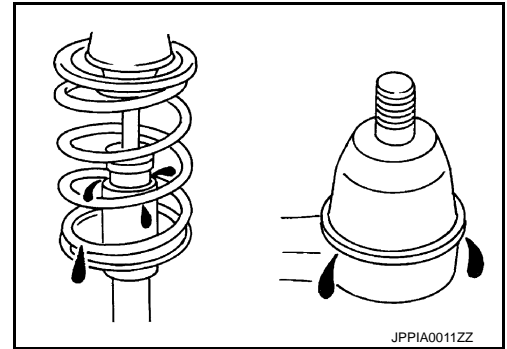
Check front and rear axle and suspension parts for excessive play, cracks, wear or other damage.

- 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.



CHASSIS MAINTENANCE

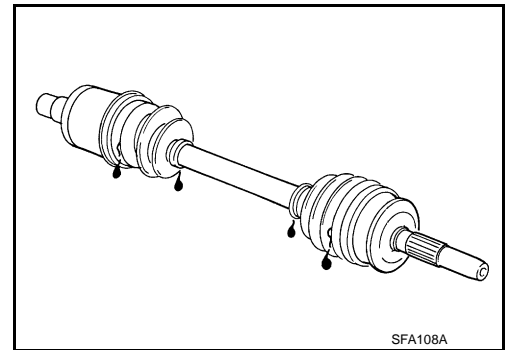
< PERIODIC MAINTENANCE >



DRIVE SHAFT

DRIVE SHAFT : Inspection

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



INFOID:000000006220948

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

MA

BODY MAINTENANCE

< PERIODIC MAINTENANCE >

BODY MAINTENANCE

LOCKS, HINGES AND HOOD LATCH

LOCKS, HINGES AND HOOD LATCH : Lubricating

INFOID:000000006220949

For hood and hood lock illustration.

- Hood: Refer to [DLK-215, "Exploded View"](#).
- Hood lock: Refer to [DLK-238, "Exploded View"](#).

For front door and front door lock illustration.

- Front door: Refer to [DLK-224, "Exploded View"](#).
- Front door lock: Refer to [DLK-240, "Exploded View"](#).

For rear door and rear door lock illustration.

- Rear door: Refer to [DLK-228, "Exploded View"](#).
- Rear door lock: Refer to [DLK-243, "Exploded View"](#).

For back door and back door lock illustration.

- Back door: Refer to [DLK-232, "Exploded View"](#).
- Back door lock: Refer to [DLK-246, "Exploded View"](#).

SEAT BELT, BUCKLES, RETRACTORS, ANCHORS AND ADJUSTERS

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

INFOID:000000006220950

For front seat belt illustration. Refer to [SB-6, "SEAT BELT RETRACTOR : Exploded View"](#).

For second seat belt illustration. Refer to [SB-11, "SEAT BELT RETRACTOR : Exploded View"](#).

For third seat belt illustration. Refer to [SB-19, "SEAT BELT RETRACTOR : 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-4, "SEAT BELT RETRACTOR : Inspection"](#), [SB-10, "SEAT BELT RETRACTOR : Inspection"](#), [SB-17, "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

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

DRIVE BELTS

DRIVE BELTS : Drive Belts

INFOID:000000006394853

DRIVE BELT

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

ENGINE COOLANT

ENGINE COOLANT : Periodical Maintenance Specification

INFOID:000000006394856

ENGINE COOLANT CAPACITY (APPROXIMATELY)

Unit: ℓ (US qt, Imp qt)

Engine coolant capacity [With reservoir tank ("MAX" level)]	14.9 (15-6/8, 13-1/8)
Reservoir tank engine coolant capacity (At "MAX" level)	1.0 (1, 7/8)

ENGINE OIL

ENGINE OIL : Periodical Maintenance Specification

INFOID:000000006394855

ENGINE OIL CAPACITY (APPROXIMATE)

Unit: ℓ (US qt, Imp qt)

Drain and refill	With oil filter change	6.5 (6-7/8, 5-3/4)
	Without oil filter change	6.2 (6-4/8, 5-1/2)
Dry engine (engine overhaul)		7.6 (8, 6-3/4)

SPARK PLUG

SPARK PLUG : Spark Plug

INFOID:000000006394854

SPARK PLUG

Unit: mm (in)

Make	NGK	
Standard type	DILKAR7B11	
Gap	Standard	1.1 (0.043)
	Limit	1.25 (0.049)

ROAD WHEEL

ROAD WHEEL : Road Wheel

INFOID:000000006349771

ALUMINUM WHEEL

Item		Limit
Radial runout	Lateral deflection	Less than 0.3 mm (0.012 in)
	Vertical deflection	
Allowable unbalance	Dynamic (At flange)	Less than 7 g (0.25 oz) (one side)
	Static (At flange)	Less than 14 g (0.49 oz)