

MAINTENANCE

SECTION MA

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PRE-DELIVERY INSPECTION ITEMS

Shown below are Pre-delivery Inspection Items required for the new vehicle. It is recommended that necessary items other than those listed here be added, paying due regard to the conditions in each country.

Perform applicable items on each model. Consult text of this section for specifications.

UNDER HOOD — engine off

- Radiator coolant level and coolant hose connections for leaks
- Battery fluid level, specific gravity and conditions of battery terminals
- Drive belts tension
- Fuel filter for water or dusts (Diesel only), and fuel lines and connections for leaks
- Engine oil level and oil leaks
- Clutch and brake reservoir fluid level and fluid lines for leaks
- Windshield and rear window washer and headlamp cleaner reservoir fluid level
- Power steering reservoir fluid level and hose connections for leaks

ON INSIDE AND OUTSIDE

- Remove front spring/strut spacer (If applicable)
- Operation of all instruments, gauges, lights and accessories
- Operation of horn(s), wiper and washer
- Steering lock for operation
- Check air conditioner for gas leaks
- Front and rear seats, and seat belts for operation
- All moldings, trims and fittings for fit and alignment
- All windows for operation and alignment
- Hood, trunk lid, door panels for fit and alignment
- Latches, keys and locks for operation
- Weatherstrips for adhesion and fit
- Headlamp aiming
- Tighten wheel nuts (Inc. inner nuts if applicable)
- Tire pressure (Inc. spare tire)
- Check front wheels for toe-in
- Install clock/voltmeter/room lamp fuse (If applicable)
- Install deodorizing filter to air conditioner (If applicable)
- Remove wiper blade protectors (If applicable)

UNDER BODY

- Manual transmission/transaxle, transfer and differential gear oil level
- Brake and fuel lines and oil/fluid reservoirs for leaks
- Tighten bolts and nuts of steering linkage and gear box, suspension, propeller shafts and drive shafts
- Tighten rear body bolts and nuts (Models with wooden bed only)

ROAD TEST

- Clutch operation
- Parking brake operation
- Service brake operation
- Automatic transmission/transaxle shift timing and kickdown
- Steering control and returnability
- Engine performance
- Squeaks and rattles

ENGINE OPERATING AND HOT

- Adjust idle speed
- Automatic transmission/transaxle fluid level
- Engine idling and stop knob operation (Diesel only)

FINAL INSPECTION

- Install necessary parts (outside mirror, wheel covers, seat belts, mat, carpet or mud flaps)
- Inspect for interior and exterior metal and paint damage
- Check for spare tire, jack, tools (wheel chock), and literature
- Wash, clean interior and exterior

: Not applicable to this model

GENERAL MAINTENANCE

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

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 periodically when at a service station, including the spare, and adjust to the specified pressure if necessary. Check carefully for damage, cuts or excessive wear.	
Windshield wiper blades	Check for cracks or wear if they do not wipe properly.	
Doors and engine hood	Check that all doors, the engine hood, the trunk lid and back door operate properly. Also ensure that all latches lock securely. Lubricate if necessary. Make sure that the secondary latch keeps the hood from opening when the primary latch is released. When driving in areas using road salt or other corrosive materials, check for lubrication frequently.	BT-6 BT-13
Tire rotation	Tires should be rotated every 10,000 km (6,000 miles).	SU-8

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	
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.	
Warning lamps and chimes	Make sure that all warning lamps and chimes are operating properly.	
Steering wheel	Check for change in the steering conditions, such as excessive free play, hard steering or strange noises. Free play: Less than 35 mm (1.38 in)	
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.	RS-3

UNDER THE HOOD AND VEHICLE

The maintenance items listed here should be checked periodically e.g. each time you check the engine oil or refuel.

Item	Reference page	
Windshield washer fluid	Check that there is adequate fluid in the tank.	
Engine coolant level	Check the coolant level when the engine is cold.	LC-16
Engine oil level	Check the level after parking the vehicle on a level spot and turning off the engine.	LC-6
Brake and clutch fluid levels	Make sure that the brake and clutch fluid levels are between the "MAX" and "MIN" lines on the reservoir.	BR-6
Battery	Check the fluid level in each cell. It should be between the "MAX" and "MIN" lines.	—

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PERIODIC MAINTENANCE

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.

PERIODIC MAINTENANCE

Engine and Emission Control Maintenance

NMMA0005S04

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		MAINTENANCE INTERVAL										Reference page
Perform either at number of kilometers (miles) or months, whichever comes first.	km x 1,000 (Miles x 1,000) Months	1 (0.6)	10 (6)	20 (12)	30 (18)	40 (24)	50 (30)	60 (36)	70 (42)	80 (48)		
Underhood and under vehicle												
Drive belts			R	R	R	R	I				I	EM-16
Engine oil (Use API SG, SH or SJ oil.)★			R	R	R	R	R	R	R	R	R	LC-6
Engine oil filter (Use Part No. 15208 65F00 or equivalent.)★						E					R	LC-7
Engine coolant (Use Nissan genuine engine coolant or equivalent in its quality.)	See NOTE (1)										R	MA-9 LC-16
Cooling system			I				I				I	LC-11
Fuel lines											I	FE-4
Air cleaner filter (Viscous paper type)★						R					R	EM-17
Fuel filter★											R	FE-4
Spark plugs (Platinum-tipped type)							Replace every 100,000 km (60,000 miles)				EM-18	
EVAP vapor lines (With carbon canister)											I	EC-22
Heated oxygen sensor (Exhaust gas sensor)											I	EC-152

NOTE:

★ Maintenance items with “★” should be performed more frequently according to “Maintenance under severe driving conditions”.

