SECTION MA
MAINTENANCE

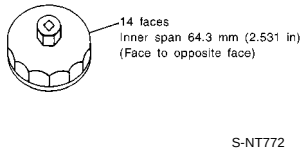
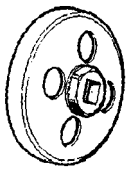
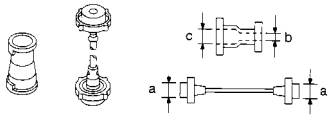
CONTENTS

PREPARATION

PFP:00002

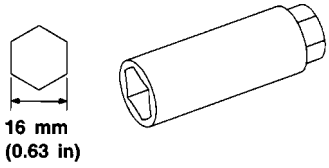
Special Service Tools

ELS000L4

NISSAN tool number (RENAULT tool number) Tool name	Description
KV10115801 Oil filter wrench (For CR engine)  S-NT772	Removing and installing oil filter
KV10115801 (Mot. 1329) Oil filter wrench (For K9K engine)  MBIB0369E	Removing and installing oil filter
EG17650301 Radiator cap tester adapter  S-NT564	Adapter radiator cap tester to radiator filler neck **a: 28 (1.10) dia.** **b: 31.4 (1.236) dia.** **c: 41.3 (1.626) dia.** Unit: mm (in)

Commercial Service Tool

ELS000L5

Tool name	Description
Spark plug wrench  NT047	Removing and installing spark plug

DESCRIPTION

PFP:00000

Pre-delivery Inspection Items

ELS000L6

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.

☐ Install vehicle protection kit

☐ Fit all accessories ordered (if applicable) (e.g. towbar, audio, navigation, air conditioner, styling kit)

UNDER HOOD — engine off

☐ Check coolant level and cooling system for leaks

☐ Charge battery and check terminals for condition

☐ Check drive belts tension

☐ Check fuel filter for water or dust (diesel only) and fuel system for leaks

☐ Check engine oil level and for oil leaks

☐ Check brake and clutch fluid levels and fluid lines for leaks

☐ Check and top up washer reservoirs

☐ Check power steering fluid level and fluid lines for leaks (if applicable)

☐ Check air conditioning system for gas leaks (if applicable)

ON INSIDE AND OUTSIDE

☐ Install transit fuse if removed for vehicle storage

☐ Check instruments, gauges, lamps, horn and accessories for operation

☐ Check wipers and washers for operation and adjustment

☐ Check interior and door mirrors and sun visors for operation

☐ Set radio code and set clock

☐ Check parking brake adjustment

☐ Check clutch pedal adjustment

☐ Check steering lock operation

☐ Check seat adjusters and seat belts for operation

☐ Check all windows for operation and alignment

☐ Check mouldings, trim and fittings for fit and alignment

☐ Check weatherstrips for fit and adhesion

☐ Check hood, trunk lid, door panels and fuel lid for fit and alignment

☐ Check latches, keys, remote key, door locks and remote trunk lid and fuel lid release for operation

☐ Check wheel nut torques

☐ Check tyre pressure (incl. spare tyre)

☐ Check tool kit and jack for operation

☐ Check automatic transmission/transaxle starter inhibitor (if applicable)

☐ Check sunroof for operation and alignment (if applicable)

UNDER BODY

☐ Check manual transmission/transaxle, differential and transfer box for oil level and oil leaks

☐ Tighten bolts and nuts steering linkage and gear box, axle/suspension parts, propeller and exhaust system

☐ Check brake and clutch lines, and oil/fluid reservoirs for leaks

☐ Remove front suspension spacer blocks (if applicable)

☐ Check body mounting torque (if applicable)

ROAD TEST

- ☐ Check clutch operation
- ☐ Check foot brake operation
- ☐ Check parking brake operation
- ☐ Check steering operation, self-centering and steering wheel alignment
- ☐ Check engine performance
- ☐ Check for squeeks, rattles and noise from interior, suspension and brakes
- ☐ Check heating, ventilation and air conditioning operation
- ☐ Check radio, cassette and CD player operation
- ☐ Check odometer and trip meter operation and cancelling
- ☐ Check instruments for operation
- ☐ Check automatic transmission/transaxle shift pattern and kickdown operation (if applicable)
- ☐ Check cruise control and navigation system operation (if applicable)

ENGINE OPERATING AND HOT

- ☐ Check idle speed
- ☐ Check automatic transmission/transaxle oil level (if applicable)

FINAL INSPECTION

- ☐ Remove vehicle protection kit
- ☐ Fit interior mats and wheel covers
- ☐ Check for interior and exterior metal and paint damage
- ☐ Wash, clean interior and exterior

GENERAL MAINTENANCE

PFP:00000

General Maintenance

ELS000L7

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 not functioning correctly.	—
Doors and engine hood	Check that all doors and the engine hood operate smoothly as well as the back door and glass hatch. 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.	BL-7, BL-204
Tire rotation	Tires should be rotated every 10,000 km (6,000 miles).	MA-38

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 buzzers/chimes are operating properly.	—
Steering wheel	Check that it has the specified play. Check for changes 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.	SB-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.	CO-8
Engine oil level	Check the level after parking the vehicle (on level ground) and turning off the engine.	LU-4
Brake and clutch fluid levels	Make sure that the brake and clutch fluid levels are between the “MAX” and “MIN” lines on the reservoir.	MA-38, MA-36
Battery	Check the fluid level in each cell. It should be between the “MAX” and “MIN” lines.	—

PERIODIC MAINTENANCE

PFP:00026

Periodic Maintenance

ELS000L8

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 (CR PETROL ENGINE FOR EUROPE)

(Annual Mileage <30,000 Km/year)

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

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference page
Perform on a kilometer basis, but on an annual basis when driving less than 15,000 km (9,000 miles) per year	km x 1,000 (Miles x 1,000) Months	15 (9) 12	30 (18) 24	45 (27) 36	60 (36) 48	75 (45) 60	90 (54) 72	105 (63) 84	120 (72) 96	
Engine compartment and under vehicle										
Intake and exhaust valve clearance	See NOTE (1)									EM-45
Drive belts	See NOTE (2)									EM-12
Engine oil (Use recommended oil.)★		R	R	R	R	R	R	R	R	LU-4
Engine oil filter (Use NISSAN genuine part or equivalent)★		R	R	R	R	R	R	R	R	LU-6
Engine anti-freeze coolant (Use genuine NISSAN Anti-Freeze Coolant (L250) or equivalent.)	See NOTE (3)			I			R		I	CO-8
Cooling system		I	I	I	I	I	I	I	I	CO-8
Fuel lines			I		I		I		I	FL-3
Air cleaner filter★					R				R	EM-16
Fuel filter (In-tank type)	See NOTE (4)									FL-4
Spark plugs [Platinum-Tipped Type]					R				R	MA-28
EVAP vapor lines (With carbon canister)			I		I		I		I	EC-464 or EC-840
Heated oxygen sensor 1	See NOTE (5)									EC-173 or EC-595

NOTE:

- **★ Maintenance items with "★" should be performed more frequently according to "Maintenance Under Severe Driving Conditions".**
- **(1) Periodic maintenance is not required. However, if valve noise increases, check valve clearance.**
- **(2) Replace the drive belts if found damaged or if the auto belt tensioner reading reaches the maximum limit.**
- **(3) First replace at 90,000 Km (54,000 miles)/60 months, then every 60,000 km (36,000 miles)/48 months. Perform "I" (Checking the mixture ratio and correcting the mixture ratio if necessary) at the middle of replacement interval.**
- **(4) Fuel filter is maintenance-free. For service procedures, refer to FL-4 .**
- **(5) Perform only according to "Maintenance Under Severe Driving conditions" for models without Euro-OBD system. For models with Euro-OBD system, periodic maintenance is not required.**

CHASSIS AND BODY MAINTENANCE (CR PETROL ENGINE FOR EUROPE)

(Annual Mileage <30,000 Km/year)

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

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	15 (9) 12	30 (18) 24	45 (27) 36	60 (36) 48	75 (45) 60	90 (54) 72	105 (63) 84	120 (72) 96	
Underhood and under vehicle										
Headlamp aiming		I	I	I	I	I	I	I	I	LT-40
Brake & clutch, systems and fluid (For level & leaks)		I	I	I	I	I	I	I	I	MA-38, MA-36
Brake fluid★			R		R		R		R	MA-39
Brake booster vacuum hoses, connections & check valve			I		I		I		I	BR-17
Manual transaxle gear oil (For level & leaks)		I	I	I	I	I	I	I	I	MA-36
Automatic transaxle fluid (For level & leaks)★		I	I	I	I	I	I	I	I	MA-37
Steering gear & linkage, axle & suspension parts, front drive shafts & exhaust system★		I	I	I	I	I	I	I	I	MA-40,MA-40 , MA-41 , MA-36
Wheel alignment (If necessary, rotate & balance wheels)		I	I	I	I	I	I	I	I	FSU-15
Brake pads, rotors & other brake components★		I	I	I	I	I	I	I	I	MA-39, MA-39 , MA-39
Foot brake, parking brake & clutch (For free play, stroke & operation)		I	I	I	I	I	I	I	I	BR-6, PB-3 , CL-5
Air conditioner filter★			R		R		R		R	MTC-52
Body corrosion	See NOTE (1)									MA-41

NOTE:

- **(1) Inspect once per year.**
- **★ Maintenance items with "★" should be performed more frequently according to "Maintenance Under Severe Driving Conditions".**

ENGINE AND EMISSION CONTROL MAINTENANCE (K9K DIESEL ENGINE)

(Annual Mileage <30,000 Km/year)

Abbreviations: R = Replace I = Inspect: Correct or replace if necessary D= Check filter and drain water.

MAINTENANCE OPERATION		MAINTENANCE INTERVAL				Reference page
Perform on a kilometer basis, however when driving less than 15,000 km (9,000 miles) per year, perform every 24 months.	km x 1,000 (Miles x 1,000) Months	30 (18) 24	60 (36) 48	90 (54) 72	120 (72) 96	
Engine compartment and under vehicle						
Engine oil (Use recommended oil.)★		R	R	R	R	LU-12
Engine oil filter (Use recommended oil filter)★		R	R	R	R	LU-14
Timing belt★	See NOTE (1)	Replace every 120,000 km/60 months				EM-140
Drive belt	See NOTE (2)	I	I	I	I	EM-121
Cooling system		I	I	I	I	CO-31
Engine anti-freeze coolant (Use genuine NISSAN Anti-freeze Coolant (L250) or equivalent)	See NOTE (3)	I	I		I	CO-31
Air cleaner filter★			R		R	EM-123

MAINTENANCE OPERATION		MAINTENANCE INTERVAL				Reference page
Perform on a kilometer basis, however when driving less than 15,000 km (9,000 miles) per year, perform every 24 months.	km x 1,000 (Miles x 1,000) Months	30 (18) 24	60 (36) 48	90 (54) 72	120 (72) 96	
Intake & exhaust valve clearance	See NOTE (4)	Inspect every 100,00 km				EM-161
Fuel lines		I	I	I	I	FL-13
Fuel filter★		D	R	D	R	FL-14

NOTE:

- **★ Maintenance items with "★" should be performed more frequently according to "Maintenance Under Severe Driving Conditions".**
- **(1) The replacement interval for the timing belt is the maximum lifespan which should not be exceeded. Replace the timing belt if it comes into contact with fuel. The frequency of replacement should be adapted depending on vehicle usage. See "Maintenance Under Sever Driving Conditions".**
- **(2) Replace every 120,000 km/maximum 60 months. Replace drive belt if it comes into contact with fuel or damage is found during inspection.**
- **(3) First replace at 90,000 Km (54,000 miles)/60 months, then every 60,000 km (36,000 miles)/48 months. After first replacement, perform "I" (Checking the mixture ratio and correcting the mixture ratio if necessary) at the middle of replacement interval.**
- **(4) If valve noise increases, check valve clearance.**

CHASSIS AND BODY MAINTENANCE (K9K DIESEL ENGINE)

(Annual Mileage <30,000 Km/year)

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

MAINTENANCE OPERATION		MAINTENANCE INTERVAL				Reference page
Perform on a kilometer basis, however when driving less than 15,000 km (9,000 miles) per year, perform every 24 months.	km x 1,000 (Miles x 1,000) Months	30 (18) 24	60 (36) 48	90 (54) 72	120 (72) 96	
Underhood and under vehicle						
Headlamp aiming		I	I	I	I	LT-70
Wheel alignment (if necessary, balance & rotate wheels)		I	I	I	I	FSU-6
Brake pads, rotor & other brake components★		I	I	I	I	BR-21
Brake linings, drums & other brake components★		I	I	I	I	BR-27
Brake booster vacuum hoses, connections & check valve		I	I	I	I	BR-17
Foot brake, parking brake & clutch (For free play, stroke & operation)		I	I	I	I	BR-6, PB-3 , CL-5
Brake & clutch, systems and fluid (for level and leaks)		I	I	I	I	MA-38, MA-36
Brake fluid★		R	R	R	R	MA-38
Air conditioner filter★		R	R	R	R	ATC-75, MTC-52
Manual transaxle gear oil (check for leakage. Use genuine Nissan gear oil or exact equivalent)		I	I	I	I	MA-36
Steering gear & linkage, axle & suspension parts, drive shafts, exhaust system★		I	I	I	I	MA-40, MA-40 , MA-41 , MA-36
Body corrosion	See NOTE (1)					MA-41

