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PREPARATION

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PREPARATION

PREPARATION

Special Service Tool

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The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.
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Tool number (Kent-Moore No.) Tool name		Description
KV10115801 (J-38956) Oil filter wrench	a O	Removing and installing oil filter a: 64.3 mm (2.531 in)
	S-NT375	

Commercial Service Tool

INFOID:0000000008160209

Tool name		Description	G
Power tool		Loosening nuts and bolts	
			Н
	PBIC0190E		I
Spark plug wrench		Removing and installing spark plug a: 14 mm (0.55 in)	J
	(a)		K
	JPBIA0399ZZ		L

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< PERIODIC MAINTENANCE >

PERIODIC MAINTENANCE

GENERAL MAINTENANCE FOR NORTH AMERICA

FOR NORTH AMERICA: Explanation of General Maintenance

INFOID:0000000008160210

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.	<u>WT-48</u>
Wheel nuts	When checking the tires, make sure no nuts are missing, and check for any loose nuts. Tighten if necessary.	_
Tire rotation	Tires should be rotated every 7,500 miles (12,000 km). If the vehicle is equipped with different sized tires in the front and rear, tires cannot be rotated.	MA-36
Tire Pressure Monitor- ing System (TPMS) transmitter compo- nents	Replace the TPMS transmitter grommet seal, valve core and cap when the tires are replaced due to wear or age.	<u>WT-45</u>
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-7 (2WD) FSU-29 (AWD) RSU-6 MA-36
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-43
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. Be sure to 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)	_

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 restrains 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-43
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.	<u>BR-7</u> <u>BR-13</u>
Clutch pedal	Make sure the pedal operates smoothly and check that it has the proper free play.	<u>CL-6</u>
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 (PEDAL TYPE) PB-4 (LEVER TYPE)
Automatic transmis- sion "Park" mecha- nism	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.	_
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.	
Radiator and hoses	_	<u>CO-7</u>
	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.	<u>CO-7</u>
	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	<u>CO-7</u> — <u>MA-39</u> <u>MA-29</u>
levels	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. Make sure that the brake and clutch fluid levels are between the "MAX" and "MIN" lines	 MA-39
levels Battery	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. Make sure that the brake and clutch fluid levels are between the "MAX" and "MIN" lines on the reservoirs. 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	 MA-39 MA-29
levels Battery Engine drive belts	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. Make sure that the brake and clutch fluid levels are between the "MAX" and "MIN" lines on the reservoirs. 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.	— <u>MA-39</u> <u>MA-29</u> <u>PG-3</u>
Battery Engine drive belts Engine oil level Power steering fluid	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. Make sure that the brake and clutch fluid levels are between the "MAX" and "MIN" lines on the reservoirs. 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. Make sure that no belt is frayed, worn, cracked or oily. Check the level on the oil level gauge after parking the vehicle on a level spot and turning	MA-39 MA-29 PG-3 MA-19
Engine drive belts Engine oil level Power steering fluid level and lines	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. Make sure that the brake and clutch fluid levels are between the "MAX" and "MIN" lines on the reservoirs. 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. Make sure that no belt is frayed, worn, cracked or oily. Check the level on the oil level gauge after parking the vehicle on a level spot and turning off the engine. Check the level on the dipstick with the engine off. Check the lines for improper attach-	— MA-39 MA-29 PG-3 MA-19 LU-7
Brake and clutch fluid levels Battery Engine drive belts Engine oil level Power steering fluid level and lines Exhaust system Underbody	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. Make sure that the brake and clutch fluid levels are between the "MAX" and "MIN" lines on the reservoirs. 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. Make sure that no belt is frayed, worn, cracked or oily. Check the level on the oil level gauge after parking the vehicle on a level spot and turning off the engine. Check the level on the dipstick with the engine off. Check the lines for improper attachment, leaks, cracks, etc. Make sure there are no loose supports, cracks or holes. If the sound of the exhaust seems	MA-39 MA-29 PG-3 MA-19 LU-7

FOR MEXICO

immediately.

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

< PERIODIC MAINTENANCE >

FOR MEXICO: General Maintenance

INFOID:0000000008788758

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 engine hood	Check that all doors and the engine 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-43
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 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.	<u>WT-48</u>
Tire rotation	In the case that Two-Wheel Drive (2WD) and front & 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 (4WD) and front & 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. However, the timing for tire rotation may vary according to your driving habits and the road surface conditions.	<u>MA-36</u>
Tire Pressure Monitor- ing System (TPMS) transmitter components (if equipped)	Replace the TPMS transmitter grommet seal, valve core and cap when the tires are replaced due to wear or age.	<u>WT-45</u>
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 MA-36
Windshield	Clean the windshield on a regular basis. Check the windshield at least every six months for cracks or other damage. Repairs necessary.	_
Wiper blades	Check for cracks or wear if not functioning correctly.	_

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 attains 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.	<u>BR-7</u>
Parking brake	Check the parking brake operation regularly. Check that the lever (if equipped) or the pedal (if 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.	<u>PB-3</u>
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-43

< 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)	_
Warning lamps and chimes	Make sure that all warning lamps and chimes are operating properly.	_
Windshield defogger	Check that the air comes out of the defogger outlets properly and in good quantity when operating the heater or air conditioner.	_
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 battery; 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.	<u>PG-3</u>
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.	<u>MA-39</u>
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.	<u>CO-7</u>
Engine drive belt(s)	Make sure that drive belt(s) is/are not frayed, worn, cracked or oily.	<u>MA-19</u>
Engine oil level	Check the level after parking the vehicle (on a level ground) and turning off the engine.	<u>LU-7</u>
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.	_
Power steering fluid level and lines	Check the level when the fluid is cold, with the engine off. Check the lines for proper attachment, leaks, cracks, etc.	<u>MA-41</u>
Windshield washer fluid	Check that there is adequate fluid in the reservoir tank.	_

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< PERIODIC MAINTENANCE >

PERIODIC MAINTENANCE FOR NORTH AMERICA

FOR NORTH AMERICA: Introduction of Periodic Maintenance

INFOID:0000000008160212

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: 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 Chassis and Body Maintenance	<u>MA-8</u>
Schedule 2	Follow Periodic Maintenance Schedule 2 if none of driving conditions shown in	Emission Control System Maintenance	MA 10
Scriedule 2	Schedule 1 apply to the driving habits.	Chassis and Body Maintenance	<u>MA-10</u>

FOR NORTH AMERICA: Schedule 1

INFOID:0000000008160213

EMISSION CONTROL SYSTEM

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

MAINTENANCE OPERATION				MAIN	TENAN	CE INTE	RVAL			Reference
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	Section - Page or - Content Title
Drive belts	NOTE (1)									MA-19
Air cleaner filter	NOTE (2)								[R]	MA-23
EVAP vapor lines									 *	MA-27
Fuel lines									*	MA-23
Fuel filter	NOTE (3)									_
Engine coolant*	NOTE (4)(5)									<u>MA-19</u>
Engine oil		R	R	R	R	R	R	R	R	MA-24
Engine oil filter (Use genuine NISSAN engine oil filter or equivalent.)		R	R	R	R	R	R	R	R	MA-24
Spark plugs (Iridium-tipped type)(Except for G37 IPL)	NOTE (6)		Repl	ace ever	y 105,00	00 miles (168,000) km).		MA-26
Spark plugs (Iridium-tipped type)(For G37 IPL)	NOTE (6)		Rep	olace eve	ery 60,00	00 miles (96,000 l	km).		IVIA-20
Intake & exhaust valve clear- ance*	NOTE (7)									EM-18

< PERIODIC MAINTENANCE >

MAINTENANCE OPERATION				MAIN	TENANO	CE INTE	RVAL			Reference
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	Section - Page or - Content Title
Drive belts	NOTE (1)								 *	MA-19
Air cleaner filter	NOTE (2)								[R]	MA-23
EVAP vapor lines									I *	MA-27
Fuel lines									I *	MA-23
Fuel filter	NOTE (3)									_
Engine coolant*	NOTE (4)(5)									<u>MA-19</u>
Engine oil		R	R	R	R	R	R	R	R	MA-24
Engine oil filter (Use genuine NISSAN engine oil filter or equivalent.)		R	R	R	R	R	R	R	R	MA-24
Spark plugs (Iridium-tipped type)(Except for G37 IPL)	NOTE (6)		Repla	ace every	105,00	0 miles (168,000	km).		MA-26
Spark plugs (Iridium-tipped type)(For G37 IPL)	NOTE (6)		Rep	lace eve	ry 60,00	0 miles (96,000 k	m).		IVIA-20
Intake & exhaust valve clear- ance*	NOTE (7)									EM-18

