MAINTENANCE

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PRECAUTIONS

Supplemental Restraint System "AIR BAG"

The Supplemental Restraint System "Air Bag" helps to reduce the risk or severity of injury to the driver and front passenger in a frontal collision. The Supplemental Restraint System consists of air bags (located in the center of the steering wheel and on the instrument panel on the passenger side), sensors, a diagnosis unit, warning lamp, wiring harness and spiral cable. Information necessary to service the system safely is included in the **BF section** of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could lead to personal injury or death in the event
 of a severe frontal collision, all maintenance must be performed by an authorized NISSAN dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system.
- All SRS air bag electrical wiring harnesses and connectors are covered with yellow outer insulation. Do not use electrical test equipment on any circuit related to the SRS SYSTEM.

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.

ltem	Reference page	@r
OUTSIDE THE VEHICLE The maintenance items listed here should be performed from time to time, unless otherwise specified.		G1 MA
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.	_	
Wheel nuts When checking the tires, make sure no nuts are missing, and check for any loose nuts. Tighten if necessary.		— LC
Tire rotation Tires should be rotated every 12,000 km (7,500 miles) for non-turbocharger models.	MA-17	
Wheel alignment and balance If the vehicle should pull to either side while driving on a straight and level road, or if you detect uneven or abnormal tire wear, there may be a need for wheel alignment. If the steering wheel or seat vibrates at normal highway speeds, wheel balancing may be needed.	MA-16 FA-7	EF E(FE
Windshield wiper blades Check for cracks or wear if they do not wipe properly.		
Doors and engine hood Check that all doors and the engine hood operate smoothly as well as the trunk lid and back hatch. Also, ensure that all latches lock securely. Lubricate hinges and latches if necessary. Make sure that the secondary latch keeps the hood from opening when the primary latch is released. When driving in areas using road salt or other corrosive materials, check lubrication frequently.	MA-19	CL MT
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.		— At — Pd
Lights Make sure that the headlights, stop lights, tail lights, turn signal lights, and other lights are all operating properly and installed securely. Also check headlight aim.	_	<u> </u>
Warning lights and buzzers/chimes Make sure that all warning lights and buzzers/chimes are operating properly.		FA
Windshield wiper and washer Check that the wipers and washer operate properly and that the wipers do not streak.		 RA
Windshield defroster Check that the air comes out of the defroster outlets properly and in sufficient quantity when operating the heater or air conditioner.	_	BR
Steering wheel Check that it has the specified free play. Be sure to check for changes in the steering condition, such as excessive free play, hard steering or strange noises. Free play: Less than 35 mm (1.38 ln)	_	\$T
Seats Check seat position controls such as seat adjusters, seatback recliner, etc. to ensure they operate smoothly and that all latches lock securely in every position. Check that the head restrains move up and down smoothly and that the locks (if so equipped) hold securely in all latched positions. Check that the latches lock securely for folding-down rear seatbacks.		BF MA
Seat belts Check that all parts of the seat belt system (e.g. buckles, anchors, adjusters and retractors) operate properly and smoothly, and are installed securely. Check the belt webbing for cuts, fraying, wear or damage.	MA-19	ii.
Clutch pedal Make sure the pedal operates smoothly and check that it has the proper free travel.	CL-6	 IDX
Brakes Check that the brake does not pull the vehicle to one side when applied.		ILDA

MA-3 35

GENERAL MAINTENANCE

Item	Reference page
Brake pedal and booster Check the pedal for smooth operation and make sure it has the proper distance under it when depressed fully. Check the brake booster function. Be certain to keep the floor mats away from the pedal.	BR-5 BR-9
Parking brake Check that the lever has the proper travel and confirm that your vehicle is held securely on a fairly steep hill with only the parking brake applied.	BR-17
Automatic transmission "Park position" mechanism Check that the lock release button on the selector lever operates properly and smoothly. On a fairly steep hill check that your vehicle is held securely with the selector lever in the "P" position without applying any brakes.	_
UNDER THE HOOD AND VEHICLE The maintenance items listed here should be checked periodically (e.g. each time you check the engine oil or refuel).	
Windshield washer fluid Check that there is adequate fluid in the tank.	
Engine coolant level Check the coolant level when the engine is cold.	MA-11
adiator and hoses Check the front of the radiator and clean off any dirt, insects, leaves, tc., that may have accumulated. Make sure the hoses have no cracks, deformation, rot or pose connections.	
Brake and clutch fluid levels Make sure that the brake and clutch fluid levels are between he "MAX" and "MIN" lines on the reservoir.	MA-15, 17
Sattery Check the fluid level in each cell. It should be between the "MAX" and "MIN" ines.	
ingine drive belts Make sure that no belt is frayed, worn, cracked or oily.	MA-9
ngine oil level Check the level on the dipstick after parking the vehicle on a level spot and turning off the engine.	MA-13
ower steering fluid level and lines Check the level when the fluid is cold and the engine sturned off. Check the lines for proper attachment, leaks, cracks, etc.	MA-18
Automatic transmission fluid level Check the level on the dipstick after putting the selector ever in "P" with the engine idling.	MA-15
Exhaust system Make sure there are no loose supports, cracks or holes. If the sound of the exhaust seems unusual or there is a smell of exhaust fumes, immediately locate the rouble and correct it.	MA-15
Inderbody The underbody is frequently exposed to corrosive substances such as those used on icy roads or to control dust. It is very important to remove these substances, otherwise rust will form on the floor pan, frame, fuel lines and around the exhaust system. At the end of winter, the underbody should be thoroughly flushed with plain water, being sareful to clean those areas where mud and dirt can easily accumulate.	
fluid leaks Check under the vehicle for fuel, oil, water or other fluid leaks after the vehicle as been parked for a while. Water dripping from the air conditioner after use is normal. If ou should notice any leaks or gasoline fumes are evident, check for the cause and corect it immediately.	_