NOTE:

- **(1) Inspect once per year.**
- **★ Maintenance items with "★" should be performed more frequently according to "Maintenance Under Severe Driving Conditions".**

MAINTENANCE UNDER SEVERE DRIVING CONDITIONS (FOR EUROPE)

(Annual Mileage <30,000 Km/year)

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 in dusty conditions
B — Repeatedly driving short distances
C — Towing a trailer or caravan
D — Extensive idling
E — Driving in extremely adverse weather conditions or in areas where ambient temperatures are either extremely low or extremely high
F — Driving in high humidity or mountainous areas
G — Driving in areas using salt or other corrosive materials
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 off road use or driving in water
K —Sustained high speed driving
L — For models without Euro-OBD system (For CR petrol engine models)
L — Repeated short journeys, cold engine at low temperature (For K9K diesel engine models)

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

Driving condition												Maintenance item		Maintenance operation	Maintenance interval	Reference page
A	.	.	.	.	.	.	.	.	.	.	.	Air cleaner filter	Petrol models	Replace	Every 30,000 km (18,000 miles) or 24 months	MA-26
													Diesel models	Replace	Every 30,000 km (18,000 miles) or 24 months	MA-33
A	B	C	D	.	.	.	.	.	.	.	.	Engine oil & engine oil filter	Petrol models	Replace	Every 7,500 km (4,500 miles) or 6 months	MA-27, LU-6
													Diesel models	Replace	Every 15,000 km (9,000 miles) or 12 months	MA-34, MA-35
.	.	.	.	.	.	.	.	.	.	.	L	Heated oxygen sensor 1	Petrol models	Inspect	Every 30,000 km (18,000 miles) or 24 months	EC-169, EC-591 , EC-780
A	B	.	D	.	.	.	H	.	.	.	L	Timing belt	Diesel models	Replace	More frequently	EM-140
.	.	.	.	.	F	.	.	.	.	.	.	Brake fluid	All models	Replace	Every 15,000 km (9,000 miles) or 12 months	MA-39
.	.	C	.	.	.	.	H	.	.	.	.	Automatic transaxle fluid	Petrol models	Replace	Every 30,000 km (18,000 miles) or 24 months	MA-37
.	.	C	.	.	.	.	H	.	.	.	.	Fuel filter	Diesel models	Check filter & drain water	Every 15,000 km (9,000 miles) or 12 months	FL-14
														Replace	Every 30,000 km (18,000 miles) or 24 months	

Driving condition												Maintenance item		Maintenance operation	Maintenance interval	Reference page
.	.	.	.	.	.	G	H	.	.	.	.	Steering gear & linkage, axle & suspension parts, front drive shafts & exhaust system	Petrol models	Inspect	Every 7,500 km (4,500 miles) or 6 months	MA-40, MA-40 , MA-41 , MA-36
													Diesel models	Inspect	Every 15,000 km (9,000 miles) or 12 months	MA-40, MA-40 , MA-41 , MA-36
A	.	C	.	.	.	G	H	I	.	.	.	Brake pads, rotors & other brake components	Petrol models	Inspect	Every 7,500 km (4,500 miles) or 6 months	MA-39, MA-39 , MA-39
													Diesel models	Inspect	Every 15,000 km (9,000 miles) or 12 months	MA-39, MA-39
A	.	.	.	.	.	.	.	.	.	.	.	Air conditioner filter	All models	Replace	Every 15,000 km (9,000 miles) or 12 months	ATC-75

ENGINE AND EMISSION CONTROL MAINTENANCE (CR PETROL ENGINE FOR EUROPE)

(Annual Mileage >30,000 Km/year)

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

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference page
Perform either at number of kilometers (miles) basis only.	km x 1,000 (Miles x 1,000)	15 (9)	30 (18)	45 (27)	60 (36)	75 (45)	90 (54)	105 (63)	120 (72)	
Engine compartment and under vehicle										
Intake and exhaust valve clearance	See NOTE (1)									EM-45
Drive belts	See NOTE (2)	I	I	I	I	I	I	I	I	EM-12
Engine oil (Use recommended oil.)★		R	R	R	R	R	R	R	R	MA-27
Engine oil filter (Use NISSAN genuine part or equivalent)★		R	R	R	R	R	R	R	R	LU-6
Engine anti-freeze coolant (Use genuine NISSAN Anti-Freeze Coolant (L250) or equivalent.)	See NOTE (3)			I			R		I	CO-8
Cooling system			I		I		I		I	CO-8
Fuel lines					I				I	FL-3
Air cleaner filter★					R				R	EM-16
Fuel filter (In-tank type)	See NOTE (4)									FL-4
Spark plugs [Platinum-Tipped Type]					R				R	MA-28
EVAP vapor lines (With carbon canister)					I				I	EC-464 or EC-840
Heated oxygen sensor 1	See NOTE (5)									EC-169, or EC-780

NOTE:

- **★ Maintenance items with "★" should be performed more frequently according to "Maintenance Under Severe Driving Conditions".**
- **(1) Periodic maintenance is not required. However, if valve noise increases, check valve clearance.**
- **(2) Replace the drive belts if found damaged or if the auto belt tensioner reading reaches the maximum limit.**
- **(3) First replace at 90,000 Km (54,000 miles), then every 60,000 km (36,000 miles). Perform "I" (Checking the mixture ratio and correcting the mixture ratio if necessary) at the middle of replacement interval.**
- **(4) Fuel filter is maintenance-free. For service procedures, refer to FL section.**
- **(5) Perform only according to "Maintenance Under Severe Driving conditions" for models without Euro-OBD system. For models with Euro-OBD system, periodic maintenance is not required.**

CHASSIS AND BODY MAINTENANCE (CR PETROL ENGINE FOR EUROPE)

(Annual Mileage >30,000 Km/year)

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) basis only.	km x 1,000 (Miles x 1,000)	15 (9)	30 (18)	45 (27)	60 (36)	75 (45)	90 (54)	105 (63)	120 (72)	
Underhood and under vehicle										
Headlamp aiming			I		I		I		I	LT-40
Brake & clutch, systems and fluid (For level & leaks)			I		I		I		I	MA-38, MA-36
Brake fluid★					R				R	MA-39
Brake booster vacuum hoses, connections & check valve					I				I	BR-17
Manual transaxle gear oil (For level & leaks)			I		I		I		I	MA-36
Automatic transaxle fluid (For level & leaks)★			I		I		I		I	MA-37
Steering gear & linkage, axle & suspension parts, front drive shafts & exhaust system★			I		I		I		I	MA-40,MA-40 , MA-41 , MA-36
Wheel alignment (If necessary, rotate & balance wheels)			I		I		I		I	FSU-6
Brake pads, rotors & other brake components★			I		I		I		I	MA-39, MA-39 , MA-39
Foot brake, parking brake & clutch (For free play, stroke & operation)			I		I		I		I	BR-6, PB-3 , CL-5
Air conditioner filter★			R		R		R		R	ATC-75
Body corrosion	See NOTE (1)									MA-41

NOTE:

- **(1) Inspect once per year.**
- **★ Maintenance items with "★" should be performed more frequently according to "Maintenance Under Severe Driving Conditions".**

ENGINE AND EMISSION CONTROL MAINTENANCE (K9K DIESEL ENGINE)

(Annual Mileage >30,000 Km/year)

Abbreviations: R = Replace I = Inspect and correct or replace as necessary D= Check filter and drain water.

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference page
Perform on a kilometers (miles) basis only.	km x 1,000 (Miles x 1,000)	15 (9)	30 (18)	45 (27)	60 (36)	75 (45)	90 (54)	105 (63)	120 (72)	
Engine compartment and under vehicle										
Engine oil (Use recommended oil.)★			R		R		R		R	LU-12
Engine oil filter (Use recommended oil filter)★			R		R		R		R	LU-14
Timing belt★	See NOTE (1)	Replace every 120,000 km								EM-140
Drive belt	See NOTE (2)		I		I		I		R	EM-121
Cooling system			I		I		I		I	CO-31
Engine anti-freeze coolant (Use genuine NISSAN Anti-freeze Coolant (L250) or equivalent.)	See NOTE (3)		I		I		R		I	CO-31
Air cleaner filter★					R				R	EM-123

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference page
Perform on a kilometers (miles) basis only.	km x 1,000 (Miles x 1,000)	15 (9)	30 (18)	45 (27)	60 (36)	75 (45)	90 (54)	105 (63)	120 (72)	
Intake & exhaust valve clearance	See NOTE (4)	Inspect every 100,000 km								EM-161
Fuel lines					I				I	FL-13
Fuel filter★			D		R		D		R	FL-14

NOTE:

- **★ Maintenance items with "★" should be performed more frequently according to "Maintenance Under Severe Driving Conditions".**
- **(1) The replacement interval for the timing belt is the maximum lifespan which should not be exceeded. Replace the timing belt if it comes into contact with fuel. The frequency of replacement should be adapted depending on vehicle usage. See "Maintenance Under Sever Driving Conditions".**
- **(2) Replace every 120,000 km. Replace drive belt if it comes into contact with fuel or damage is found during inspection.**
- **(3) First replace at 90,000 Km (54,000 miles), then every 60,000 km (36,000 miles). After first replacement, Perform "I" (Checking the mixture ratio and correcting the mixture ratio if necessary) at the middle of replacement interval.**
- **(4) If valve noise increases, check valve clearance.**

CHASSIS AND BODY MAINTENANCE (K9K DIESEL ENGINE)

(Annual Mileage >30,000 Km/year)

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

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Reference page
Perform either at number of kilometers (miles) basis only.	km x 1,000 (Miles x 1,000)	15 (9)	30 (18)	45 (27)	60 (36)	75 (45)	90 (54)	105 (63)	120 (72)	
Underhood and under vehicle										
Headlamp aiming			I		I		I		I	LT-70
Wheel alignment (if necessary, balance & rotate wheels)			I		I		I		I	FSU-6
Brake pads, rotor & other brake components★			I		I		I		I	BR-21
Brake linings, drums & other brake components★			I		I		I		I	BR-27
Foot brake, parking brake & clutch (For free play, stroke & operation)			I		I		I		I	BR-6, PB-3, CL-5
Brake booster vacuum hoses, connections & check valve					I				I	BR-17
Brake & clutch, systems and fluid (for level and leaks)			I		I		I		I	MA-38, MA-36
Brake fluid★					R				R	MA-38
Air conditioner filter★			R		R		R		R	ATC-75, MTC-52
Manual transaxle gear oil (check for leakage. Use genuine Nissan gear oil or exact equivalent)			I		I		I		I	MA-36
Steering gear & linkage, axle & suspension parts, drive shafts, exhaust system★					I				I	MA-40, MA-40, MA-41, MA-36
Body corrosion	See NOTE (1)									MA-41

NOTE:

- **(1) Inspect once per year.**
- **★ Maintenance items with "★" should be performed more frequently according to "Maintenance Under Severe Driving Conditions".**

MAINTENANCE UNDER SEVERE DRIVING CONDITIONS (FOR EUROPE)

(Annual Mileage >30,000 Km/year)

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 in dusty conditions
B — Repeatedly driving short distances
C — Towing a trailer or caravan
D — Extensive idling
E — Driving in extremely adverse weather conditions or in areas where ambient temperatures are either extremely low or extremely high
F — Driving in high humidity or mountainous areas
G — Driving in areas using salt or other corrosive materials
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 off road use or driving in water
K —Sustained high speed driving
L — For models without Euro-OBD system (For CR petrol engine models)
L — Repeated short journeys, cold engine at low temperature (For K9K diesel engine models)

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

Driving condition												Maintenance item		Maintenance operation	Maintenance interval	Reference page
A	.	.	.	.	.	.	.	.	.	.	.	Air cleaner filter	Petrol models	Replace	Every 30,000 km (18,000 miles)	MA-26
													Diesel models	Replace	Every 30,000 km (18,000 miles)	MA-33
A	B	C	D	.	.	.	.	.	.	.	.	Engine oil & engine oil filter	Petrol models	Replace	Every 7,500 km (4,500 miles)	MA-27, LU-6
													Diesel models	Replace	Every 15,000 km (9,000 miles)	MA-34, MA-35
.	.	.	.	.	.	.	.	.	.	.	L	Heated oxygen sensor 1	Petrol models	Inspect	Every 60,000 km (36,000 miles)	EC-169, EC-591 , EC-780
A	B	.	D	.	.	.	H	.	.	.	L	Timing belt	Diesel models	Replace	More frequently	EM-140
.	.	.	.	.	F	.	.	.	.	.	.	Brake fluid	All models	Replace	Every 30,000 km (18,000 miles)	MA-39
.	.	C	.	.	.	.	H	.	.	.	.	Automatic transaxle fluid	Petrol models	Replace	Every 60,000 km (36,000 miles)	MA-37
.	.	C	.	.	.	.	H	.	.	.	.	Fuel filter	Diesel models	Check filter & drain water	Every 15,000 km (9,000 miles)	FL-14
														Replace	Every 30,000 km (18,000 miles)	
.	.	.	.	.	.	G	H	.	.	.	.	Steering gear & linkage, axle & suspension parts, drive shafts & exhaust system	All models	Inspect	Every 30,000 km (18,000 miles)	MA-40, MA-40 , MA-41 , MA-36
A	.	C	.	.	.	G	H	I	.	.	.	Brake pads, rotors & other brake components	All models	Inspect	Every 15,000 km (9,000 miles)	MA-39, MA-39 , MA-39
A	.	.	.	.	.	.	.	.	.	.	.	Air conditioner filter	All models	Replace	Every 15,000 km (9,000 miles)	MTC-52