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.
- (5) Use only Genuine NISSAN Long Life Antifreeze / Coolant (blue) or equivalent with proper mixture ratio of 50% anti-freeze and 50% demineralized or distilled water. Mixing any other type of coolant or the use of non-distilled water will reduce the life expectancy of the factory-fill coolant.
- (6) Replace spark plug when the spark plug gap exceeds 1.4 mm (0.055 in) even if within specified periodic replacement mileage.
- (7) Periodic maintenance is not required. However, if valve noise increases, inspect valve clearance.
- * Maintenance items and intervals with "*" are recommended by 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				MAIN	ITENAN	CE INTE	RVAL			Reference
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	Section - Page or - Con- tent Title
Brake lines & cables					ļ				I	MA-39
Brake pads & rotors			I		I		I		I	MA-39
Brake fluid					R				R	MA-39
Manual transmission gear oil, transfer fluid & differential gear oil	NOTE (1)				I				I	MA-28 MA-29 MA-33 MA-34 MA-35
Automatic transmission fluid	NOTE (2)									_
Steering gear & linkage, axle & suspension parts			I		I		I		1	MA-41 MA-42

Revision: 2012 July MA-9 2013 G Coupe

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< PERIODIC MAINTENANCE >

MAINTENANCE OPERATION				MAIN	ITENAN	CE INTE	RVAL			Reference
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	Section - Page or - Con- tent Title
Tire rotation	NOTE (3)									MA-4 MA-36
Propeller shaft & drive shaft boots (AWD)			ı		I		I		I	MA-30 MA-31 MA-31 MA-32 MA-42
Exhaust system			I		ı		I		l	MA-28
In-cabin microfilter					R				R	VTL-8
Stop lamp switch & ASCD brake switch	NOTE (4)				I				I	<u>BR-7</u>

MAINTENANCE OPERATION				MAIN	ITENAN	CE INTE	RVAL			Reference
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	Section - Page or - Content Title
Brake lines & cables					I				I	MA-39
Brake pads & rotors			I		I		I		I	MA-39
Brake fluid					R				R	MA-39
Manual transmission gear oil, transfer fluid & differential gear oil	NOTE (1)				I				I	MA-28 MA-29 MA-33 MA-34 MA-35
Automatic transmission fluid	NOTE (2)									_
Steering gear & linkage, axle & suspension parts			I		I		I		I	MA-41 MA-42
Tire rotation	NOTE (3)									MA-4 MA-36
Propeller shaft & drive shaft boots (AWD)			I		I		ı		I	MA-30 MA-31 MA-31 MA-32 MA-42
Exhaust system			L		I		Į		I	MA-28
In-cabin microfilter					R				R	VTL-8
Stop lamp switch & ASCD brake switch	NOTE (4)				I				I	BR-7

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

FOR NORTH AMERICA: Schedule 2

INFOID:0000000008160214

EMISSION CONTROL SYSTEM

< PERIODIC MAINTENANCE >

Abbr	eviations: R = Rep	lace. I	= Insped	t. Corre	ct or rep	lace if n	ecessar	y. []: A	t the mi	leage interval only
MAINTENANCE OPERATION				MAIN	TENAN	CE INTI	ERVAL			Reference
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	Section - Page or - Content Ti- tle
Drive belts	NOTE (1)								 *	MA-19
Air cleaner filter					[R]				[R]	MA-23
EVAP vapor lines					I *				 *	MA-27
Fuel lines					I *				I *	MA-23
Fuel filter	NOTE (2)									_
Engine coolant*	NOTE (3)(4)									MA-19
Engine oil		R	R	R	R	R	R	R	R	MA-24
Engine oil filter (Use genuine NISSAN engine oil filter or equivalent.)		R	R	R	R	R	R	R	R	MA-24
Spark plugs (Iridium-tipped type)(Except for G37 IPL)	NOTE (5)	Replace every 105,000 miles (168,000 km).						MA 26		
Spark plugs (Iridium-tipped type)(For G37 IPL)	NOTE (5)	Replace every 60,000 miles (96,000 km).								<u>MA-26</u>
Intake & exhaust valve clearance*	NOTE (6)	E (6)								EM-18

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.
- (4) 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) Replace spark plug when the spark plug gap exceeds 1.4 mm (0.055 in) even if within specified periodic replacement mileage.
- (6) 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				MAIN	TENAN	CE INT	ERVAL			Reference
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	Section - Page or - Content Title
Brake lines & cables			I		I		I		I	MA-39
Brake pads & rotors			I		I		I		I	MA-39
Brake fluid					R				R	MA-39
Manual transmission gear oil, transfer fluid & differential gear oil			I		I		I		I	MA-28 MA-29 MA-33 MA-34 MA-35
Automatic transmission fluid	NOTE (1)									_
Steering gear & linkage, axle & suspension parts					I				I	MA-41 MA-42
Tire rotation	NOTE (2)									MA-4 MA-36

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< PERIODIC MAINTENANCE >

MAINTENANCE OPERATION				MAIN	TENAN	CE INT	ERVAL			Reference
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	Section - Page or - Content Title
Propeller shaft & drive shaft boots (AWD)			ı		I		I		I	MA-30 MA-31 MA-31 MA-32 MA-42
Exhaust system					ļ				I	MA-28
In-cabin microfilter			R		R		R		R	VTL-8
Stop lamp switch & ASCD brake switch	NOTE (3)		I		I		I		Ι	<u>BR-7</u>

NOTE:

- (1) Automatic transmission fluid is maintenance-free.
- (2) Refer to "Tire rotation" under the "General maintenance" heading earlier in this section.
- (3) Inspect the clearance between the brake pedal and the switches.

FOR MEXICO

FOR MEXICO: Periodic Maintenance

INFOID:0000000008160215

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

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

ENGINE AND EMISSION CONTROL MAINTENANCE

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

MAINTENANCE OPERATION				MAIN	TENAN	CE INTI	ERVAL			
Perform at a kilometers (miles) or month interval, whichever comes first.	$\begin{array}{c} \text{km} \times 1,000 \\ \text{(Miles} \times 1,000) \\ \text{Months} \end{array}$	10 (6) 6	20 (12) 12	30 (18) 18	40 (24) 24	50 (30) 30	60 (36) 36	70 (42) 42	80 (48) 48	Reference page
	Underh	ood an	d unde	r vehic	le					
Intake & exhaust valve clearance	See NOTE (1)									EM-18
Drive belt	See NOTE (2)				I				I	MA-19
Engine oil (Use recommended oil.)★		R	R	R	R	R	R	R	R	MA-24
Engine oil filter (Use genuine NISSAN engine oil filter or equivalent)★		R	R	R	R	R	R	R	R	MA-24
Engine coolant	See NOTE (3)				Е				Е	MA-19
Cooling system					I				ı	CO-7 CO-12 CO-12
Fuel lines					I				I	MA-23
Air cleaner filter (Viscous paper type)★					R				R	MA-23
Fuel filter (In-tank type)	See NOTE (4)									_
Spark plugs (Iridium-tipped type)	See NOTE (5)		Repla	ce eve	ry 100,0	000 km (60,000	miles)	•	MA-26
EVAP vapor lines (With carbon canister)					I				- 1	MA-27

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.

< PERIODIC MAINTENANCE >

- (3) Use Genuine NISSAN Engine Coolant (blue) or equivalent in its quality, in order to avoid possible aluminium corrosion within the engine cooling system caused by the use of non-genuine engine coolant. Check and correct the engine coolant mixture ratio every 40,000 km (24,000 miles) or 24 months. First replacement interval is 160,000 km (96,000 miles) or 96 months. After first replacement, replace every 80,000 km (48,000 miles) or 48 months.
- (4) Maintenance-free item.
- (5) Replace spark plug when the spark plug gap exceeds 1.4 mm (0.055 in) even if within specified periodic replacement mileage.