PERIODIC MAINTENANCE

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

SCHEDULE 1

Follow Periodic Maintenance Schedule 1 if your driving habits frequently includes one or more of the following driving conditions:

- Repeated short trips of less than 5 miles (8 km).
- Repeated short trips of less than 10 miles (16 km) with outside temperatures remaining below freezing.
- Operating in hot weather in stop-and-go "rush hour" traffic.
- Extensive idling and/or low speed driving for long distances, such as police, taxi or door-to-door delivery use.
- Driving in dusty conditions.
- Driving on rough, muddy, or salt spread roads.
- Towing a trailer, using a camper or a car-top carrier.

SCHEDULE 2

Follow Periodic Maintenance Schedule 2 if none of the driving conditions shown in Schedule 1 apply to your driving habits.

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BF-74

MA-15 MA-17

Schedule 1

9s, Miles x 1,000 3.00 3.75 7.5 11.25 15 18.75 22.5 26.25 30 33.75 41.25 (km x 1,000) (5) (6) (12) (18) (24) (30) (36) (42) (48) (54) (60) (66) (60) (60) (60) (60) (60) (60	MAINTENANCE OPERATION								\$	TENEY	E		 -							
Miles x 1,000 3.00 3.75 7.5 11.25 15 (km x 1,000) (5) (6) (12) (18) (24 Months 3 3 6 9 12 Aintenance 3 3 6 9 12 See NOTE (1). See NOTE (2). See NOTE (2). See NOTE (3). See NOTE (4). R R R R R R R R R R R R R R R R R R R									<u> </u>		≦ U Q	> L L	رِ							
(km x 1,000) (5) (6) (12) (18) (24) Months 3 3 6 9 12 See NOTE (1). See NOTE (2). See NOTE (4). R R R See NOTE (4). R R R R Turbocharger R R R R Turbocharger R R R R Model R R R See NOTE (5). See NOTE (5).	Perform at number of miles,	Miles × 1,000	3.00	3.75	7.5	11.25	ਨ		22.5	36.25	30	3.75	7.5 4		45	48.75	52.5	56.25	9	
AINTENANCE See NOTE (1). See NOTE (2). See NOTE (3). See NOTE (4). R R R R Turbocharger R	kilometers or months,	(km × 1,000)	(2)	9		(18)	(24)		(36)	(42)	(48)	54)	(9)		7.07		É			Reference page
See NOTE (4). Turbocharger model Turbocharger Model See NOTE (5).	whichever comes first.	Months	` e*	` «			Ç) o) č		· }	(·	- 2 (È :		(26)	
See NOTE (1). See NOTE (2). See NOTE (3).* See NOTE (4). R R R R Turbocharger model R R R R Turbocharger R		SIGNOR	,	۱,	ı		2	- 1	اء	7	47	77			36	33	42	45	48	
See NOTE (1). See NOTE (2). See NOTE (3).* See NOTE (4). R R R R R Turbocharger R Turbocharger R Turbocharger R Model R Turbocharger R	EMISSION CONTROL SYSTEM M	MAINTENANCE																		} }
See NOTE (3).* See NOTE (4). R R R R R R Model Turbocharger R R R R R R R R R R R R R R R R R R R	Drive belts	See NOTE (1).																	≥ *	MA-9
See NOTE (3).* See NOTE (4). R R R R Turbocharger Turbocharger Model R R R R Turbocharger R R R R Turbocharger R R R R Model	Air cleaner filter	See NOTE (2).								!									1	MA-12
See NOTE (3).* See NOTE (4). R R R R R R R R R R R R R R R R R Turbocharger R R R R R R R R R R R R R R R R R R R	Vapor lines																-		- 1	71.17
See NOTE (3).* See NOTE (4). R R R R R Turbocharger R Turbocharger R model R model R r											-								∑ i	MA-14
See NOTE (4). R R R See NOTE (4). R R R Turbocharger R R R R Turbocharger R R R R model R R R R See NOTE (5). See NOTE (5). R R R	Fuel lines			ļ							<u>*</u>								≥ <u>*</u>	MA-11
See NOTE (4). R R R R Turbocharger R Turbocharger R model R R R R Turbocharger R	Fuel filter	See NOTE (3).*																	1	MA 40
Turbocharger R R R R R R R R Model R R R R R R R R R R R R R R R R R R R	Engine coolant	See NOTE (4)																	-	71-71
Turbocharger R model R RRRR Turbocharger R model R See NOTE (5).		./.)																	Σ	MA-10
Turbocharger R model R R R R model R model See NOTE (5).		ļ		œ	œ	œ	Œ	œ	ď	œ	œ	æ	Œ	Œ	Œ	æ	æ	 	2	MA-12
Turbocharger R R R R R R model See NOTE (5).	Engine oil	Turbocharger	Œ				<u>‡</u>	in repla	ace ev	ery 3,0	00 mile) (5,0t)0 km)	or 3 m	onths.					MA-12
Turbocharger R H R R R R R R R R R Model Model Then replace every oil change.				4																
Turbocharger R model See NOTE (5).	Engine oil filter (Use part No. 15208.	٠,		r	Œ	œ	Œ	œ	Œ	œ	œ	Œ	œ	Œ	Œ	œ	œ	Œ	2	MA-13
I _ I I	60U00 or equivalent.)		æ						The T	n repla	ce eve	7 oil c	hange							MA-13
	Spark plugs (PLATINUM-TIPPED type,	(n																5		MALTA
	Timing belt	See NOTE (5).																2	1	C+ 740
LOW MILLION AND CONTROL OF THE PROPERTY AND CONTROL OF THE	THE PART AND COME OF THE PARTY	191																1		NI-11Z

	miles (24,000 km) or 12 months.	se may be required.	d under extremely adverse weather conditions or in areas where ambient temperatures are either extremely low
	3 (96,000 km) or 48 months, inspect every 15,000 miles (24,000 km) or 12 months.	y in dusty conditions, more frequent maintenance may be required.	ated under extremely adverse weather conditions
An Day system	NOTE: (1) After 60,000 miles (96,000	(2) If operating mainly in du	(3) If vehicle is operated