ENGINE AND EMISSION CONTROL MAINTENANCE (CR PETROL ENGINE FOR SOUTH AFRICA)

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

MAINTENANCE OPERATION		MAINTENANCE INTERVAL								Refer-ence page
Perform on a kilometer basis, but on an annual basis when driving less than 15,000 km (9,000 miles) per year	km x 1,000 (Miles x 1,000) Months	15 (9) 12	30 (18) 24	45 (27) 36	60 (36) 48	75 (45) 60	90 (54) 72	105 (63) 84	120 (72) 96	
Engine compartment and under vehicle										
Intake and exhaust valve clearance	See NOTE (1)									EM-45
Drive belts		I	I	I	I	I	I	I	I	EM-12
Engine oil (Use recommended oil.)★		R	R	R	R	R	R	R	R	LU-4
Engine oil filter (Use NISSAN genuine part or equivalent)★		R	R	R	R	R	R	R	R	LU-6
Fuel filter (In-tank type)	See NOTE (2)									FL-4
Positive crankcase ventilation (PCV) valve		I		I		I		I		EC-844
Engine anti-freeze coolant (Use genuine NISSAN Anti-Freeze Coolant (L250) or equivalent.)	See NOTE (3)		I		I	R		I		CO-8
Cooling system		I	I	I	I	I	I	I	I	CO-8
Fuel lines			I		I		I		I	FL-3
Air cleaner filter★			R		R		R		R	EM-16
Spark plugs [Platinum-Tipped Type]							[R]			MA-28
EVAP vapor lines (With carbon canister)			I		I		I		I	EC-464 or EC-840
Heated oxygen sensor 1			I		I		I		I	EC-173 or EC-595

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) Fuel filter is maintenance-free. For service procedures, refer to FL-4 .**
- **(3) Use NISSAN Genuine engine coolant, 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. After first replacement, replace every 40,000 km (24,000 miles) or 24 months. Perform "I" (Checking the mixture ratio and correcting the mixture ratio if necessary) at the middle of replacement interval.**

CHASSIS AND BODY MAINTENANCE (CR PETROL ENGINE FOR SOUTH AFRICA)

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, whichever comes first.	km x 1,000 (Miles x 1,000) Months	15 (9) 12	30 (18) 24	45 (27) 36	60 (36) 48	75 (45) 60	90 (54) 72	105 (63) 84	120 (72) 96	
Underhood and under vehicle										
Brake & clutch fluid (For level & leaks)★		I	I	I	I	I	I	I	I	MA-38, MA-36
Brake fluid★			R		R		R		R	MA-39
Brake booster vacuum hoses, connections & check valve			I		I		I		I	BR-17
Brake, clutch & exhaust system		I	I	I	I	I	I	I	I	MA-38, MA-36 , MA-36
Manual transaxle gear oil (For level & leaks)		I	I	I	I	I	I	I	I	MA-36
Steering gear & linkage, axle & suspension parts, front drive shafts★			I		I		I		I	MA-40,MA-40 , MA-41
Outside and inside										
Wheel alignment (If necessary, rotate & balance wheels)		I	I	I	I	I	I	I	I	FSU-15
Brake pads, rotors, linings, drums & other brake components★		I	I	I	I	I	I	I	I	MA-39, MA-39 , MA-39
Locks, hinges & hood latch★		L	L	L	L	L	L	L	L	MA-41
Seat belts, buckles, reactors, anchors & adjuster		I	I	I	I	I	I	I	I	MA-41
Foot brake, parking brake & clutch (For free play, stroke & operation)		I	I	I	I	I	I	I	I	BR-6, PB-3 , CL-5
Air conditioner filter★			I		I		I		I	ATC-75

NOTE:

- **★ Maintenance items with "★" should be performed more frequently according to "Maintenance Under Severe Driving Conditions".**

MAINTENANCE UNDER SEVERE DRIVING CONDITIONS (FOR SOUTH AFRICA)

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 in dusty conditions
B — Repeatedly driving short distances
C — Towing a trailer or caravan
D — Extensive idling
E — Driving in extremely adverse weather conditions or in areas where ambient temperatures are either extremely low or extremely high
F — Driving in high humidity or mountainous areas
G — Driving in areas using salt or other corrosive materials
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 off road use or driving in water
K —Sustained high speed driving

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

Driving condition											Maintenance item		Maintenance operation	Maintenance interval	Reference page
A	.	.	.	.	.	.	.	.	.	.	Air cleaner filter	Petrol models	Replace	More frequently	MA-26
A	B	C	D	.	.	.	.	.	.	K	Engine oil & engine oil filter	Petrol models	Replace	Every 7,500 km (4,500 miles) or 6 months	MA-27, LU-6
.	.	.	.	.	F	.	.	.	.	.	Brake fluid	Petrol models	Replace	Every 15,000 km (9,000 miles) or 12 months	MA-39
.	.	.	.	.	.	G	H	.	.	.	Steering gear & linkage, axle & suspension parts, front drive shafts & exhaust system	Petrol models	Inspect	Every 15,000 km (9,000 miles) or 12 months	MA-40, MA-40 , MA-41 , MA-36
A	.	C	.	.	.	G	H	I	.	.	Brake pads, rotors, linings, drums & other brake components	Petrol models	Inspect	Every 7,500 km (4,500 miles) or 6 months	MA-39, MA-39 , MA-39
.	.	.	.	.	.	G	.	.	.	.	Lock, hinges & hood latch	Petrol models	Lubricate	Every 5,000 km (3,000 miles) or 3 months	MA-41
A	.	.	.	.	.	.	.	.	.	.	Air conditioner filter	Petrol models	Replace	More frequently	ATC-75

RECOMMENDED FLUIDS AND LUBRICANTS

PFP:00000

Fluids and Lubricants

ELS000L9

			Capacity (Approximate)		Recommended Fluids/Lubricants
			Liter	Imp measure	
Engine oil Drain and refill	With oil filter change	CR engine	3.0	2-5/8 qt	● Gasoline engine API SG, SH or SJ*1 ILSAC grade GF-I or GF-II*1 ACEA A2 ● Diesel engine ACEA B3, B4*1
		K9K engine	4.55	4 qt	
	Without oil filter change	CR engine	2.8	2-1/2 qt	
		K9K engine	4.39	3-7/8 qt	
Dry engine (engine overhaul)		CR engine	3.5	3-1/8 qt	
		K9K engine	4.71	4-1/8 qt	
Cooling system (with reservoir)	CR engine	M/T models with A/C	5.3	4-5/8 qt	● Genuine Nissan Anti-freeze Coolant (L250) or equivalent in its quality*3
		Except M/T models with A/C	4.9	4-3/8 qt	
	K9K engine		6.5	5-3/4 qt	
Reservoir tank	CR engine	M/T models with A/C	1.2	1-1/8 qt	
		Except M/T models with A/C	0.7	5/8 qt	
	K9K engine		1.2	1-1/8 qt	
Manual transaxle gear oil		JH3	2.6	4-5/8 pt	● Genuine Nissan gear oil or API GL-4, Viscosity SAE 75W-80, 75W-85
		JR5	2.5	4-3/8 pt	
Automatic transaxle fluid			7.7	6-3/4 qt	Genuine Nissan ATF or equivalent*4
Brake and clutch fluid			—	—	● DOT 3 or DOT 4 (US FMVSS No. 116)*5
Multi-purpose grease			—	—	NLGI No. 2 (Lithium soap base)

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

*2: Never use API CG-4.

*3: Use Genuine Nissan Anti-freeze Coolant (L250)] 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.

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

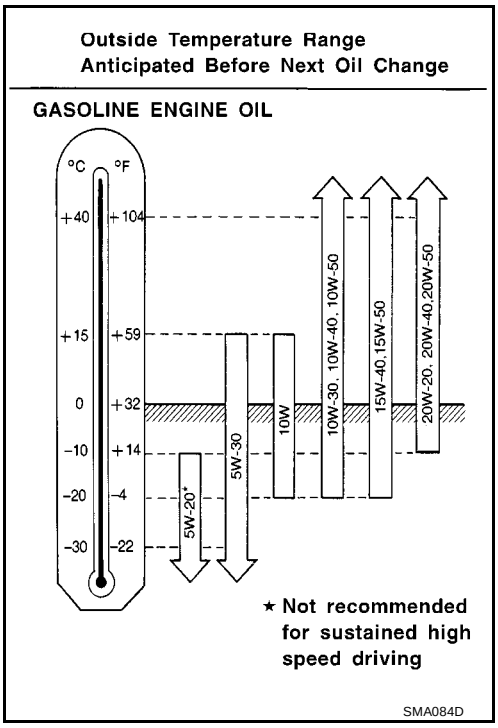
*5: Never mix different types of fluids (DOT 3 and DOT 4).

SAE Viscosity Number

ELS000LA

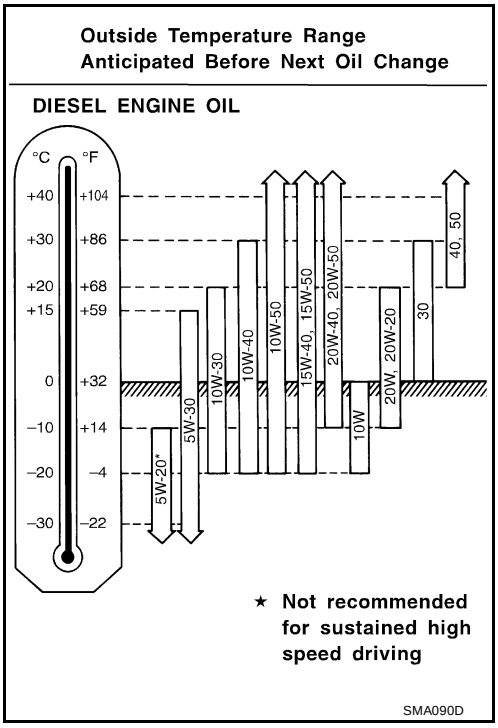
GASOLINE ENGINE

- For warm and cold areas: 10W-30 is preferable for ambient temperature above –20°C (–4°F).
- 5W-30 will positively improve fuel economy.
- For hot areas: 20W-40 and 20W-50 are suitable.



DIESEL ENGINE

- For cold and warm areas: 5W-40, 10W-40 and 15W-40 are suitable.
- 5W-40 and 10W-40 are preferable for ambient temperature below –15°C (5°F).
- 15W-40 is preferable for ambient temperature above –10°C (4°F).



Engine Coolant Mixture Ratio

ELS000LB

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.

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

SMA089D

CAUTION:

- **When adding or replacing coolant, be sure to use only Genuine NISSAN Anti-freeze Coolant (L250) or equivalent. Because L250 is premixed type coolant.**

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 (specific gravity) according to coolant temperature.

Mixed coolant specific gravity

Unit: specific gravity

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

WARNING:

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.

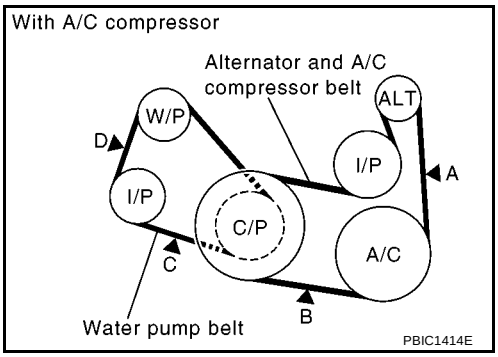
ENGINE MAINTENANCE (CR)

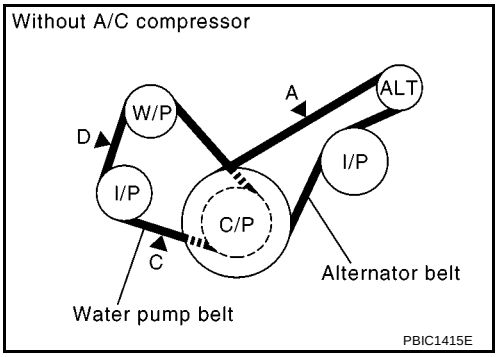
PFP:00000

Checking drive Belts

ELS000MI

- Inspection should be done only when engine is cold or over 30 minutes after the engine is stopped.
- Turn the clamp pulleys two times clockwise, and make sure tension on all pulleys is equal before doing the test.
- Visually check the belts for wear, damage, and cracks on inside and edges.
- When measuring deflection, apply 98,1 N (10 kg, 22lb) at the ▼ marked point.





CAUTION:

When measuring belt tension immediately after the belt is installed, first set the tension to the standard, rotate the crankshaft for more than two turns in order to eliminate variance in the tension between pulleys, then measure and adjust tension to the standard again.