CHASSIS AND BODY MAINTENANCE

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

MAINTENANCE OPERATION			·	MAIN	TENAN	CE INTI	ERVAL			
Perform at a kilometers (miles) or month interval, whichever comes first.	$\begin{array}{c} \text{km}\times 1,000\\ \text{(Miles}\times 1,000)\\ \text{Months} \end{array}$	10 (6) 6	20 (12) 12	30 (18) 18	40 (24) 24	50 (30) 30	60 (36) 36	70 (42) 42	80 (48) 48	Reference page
	Under	hood a	nd und	er vehi	cle			ı		
Brake line & cables			I		I		I		I	MA-39
Brake fluid (For level & leaks)			I		I		I		I	<u>MA-39</u>
Brake fluid ★					R				R	MA-39
Exhaust system					I				ı	MA-28
Power steering fluid & lines (For level & leaks)			ı		I		1		I	<u>MA-41</u>
Automatic transmission fluid	See NOTE (1)									_
Differential gear oil (For level & leaks)★			ı		1		1		I	MA-34 MA-35
Steering gear & linkage, axle & suspension parts ★					I				I	MA-41 MA-42
	(Outside	and in	side						
Wheel alignment (If necessary, balance wheels)			I		I		I		I	FSU-7 RSU-6 MA-36
Brake pads, rotors, drums & linings★			I		1		1		I	MA-39 BR-14 BR-16
Foot brake & parking brake (For free play, stroke & operation)			I		I		I		ı	BR-7 PB-3
Air conditioner filter★			R		R		R		R	VTL-8
Stop lamp switch & ASCD brake switch	See NOTE (2)		I		I		I		I	<u>BR-7</u>

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

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- E —Driving in extremely adverse weather conditions or in areas where ambient temperatures are either extremely low or extremely high
- F Driving in high humidity or mountainous areas
- G Driving in areas using salt or other corrosive areas H Driving on rough and/or muddy roads or in the desert
- I Driving with frequent use of braking or in mountainous areas
- J Frequent driving in water

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

			Driv	ing	cond	ditio	n		Maintenance item	Mainte- nance op- eration	Maintenance interval	Refer- ence page
Α									Air cleaner filter (Viscous paper type)	Replace	More frequently	MA-23
Α	В	С	D						Engine oil & engine oil filter	Replace	Every 5,000 km (3,000 miles) or 3 months	MA-24 MA-24
					F				Brake fluid	Replace	Every 20,000 km (12,000 miles) or 12 months	MA-39
		С					Н		Differential gear oil	Replace	Every 40,000 km (24,000 miles) or 24 months	MA-34 MA-35
						G	Н		Steering gear & linkage, axle & suspension parts	Inspect	Every 20,000 km (12,000 miles) or 12 months	MA-41 MA-42
Α		С				G	Н	ı	Brake pads, rotors, drums & linings	Inspect	Every 10,000 km (6,000 miles) or 6 months	MA-39 BR-14 BR-16
Α									Air conditioner filter	Replace	More frequently	VTL-8

< PERIODIC MAINTENANCE >

RECOMMENDED FLUIDS AND LUBRICANTS FOR NORTH AMERICA

FOR NORTH AMERICA: Fluids and Lubricants

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			Capa	Capacity (Approximate)		
			US mea- sure	Imp mea- sure	Liter	Recommended Fluids/Lubricants
Engine oil	With oil filter ch	nange	5-1/8 qt	4-1/4 qt	4.9	*4 *6
Drain and refill	Without oil filte	r change	4-7/8 qt	4 qt	4.6	 Engine oil with API Certification Mark*1, *2 Viscosity SAE 5W-30*1, *2
Dry engine (Over	haul)		6 qt	5 qt	5.7	• VISCOSITY SAE SVV-30
	With reservoir	A/T	9 qt	7-1/2 qt	8.5	
Cooling system	tank	M/T	9-1/8 qt	7-5/8 qt	8.6	Pre-diluted Genuine NISSAN Long Life An tifreeze/ Coolant (blue) or equivalent
	Reservoir tank	l	7/8 qt	3/4 qt	0.8	tines25/ 555iant (blue) of equivalent
Automatic transm	nission fluid		9-3/4 qt*9	8-1/8 qt*9	9.2 ^{*9}	Genuine NISSAN Matic S ATF*3
Manual transmiss	sion gear oil		6 pt	5 pt	2.83	Genuine NISSAN Manual Transmission Fluid (MTF) HQ Multi 75W-85 or API GL-4, Viscosity SAE 75W-85
		Front	1-3/8 pt	1-1/8 pt	0.65	For 7A/T 2WD models:
Differential gear o	Rear	3 pt	2-1/2 pt	1.40	API GL-5 Synthetic Gear Oil, Viscosity SAE 75W-90*5 Except for 7A/T 2WD models: Genuine NISSAN Differential Oil Hypoid Super GL-5 80W-90 or API GL-5, Viscosity SAE 80W-90*4	
Transfer fluid			2-1/8 pt	1-3/4 pt	1.0	Genuine NISSAN Matic J ATF ^{*6}
Power steering fl	uid (PSF)		1-1/8 qt	7/8 qt	1.0	Genuine NISSAN PSF or equivalent*7
Brake and clutch fluid			_	_	_	Genuine NISSAN Super Heavy Duty Brake Fluid ^{*8} or equivalent DOT 3 (US FMVSS No. 116)
Multi-purpose grease			_	_	_	NLGI No. 2 (Lithium soap base)
Windshield washer fluid			_	_	_	Genuine NISSAN Windshield Washer Con centrate Cleaner & Antifreeze or equivalen
Fuel recommend	ation		_	_	_	Refer to GI-33, "Fuel".

^{*1:} For additional information, see "Engine Oil Recommendation".

FOR NORTH AMERICA: Engine Oil Recommendation

INFOID:0000000008160217

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.

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^{*2:} INFINITI recommends Genuine NISSAN Ester Oil available at an INFINITI retailer.

^{*3:} 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.

^{*4:} For hot climates, viscosity SAE 90 is suitable for ambient temperatures above 0°C (32°F).

^{*5:} See an INFINITI retailer for service for synthetic oil.

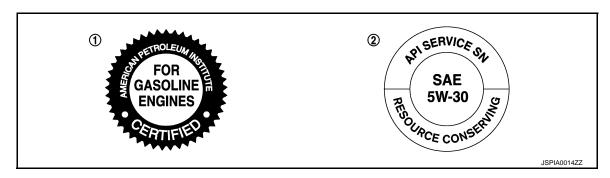
^{*6:} Using transfer fluid other than Genuine NISSAN Matic J ATF will cause deterioration in driveability and transfer durability, and may damage the transfer, which is not covered by the INFINITI new vehicle limited warranty.

^{*7:} DEXRON™ VI type ATF may also be used.

^{*8:} Available in mainland U.S.A. through an INFINITI retailer.

^{*9:} The fluid capacity is the reference value.

< PERIODIC MAINTENANCE >



- 1. API certification mark
- 2. API service symbol

FOR NORTH AMERICA: Anti-Freeze Coolant Mixture Ratio

INFOID:0000000008160218

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) 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 manufactur'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 MEXICO

FOR MEXICO: Fluids and Lubricants

INFOID:0000000008160219

		Capacity (A	Approximate)	Recommended Fluids/Lubricants
		Liter	Imp measure	Necommended Fluids/Eublicants
Engine oil	With oil filter change	4.9	4-3/8 qt	Genuine NISSAN engine oil
Drain and refill	Without oil filter change	4.6	4 qt	API grade SL, SM or SN ^{*1}
Dry engine (eng	ine overhaul)	5.7	5 qt	ILSAC grade GF-2, GF-3, GF-4 or GF-5 ^{*1}
Cooling system	(with reservoir)	8.5	7-1/2 qt	Genuine NISSAN Engine Coolant (blue) or
Reservoir tank		0.8	3/4 qt	equivalent ^{*2}
Automatic trans	mission fluid	9.2*4	8-1/8 qt*4	Genuine NISSAN Matic S ATF*3
Differential gear	oil	1.4	2-1/2 pt	Genuine NISSAN Differential Oil Hypoid Super-S GL-5 Synthetic 75W-90 or equiv- alent*5

< PERIODIC MAINTENANCE >

	Capacity (A	pproximate)	Recommended Fluids/Lubricants
	Liter	Imp measure	Recommended Fidius/Eublicants
Power steering fluid (PSF)	1.0	7/8 qt	Genuine NISSAN PSF or equivalent*6
Brake fluid	_	_	Genuine NISSAN Brake Fluid, or equivalent DOT 3 (US FMVSS No.116)
Multi-purpose grease	_	_	NLGI No. 2 (Lithium soap base)

^{*1:} For additional information, see "SAE Viscosity Number".