If vehicle is operated under extremely adverse weather conditions or in areas where ambient temperatures are either extremely low or extremely high, the filters might become clogged. In such an event, replace them immediately.

Brake lines & cables

Manual & automatic transmission

oil, & differential gear oil

See NOTE (6).

Steering linkage ball joints & front suspension ball Steering gear & linkage, axle & suspension parts

SUPER HICAS linkage (Turbocharger model)

Exhaust system

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

Replace every 105,000 miles (168,000 km) on non-turbocharged models. On turbocharged models, replace every 60,000 miles (96,000 km). After 60,000 miles (96,000 km) or 48 months, replace every 30,000 miles (48,000 km) or 24 months. 466

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

Inspect the air bag system 10 years after the date of manufacture as noted on the F.M.V.S.S. certification label.

Maintenance items and intervals with "*" are recommended by NISSAN for reliable vehicle operation. The owner need not perform such maintenance in order to maintain the emission warranty or manutacturer recall liability. Other maintenance items and intervals are required €®

Schedule 2

[]: At the mileage intervals only

Correct or replace if necessary,

= Replace | = Inspect.

Abbreviations: R

EMISSION CONTROL SYSTEM MAINTENANCE (vm x 1,000) (3) (12) (24) (36) (44) (60) (72) (84) (86) (86) (86) (86) (86) (86) (86) (86	MAINTENANCE OPERATION					MAINTE	MAINTENANCE INTERVAL	TERVAL				
Introduction of miles, kilometris and model from x.1000) (6) (12) (24) (36) (46) (60) (72) (84) (86) (12) (12) (12) (12) (12) (12) (12) (12		Miles x 1,000	5.0	7.5	15	22.5	99	37.5	45	52.5	09	
Months 6 6 6 12 18 24 36 42 49 49 49 49 49 41 40 40 40 41	Perform at number of miles, kilometers or months, whichever comes first.	(km × 1,000)	(8)	(12)	(24)	(36)	(48)	(90)	(72)	(84)	(96)	Heference page
Transcript System Maintenance See NOTE (1). (A) (B)	,	Months	9	9	12	₩	24	30	36	42	48	
See NOTE (1): (FI) (FI)	EMISSION CONTROL SYSTEM MAINTENAN	ICE										
Fig.	Drive belts	See NOTE (1).									-	MA-9
1- 1- 1- 1- 1- 1- 1- 1-	Air cleaner filter						<u>E</u>			!	Œ	MA-12
Turbocharger R	Vapor lines						<u>*</u>				-	MA-14
See NOTE (2). See NOTE (3). R R R R R R R R R R R R R R R R R R R	Fuel lines						<u>-</u>				*	MA-11
Turbocharder R	Fuel filter	See NOTE (2)*.										MA-12
Turbocharger R	Engine coolant	See NOTE (3).									å	MA-10
Turbocharger R Then replace every 5,000 miles (8,000 km) or 6 months. liter (Use part No. 15208-60U00 or model Turbocharger model R </td <td></td> <td>:</td> <td></td> <td>œ</td> <td>æ</td> <td>œ</td> <td>æ</td> <td>æ</td> <td>Œ</td> <td>æ</td> <td>ش</td> <td>MA-12</td>		:		œ	æ	œ	æ	æ	Œ	æ	ش	MA-12
The replace every second oil change. Panicolar ger Panic	Engine oil	Turbocharger model	æ		Then r	epiace eve	гу 5,000 п	niles (8,000	km) or 6 m	onths.		MA-12
Turbocharger R Then replace every second oil change. R Then replace every second oil change. R	Ending oil filter (1 lear to 1 leave 2010)				æ		æ		Œ		E	MA-13
AND BODY MAINTENANCE See NOTE (4). [R] & cables I	equivalent.)	Turbocharger model	Œ			Then rep	ace every	second oi	l change.			MA-13
AND BODY MAINTENANCE See NOTE (4). (FI) & cables I I I & ciscs I I I As discs I I I ar & linkage, axle & suspension parts I I I AS linkage (Turbocharger model) I I I item I I I I item See NOTE (5). I I I	Spark plugs (PLATINUM-TIPPED type)	-							}		Œ	MA-13
	Timing belt	See NOTE (4).									Œ	EM-12
	CHASSIS AND BODY MAINTENANCE					! :						; !
rential gear oil I I I I I I I I I I I I I I I I I I I	Brake lines & cables				-		-		 -		-	MA-17
rential gear oil I I I I I I I I I I I I I I I I I I I	Brake pads & discs				-		-		_		-	MA-17
	Manual & automatic transmission oil, & different	ial gear oil			-		-				-	MA-15
l l l See NOTE (5).	Steering gear & linkage, axle & suspension part	8					-			;	-	MA-18, FA-7, RA-5
l I I I See NOTE (5).	SUPER HICAS linkage (Turbocharger model)						_		j		-	MA-18
See NOTE (5).	Exhaust system				-		-		 -		-	MA-15
	Air bag system	See NOTE (5).										BF-74

After 60,000 miles (96,000 km) or 48 months, inspect every 15,000 miles (24,000 km) or 12 months.