Location	Tension [N (kg, lb)]			Deflection [mm (in)] [When pressed by force of 98.1N (10 kg, 22lb)]			
	New	At adjustment	Limit	Measuring point	New belt	At adjustment	Limit
Alternator and A/C compressor belt	603 - 691 (61.5 - 70.5, 135.6 - 155.3)	495 - 583 (50.5 - 59.5, 111.3 - 131.1)	196 (20, 44.1)	A	6.6 - 7.8 (0.260 - 0.307)	7.3 - 8.5 (0.287 - 0.335)	13.8 (0.543)
				B	5.6 - 6.6 (0.220 - 0.260)	7.1 - 8.3 (0.280 - 0.327)	11.9 (0.469)
Alternator belt	603 - 691 (61.5 - 70.5, 135.6 - 155.3)	495 - 583 (50.5 - 59.5, 111.3 - 131.1)	196 (20, 44.1)	A	3.1 - 4.1 (0.122 - 0.161)	9.8 - 10.6 (0.386 - 0.417)	13.8 (0.543)
Water pump belt	446 - 534 (45.5 - 54.5, 100.3 - 120.0)	348 - 436 (35.5 - 44.5, 78.2 - 98.0)	137 (14, 30.9)	C	6.7 - 7.3 (0.264 - 0.287)	7.6 - 8.6 (0.299 - 0.339)	12.4 (0.448)
				D	4.7 - 5.6 (0.185 - 0.220)	7.0 - 7.7 (0.276 - 0.303)	8.6 (0.339)

Tension Adjustment

ELS000MJ

Location	Location of adjuster and tightening method
Alternator and A/C compressor drive belt	Adjusting bolt on idler pulley
Water pump belt	Adjusting bolt on idler pulley

CAUTION:

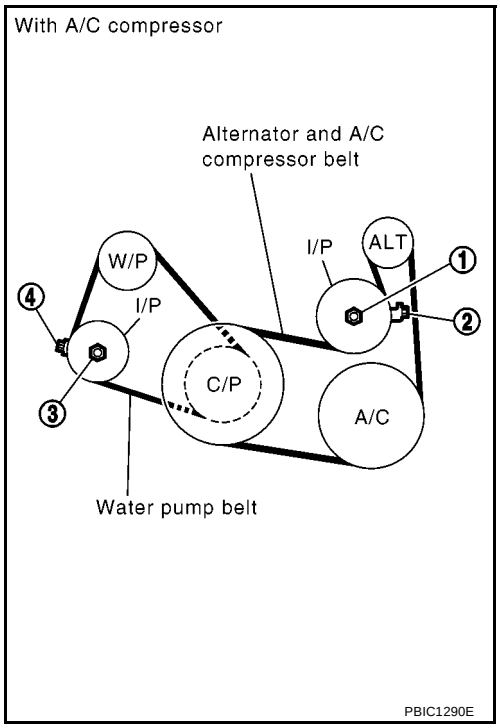
- **When the belt is replaced with new one, adjust the belt tension to the value for “New belt”, because new belt will not fully seat in the pulley groove.**
- **When tension of the belt being used exceeds “Limit”, adjust it to the value for “At adjustment”.**
- **When installing a belt, make sure that it is correctly engaged with the pulley groove.**
- **Do not allow oil or engine coolant to get on the belt.**
- **Do not twist or bend the belt strongly.**

ALTERNATOR AND A/C COMPRESSOR BELT (WITH A/C MODELS)

1. Remove RH front fender protector.
2. Loosen lock nut (1).
3. Tighten lock nut (1) with fingers.
4. Loosen lock nut (1) half a turn counter-clockwise.
5. Adjust the belt tension by turning the adjuster bolt (2).
   For the specified belt tension, refer to MA-21, "Checking drive Belts" .
6. Tighten lock nut (1).

   Nut (1) :

   : 24.5 - 31.4 N·m (2.5 - 3.2 kg-m, 18 - 23 ft-lb)
7. Turn the crankshaft pulley two times clockwise.
8. Check that the belt tension is within the standard. Refer to MA-21, "Checking drive Belts" .

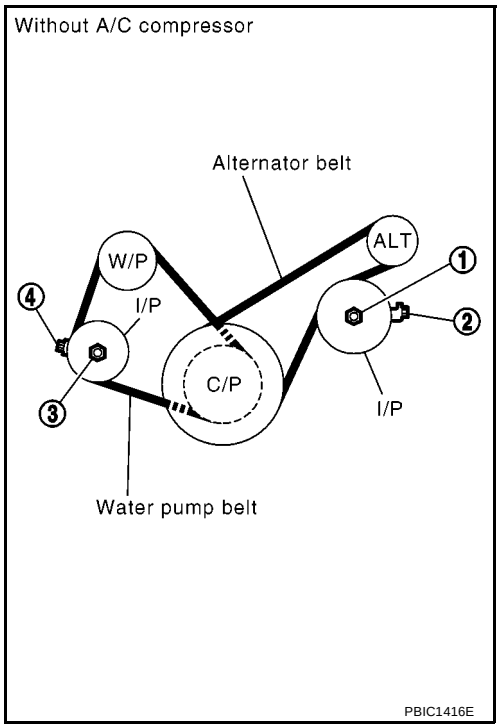


ALTERNATOR BELT (WITHOUT A/C MODELS)

1. Remove RH front fender protector.
2. Loosen lock nut (1).
3. Tighten lock nut (1) with fingers.
4. Loosen lock nut (1) half a turn counter-clockwise.
5. Adjust the belt tension by turning the adjuster bolt (2).
   For the specified belt tension, refer to MA-21, "Checking drive Belts" .
6. Tighten lock nut (1).

   Nut (1) :

   : 24.5 - 31.4 N·m (2.5 - 3.2 kg-m, 18 - 23 ft-lb)
7. Turn the crankshaft pulley two times clockwise.
8. Check that the belt tension is within the standard. Refer to MA-21, "Checking drive Belts" .



WATER PUMP BELT

1. Remove RH front fender protector.
2. Loosen lock nut (3).
3. Tighten lock nut (3) with fingers.
4. Adjust the belt tension by turning the adjuster bolt (4).
   For the specified belt tension, refer to MA-21, "Checking drive Belts" .
5. Tighten lock nut (3).

Nut (3) :

: 24.5 - 31.4 N·m (2.5 - 3.2 kg-m, 18 - 23 ft-lb)

6. Turn the crankshaft pulley two times clockwise.
7. Check that the belt tension is within the standard. Refer to MA-21, "Checking drive Belts" .

Changing Engine coolant

ELS000MK

WARNING:

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

DRAINING ENGINE COOLANT

1. Disconnect radiator lower hose and radiator cap.

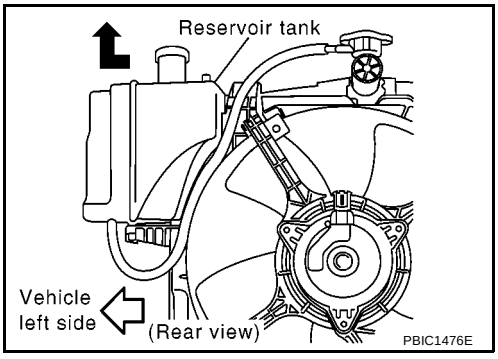
   CAUTION:
   - **Make sure to drain when the engine coolant temperature is cold.**
   - **Be careful not to allow coolant to contact drive belts.**

2. Remove reservoir tank and drain the engine coolant in the following procedures.

a. Move relay case.

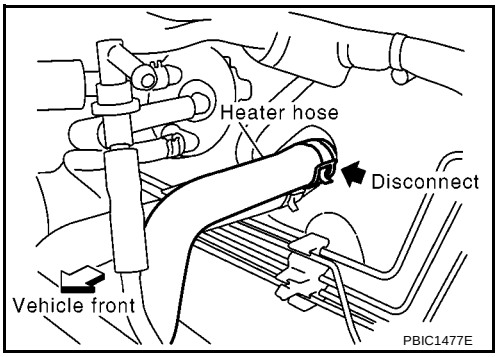
b. Disconnect the reservoir tank from fan shroud to remove. With force applied in the left direction of vehicle, pull up reservoir tank.

3. Check drain coolant for contaminants such as rust, corrosion or discoloration.
   If contaminated, flush engine cooling system. Refer to MA-24, "FLUSHING COOLING SYSTEM" .

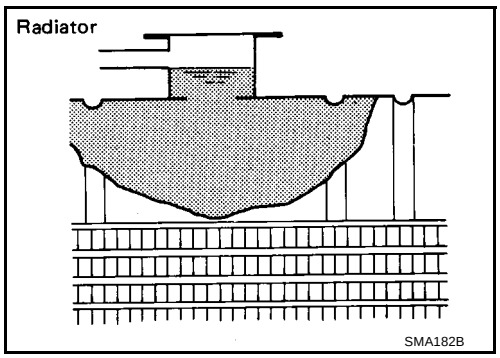


REFILLING ENGINE COOLANT

1. Install reservoir tank.
2. Connect radiator lower hose.
3. Disconnect heater hose (at heater hose outlet side: upper side) as shown in figure. Keep hose end at the same height as that of before removal.



4. Fill radiator and reservoir tank to specified level.
   - **Pour coolant slowly of less than 2 ℓ (1-3/4 Imp qt) a minute to allow air in system to escape.**
   - **When coolant from heater hose starts to drain, connect heater hose and continue to fill.**
   - **Use Genuine Nissan Anti-freeze Coolant or equivalent mixed with water (distilled or demineralized).**
     Refer to MA-18, "RECOMMENDED FLUIDS AND LUBRICANTS".



Engine coolant capacity (With reservoir tank):

M/T models with A/C

: Approx. 5.3 ℓ (4-5/8 Imp qt)

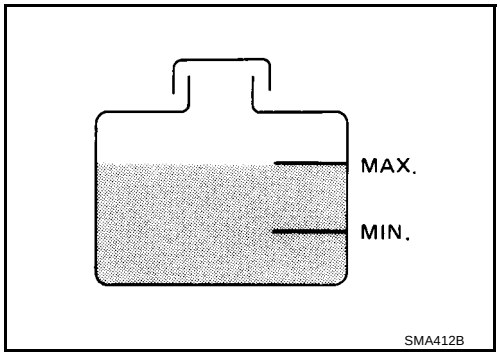
Except M/T models with A/C

: Approx. 4.9 ℓ (4-3/8 Imp qt)

Reservoir tank:

M/T models with A/C : 1.2 ℓ (1-1/8 Imp qt)

Except M/T models with A/C : 0.7 ℓ (5/8 Imp qt)



5. Warm up engine to normal operating temperature with radiator cap installed.
6. Warm up until thermostat opens. Keep warming at 3,000 rpm for approximately 10 minutes as guide.
   - For thermostat opening, touch radiator upper hose by hand to insure that water flow is hot.

   CAUTION:
   Be careful not to overheat.
7. Stop the engine.
8. After cooling engine [approximately 50°C (122 °F) or lower], remove radiator cap and check coolant level. If the level is low, fill up to the radiator neck again and repeat from step 5.
9. When the coolant level stabilizes, fill reservoir tank up to the “MAX” line.
10. Check cooling system for leaks with engine running.
11. Allow the engine to cool [approximately 50°C (122°F) or lower].
12. Start the engine. Perform the following cycle 3 times. Keep an engine speed of 1,000 rpm for approximately 30 seconds. Then increase it gradually to 3,000 rpm.
13. During the above step 12, make sure water flow sound is not heard from heater core.

- Sound may be noticeable at heater unit.

14. If water flow sound is heard, repeat from step 4 to 13.

- **Clean excess coolant from engine.**

FLUSHING COOLING SYSTEM

1. Fill radiator with water until water spills from the air relief hole, then close air relief plug. Fill radiator and reservoir tank with water and reinstall radiator cap.
2. Run engine and warm it up to normal operating temperature.
3. Rev engine two or three times under no-load.
4. Stop engine and wait until it cools down.
5. Drain water.
6. Repeat steps 1 through 5 until clear water begins to drain from radiator.

Checking Cooling System

ELS000ML

WARNING:

Never remove the radiator cap when the engine is hot; serious burns could be caused by high pressure fluid escaping from the radiator.
Wrap a thick cloth around the cap and carefully remove it by turning it a quarter turn to allow built-up pressure to escape and then turn the cap all the way off.

CHECKING COOLING SYSTEM HOSES

Check hoses for improper attachment, leaks, cracks, damage, loose connections, chafing and deterioration.

CHECKING RADIATOR

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

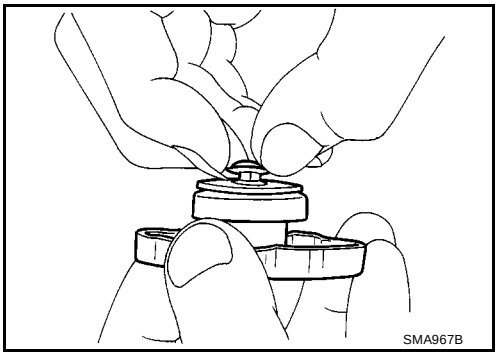
- Be careful not to bend or damage the radiator fins.
- When radiator is cleaned without removal, remove all surrounding parts such as cooling fan, radiator shroud and horns. Then tape the harness and connectors to prevent water from entering.

1. Apply water by hose to the back side of the radiator core vertically downward.
2. Apply water again to all radiator core surfaces once per minute.
3. Stop washing if any stains no longer flow out from the radiator.
4. Blow air into the back side of radiator core vertically downward.
   - Use compressed air lower than 490 kPa (4.9 bar, 5 kg/cm^2 , 71 psi) and keep distance more than 30 cm (11.8 in).
5. Blow air again into all the radiator core surfaces once per minute until no water sprays out.