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.

FOR MEXICO: SAE Viscosity Number

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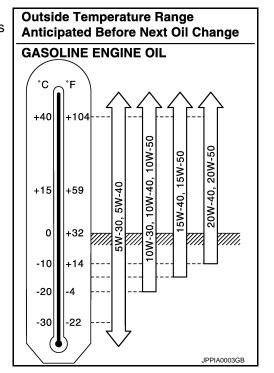
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GASOLINE ENGINE

 5W-30 is preferable.
 If 5W-30 is not available, select the viscosity, from the chart, that is suitable for the outside temperature range.



DIFFERENTIAL GEAR OIL

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^{*2:} Use Genuine NISSAN Engine Coolant (blue) 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.

^{*3:} 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 warranty.

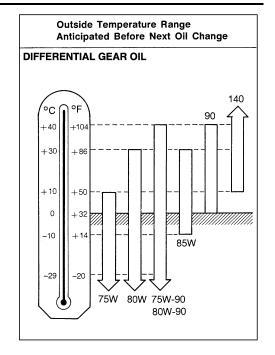
^{*4:} The fluid capacity is the reference value.

^{*5:} See an INFINITI dealer for service for synthetic oil.

^{*6:} DEXRON™ VI type ATF may also be used.

< PERIODIC MAINTENANCE >

• 75W-90 for the differential gear is preferable.



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FOR MEXICO: Engine Coolant Mixture Ratio

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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.

Outside Composition temperature down to Engine Demineralized coolant ٥С ۰F water or (Concentdistilled water rated) -15 5 30% 70% 50% -35 -30 50%

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 When checking the engine coolant mixture ratio by the coolant hydrometer, use the chart below to correct your hydrometer reading (specific gravity) according to coolant temperature.

Mixed coolant specific gravity

Unit: specific gravity

Engine coolant mixture		Coolant temp	erature °C (°F)	
ratio	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.

DRIVE BELT

DRIVE BELT: Exploded View

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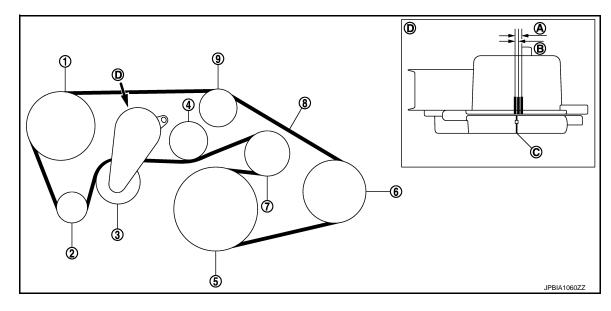
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- 1. Power steering oil pump
- 4. Idler pulley
- 7. Idler pulley
- A. Possible use range
- D. View D

- 2. Alternator
- Crankshaft pulley
- 8. Drive belt
- B. Range when new drive belt is installed
- Drive belt auto-tensioner
- A/C compressor
- Idler pulley
- C. Indicator

DRIVE BELT: Checking

WARNING:

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

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

NÓTE:

- Check the drive belt auto-tensioner indication when the engine is cold.
- When new drive belt is installed, the indicator (notch on fixed side) should be within the range (B) in the figure.
- 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.

DRIVE BELT: Tension Adjustment

Refer to MA-44, "DRIVE BELT: Drive Belt".

ENGINE COOLANT

ENGINE COOLANT: Draining

INFOID:0000000008160224

INFOID:0000000008160225

WARNING:

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

NOTE:

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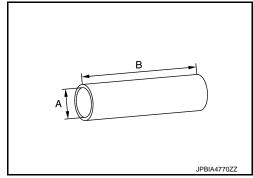
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< PERIODIC MAINTENANCE >

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

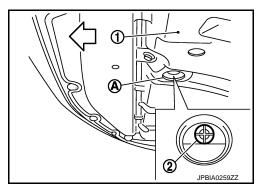
A : φ 15 - 16 mm (0.59 - 0.63 in)

B : 145 mm (5.17 in)



2. Open radiator drain plug (2) at the bottom of radiator, and then remove radiator cap.

1 : Engine under coverA : Radiator drain plug hole



When draining all of engine coolant in the system, open water drain plugs on cylinder block. Refer to EM-80, "Setting".

- 3. Remove reservoir tank if necessary, and drain engine coolant and clean reservoir tank before installing.
- 4. Check drained engine coolant for contaminants such as rust, corrosion or discoloration. If contaminated, flush the engine cooling system. Refer to CO-10, "Flushing".
- 5. Disconnect drain hose.

ENGINE COOLANT: Refilling

INFOID:0000000008160226

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-15, "FOR NORTH AMERICA: Fluids and Lubricants" (FOR NORTH AMERICA) or MA-16, "FOR MEXICO: Fluids and Lubricants" (FOR MEXICO).
- 1. Remove air cleaner case (LH). Refer to EM-27, "Exploded View".
- 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-14, "Exploded View".

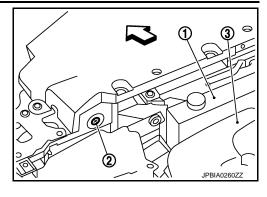
If water drain plugs on cylinder block are removed, close and tighten them. Refer to <u>EM-123</u>, "<u>Disassembly and Assembly"</u>.

3. Check that each hose clamp has been firmly tightened.

< PERIODIC MAINTENANCE >

Remove air relief plug (2) on radiator left side.

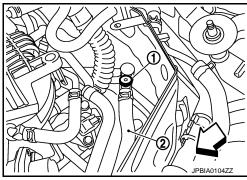
: Reservoir tank : Engine cover ⟨⇒ : Vehicle front



Remove air relief plug (1) on heater hose.

: Heater hose <

<p>
⟨ □ : Vehicle front

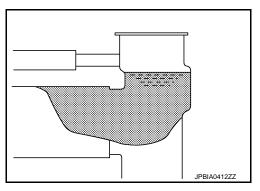


Fill radiator, and reservoir tank if removed, to specified level.

· Pour engine coolant through engine coolant filler neck slowly of less than 2 ℓ (2-1/8 US qt, 1-3/4 Imp qt) a minute to allow air in system to escape.

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

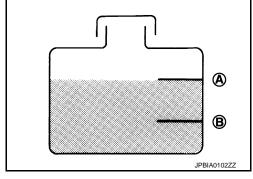
: Refer to <u>CO-27</u>, "Periodical Maintenanc e Specification".



Reservoir tank engine coolant capacity (At "MAX" level)

:Refer to CO-27. "Periodical Maintenance Sp ecification"

: MAX В : MIN



7. When engine coolant overflows air relief hole on radiator, install air relief plug with new O-ring. **CAUTION:**

Do not reuse O-ring.

Tightening torque: Refer to CO-14, "Exploded View".

8. Repeat step 6.

9. When engine coolant overflows air relief hole on heater hose, install air relief plug with new O-ring. Then refill radiator with engine coolant. **CAUTION:**

Do not reuse O-ring.

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: 1.2 N·m (0.12 kg-m, 11 in-lb)

- 10. Install air cleaner case (LH). Refer to EM-27, "Exploded View".
- 11. Install radiator cap.
- 12. Warm up engine until opening thermostat. Standard for warming-up time is approximately 10 minutes at
 - 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.

- 13. 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.
- 14. Refill reservoir tank to "MAX" level line with engine coolant.
- 15. Repeat steps 11 through 14 two or more times with radiator cap installed until engine coolant level no longer drops.
- 16. Check cooling system for leakage with engine running.
- 17. 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.
- 18. Repeat step 17 three times.
- 19. If sound is heard, bleed air from cooling system by repeating step 6, and steps from 11 to 18 until engine coolant level no longer drops.
- 20. Check that the reservoir tank cap is tightened.