If vehicle is operated under extremely adverse weather conditions or in areas where ambient temperatures are either extremely low or extremely high,

After 60,000 miles (96,000 km) or 48 months, replace every 30,000 miles (48,000 km) or 24 months. the illters might become clogged. In such an event, replace them immediately.

Replace every 105,000 miles (168,000 km) on non-turbocharged models. On turbocharged models, replace every 60,000 miles (96,000 km). Inspect the air bag system 10 years after the date of manufacture as noted on the F.M.V.S.S. certification label.

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Maintenance items and intervals with " * " are recommended by NISSAN for reliable vehicle operation. The owner need not perform such maintenance in order to maintain the emission warranty or manufacturer recall liability. Other maintenance Items and intervals are required.

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RECOMMENDED FLUIDS AND LUBRICANTS

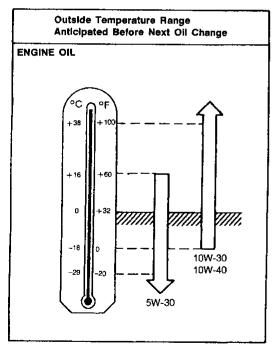
Fluids and Lubricants

		C	apacity (Approxi	mate)	
		US measure	Imp measure	Liter	Recommended fluids and lubricants
Engine oil (Refill)					
With oil filter		3-5/8 qt	3 qt	3.4	Energy Conserving Oils of API SG*2, *3
Without oil filter		3-1/8 qt	2-5/8 qt	3.0	
Cooling system (With reservoir))	9-1/2 qt	7-7/8 qt	9.0	Anti-freeze coolant (Ethylene glycol base)
Manual transmission gear oil		5-7/8 pt	4-7/8 pt	2.8	API GL-4*2
Differential gear oil	Non-Turbo- charger	3-1/8 pt	2-5/8 pt	1.5	API GL-5*2
-	Turbocharger	3-7/8 pt	3-1/8 pt	1.8	
Automatic transmission fluid	Non-Turbo- charger	8-3/4 qt	7-1/4 qt	8.3	Genuine Nissan ATF*1 or equivalent Type DEXRON TM II
	Turbocharger	8-5/8 qt	7-1/4 qt	8.2	Type DEXHON*** II
Power steering fluid		_			Type DEXRON™ II or equivalent
Brake and clutch fluid			_	_	Genuine Nissan Brake Fluid*1 or equiva- lent DOT 3 (US FMVSS No. 116)
Multi-purpose grease		_		_	NLGI No. 2 (Lithium soap base)

^{*1:} Available in mainland U.S.A. through your Nissan dealer.

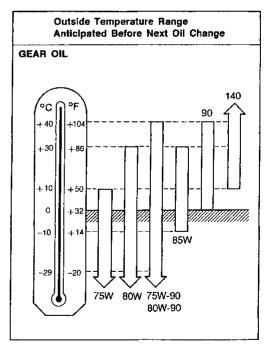
These oils can be identified by such labels as EC-I, EC-II, energy conserving, energy saving, improved fuel economy, etc.

SAE Viscosity Number



10W-30 is preferable for ambient temperatures above –18°C (0°F). 20W-40 and 20W-50 are usable for ambient temperatures above 10°C (50°F) for all seasons.

For turbocharger engines, 5W-30 should be used only under extremely cold conditions.



75W-90 for transmission and 80W-90 for differential gear are preferable for ambient temperatures below 40°C (104°F).

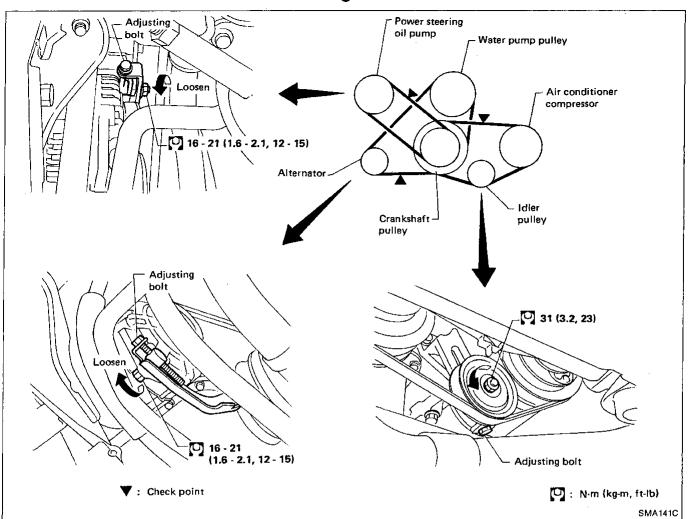
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TI0002

^{*2:} For further details, see "Recommended SAE viscosity number".

^{*3:} Energy conserving oils

Checking Drive Belts



 Inspect for cracks, fraying, wear or oil adhesion. If necessary, replace with a new one.

Inspect drive belt deflection by pushing on the belt midway between pulleys.