CHECKING RADIATOR CAP

1. Pull the negative-pressure valve to open it and check that it close completely when released.

- Check that there is no dirt or damage on the valve seat of the radiator cap negative-pressure valve.
- Check that there are no unusual conditions in the opening and closing conditions of the negative-pressure valve.



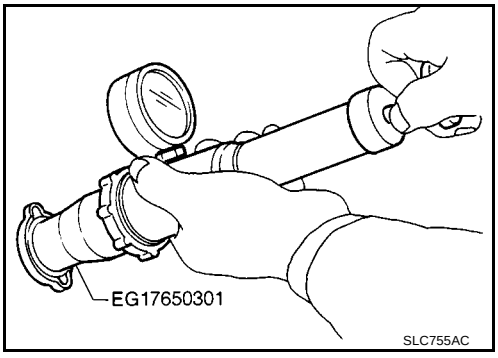
2. Check radiator cap relief pressure.

Standard:

78 - 98 kPa (0.78 - 0.98 bar, 0.8 - 1.0 kg/cm^2 , 11 - 14 psi)

Limit:

59 kPa (0.59 bar, 0.6 kg/cm^2 , 9 psi)



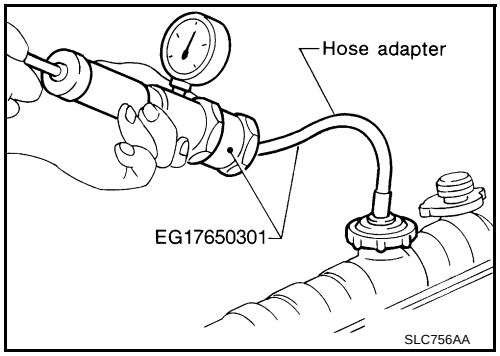
- When connecting the radiator cap to the tester, apply engine coolant to the cap seal part.
- Replace the radiator cap if there is an unusual conditions in the negative-pressure valve, or if the open-valve pressure is outside of the standard values.

CHECKING COOLING SYSTEM FOR LEAKS

- To check for leakage, apply pressure to the cooling system with a tester.

Testing pressure:

157 kPa (1.57 bar, 1.6 kg/cm^2 , 23 psi)



WARNING:

Never remove the radiator cap when the engine is hot. Serious burns could occur from high pressure coolant escaping from the radiator.

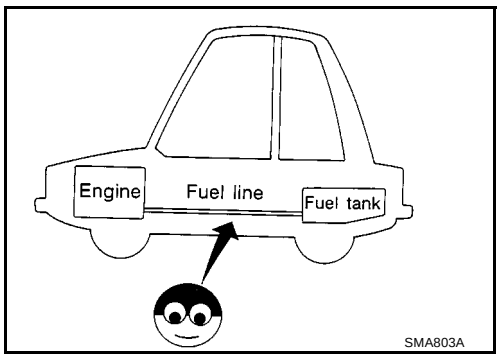
CAUTION:

Higher pressure than specified may cause radiator damage.

Checking Fuel Lines

ELS000MM

Inspect fuel lines, filler cap and tank for improper attachment, leaks, cracks, damage, loose connections, chafing or deterioration. If necessary, repair or replace malfunctioning parts.



CAUTION:

Tighten high-pressure rubber hose clamp so that clamp end is 3 mm (0.12 in) from hose end.
Tightening torque specifications are the same for all rubber hose clamps.
Ensure that screw does not contact adjacent parts.

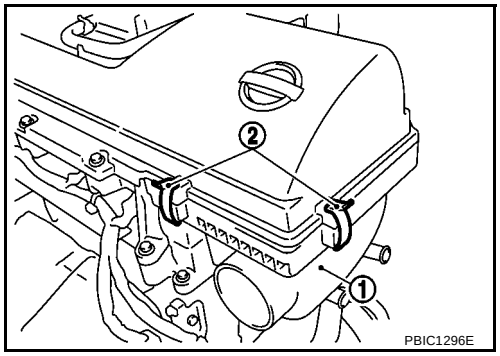
Changing Air Cleaner Filter

ELS000MN

REMOVAL

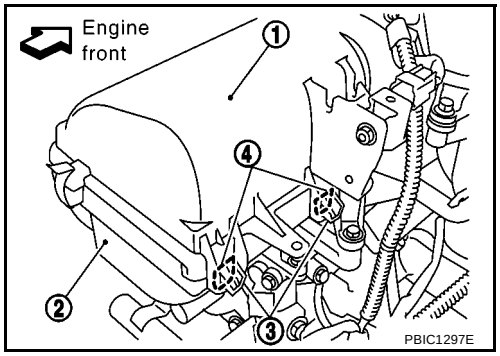
1. Remove air duct. Refer to EM-16, "REMOVAL" .
2. Remove clips (2) of air cleaner body (1).
3. After moving the air cleaner body downward, remove it by pulling it forward.
   - While pressing down the radiator upper hose, remove air cleaner body.
4. Remove air cleaner filter from the air cleaner body.

   NOTE:
   In some cases the air cleaner filter might remain in the air cleaner case (upper).



INSTALLATION

1. Set the air cleaner filter on the air cleaner case (upper) (1).
2. Insert the two projections (3) on the air cleaner body (2) into the two notch holes (4) on the rear of the air cleaner case (upper) (1), then lift up and fasten with the clip.
3. Attach air duct.



Changing Engine Oil

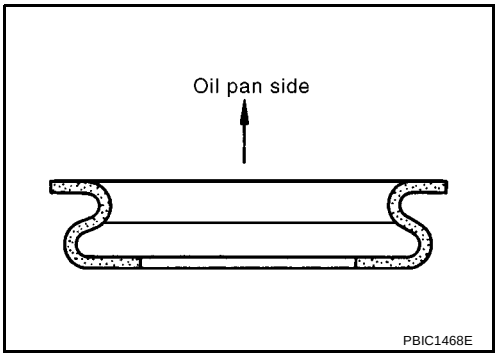
ELS000MO

WARNING:

- **Be careful not to burn yourself, as the engine oil is hot.**
- **Prolonged and repeated contact with used engine oil may cause skin cancer: try to avoid direct skin contact with used oil. If skin contact is made, wash thoroughly with soap or hand cleaner as soon as possible.**

1. Warm up engine put vehicle horizontally, and check for oil leakage from engine components.
2. Stop engine and wait for 10 minutes.
3. Remove oil filler cap, and remove drain plug.
4. Drain engine oil.
5. Install drain plug. Refill with new engine oil.
   - Install drain plug washer in the direction shown in figure.

   Oil specification and viscosity:
   Refer to MA-18, "RECOMMENDED FLUIDS AND LUBRICANTS".



Oil capacity (Approximate):

Unit: ℓ (Imp qt)

Drain and refill	With oil filter change	3.0 (2-5/8)
	Without oil filter change	2.8 (2-1/2)
Dry engine (engine overhaul)		3.5 (3-1/8)

CAUTION:

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

  Oil pan drain plug:

  : 29.4 - 39.2 N·m (3.0 - 3.9 kg-m, 22 - 28 ft-lb)

- **The refill capacity depends on the oil temperature and drain time. Use these specifications for reference only.**
  Always use the dipstick to determine when the proper amount of oil is in the engine.

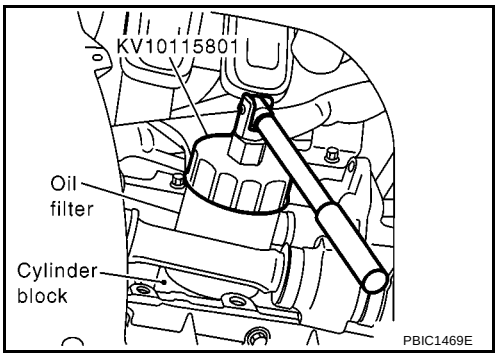
6. Warm up engine and check area around drain plug and oil filter for oil leakage.
7. Check oil level. Refer to LU-4, "Inspection" .
8. Stop engine and wait for 10 minutes.

Changing Oil Filter

ELS000MP

1. Using an oil filter wrench (special service tool), remove oil filter.

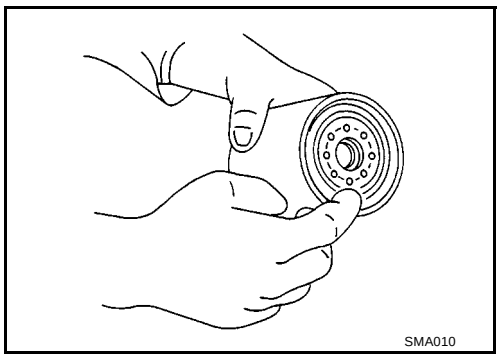
   CAUTION:
   - **Be careful not to get burned when the engine and engine oil are hot.**
   - **When removing, prepare a shop cloth to absorb any oil leakage or spillage.**
   - **Do not allow engine oil to adhere to the drive belts.**
   - **Completely wipe off any oil that adheres to the engine and the vehicle.**
2. Remove foreign materials adhering to the oil filter installation surface.



3. Apply engine oil to the oil seal circumference of the new oil filter.

CAUTION:

- **Use genuine NISSAN oil filter or the equivalent.**

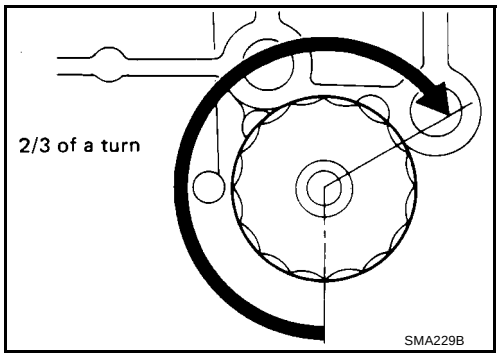


4. Screw the oil filter manually until it touches the installation surface, then tighten it by 2/3 turn.

Oil filter:

:14.7 - 20.5 N·m (1.5 - 2.1 kg-m, 11 - 15 ft-lb)

5. After warming up the engine, check for engine oil leakage.
6. Check oil level and add engine oil. Refer to LU-4, "ENGINE OIL" .



Changing Spark Plugs

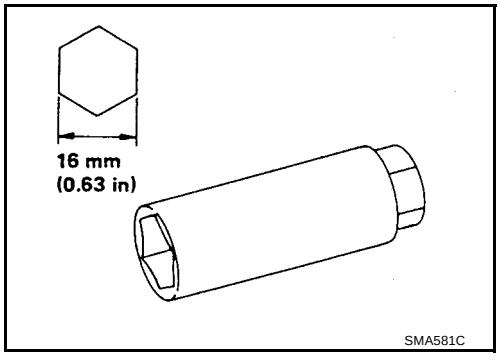
ELS000MQ

REMOVAL

1. Remove ignition coil. Refer to EM-27, "IGNITION COIL" .
2. Remove spark plugs with a spark plug wrench.

CAUTION:

Handle spark plug with care. Avoid impacts.



INSPECTION AFTER REMOVAL

- Use standard type spark plug for normal condition.
- The hot type spark plug is suitable when fouling occurs with the standard type spark plug under conditions such as:
  - Frequent engine starts
  - Low ambient temperatures
- The cold type spark plug is suitable when spark plug knock occurs with the standard type spark plug under conditions such as:
  - Extended highway driving
  - Frequent high engine revolution

Make	NGK	Champion
Standard type	LFR5AP-11	REC10PYC4
Hot type	LFR4AP-11	—
Cold type	LFR6AP-11	—

Gap (Nominal) : 1.1 mm (0.043 in)

CAUTION:

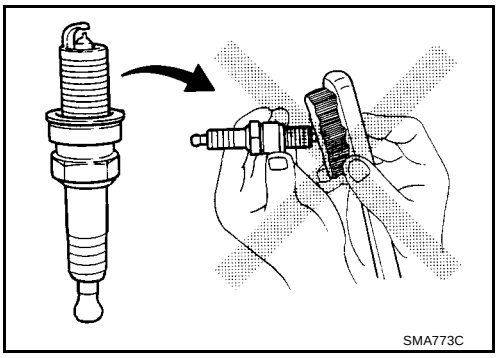
- **Do not use a wire brush for cleaning.**
- **If plug tip is covered with carbon, spark plug cleaner may be used.**

Cleaner air pressure:

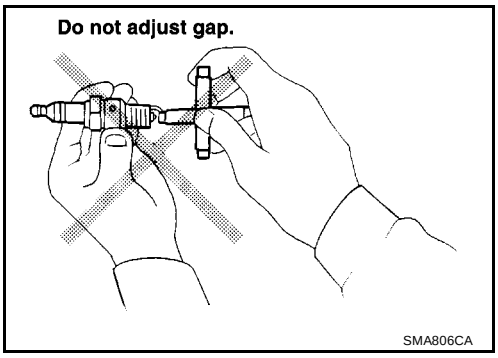
Less than 588 kPa (6 kg/cm^2 , 85 psi)

Cleaning time:

Less than 20 seconds



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



INSTALLATION

Install in the reverse order of removal.

Spark plug

: 19.6 - 29.4 N·m (2.0 - 3.0 kg-m, 15 - 21 ft-lb)

Checking EVAP Vapor Lines

ELS000MR

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

Refer to EC-464, "EVAPORATIVE EMISSION SYSTEM" (CR engine models with E-OBD), EC-840, "EVAPORATIVE EMISSION SYSTEM" (CR engine models without E-OBD).