ENGINE COOLANT: Flushing

INFOID:0000000008160227

Install reservoir tank if removed, and radiator drain plug.

CAUTION:

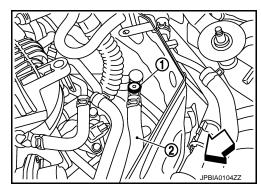
Be sure to clean drain plug and install with new O-ring.

Tightening torque : Refer to CO-14, "Exploded View".

If water drain plugs on cylinder block are removed, close and tighten them. Refer to EM-122, "Exploded View".

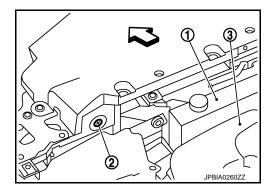
2. Remove air relief plug (1) on heater hose (2).

: Vehicle front



Remove air relief plug (2) on radiator.

: Reservoir tank 1 3 : Engine cover : Vehicle front



< PERIODIC MAINTENANCE >

4. Fill radiator with water until water spills from the air relief holes, then close air relief plugs. Fill radiator and reservoir tank with water and reinstall radiator cap.

Tightening torque : Refer to CO-14, "Exploded View".

- 5. Run the engine and warm it up to normal operating temperature.
- 6. Rev the engine two or three times under no-load.
- 7. Stop the engine and wait until it cools down.
- 8. Drain water from the system. Refer to CO-7, "Draining".
- 9. Repeat steps 1 through 8 until clear water begins to drain from radiator.
- 10. Check that the reservoir tank cap is tightened.

FUEL LINES

FUEL LINES: Inspection

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

A : EngineB : Fuel lineC : Fuel tank

If necessary, repair or replace damaged parts.

A B © JPBIA0129ZZ

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AIR CLEANER FILTER

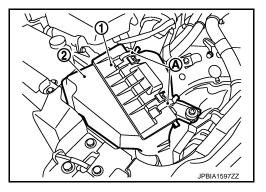
AIR CLEANER FILTER: Removal and Installation

REMOVAL

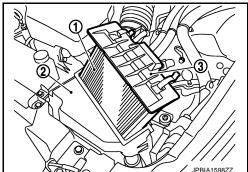
1. Unhook clips (A).

1 : Holder

2 : Air cleaner case



Remove holder (3) from air cleaner case (2), and then remove air cleaner filter (1) from holder.



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INSTALLATION

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

Revision: 2012 July MA-23 2013 G Coupe

< PERIODIC MAINTENANCE >

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

ENGINE OIL

ENGINE OIL: Draining

INFOID:0000000008160230

WARNING:

- Be careful not to 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 <u>LU-7</u>, "Inspection".
- 2. Stop the engine and wait for 10 minutes.
- 3. Loosen oil filler cap.
- 4. Remove undercover with power tool.
- 5. Remove drain plug and then drain engine oil.

ENGINE OIL: Refilling

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1. Install drain plug with new washer. Refer to EM-44, "Exploded View (2WD)".

CAUTION:

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

Tightening torque : Refer to EM-44, "Exploded View (2WD)".

2. Refill with new engine oil.

Engine oil specification and viscosity: Refer to MA-15, "FOR NORTH AMERICA: Fluids and Lubricants".

Engine oil capacity : Refer to MA-44, "ENGINE OIL :

Periodical Maintenance Specification".

CAUTION:

- 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.
- 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 <u>LU-7</u>, "Inspection".

OIL FILTER

OIL FILTER: Removal and Installation

INFOID:0000000008160232

REMOVAL

CAUTION:

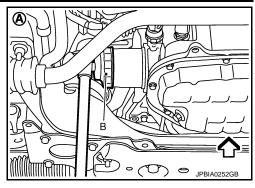
- Oil filter is provided with relief valve. Use genuine NISSAN oil filter or equivalent.
- Be careful not to get burned when engine and engine oil may be hot.
- When removing, prepare a shop cloth to absorb any engine oil leakage or spillage.
- Never allow engine oil to adhere to drive belt.
- Completely wipe off any engine oil that adheres to engine and vehicle.
- Remove engine undercover with power tool.

< PERIODIC MAINTENANCE >

Using oil filter wrench [SST: KV10115801 (J-38956)] (B), remove oil filter.

> : 2WD models

> : AWD models ⟨□ : Engine front



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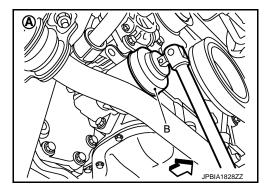
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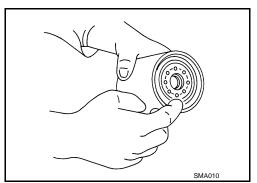
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INSTALLATION

Remove foreign materials adhering to oil filter installation surface.

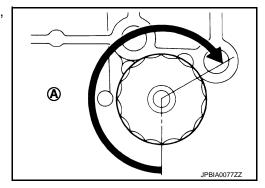
Apply engine oil to the oil seal contact surface of new oil filter.



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:

(1.8 kg-m, 13 ft-lb)



INFOID:0000000008160233

INSPECTION AFTER INSTALLATION

OIL FILTER: Inspection

- Check the engine oil level. Refer to LU-7, "Inspection".
- Start the engine, and check there is no leak of engine oil. 2.
- Stop the engine and wait for 10 minutes.
- Check the engine oil level, and adjust the level. Refer to <u>LU-7</u>, "Inspection".

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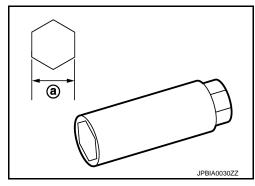
SPARK PLUG

SPARK PLUG: Removal and Installation

INFOID:0000000008160234

REMOVAL

- 1. Remove engine cover with power tool. Refer to EM-25, "Exploded View".
- 2. Remove air cleaner case and air duct (RH and LH). Refer to EM-27, "Exploded View".
- 3. Remove electric throttle control actuator. Refer to <a>EM-29, "Exploded View".
- 4. Remove ignition coil. Refer to EM-48, "Removal and Installation".
- 5. Remove spark plug with a spark plug wrench (commercial service tool).
 - a : 14 mm (0.55 in)



INSTALLATION

Installation is the reverse order of removal.

SPARK PLUG: Inspection

INFOID:0000000008160235

INSPECTION AFTER REMOVAL

Use the standard type spark plug for normal condition.

Spark plug (Standard type) : Refer to MA-44, "SPARK PLUG : 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

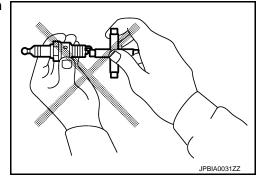
: Less than 588 kPa (6 kg/cm², 85 psi)

Cleaning time

: Less than 20 seconds

SMA773C

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



EVAP VAPOR LINES

< PERIODIC MAINTENANCE >

EVAP VAPOR LINES: Inspection

INFOID:0000000008160236

1. Visually inspect EVAP vapor lines for improper attachment and for cracks, damage, loose connections, chafing and deterioration. Refer to EC-611, "Inspection" (For USA and Canada).

Inspect fuel tank filler cap vacuum relief valve for clogging, sticking, etc.
 Refer to <u>EC-358</u>, "Component Inspection" (For USA and Canada), <u>EC-1060</u>, "Inspection" (For Mexico).

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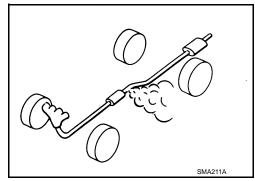
< PERIODIC MAINTENANCE >

CHASSIS MAINTENANCE EXHAUST SYSTEM

EXHAUST SYSTEM: Inspection

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

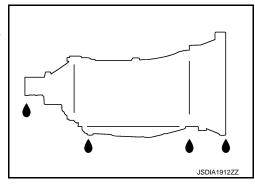
A/T FLUID : Inspection

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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-263, "Adjustment".



GEAR OIL

GEAR OIL: Inspection

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INFOID:0000000008160240

OIL LEAKAGE

Make sure that gear oil is not leaking from transmission or around it.