Adjust if belt deflection exceed the limit. Belt deflection:

				Unit: mm (in)
		Used belt	deflection	
		Limit	Deflection after adjustment	Deflection of new belt
Alternator		11.5 (0.453)	7 - 8 (0.28 - 0.31)	6.5 - 7.5 (0.256 - 0.295)
Air conditione sor	r compres-	12.5 (0.492)	8 - 9 (0.31 - 0.35)	7 - 8 (0.28 - 0.31)
Power steer-	Non-Tur- bocharger	19 (0.75)	12 - 13.5 (0.472 - 0.531)	10.5 - 11.5 (0.413 - 0.453)
ing oil pump	Turbo- charger	16 (0.63)	10 - 11 (0.39 - 0.43)	9 - 10 (0.35 - 0.39)
Applied pushing	ng force	9	98 N (10 kg, 22 lb	· >)

Inspect drive belt deflection when engine is cold.

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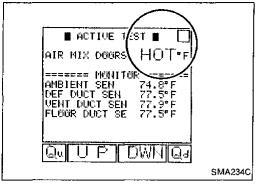
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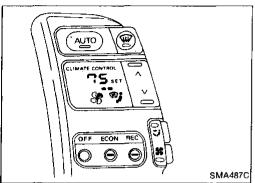
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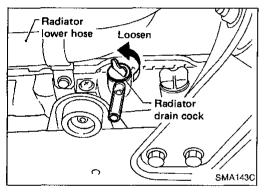
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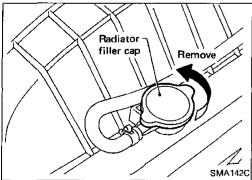
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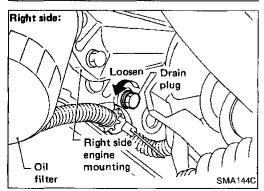
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Changing Engine Coolant

WARNING:

To avoid the danger of being scalded, never change the coolant when the engine is hot.

MANUAL AIR CONDITIONER MODELS

1. Turn ignition switch "ON" and set temperature control lever of manual air conditioner to maximum hot position.

AUTOMATIC AIR CONDITIONER MODELS



- Perform "AIR MIX DOORS" test in "ACTIVE TEST" mode of "AUTO A/C" (Automatic Air Conditioner) system.
 - Set "AIR MIX DOORS" at (full) HOT and wait 10 seconds before turning ignition switch off.



- Perform self-diagnosis step 2 of Automatic Air Conditioner system, referring to the following notes:
- 1) Turn ignition switch from "OFF" to "ON".
- 2) Press both "AUTO" and "OFF" switches for at least 5 seconds.
- 3) Press "AUTO" switch 1 time.
- 4) Confirm indication of the A/C display shown at left.
- 5) Wait 10 seconds before turning ignition switch off.

2. Open drain cock at the bottom of radiator, and remove radiator cap.

- Open drain plugs on both sides of cylinder block.
- Left side drain plug is located beside the left side engine mounting.

ENGINE MAINTENANCE

Loosen Air release plug少 SMA145C

Changing Engine Coolant (Cont'd)

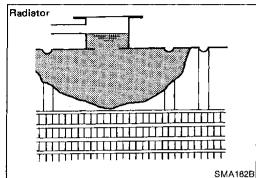
- Open air release plug to drain coolant.
- 5. Flush cooling system by running fresh water through radi-
- 6. Close drain cock and tighten drain plugs securely.
- Apply sealant to the drain plug thread.

[O]: 34 - 44 N·m (3.5 - 4.5 kg-m, 25 - 33 ft-lb)



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Fill radiator slowly with proper mixture of coolant and water. Fill reservoir tank up to the "H" level. Then install radiator cap and close air release plug.

Coolant capacity (With reservoir tank): 9.0ℓ (9-1/2 US qt, 7-7/8 Imp qt)

Reservoir tank:

0.6 (5/8 US at, 1/2 Imp at)

Pour coolant through coolant filler neck slowly to allow air in system to escape.

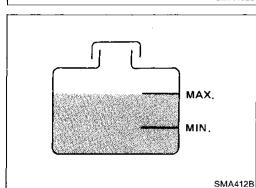


CL

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FE

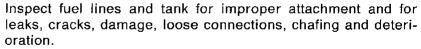


- Start engine and warm it up until it reaches normal operating temperature. Then race engine 2 or 3 times under no-load. Watch coolant temperature gauge for signs of overheating.
- Stop engine. After it completely cools down, refill radiator up to filler opening. Fill reservoir tank up to the "H" level.
- 10. Check drain cock and drain plug for any sign of leakage.



AT

Checking Fuel Lines



If necessary, repair or replace faulty parts.

RA

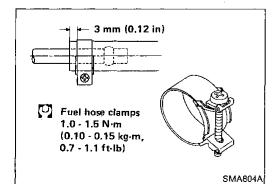
FA

BR

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HA



Fuel line

Fuel tank

Engine

CAUTION:

SMA803A

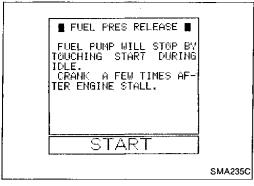
Tighten high-pressure rubber hose clamp so that clamp end is 3 mm (0.12 in) from hose end.

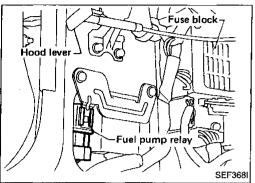
Tightening torque specifications are the same for all rubber hose clamps.

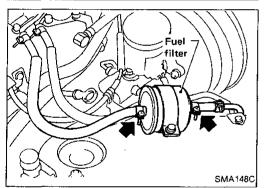
Ensure that screw does not contact adjacent parts.