ENGINE MAINTENANCE (K9K)

PFP:00000

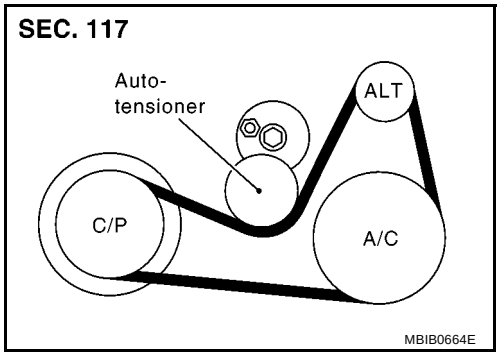
Checking Drive Belts

ELS0016D

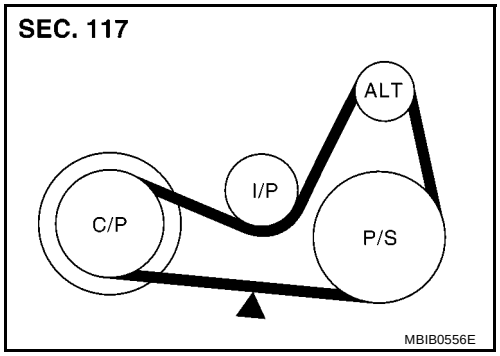
WARNING:

Be sure to perform when the engine is stopped.

1. Inspect belts for cracks, fraying, wear and oil. If necessary, replace.
2. Tighten auto-tensioner lock nut (models with A/C compressor) or idler pulley lock nut (models without A/C compressor) by hand and measure deflection or tension without looseness.



3. When measuring deflection, apply 98 N (10 kg, 22 lb) at the ▼ marked point as shown (models without A/C compressor).



TENTION ADJUSTMENT

Models With A/C Compressor

Belt tensioning is not necessary, as it is automatically adjusted by auto-tensioner.

Models Without A/C Compressor

Belt tightening method for adjustment	Adjusting bolt on idler pulley

- The tension value is 234±10 Hz.

NOTE:

The engine must be turned through two revolutions in order to position the belt correctly.

CAUTION:

- **When checking belt tension immediately after installation, first adjust it to the specified value. Then, after turning the crankshaft two turns or more, re-adjust to the specified value to avoid variation in deflection between pulleys.**
- **When installing belt, make sure that it is correctly engaged with pulley groove.**
- **Keep oil and water away from belt.**
- **Do not twist or bend belt excessively.**

Changing Engine coolant

ELS0016E

WARNING:

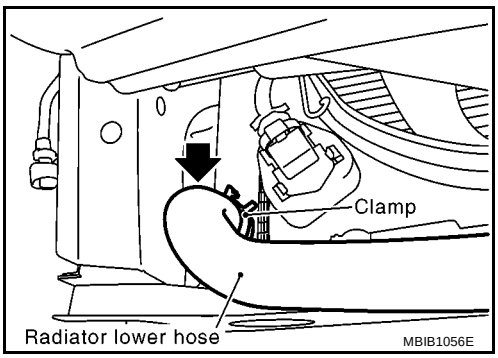
- **To avoid being scalded, never change the coolant when the engine is hot.**
- **Wrap a thick cloth around cap and carefully remove the cap. First, turn the cap a quarter of a turn to release built-up pressure. Then turn the cap all the way.**

DRAINING ENGINE COOLANT

1. Remove engine undercover.

2. Disconnect lower radiator hose, and remove radiator cap.
3. Remove reservoir tank, drain coolant, then clean reservoir tank.
4. Check drained coolant for contaminants such as rust, corrosion or discoloration.

If contaminated, flush engine cooling system. Refer to CO-33, "FLUSHING COOLING SYSTEM" .



REFILLING ENGINE COOLANT

1. Install reservoir tank, radiator lower hose and air relief plug.
2. Fill reservoir tank slowly with coolant until coolant spills from radiator cap holes.

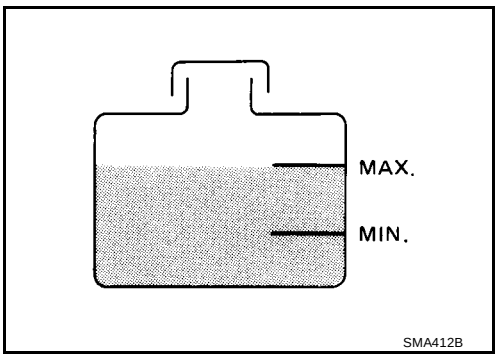
CAUTION:
If the filling rate is too fast, this could lead to air being mixed in the coolant. Be sure to fill the coolant slowly according to the rate indicated above.

- **Use genuine Nissan anti-freeze coolant or equivalent mixed with water (distilled or demineralized). Refer to MA-18, "RECOMMENDED FLUIDS AND LUBRICANTS".**

Engine coolant capacity (With reservoir tank):

6.5 ℓ (5-3/4 Imp qt)

Reservoir tank : 1.2 ℓ (1-1/8 Imp qt)



- **Pour coolant through coolant filler neck slowly of less than 2 ℓ (1-3/4 Imp qt) a minute to allow air in system to escape.**
3. Fill reservoir tank to specified level.
4. Warm up engine to normal operating temperature without radiator cap installed.
- **If coolant overflows radiator filler hole, install filler cap.**
5. Run engine at 3,000 rpm for 10 seconds and return to idle speed with radiator cap installed.
- Repeat two or three times.

Watch coolant temperature gauge so as not to overheat the engine.

6. Stop engine and cool down to less than approximately 50°C (122°F).
- Cool down using a fan to reduce the time.
- If necessary, refill radiator up to filler neck with coolant.
7. Refill reservoir tank to MAX level line with coolant.
8. Repeat steps 5 through 7 two or more times with radiator cap installed until coolant level no longer drops.
9. Check cooling system for leaks with engine running.
10. Warm up engine, and check for sound of coolant flow while running engine from idle up to 3,000 rpm with heater temperature controller set at several position between COOL and WARM.
- Sound may be noticeable at heater unit.
11. If sound is heard, bleed air from cooling system by repeating steps 5 through 7 until coolant level no longer drops.
- **Clean excess coolant from engine.**

FLUSHING COOLING SYSTEM

1. Fill radiator with water until water spills from the air relief hole, then close air relief plug. Fill radiator and reservoir tank with water and reinstall radiator cap.
2. Run engine and warm it up to normal operating temperature.
3. Rev engine two or three times under no-load.
4. Stop engine and wait until it cools down.
5. Drain water.

6. Repeat steps 1 through 5 until clear water begins to drain from radiator.
7. Blow compressed air into cooling circuit through the reservoir tank valve hole to drain all the water.

Checking Cooling System

ELS0016F

WARNING:
Never remove the radiator cap when the engine is hot; serious burns could be caused by high pressure fluid escaping from the radiator.
Wrap a thick cloth around the cap and carefully remove it by turning it a quarter turn to allow built-up pressure to escape and then turn the cap all the way off.

CHECKING COOLING SYSTEM HOSES

Check hoses for improper attachment, leaks, cracks, damage, loose connections, chafing and deterioration.

CHECKING RADIATOR

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

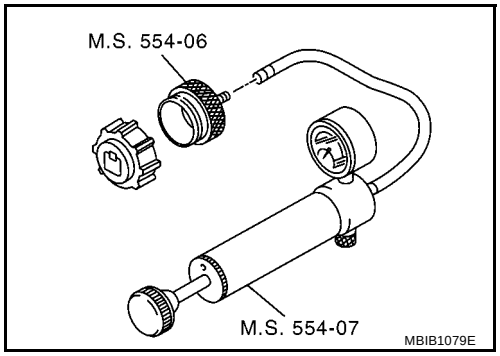
- Be careful not to bend or damage the radiator fins.
- When radiator is cleaned without removal, remove all surrounding parts such as cooling fan, radiator shroud and horns. Then tape the harness and connectors to prevent water from entering.

1. Apply water by hose to the back side of the radiator core vertically downward.
2. Apply water again to all radiator core surfaces once per minute.
3. Stop washing if any stains no longer flow out from the radiator.
4. Blow air into the back side of radiator core vertically downward.
   - Use compressed air lower than 490 kPa (4.9 bar, 5 kg/cm^2 , 71 psi) and keep distance more than 30 cm (11.8 in).
5. Blow air again into all the radiator core surfaces once per minute until no water sprays out.

Checking Reservoir Tank Cap

ELS0016G

- Fit the adapter to the tester as shown.
- When connecting the reservoir tank cap to the tester, apply water or LLC to the cap seal part.
- Check reservoir tank cap relief operation.
- Replace the reservoir tank cap if the engine coolant passes through it, or if any fur signs is detected.



Checking Radiator

ELS0016H

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

- Be careful not to bend or damage the radiator fins.
- When radiator is cleaned without removal, remove all surrounding parts such as radiator fan, radiator shroud and horns. Then tape the harness and connectors to prevent water from entering.

1. Apply water by hose to the back side of the radiator core vertically downwards.
2. Apply water again to all radiator core surface once per minute.
3. Stop washing if any stains no longer flow out from the radiator.
4. Blow air into the back side of radiator core vertically downwards.

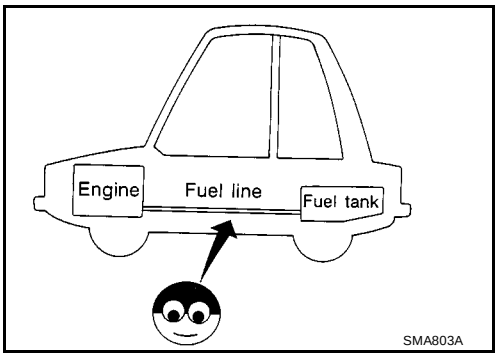
- Use compressed air lower than 490 kPa (4.9 bar 5 kg/cm^2 , 71psi) and keep distance more than 30 cm (11.8 in).

5. Blow air again into all the radiator core surface once per minute until no water sprays out.

Checking Fuel Lines

ELS0016I

Inspect fuel lines, filler cap and tank for improper attachment, leaks, cracks, damage, loose connections, chafing or deterioration. If necessary, repair or replace malfunctioning parts.



CAUTION:

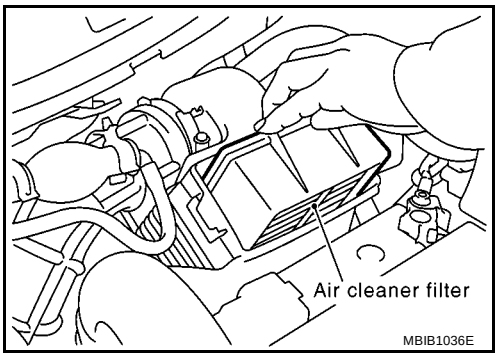
Tighten high-pressure rubber hose clamp so that clamp end is 3 mm (0.12 in) from hose end.
Tightening torque specifications are the same for all rubber hose clamps.
Ensure that screw does not contact adjacent parts.

Changing Air Cleaner Filter

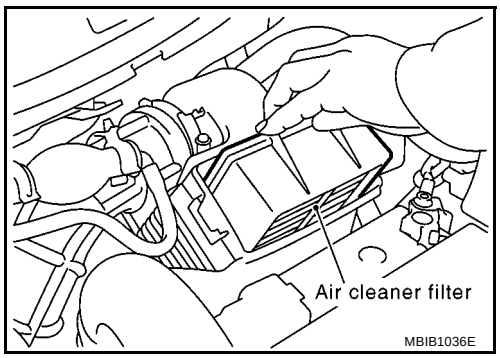
ELS0016J

REMOVAL

1. Open air cleaner case.



2. Remove air cleaner filter.



INSTALLATION

Install in the reverse order of removal.

Changing Engine Oil

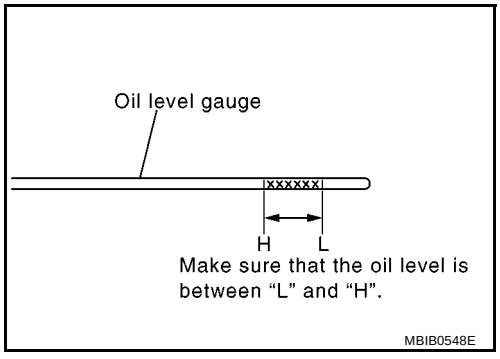
ELS0016K

WARNING:

- **Be careful not to burn yourself, as the engine oil is hot.**
- **Prolonged and repeated contact with used engine oil may cause skin cancer: try to avoid direct skin contact with used oil. If skin contact is made, wash thoroughly with soap or hand cleaner as soon as possible.**

1. Put vehicle horizontally.
2. Warm up engine, and check for oil leakage from engine components.
3. Stop engine and wait for 10 minutes.
4. Remove drain plug and oil filler cap.
5. Drain oil and refill with new engine oil.

- Refer to MA-18, "RECOMMENDED FLUIDS AND LUBRICANTS" .



Oil capacity (Approximate):

Drain and refill	With oil filter change	4.55 ℓ (4 Imp qt)
	Without oil filter change	4.39 ℓ (3-7/8 Imp qt)
Dry engine (overhaul)		4.71 ℓ (4-1/8 Imp qt)

- The refill capacity depends on the oil temperature and drain time. Use these specifications for reference only.
  Always use the dipstick to the determine when the proper amount of oil is in the engine.