(1) Use Nissan genuine engine coolant, or equivalent in its quality, in order to avoid possible aluminum corrosion within the engine cooling system caused by the use of non-genuine engine coolant. After first replacement, replace every 40,000 km (24,000 miles) or 24 months.

PERIODIC MAINTENANCE

Chassis and Body Maintenance

NMMA0005S05

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

MAINTENANCE OPERATION		MAINTENANCE INTERVAL										Reference page
Perform either at number of kilometers (miles) or months, whenever comes first.	km x 1,000 (Miles x 1,000) Months	1 (0.6)	10 (6)	20 (12)	30 (18)	40 (24)	50 (30)	60 (36)	70 (42)	80 (48)	48	
Underhood and under vehicle												
Brake, clutch & automatic transmission fluid (For level & leaks)★			I	I	I	I	I	I	I	I	I	BR-6, AT-9
Brake fluid★						R				R		BR-6
Brake booster vacuum hoses, connections & check valve					I					I		BR-6
Power steering fluid & lines (For level & leaks)			I	I	I	I	I	I	I	I		ST-7
Brake, clutch & exhaust systems			I	I	I	I	I	I	I	I		BR-6, FE-11
Manual transmission gear oil (For level & leaks)			I	I	I	I	I	I	I	I		MT-7
Helical type limited-slip differential (LSD) gear oil★ (For level & leaks)		I		R			R			R		PD-12
Viscous type limited-slip differential (LSD) gear oil★ (For level & leaks)	See NOTE (1)	I	I	I	I	I	I	I	I	I		PD-12
Steering gear & linkage, axle & suspension parts, propeller shafts & drive shafts★	See NOTE (1)			I	I	I	I	I	I	I		ST-7, SU-9, SU-18
Outside and inside												
Wheel alignment (If necessary, rotate & balance wheels)			I		I		I		I		I	SU-6, SU-16
Brake pads, rotors & other brake components★		I	I	I	I	I	I	I	I	I		BR-7
Lock, hinges & hood latch★			L		L		L		L		L	BT-6, BT-13, BT-2
Seatbelts, buckles, retractor, anchors & adjuster			I		I		I		I		I	RS-3
Foot brake, parking brake & clutch (For free play, stroke & operation)				I	I	I	I	I	I	I		BR-12, BR-34, CL-6
Ventilation air filter★												HA-96
Supplemental air bag systems	See NOTE (2)											RS-10

NOTE:

(1) Never use LSD exclusive gear oil. Use standard differential gear oil (API GL-5).

(2) Inspect at the first 10 years, and then every 2 years.

★ Maintenance items with “★” should be performed more frequently according to “Maintenance under severe driving conditions”.

PERIODIC MAINTENANCE

Maintenance Under Severe Driving Conditions

Maintenance Under Severe Driving Conditions

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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.

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Severe driving conditions

A — Driving under dusty conditions

B — Driving repeatedly short distances

C — Towing a trailer or caravan

D — Extensive idling

E — Driving in extremely adverse weather conditions or in areas where ambient temperatures are either extremely low or extremely high

F — Driving in high humidity areas or in mountainous areas

G — Driving in areas using salt or other corrosive materials

H — Driving on rough and/or muddy roads or in the desert

I — Driving with frequent use of braking or in mountainous areas

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

Driving condition											Maintenance item	Maintenance operation	Maintenance interval	Reference page	
A	Air cleaner filter	Viscous paper type	Replace	More frequently	EM-17
A	B	C	D	Engine oil & oil filter		Replace	Every 5,000 km (3,000 miles) or 3 months	LC-6, LC-7
A	.	.	.	E	Fuel filter		Replace	Every 40,000 km (24,000 miles) or 24 months	FE-4
.	F	Brake fluid		Replace	Every 20,000 km (12,000 miles) or 12 months	BR-6
.	.	C	H	.	.	Automatic transmission fluid		Replace	Every 40,000 km (24,000 miles) or 24 months	AT-9
.	.	C	H	.	.	Helical type limited-slip differential (LSD) gear oil		Replace	Every 20,000 km (12,000 miles) or 12 months	PD-12
.	.	C	H	.	.	Viscous type limited-slip differential (LSD) gear oil		Replace	Every 40,000 km (24,000 miles) or 24 months	PD-12
.	G	H	.	.	.	Steering gear & linkage, axle & suspension parts, propeller shafts & drive shafts		Check	Every 10,000 km (6,000 miles) or 6 months	ST-7, SU-9, SU-18
A	.	C	.	.	.	G	H	I	.	.	Brake pads, rotors & other brake components		Check	Every 5,000 km (3,000 miles) or 3 months	BR-7
.	G	Lock, hinges & hood latch		Lubricate	Every 5,000 km (3,000 miles) or 3 months	BT-6, BT-13, BT-2
A	Ventilation air filter		Wash or Replace	More frequently	HA-96