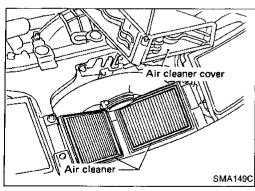
MOX

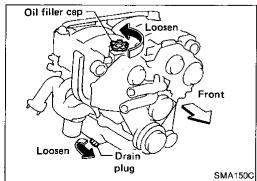
EL











Changing Fuel Filter

WARNING:

Before removing fuel filter, release fuel pressure from fuel line to eliminate danger.



- 1. Perform "FUEL PRESSURE RELEASE" in "WORK SUPPORT" mode and release fuel pressure to zero.
- 2. Turn ignition switch "OFF".



- 1. Disconnect fuel pump relay and start engine.
- After engine stalls, crank engine two or three times to make sure that fuel pressure is released. Then turn ignition switch off and reconnect fuel pump relay.

- Loosen fuel hose clamps.
- 4. Replace fuel filter.
- Be careful not to spill fuel over engine compartment. Place a shop towel to absorb fuel.
- Use a high-pressure type fuel filter. Do not use a synthetic resinous fuel filter.
- When tightening fuel hose clamps, refer to "Checking Fuel Lines" (MA-11).

Changing Air Cleaner Filter

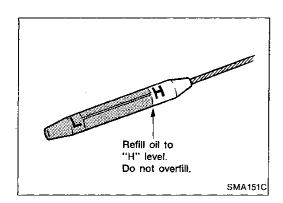
The viscous paper type filter does not need cleaning between renewals.

Changing Engine Oil

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, and check for oil leakage from engine components.
- 2. Remove drain plug and oil filler cap.

ENGINE MAINTENANCE



Changing Engine Oil (Cont'd)

CAUTION:

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

(C): 29 - 39 N·m (3.0 - 4.0 kg-m, 22 - 29 ft-lb)

3. Drain oil and refill with new engine oil.

Oil grade: API SG

Viscosity:

See "RECOMMENDED FLUIDS AND LUBRICANTS"

Refill oil capacity (Approximately): ℓ (US qt, Imp qt) With oil filter Without oil filter

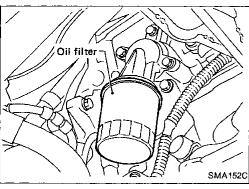
> 3.4 (3-5/8, 3) 3.0 (3-1/8, 2-5/8)

Since the refill capacity changes depending on the oil temperature and drain time, use these values as a reference and be certain to check with the dipstick when changing the

4. Check oil level.

Start engine and check area around drain plug and oil filter for oil leakage.

Run engine for a few minutes, then turn it off. After several 6. minutes, check oil level.

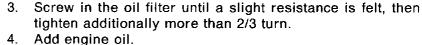


Changing Oil Filter

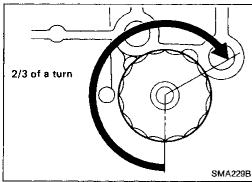
Remove oil filter with a suitable tool.

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

2. Before installing a new oil filter, clean the oil filter mounting surface on cylinder block, and coat the oil filter rubber seal with a little engine oil.



Refer to Changing Engine Oil (MA-12).



Changing Spark Plugs

Disconnect ignition coil harness connector.

Loosen ignition coil fixing bolts and pull out coil from intake manifold collector.

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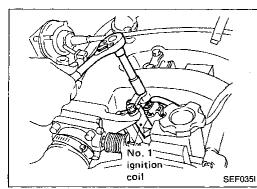
RA

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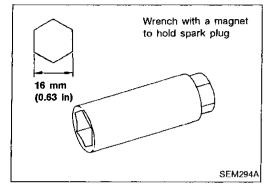


ENGINE MAINTENANCE

Balance tube SMA153C

Changing Spark Plugs (Cont'd)

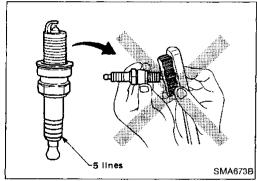
 When changing No. 5 and No. 6 cylinder spark plugs, remove balance tube first. (O-rings of balance tube may be reused, if they are not worn.)



Remove spark plugs with suitable spark plug wrench.
 Spark plug (Platinum-tipped type):

t plug (r latilitalii-ti	Non-turbo- charger	Turbocharger
Standard type	PFR6B-11	PFR5B-11B
Hot type	PFR5B-11	PFR5B-11B
Cold type	PFR7B-11	PFR6B-11B
••		PFR6B-11

(C): 20 - 29 N·m (2 - 3 kg-m, 14 - 22 ft-lb)



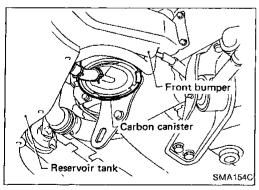
- Checking and adjusting plug gap are not required between renewals.
- Do not use a wire brush for cleaning.
- If plug tip is covered with carbon, spark plug cleaner may be used.

Cleaner air pressure:

Less than 588 kPa (6 kg/cm², 85 psi)

Cleaning time:

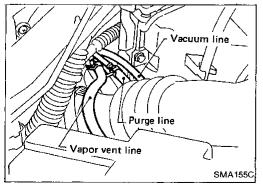
Less than 20 seconds



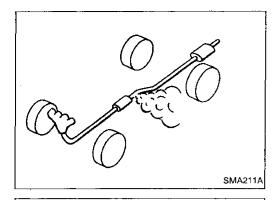
Checking Vapor Lines

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

Refer to "EVAPORATIVE EMISSION SYSTEM" in EF & EC section.



CHASSIS AND BODY MAINTENANCE



Checking Exhaust System

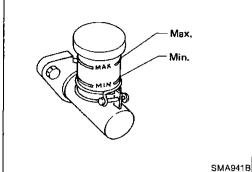
 Check exhaust pipes, muffler and mounting for proper attachment, leaks, cracks, damage, loose connections, chafing and deterioration.