CAUTION:

- **Be sure to clean drain plug and install with new washer.**
- **The refill capacity depends on the oil temperature and drain time. Use these specifications for reference only.**
  Always use the dipstick to the determine when the proper amount of oil is in the engine.

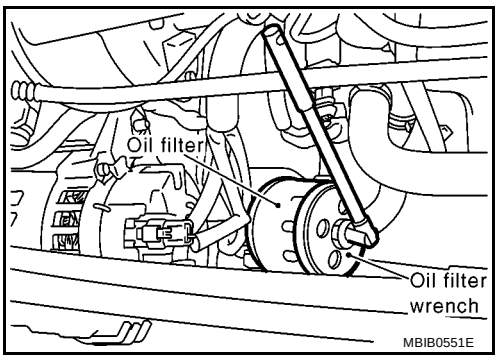
6. Warm up engine and check area around drain plug and oil filter for oil leakage.
7. Stop engine and wait for 10 minutes.
8. Check oil level.

Changing Oil Filter

ELS0016L

REMOVAL

1. Using an oil filter wrench (special service too), remove oil filter.



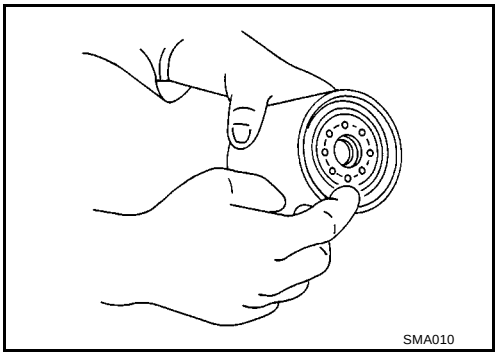
CAUTION:

- **Be careful not to get burned when the engine and engine oil are hot.**
- **When removing, prepare a shop cloth to absorb any oil leakage or spillage.**
- **Do not allow engine oil to adhere to the drive belts.**
- **Completely wipe off any oil that adhere to the engine and the vehicle.**

INSTALLATION

1. Remove foreign materials adhering to the oil filter installation surface.
2. Install oil filter bracket to oil cooler.

   CAUTION:
   Install oil filter bracket, positioning lug in the hole of oil cooler.
3. Apply engine oil to the oil seal contact surface of the new oil filter.



4. Install the oil filter to oil filter bracket.
5. After warming up the engine, check for engine oil leakage.
6. Check oil level and add engine oil. Refer to LU-12, "ENGINE OIL" .

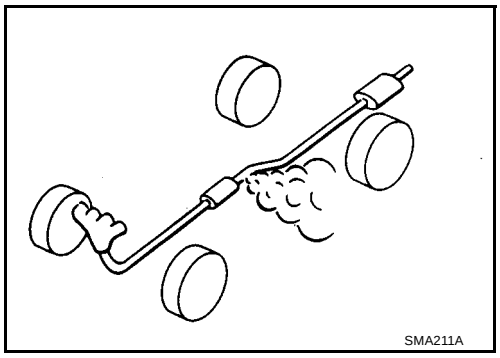
CHASSIS AND BODY MAINTENANCE

PFP:00100

Checking Exhaust System

ELS000LV

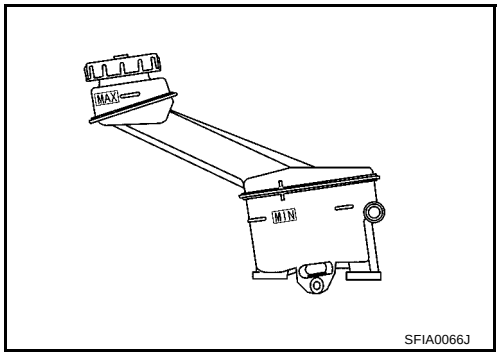
Check exhaust pipes, muffler and mounting for improper attachment, leaks, cracks, damage, chafing or deterioration.



Checking Clutch Fluid Level and Leaks

ELS000LW

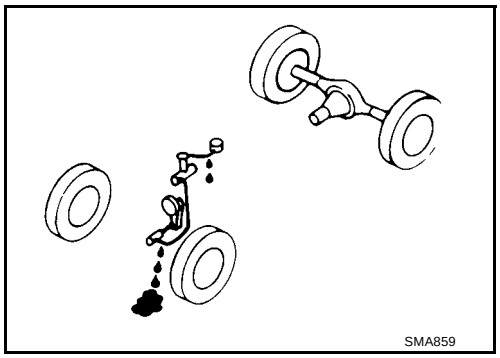
If fluid level is extremely low, check clutch system for leaks.



Checking Clutch System

ELS000LX

Check fluid lines and operating cylinder for improper attachment, cracks, damage, loose connections, chafing and deterioration.



Checking M/T Oil

ELS000LY

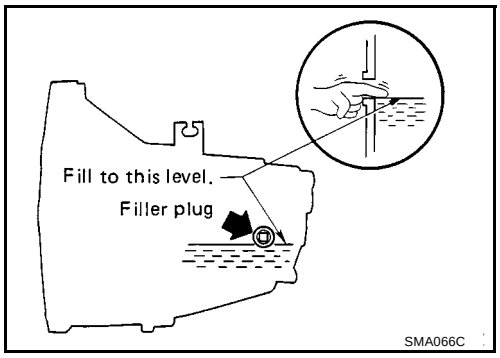
- Check that oil is not leaking from transaxle or around it.
- Check oil level from filler plug mounting hole as shown in the figure.

  CAUTION:
  Never start engine while checking oil level.
- Set a new gasket on the filler plug and install it on the transaxle.

  Filler plug:

  : 2 N·m (0.2 kg-m, 1.8 in-lb)

  CAUTION:
  Do not reuse gasket.



Changing M/T Oil

ELS000LZ

1. Drain oil from drain plug and refill with new gear oil.
2. Check oil level.

Oil grade and viscosity:

Refer to MA-18, "RECOMMENDED FLUIDS AND LUBRICANTS"

Oil capacity (Reference):

JH3: Approx. 2.6 ℓ (4-5/8 Imp pt)

JR5: Approx. 2.5 ℓ (4-3/8 Imp pt)

Drain plug:

: 22 N·m (2.2 kg-m, 1.5 - 1.7 ft-lb)

CAUTION:

Do not reuse gasket.

Checking A/T Fluid

ELS000M0

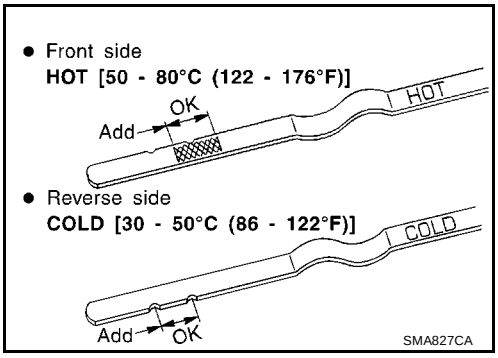
1. Warm up engine.
2. Check for fluid leakage.
3. Before driving, fluid level can be checked at fluid temperatures of 30 to 50°C (86 to 122°F) using “COLD” range on dipstick.

a. Park vehicle on level surface and set parking brake.

b. Start engine and move selector lever through each gear position. Leave selector lever in “P” position.

c. Check fluid level with engine idling.

d. Remove dipstick and note reading. If level is at low side of either range, and fluid to the charging pipe.

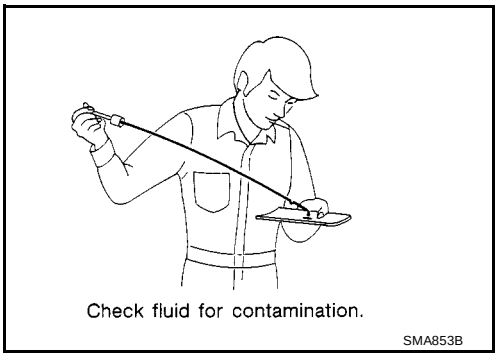


e. Re-insert dipstick into charging pipe as far as it will go.

f. Remove dipstick and note reading. If reading is at low side of range, add fluid to the charging pipe.

Do not overfill.

4. Drive vehicle for approximately 5 minutes in urban areas.
5. Re-check fluid level at fluid temperatures of 50 to 80°C (122 to 176°F) using “HOT” range on dipstick.
6. Check fluid condition.
   - If fluid is very dark or smells burned, refer to AT section for checking operation of A/T. Flush cooling system after repair of A/T.
   - If A/T fluid contains frictional material (clutches, bands, etc.), replace radiator and flush cooler line using cleaning solvent and compressed air after repair of A/T. Refer to CO-11, "RADIATOR" , CO-17, "RADIATOR (ALUMINUM TYPE)" .



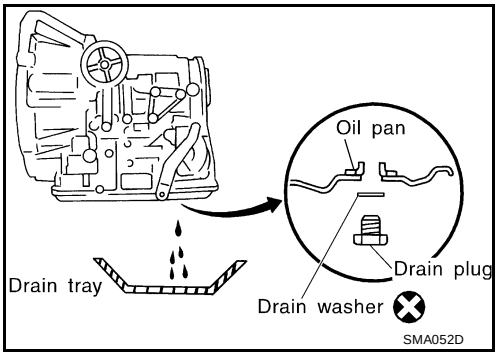
Changing A/T Fluid

ELS000M1

1. Warm up A/T fluid.
2. Stop engine.
3. Drain A/T fluid from drain plug and refill with new A/T fluid. Always refill same volume with drained fluid.

Fluid grade:

Genuine Nissan ATF or equivalent. Refer to MA-18, "RECOMMENDED FLUIDS AND LUBRICANTS" .



Fluid capacity (With torque converter):

Approx. 7.7 ℓ (6-3/4 lmp qt)

Drain plug:

: 29 - 39 N·m (3.0 - 3.9 kg-m, 22 - 28 ft-lb)

4. Run engine at idle speed for five minutes.
5. Check fluid level and condition. Refer to “Checking A/T Fluid”. If fluid is still dirty, repeat steps 2 through 5.

Rotation

ELS000M5

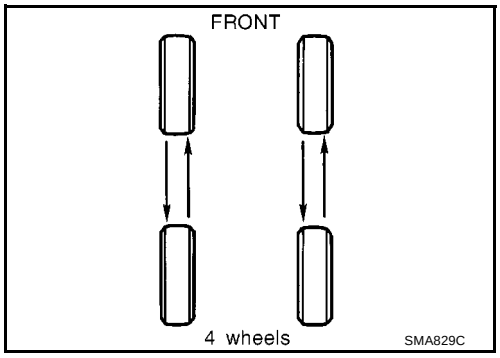
- After rotating the tires, adjust the tire pressure.
- Retighten the wheel nuts when the vehicle has been driven for 1,000 km (600 miles) (also in cases of a flat tire, etc.).

CAUTION:

When installing wheels, tighten them diagonally by dividing the work two to three times in order to prevent the wheels from developing any distortion.

Tightening torque of wheel nut:

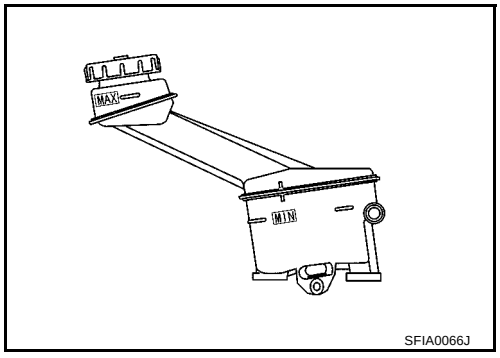
98 - 118N·m (10 - 12 kg·m, 72 - 87 ft·lb)



Checking Brake Fluid Level and Leaks

ELS000M6

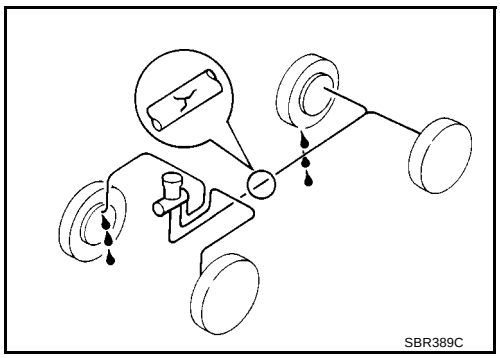
- If fluid level is extremely low, check brake system for leaks.



Checking Brake Lines and Cables

ELS000M7

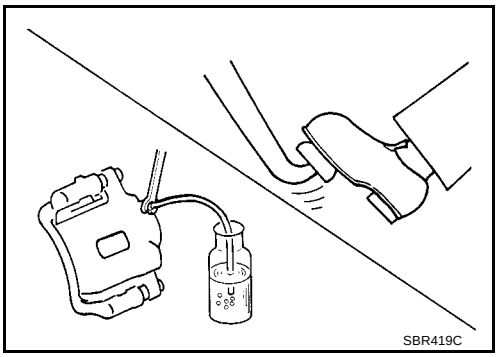
- Check brake fluid lines and parking brake cables for improper attachment, leaks, chafing, abrasions, deterioration, etc.