OIL LEVEL

- 1. Remove filler plug (1) and gasket from transmission case.
- 2. Check the 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 and then install it to transmission case.

CAUTION:

Never reuse gasket.

4. Tighten filler plug to the specified torque. Refer to TM-32, "Exploded View".

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GEAR OIL: Draining

- 1. Start the engine and let it run to warm up transmission.
- Stop the engine.
- 3. Remove drain plug and gasket from transmission case and then drain gear oil.

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< PERIODIC MAINTENANCE >

Set a gasket on drain plug and install it to transmission case.

CAUTION:

Never reuse gasket.

5. Tighten drain plug to the specified torque. Refer to TM-32, "Exploded View".

GEAR OIL: Refilling

1. Remove filler plug (1) and gasket from transmission case.

2. Fill with new gear oil to transmission as shown in the figure.

> : Refer to MA-15, "FOR NORTH AMERICA Oil grade and

viscosity : Fluids and Lubricants".

: Refer to TM-94, "General Specifica-Oil capacity

tions".

CAUTION:

Never reuse drained gear oil.

- 3. After refilling gear oil, check the oil level. Refer to MA-28, "GEAR OIL: Inspection".
- 4. Set a gasket on filler plug and then install it to transmission case.

CAUTION:

Never reuse gasket.

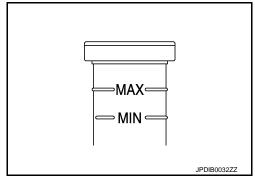
5. Tighten filler plug to the specified torque. Refer to TM-32, "Exploded View".

CLUTCH FLUID

CLUTCH FLUID: Inspection

CLUTCH FLUID LEVEL

- Check that the fluid level in the reservoir tank is within the specified range (MAX – MIN lines).
- Visually check for any clutch fluid leakage around the reservoir tank.
- Check the clutch system for any leakage if the fluid level is extremely low (lower than MIN).



TRANSFER FLUID

TRANSFER FLUID: Inspection

FLUID LEAKAGE

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

FLUID LEVEL

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

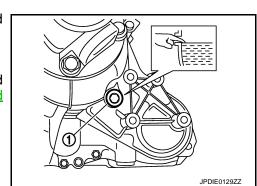
CAUTION:

Never start engine while checking fluid level.

2. Set a new gasket onto filler plug, and install it on transfer and tighten to the specified torque. Refer to DLN-58, "Exploded View".

CAUTION:

Never reuse gasket.



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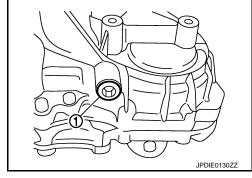
TRANSFER FLUID: Draining

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- 1. Run the vehicle to warm up the transfer unit sufficiently.
- Stop the engine, and remove the drain plug (1) to drain the transfer fluid.
- Set a new gasket onto the drain plug, and install it on the transfer and tighten to the specified torque. Refer to <u>DLN-58</u>.
 "Exploded View".

CAUTION:

Never reuse gasket.



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TRANSFER FLUID: Refilling

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

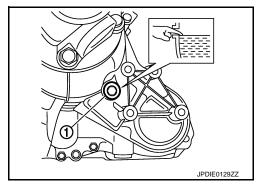
Fluid and viscosity : Refer to MA-15, "FOR

NORTH AMERICA: Fluids and Lubricants" (For North America), MA-16, "FOR MEXICO: Fluids and Lubri-

cants" (For Mexico).

Fluid capacity : Refer to <u>DLN-77</u>, "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.
- Set a new gasket onto filler plug, and install it on transfer and tighten to the specified torque. Refer to <u>DLN-58, "Exploded View"</u>.

CAUTION:

Never reuse gasket.

FRONT PROPELLER SHAFT: 2S56A

FRONT PROPELLER SHAFT: 2S56A: Inspection

INFOID:0000000008160246

NOISE

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

VIBRATION

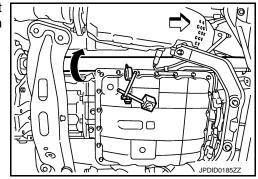
If vibration is present at high speed, inspect propeller shaft runout first.

 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 <u>DLN-84, "Propeller</u>

Shaft Runout".



< PERIODIC MAINTENANCE >

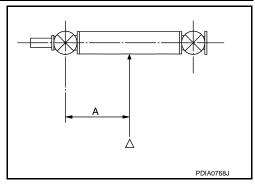
Propeller shaft runout measuring point (Point "△").

Dimension A: 381.5 mm (15.02 in)

- 2. If runout still exceeds specifications, 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.
- If runout is more than the limit value, remove and check propeller shaft.
- 4. Check the vibration by driving vehicle.

REAR PROPELLER SHAFT: 3S80A

REAR PROPELLER SHAFT: 3S80A: Inspection



INFOID:0000000008160247

NOISE

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

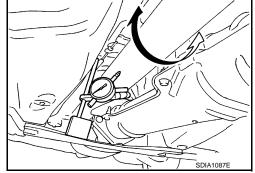
VIBRATION

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

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-92, "Propeller Shaft Runout".



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

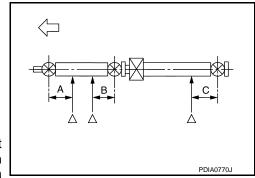
: Vehicle front

Dimension A: 192 mm (7.56 in)

B: 172 mm (6.77 in)

C: 170 mm (6.69 in)

If runout still exceeds specifications, 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 runout is more than the limit value, remove and check propeller shaft.
- Check the vibration by driving vehicle.

REAR PROPELLER SHAFT: 3S80A-R

REAR PROPELLER SHAFT: 3S80A-R: Inspection

INFOID:0000000008160248

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NOISE

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

VIBRATION

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

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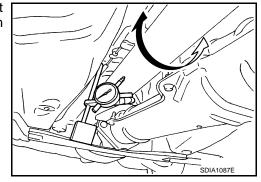
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< PERIODIC MAINTENANCE >

 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 <u>DLN-101, "Propeller Shaft Runout".</u>



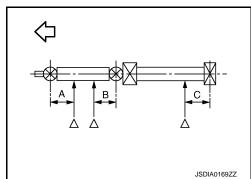
Propeller shaft runout measuring point (Point "△").

∀
 □: Vehicle front

Dimension A: 192 mm (7.56 in)

B: 172 mm (6.77 in) C: 172 mm (6.77 in)

2. If runout still exceeds specifications, 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 runout is more than the limit value, remove and check propeller shaft.
- 4. Check the vibration by driving vehicle.

REAR PROPELLER SHAFT: 3F80A-1VL107

REAR PROPELLER SHAFT: 3F80A-1VL107: Inspection

INFOID:0000000008160249

NOISE

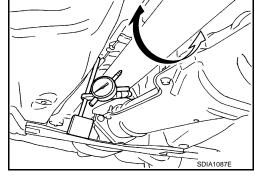
- Check the propeller shaft tube surface for dents or cracks. If damaged, replace propeller shaft assembly.
- If center bearing is noisy or damaged, replace propeller shaft assembly.

VIBRATION

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

 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 <u>DLN-110, "Propeller Shaft Runout"</u>.



< PERIODIC MAINTENANCE >

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

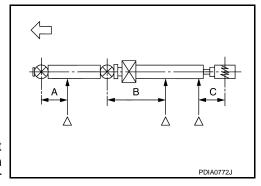
⟨□: Vehicle front

Dimension A: 162 mm (6.38 in)

B: 245 mm (9.65 in)

C: 185 mm (7.28 in)

2. If runout still exceeds specifications, separate propeller shaft at final drive companion flange or transfer 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 runout is more than the limit value, remove and check propeller shaft.
- 4. Check the vibration by driving vehicle.

FRONT DIFFERENTIAL GEAR OIL: F160A

FRONT DIFFERENTIAL GEAR OIL: F160A: Inspection

INFOID:0000000008160250

OIL LEAKAGE

Make sure that oil is not leaking from 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.

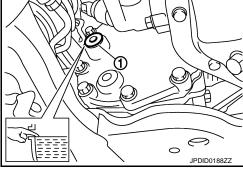
CAUTION:

Never start engine while checking oil level.