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Checking Clutch Fluid Level and Leaks

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

EF &

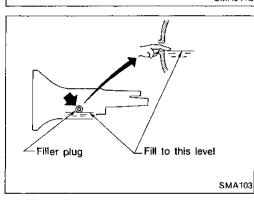
FE

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AT

PD



Checking M/T Oil

Check for oil leakage and oil level.

Never start engine while checking oil level.

[3]: Filler plug 25 - 34 N-m (2.5 - 3.5 kg-m, 18 - 25 ft-lb)

Changing M/T Oil

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

. Check oil level.

Oil capacity: 2.8 ℓ (5-7/8 US pt, 4-7/8 Imp pt)

(2.5 - 3.5 kg-m, 18 - 25 ft-lb)

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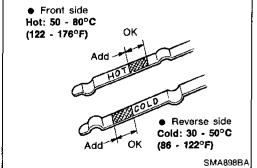
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- 1. Check for fluid leakage and fluid level. Fluid level should be checked using "HOT" range on dipstick at fluid temperatures of 50 to 80°C (122 to 176°F) after vehicle has been driven approximately 5 minutes in urban areas after engine is warmed up. But it can be checked at fluid temperatures of 30 to 50°C (86 to 122°F) using "COLD" range on dipstick for reference after engine is warmed up and before driving. However, fluid level must be rechecked using "HOT" range.
- 1) Park vehicle on level surface and set parking brake.
- Start engine and then move selector lever through each gear range, ending in "P".
- 3) Check fluid level with engine idling.
- 4) Remove dipstick and wipe it clean with lint-free paper.
- Reinsert dipstick into charging pipe as far as it will go.
- 6) Remove dipstick and note reading. If level is at low side of either range, add fluid to the charging pipe.

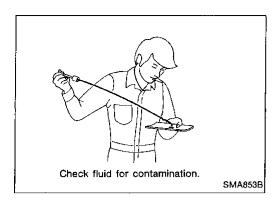
Do not overfill.

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MA-15 47

CHASSIS AND BODY MAINTENANCE



Checking A/T Fluid (Cont'd)

2. Check fluid for contamination. If fluid is very dark or smells burned, or contains frictional material (clutches, band, etc.), check operation of A/T.

Refer to section AT for checking operation of A/T.

Changing A/T Fluid

- 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.

Oil grade:

Genuine Nissan ATF or equivalent type DEXRONTMII

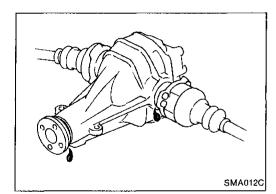
Oil capacity (With torque converter):

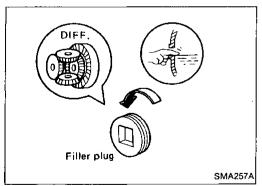
Non-Turbocharger 8.3 ℓ (8-3/4 US qt, 7-1/4 Imp qt) Turbocharger 8.2 ℓ (8-5/8 US qt, 7-1/4 Imp qt)

Drain plug:

(3.0 - 4.0 kg-m, 22 - 29 ft-lb)

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





Checking Differential Gear Oil

Check for oil leakage and oil level.

Filler plug:

(0): 39 - 59 N·m (4 - 6 kg-m, 29 - 43 ft-lb)

Changing Differential Gear Oil

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

Oil capacity:

For Non-Turbocharger model

1.3 \((2-3/4 US pt, 2-1/4 lmp pt)

For Turbocharger model

1.8 \((3-7/8 US pt, 3-1/8 Imp pt)

Drain plug:

For Non-Turbocharger model

[O]: 39 - 59 N·m (4 - 6 kg-m, 29 - 43 ft-lb)

For Turbocharger model

(C): 59 - 98 N·m (6 - 10 kg-m, 43 - 72 ft-lb)

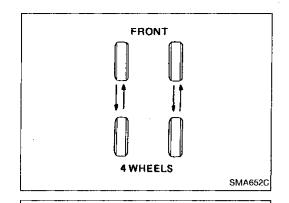
Balancing Wheels

Adjust wheel balance using road wheel center.

Wheel balance (Maximum allowable unbalance at rim flange):

Refer to SDS (MA-20).

CHASSIS AND BODY MAINTENANCE



Tire Rotation (Non-Turbocharger model only)

Do not include the T-type or space saver spare tire when rotating the tires.

Wheel nuts:

(C): 98 - 118 N·m (10.0 - 12.0 kg-m, 72 - 87 ft-lb)

GI.





Checking Brake Fluid Level and Leaks

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

EF &

Checking Brake Lines and Cables

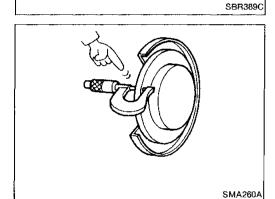
Check brake fluid lines and parking brake cables for improper attachment and for leaks, chafing, abrasions, deterioration, etc.

EC

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Checking Disc Brake

ROTOR

Check condition and thickness.

Unit: mm (in)

	Front	Rear
Standard thickness	30.0 (1.181)	18 (0.71)
Minimum thickness	28.0 (1.102)	16.0 (0.630)

FA

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Check operation and for oil leakage.

Check for wear or damage.