Changing Brake Fluid

ELS000M8

1. Drain brake fluid from each air bleeder valve.
2. Refill until new brake fluid comes out from each air bleeder valve.
   Use same procedure as in bleeding hydraulic system to refill brake fluid.
   Refer to BR-9, "BRAKE FLUID" .
   - Refill with recommended Genuine Brake Fluid or equivalent “DOT 3” or “DOT 4”.
     Refer toMA-18, "RECOMMENDED FLUIDS AND LUBRICANTS" .
   - Never reuse drained brake fluid.
   - Be careful not to splash brake fluid on painted areas.


SBR419C

Checking Disc Brake

ELS000M9

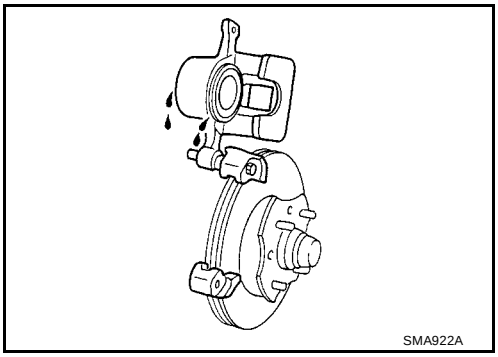
ROTOR

Check condition, wear, and damage.

Applied	Front
Brake model	CL22
Standard thickness	22.0 mm (0.87 in)
Maximum runout	0.058 mm (0.0023 in)
Minimum thickness (Wear limit)	20 mm (0.79 in)

CALIPER

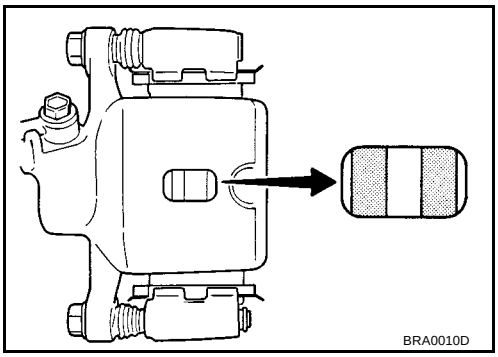
- Check for leakage.


SMA922A

PAD

Check for wear or damage.

Applied	Front
Brake model	CL22
Standard thickness	12.4 mm (0.488 in)
Minimum thickness (Wear Limit)	2.0 mm (0.079 in)


BRA0010D

Checking Drum Brake

ELS000O1

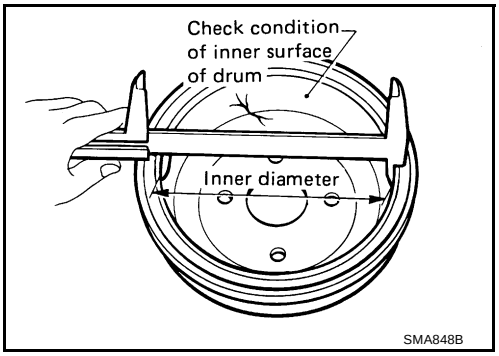
WHEEL CYLINDER

Check for leakage.

DRUM

Check condition and inner surface.

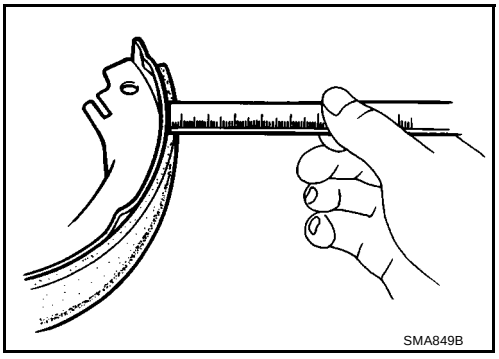
Standard inner diameter	202 mm (7.95 in)
Drum repair limit (Maximum inner diameter)	203.2 mm (8.0 in)



LINING

Check wear or damage.

Standard thickness	4.5 mm (0.177 in)
Lining Wear Limit (Minimum thickness)	1.5 mm (0.059 in)

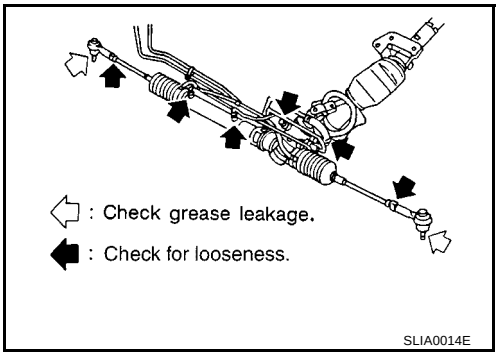


Checking Steering Gear and Linkage

ELS000MA

STEERING GEAR

- Check gear housing and boots for looseness, damage and grease leakage.
- Check connection with steering column for looseness.



STEERING LINKAGE

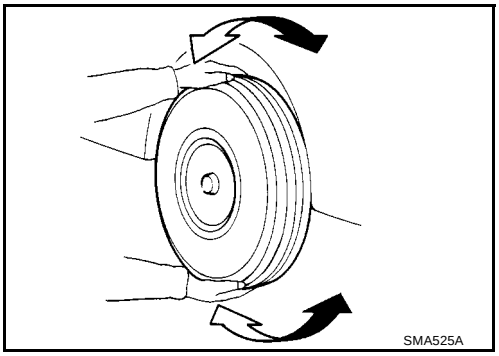
Check ball joint, dust cover and other component parts for looseness, wear, damage and grease leakage.

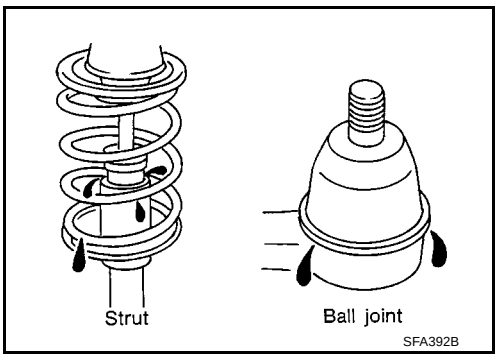
Axle and Suspension Parts

ELS000MC

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.

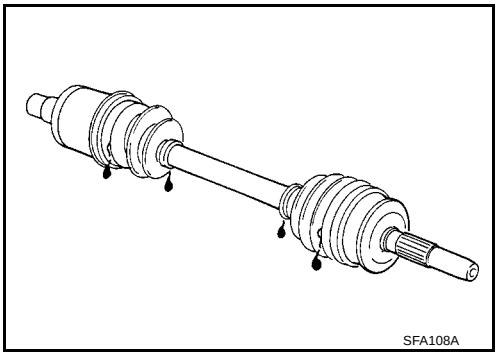




Drive Shaft

ELS000MD

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



Lubricating Locks, Hinges and Hood Latches

ELS000ME

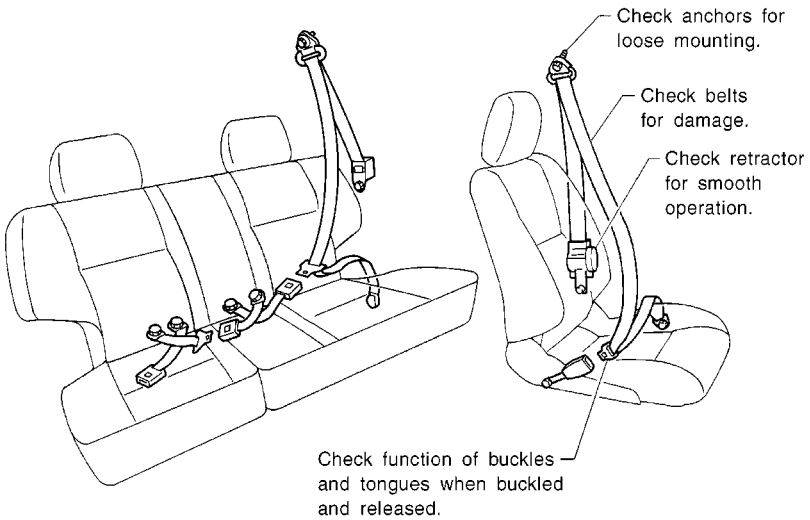
Front door	Refer to BL-204, "DOOR" .
Back door	Refer to BL-216, "BACK DOOR" .

Checking Seat Belts, Buckles, Retractors, Anchors and Adjusters

ELS000MF

CAUTION:

- **After any collision, inspect all seat belt assemblies, including retractors and other attached hardwares (i.e. 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.
- **If any component of seat belt assembly is questionable, do not repair. Replace as seat belt assembly.**
- **If webbing is cut, frayed, or damaged, replace belt assembly.**
- **Never oil tongue and buckle.**
- **Use a genuine seat belt assembly.**



Anchor bolt
43 - 55 N·m (4.4 - 5.6 kg-m, 32 - 41 ft-lb)

Checking Body Corrosion

ELS000MG

Visually check body panels for collision damage (scratches, chipping, rubbing, etc.) or damage to the anti-corrosion materials. In particular, check the following locations.

HEMMED PANELS

Hood front end, door lower end, trunk lid rear end, etc.

PANEL JOINT

Side sill of rear fender and center pillar, rear wheel housing of rear fender, around strut tower in engine compartment, etc.

PANEL EDGE

Trunk lid opening, sunroof opening, fender wheel-arch flange, fuel filler lid flange, around holes in panel, etc.

PARTS CONTACT

Waist moulding, windshield moulding, bumper, etc.

PROTECTORS

Damage or condition of mudguard, fender protector, chipping protector, etc.

ANTI-CORROSION MATERIALS

Damage or separation of anti-corrosion materials under the body.

DRAIN HOLES

Condition of drain holes at door and side sill. When repairing corroded areas, refer to the Corrosion Repair Manual.

SERVICE DATA AND SPECIFICATIONS (SDS)

PFP:00030

Standard and Limit

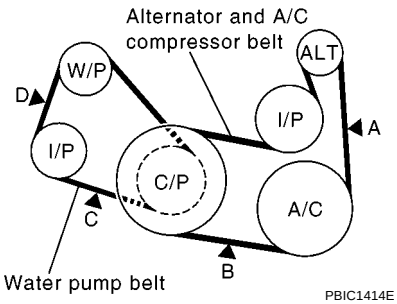
ELS000MH

BELT DEFLECTION AND TENSION

CR Engine

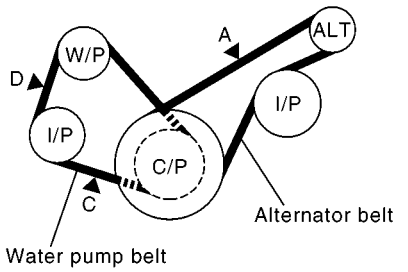
Location	Tension [N (kg, lb)]			Deflection [mm (in)] [When pressed by force of 98.1N (10 kg, 22lb)]			
	New	At adjustment	Limit	Measuring point	New belt	At adjustment	Limit
Alternator and A/C compressor belt	603 - 691 (61.5 - 70.5, 135.6 - 155.3)	495 - 583 (50.5 - 59.5, 111.3 - 131.1)	196 (20, 44.1)	A	6.6 - 7.8 (0.260 - 0.307)	7.3 - 8.5 (0.287 - 0.335)	13.8 (0.543)
				B	5.6 - 6.6 (0.220 - 0.260)	7.1 - 8.3 (0.280 - 0.327)	11.9 (0.469)
Alternator belt	603 - 691 (61.5 - 70.5, 135.6 - 155.3)	495 - 583 (50.5 - 59.5, 111.3 - 131.1)	196 (20, 44.1)	A	3.1 - 4.1 (0.122 - 0.161)	9.8 - 10.6 (0.386 - 0.417)	13.8 (0.543)
Water pump belt	446 - 534 (45.5 - 54.5, 100.3 - 120.0)	348 - 436 (35.5 - 44.5, 78.2 - 98.0)	137 (14, 30.9)	C	6.7 - 7.3 (0.264 - 0.287)	7.6 - 8.6 (0.299 - 0.339)	12.4 (0.448)
				D	4.7 - 5.6 (0.185 - 0.220)	7.0 - 7.7 (0.276 - 0.303)	8.6 (0.339)

With A/C compressor



PBIC1414E

Without A/C compressor



PBIC1415E

K9K Engine

Refer to EM-121, "DRIVE BELTS" .

ENGINE COOLANT CAPACITY

CR Engine

Unit: ℓ (Imp qt)

Coolant capacity [With reservoir tank (MAX level)]	M/T models with A/C	Approximately 5.3 (4-5/8)
	Except M/T models with A/C	Approximately 4.9 (4-3/8)
Reservoir tank	M/T models with A/C	1.2 (1-1/8)
	Except M/T models with A/C	0.7 (5/8)

K9K Engine

Unit: ℓ (Imp qt)

Coolant capacity [With reservoir tank (MAX level)]	Approximately 6.5 (5-3/4)
Reservoir tank	1.2 (1-1/8)

ENGINE OIL CAPACITY

CR Engine

Unit: ℓ (Imp qt)

With oil filter change	3.0 (2-5/8)
Without oil filter change	2.8 (2-1/2)
Dry engine (engine overhaul)	3.5 (3-1/8)

K9K Engine

Unit: ℓ (Imp qt)

With oil filter change	4.55 (4)
Without oil filter change	4.39 (3-7/8)
Dry engine (engine overhaul)	4.71 (4-1/8)

SPARK PLUG

Make	NGK	Champion
Standard type	LFR5AP-11	REC10PYC4
Hot type	LFR4AP-11	—
Cold type	LFR6AP-11	—
Gap (nominal)	1.1 mm (0.043 in)	