Set a gasket on filler plug and install it on final drive assembly.
 Refer to <u>DLN-124</u>, "<u>Exploded View</u>".

CAUTION:

Never reuse gasket.

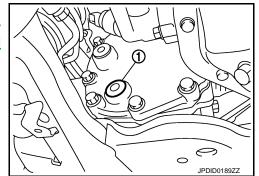


FRONT DIFFERENTIAL GEAR OIL: F160A: Draining

- 1. Stop engine.
- 2. Remove drain plug (1) and drain gear oil.
- Set a gasket on drain plug and install it to final drive assembly and tighten to the specified torque. Refer to <u>DLN-124</u>, "<u>Exploded</u> <u>View</u>".

CAUTION:

Never reuse gasket.



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< PERIODIC MAINTENANCE >

FRONT DIFFERENTIAL GEAR OIL: F160A: Refilling

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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-15, "FOR

NORTH AMERICA: Fluids and Lubricants" (For North America), MA-16, "FOR MEXICO: Fluids and Lubri-

cants" (For Mexico).

Oil capacity : Refer to <u>DLN-149</u>, "Gen-

eral Specifications".

 After refilling oil, check oil level. Set a gasket to filler plug, then install it to final drive assembly. Refer to <u>DLN-124, "Exploded View"</u>.

CAUTION:

Never reuse gasket.

REAR DIFFERENTIAL GEAR OIL: R200

REAR DIFFERENTIAL GEAR OIL: R200: Inspection

INFOID:0000000008160253

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OIL LEAKAGE

Make sure that oil is not leaking from 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.

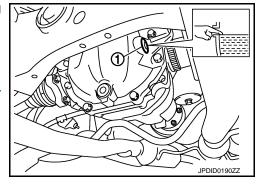
CAUTION:

Never start engine while checking oil level.

Set a gasket on filler plug and install it on final drive assembly.
 Refer to <u>DLN-178</u>, "2WD : Exploded <u>View"</u> (2WD), <u>DLN-190</u>, "AWD : Exploded <u>View"</u> (AWD).

CAUTION:

Never reuse gasket.



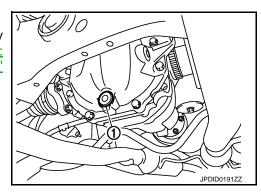
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REAR DIFFERENTIAL GEAR OIL: R200: Draining

- 1. Stop the engine.
- 2. Remove drain plug (1) and drain gear oil.
- Set a gasket on drain plug and install it to final drive assembly and tighten to the specified torque. Refer to <u>DLN-178</u>. "2WD: <u>Exploded View"</u> (2WD), <u>DLN-190</u>, "AWD: <u>Exploded View"</u> (AWD).

CAUTION:

Never reuse gasket.



< PERIODIC MAINTENANCE >

REAR DIFFERENTIAL GEAR OIL: R200: Refilling

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-15, "FOR

NORTH AMERICA: Fluids and Lubricants" (For North America), MA-16, "FOR MEXICO: Fluids and Lubri-

<u>cants"</u> (For Mexico).

Oil capacity : Refer to <u>DLN-219</u>, "Gen-

eral Specification".

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 After refilling oil, check oil level. Set a gasket to filler plug, then install it to final drive assembly. Refer to <u>DLN-178</u>, "2WD: Exploded View" (2WD), <u>DLN-190</u>, "AWD: Exploded View" (AWD).

CAUTION:

Never reuse gasket.

REAR DIFFERENTIAL GEAR OIL: R200V

REAR DIFFERENTIAL GEAR OIL: R200V: Inspection

OIL LEAKAGE

• Make sure that oil is not leaking from 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 and install it on final drive assembly. Refer to <u>DLN-259</u>, "2WD (M/T): <u>Exploded View"</u> [2WD (M/T models)], <u>DLN-271</u>, "2WD (A/T): <u>Exploded View"</u> [2WD (A/T models)], <u>DLN-283</u>, "AWD: <u>Exploded View"</u> (AWD).

CAUTION:

Never reuse gasket.

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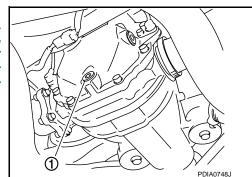
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REAR DIFFERENTIAL GEAR OIL: R200V: Draining

- 1. Stop engine.
- 2. Remove drain plug (1) and drain gear oil.
- Set a gasket on drain plug and install it to final drive assembly and tighten to the specified torque. Refer to <u>DLN-259</u>, "<u>2WD (M/T)</u>: <u>Exploded View</u>" [2WD (M/T models)], <u>DLN-271</u>, "<u>2WD (A/T)</u>: <u>Exploded View</u>" [2WD (A/T models)], <u>DLN-283</u>, "<u>AWD</u>: <u>Exploded View</u>" (AWD).

CAUTION:

Never reuse gasket.



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< PERIODIC MAINTENANCE >

REAR DIFFERENTIAL GEAR OIL: R200V: Refilling

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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-15, "FOR

NORTH AMERICA: Fluids and Lubricants" (For North America), MA-16, "FOR MEXICO: Fluids and Lubri-

cants" (For Mexico).

Oil capacity : Refer to <u>DLN-321, "Gen-</u>

eral Specification".

 After refilling oil, check oil level. Set a gasket to filler plug, then install it to final drive assembly. Refer to <u>DLN-259</u>, "2WD (M/T): Exploded View" [2WD (M/T models)], <u>DLN-271</u>, "2WD (A/T): Exploded View" [2WD (A/T models)], <u>DLN-283</u>, "AWD: Exploded View" (AWD).
 CAUTION:

Never reuse gasket.

WHEELS (BONDING WEIGHT TYPE)

WHEELS (BONDING WEIGHT TYPE): Adjustment

INFOID:0000000008160259

BALANCING WHEELS (BONDING WEIGHT TYPE)

Preparation Before Adjustment

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

CAUTION:

- Be careful not 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

- 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 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 in 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, be sure to clean the mating surface of the road wheel.
- a. Indicated un balance 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)

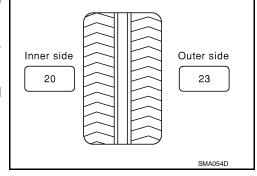
NOTE:

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

Example:

 $36.2 \Rightarrow 35 \text{ g } (1.23 \text{ oz})$ $36.3 \Rightarrow 37.5 \text{ g } (1.32 \text{ oz})$

b. Installed balance weight in the position.

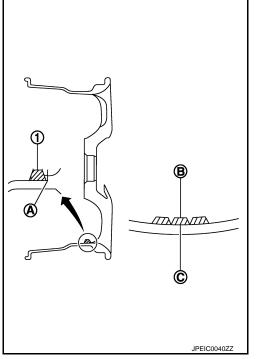


< PERIODIC MAINTENANCE >

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

CAUTION:

- Always use genuine NISSAN adhesion 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 another.

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

Never install three or more balance weight.

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

Adhesion weight Wheel balancer indication position (angle) PEIA0033E

CAUTION:

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

Allowable unbalance value

Dynamic (At flange) : Refer to <u>WT-48, "Road Wheel"</u>.

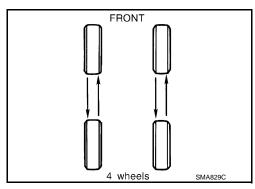
Static (At flange) : Refer to <u>WT-48, "Road Wheel"</u>.

TIRE ROTATION (Except for 2WD with 19 inch wheel models)

- Follow the maintenance schedule for tire rotation service intervals.
 Refer to MA-4, "FOR NORTH AMERICA: Explanation of General Maintenance" (For North America), MA-6, "FOR MEXICO: General Maintenance" (For Mexico).
- When installing the wheel, tighten wheel nuts to the specified torque. Refer to <u>WT-43, "Exploded View"</u>.

CAUTION:

- Never include the T-type spare tire when rotating the tires.
- When installing wheels, tighten them diagonally by dividing the work two to three times in order to prevent the wheels from developing any distortion.
- Be careful not to tighten wheel nut at torque exceeding the criteria for preventing strain of disc rotor.
- Use NISSAN genuine wheel nuts for aluminum wheels.
- Perform the ID registration, after tire rotation. Refer to <u>WT-17</u>, "Work Procedure".