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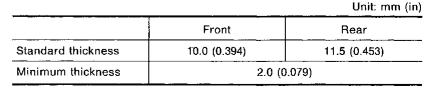
ST

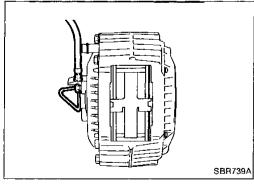
BF

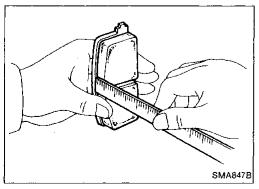
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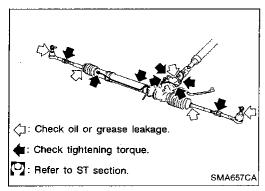
MDX

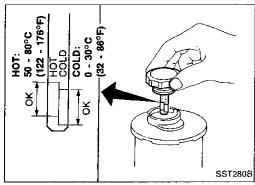


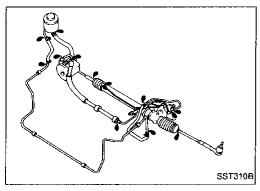


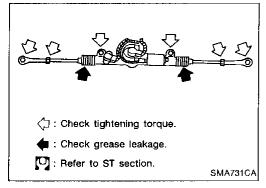












Checking Steering Gear and Linkage

STEERING GEAR

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

STEERING LINKAGE

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

Checking Power Steering Fluid and Lines CHECKING FLUID LEVEL

Fluid level should be checked using "HOT" range on dipstick at fluid temperatures of 50 to 80°C (122 to 176°F) or using "COLD" range on dipstick at fluid temperatures of 0 to 30°C (32 to 86°F).

CAUTION:

Do not overfill.

CHECKING LINES

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

Checking SUPER HICAS Linkage (With SUPER HICAS system)

 Check actuator and linkage for damage, looseness and leakage of grease.

Lubricating Locks, Hinges and Hood Latches

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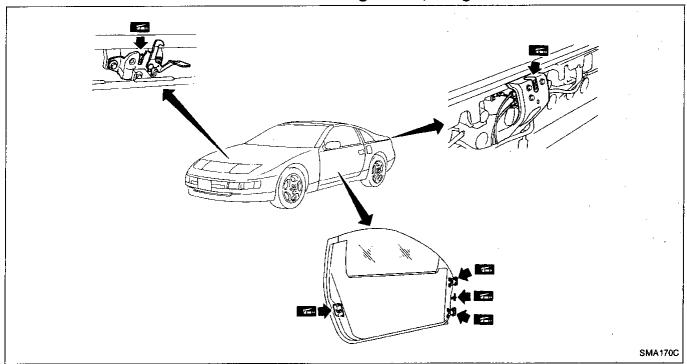
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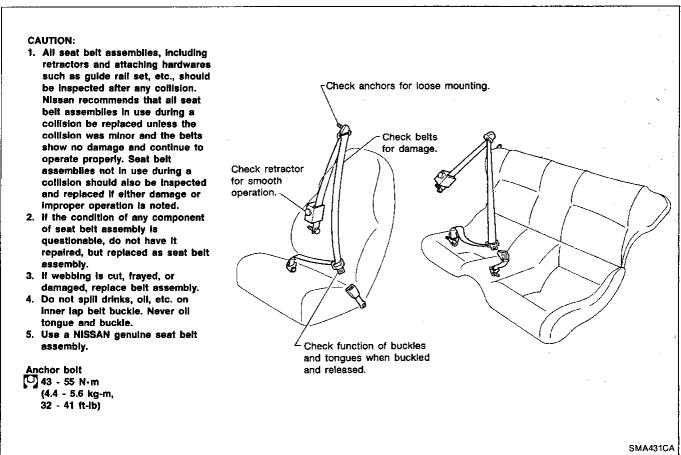
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Checking Seat Belts, Buckles, Retractors, Anchors and Adjusters



MA-19 51

SERVICE DATA AND SPECIFICATIONS (SDS)

Engine Maintenance

INSPECTION AND ADJUSTMENT

Drive belt deflection

			Unit: mm (in)
	Used bell	deflection	
	Limit	Deflection after adjust- ment	Deflection of new belt
Alternator	11.5 (0.453)	7 - 8 (0.28 - 0.31)	6.5 - 7.5 (0.256 - 0.295)
Air conditioner compressor	12.5 (0.492)	8 - 9 (0.31 - 0.35)	7 - 8 (0.28 - 0.31)
Power steering oil pump			
Non- Turbocharger	19 (0.75)	12 - 13.5 (0.472 - 0.531)	10.5 - 11.5 (0.413 - 0.453)
Turbocharger	16 (0.63)	10 - 11 (0.39 - 0.43)	9 - 10 (0.35 - 0.39)
Applied pushing force	9	98 N (10 kg, 22 lk	p)

Spark plug Non-Turbocharger

Standard type	PFR6B-11	
Hot type	PFR5B-11	
Cold type	PFR7B-11	

Turbocharger

Standard & hot type	PFR5B-11B	
Cold type	PFR6B-11B, PFR6B-11	

Chassis and Body Maintenance

INSPECTION AND ADJUSTMENT

Wheel balance

Maximum allowable unbalance	Dynamic	nic 10 (0	10 (0.35)
	(at rim flar	flange) (One	(One side)
	Static	g (oz)	20 (0.71)

Brake

	Unit: mm (in
Disc brake	
Pad	
Standard thickness	
Front	10.0 (0.394)
Rear	11.5 (0.453)
Minimum thickness	
Front	2.0 (0.079)
Rear	2.0 (0.079)
Rotor	
Standard thickness	
Front	30.0 (1.181)
Rear	18.0 (0.709)
Minimum thickness	
Front	28.0 (1.102)
Rear	16.0 (0.630)