RECOMMENDED FLUIDS AND LUBRICANTS

Fluids and Lubricants

Fluids and Lubricants

NMMA0006S01

	Recommended fluids and lubricants
Engine oil	API SG, SH or SJ*1 ILSAC grade GF-I or GF-II*1
Cooling system	Nissan genuine engine coolant, or equivalent in its quality*2
Manual transmission gear oil	API GL-4 Viscosity SAE 75W-90
Helical type or viscous type limited-slip differential (LSD) gear oil	API GL-5*1, *3
Automatic transmission fluid	Genuine Nissan ATF or equivalent*4
Power steering fluid	Type Dexron TM III or equivalent
Brake and clutch fluid	DOT 3 (US FMVSS No. 116)
Multi-purpose grease	NLGI No. 2 (Lithium soap base)

*1: For further details, see "SAE Viscosity Number".

*2: Use Nissan genuine engine coolant, or equivalent in its quality, in order to avoid possible aluminum corrosion within the engine cooling system caused by the use of non-genuine engine coolant.

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

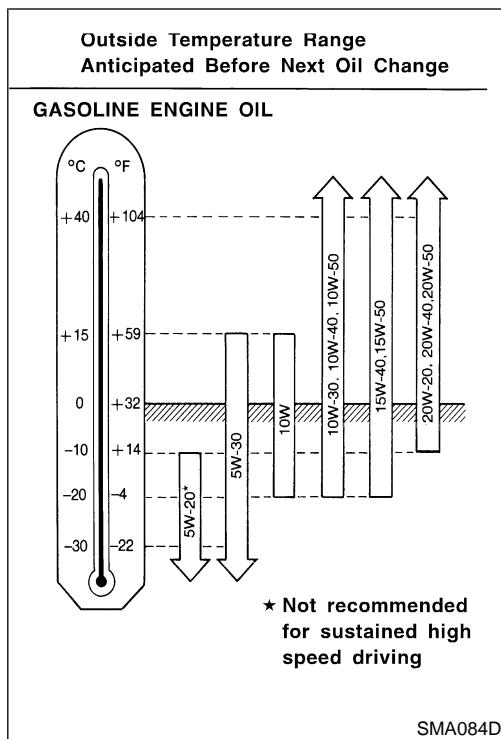
*3: Never use LSD exclusive gear oil. Use standard differential gear oil.

*4: Contact a Nissan dealership for more information regarding suitable fluids, including recommended brand(s) of DexronTMIII/MerconTM Automatic Transmission Fluid.

RECOMMENDED FLUIDS AND LUBRICANTS

SAE Viscosity Number

=NMMA0006S02



SAE Viscosity Number

- For warm and cold areas: 10W-30 is preferable for ambient temperature above -20°C (-4°F).
- For hot areas: 20W-40 and 20W-50 are suitable.
- On turbo models, 5W-20 is not recommended. 5W-30 should be used only under extremely cold conditions.

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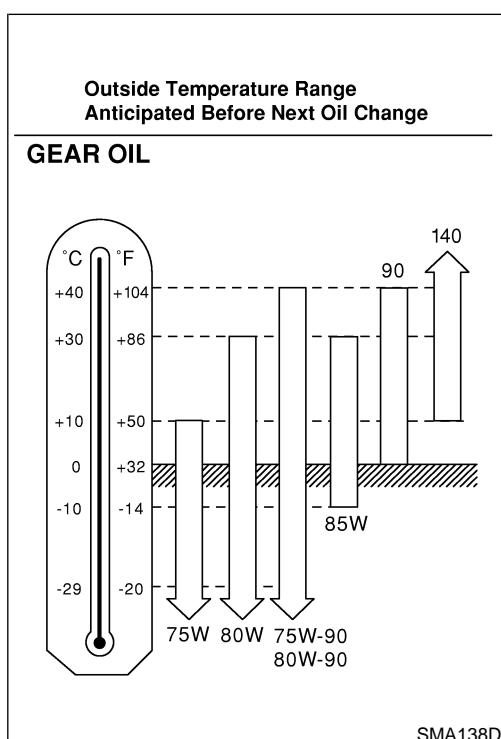
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- For warm and cold areas: 80W-90 for the differential gear is preferable.
- For hot areas: 90 is suitable for ambient temperatures below 40°C (104°F).

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

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Engine Coolant Mixture Ratio

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

CAUTION:

When adding or replacing coolant, be sure to use only a Nissan Genuine Engine Coolant or equivalent in its quality with the proper mixture ratio. See the following examples:

RECOMMENDED FLUIDS AND LUBRICANTS

Engine Coolant Mixture Ratio (Cont'd)

The use of other types of engine coolant may damage your cooling system.

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

Mixed coolant density

Unit: gr/cm³

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

WARNING:

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