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< PERIODIC MAINTENANCE >

TIRE ROTATION (For 2WD with 19 inch wheel models)

• Tire cannot be rotated in vehicle, as front tire are different size from rear tire is fixed in each tire.

Wheel nuts tighting torque : Refer to WT-43, "Exploded View"

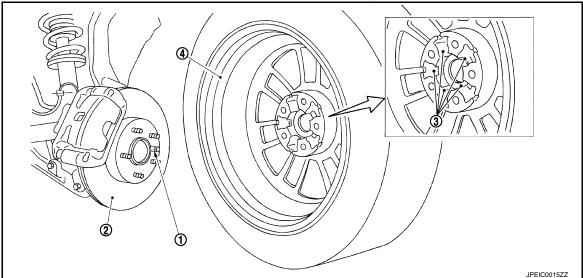
CAUTION:

- Never include the T-type spare tire when rotating the tires.
- Use NISSAN genuine wheel nuts for aluminum wheels.

Safety Device Preventing from Being Incorrectly installed

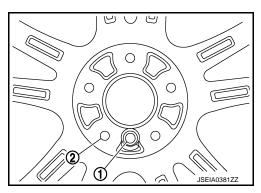
FRONT BRAKE DISC ROTOR AND FRONT WHEEL

• 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 (4) (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 hole (1) has been set in addition to regular bolt holes (2) in order to enable installation to front wheel.

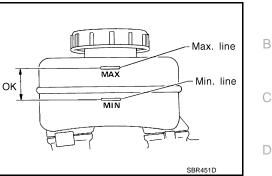


BRAKE FLUID LEVEL AND LEAKS

< PERIODIC MAINTENANCE >

BRAKE FLUID LEVEL AND LEAKS: Inspection

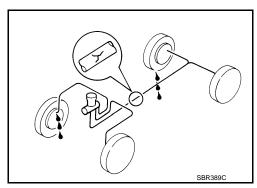
If fluid level is extremely low, check brake system for leaks.



BRAKE LINES AND CABLES

BRAKE LINES AND CABLES: Inspection

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



BRAKE FLUID

BRAKE FLUID: Changing

- 1. Drain brake fluid from each bleed valve.
- 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-11, "Bleeding Brake System".

- Refill with recommended Genuine NISSAN Super Heavy Duty Brake Fluid or equivalent DOT 3 (US FMVSS No. 116). Refer to MA-15, "FOR NORTH AMERICA: Fluids and Lubricants".
- Never reuse drained brake fluid.
- Be careful not to splash brake fluid on painted areas.

DISC BRAKE

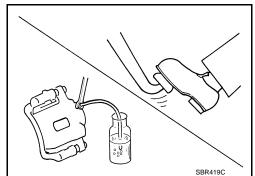
DISC BRAKE: Inspection

DISC ROTOR

Check condition, wear, and damage.

CALIPER

Check for leakage.



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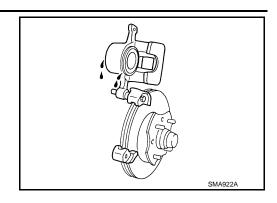
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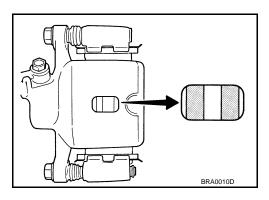
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< PERIODIC MAINTENANCE >



BRAKE PAD

• Check for wear or damage.



DISC BRAKE: Front Disc Brake

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1 PISTON TYPE

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	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)

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:0000000008160265

1 PISTON TYPE

Unit: mm (in)

	Item	Limit
Brake pad	Wear thickness	2.0 (0.079)
	Wear thickness	15.0 (0.591)
Disc rotor	Thickness variation (measured at 8 positions)	0.015 (0.0006)
	Runout (with it attached to the vehicle)	0.055 (0.0022)

2 PISTON TYPE

< 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

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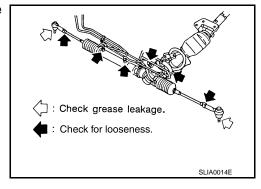
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STEERING GEAR

- 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

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).

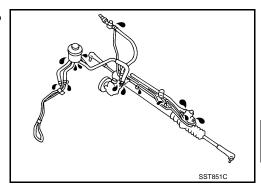
CAUTION:

- Do not overfill.
- Recommended fluid is Genuine NISSAN PSF or equivalent.
 Refer to MA-15, "FOR NORTH AMERICA: Fluids and Lubricants" (For North America), MA-16, "FOR MEXICO: Fluids and Lubricants" (For Mexico).
- HOT: 50 - 80°C (122 - 176°F)

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- 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

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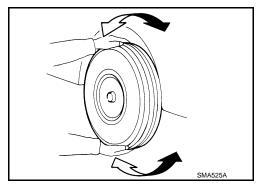
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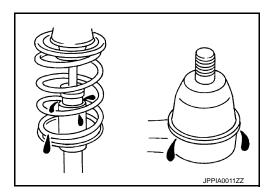
AXLE AND SUSPENSION PARTS: Inspection

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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.



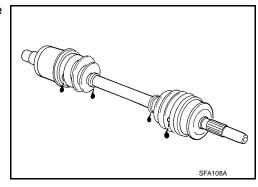


DRIVE SHAFT

DRIVE SHAFT: Inspection

INFOID:0000000008160269

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



BODY MAINTENANCE < PERIODIC MAINTENANCE > BODY MAINTENANCE Α LOCKS, HINGES AND HOOD LATCH LOCKS, HINGES AND HOOD LATCH: Lubricating INFOID:0000000008160270 В For hood lock illustration. Refer to <u>DLK-186, "HOOD ASSEMBLY: Exploded View"</u> and <u>DLK-189, "HOOD</u> LOCK CONTROL: Exploded View". For door lock illustration. Refer to <u>DLK-208</u>, "DOOR LOCK: Exploded View". For trunk lid lock illustration. Refer to DLK-215, "TRUNK LID LOCK: Exploded View". SEAT BELT, BUCKLES, RETRACTORS, ANCHORS AND ADJUSTERS D SEAT BELT, BUCKLES, RETRACTORS, ANCHORS AND ADJUSTERS: Inspection For front seat belt illustration. Refer to SB-6, "SEAT BELT RETRACTOR: Exploded View". Е For rear seat belt illustration. Refer to SB-11, "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. Н 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-9, "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

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SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

DRIVE BELT

DRIVE BELT: Drive Belt

INFOID:0000000008160272

DRIVE BELT

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

ENGINE COOLANT

ENGINE COOLANT: Periodical Maintenance Specification

INFOID:0000000008160273

ENGINE COOLANT CAPACITY (APPROXIMATE)

Unit: ℓ (US qt, Imp qt)

Engine coolant capacity [With reservoir tank ("MAX" level)]	A/T models	8.5 (9, 7-1/2)
Engine coolant capacity [with reservoir tank (wind level)]	M/T models	8.6 (9-1/8, 7-5/8)
Reservoir tank engine coolant capacity (At "MAX" level)		0.8 (7/8, 3/4)

ENGINE OIL

ENGINE OIL: Periodical Maintenance Specification

INFOID:000000000816027

ENGINE OIL CAPACITY (APPROXIMATE)

Unit: ℓ (US qt, Imp qt)

Drain and refill	With oil filter change	4.9 (5-1/8, 4-1/4)
	Without oil filter change	4.6 (4-7/8, 4)
Dry engine (Overhaul)		5.7 (6, 5)

SPARK PLUG

SPARK PLUG: Spark Plug

INFOID:0000000008160275

SPARK PLUG

Unit: mm (in)

Make	DENSO
Standard type	FXE24HR11
Gap (Nominal)	1.1 (0.043)

ROAD WHEEL

ROAD WHEEL: Road Wheel

INFOID:0000000008160276

ALUMINUM WHEEL (CONVENTIONAL)

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

STEEL WHEEL (FOR EMERGENCY USE)

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

	Item	Limit	
Runout	Axial runout (Average)	Less than 1.5 mm (0.059 in)	
	Radial runout (Average)		
Allowable unbalance	Dynamic (At flange)	Less than 5 g (0.17 oz) (one side)	
	Static (At flange)	Less than 10 g (0.35 oz)	

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