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PREPARATION

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PREPARATION

PREPARATION

Special Service Tool

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ctual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name		Description
KV10115801 (J-38956) Oil filter wrench	a O	Removing and installing oil filter a: 64.3 mm (2.531 in)
	S-NT375	

Commercial Service Tool

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Tool name (Kent-Moore No.)		Description	
Power tool (—)		Loosening nuts and bolts	
Spark plug wrench	PBIC0190E	Removing and installing spark plug a: 14 mm (0.55 in)	
	JPBIA0399ZZ		

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< FEATURES OF NEW MODEL >

FEATURES OF NEW MODEL

ABOUT GT-R MAINTENANCE

Description INFOID:0000000009161743

The GT-R is equipped with some special genuine NISSAN high performance specification parts. These parts are different from those used on conventional vehicles to allow for the high performance driving characteristics of the vehicle. The GT-R should be maintained by a GT-R certified NISSAN dealer.

Special skill, knowledge and equipment are necessary to properly inspect and adjust the GT-R engine, transmission, suspension and brakes to maintain performance. A GT-R certified NISSAN dealer has the GT-R certified technical staff and the special equipment to properly maintain the GT-R.

The installation/use of parts other than genuine NISSAN parts, fluids and lubricants may cause the vehicle to malfunction (i.e. cease functioning normally, damage vehicle parts) and result in the vehicle requiring non-warranty protected repairs. NISSAN recommends maintenance items that require the replacement of parts, engine oil, oil filters and air filters, should be performed by a GT-R certified dealer. Make sure the specified fluids and parts are used when the maintenance is performed. NISSAN also recommends the replacement of parts such as the brakes should be performed by a GT-R certified NISSAN dealer.

GT-R Special Specification Parts

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CAUTION:

Only use the following required fluids and parts in the GT-R to avoid possible vehicle damage.

ENGINE OIL

Mobil 1 (0W-40) (100% synthetic oil)

Mobil 1 (0W-40) (100% synthetic) is the factory fill oil. The VR38 engine with its plasma-sprayed bores was developed using this oil. NISSAN cannot ensure proper engine operation and durability if other 0W-40 synthetic oil is used. If Mobil 1 (0W-40) is not available, Mobil 1 (10W-40) (100% synthetic) may be used; however, some performance loss may be noticed. Furthermore, replacement of the engine oil with MOTUL NISMO COMPETITION OIL type 2193E (5W-40) is recommended for frequent high performance driving opportunities or when the engine staring ability during cold weather is a concern.

The use of additives, chemical materials or abrasive compounds is prohibited.

The use of additives, chemical materials, abrasive compounds or other high performance engine oils may cause internal engine damage.

ENGINE OIL MAINTENANCE

- When the vehicle is delivered, the engine oil level is 0.39 in (10 mm) below the H mark on the engine oil dipstick for optimum high performance driving. The engine oil can be filled up to the H mark if not engaging in performance driving.
- Because of the high performance characteristics of the GT-R engine, more frequent oil level inspections are necessary. Check the oil level every 1,800 miles (3,000 km) and adjust as necessary. Also, change the engine oil based on the driving conditions.
- Some amount of oil is consumed by your engine under normal operating conditions, and oil consumption by itself does not necessarily indicate any malfunction.
- For information about the oil replacement intervals for performance driving, refer to the interval for replacing oil after high performance driving.

Make sure to replace the oil filter when the engine oil is changed.

TRANSMISSION OIL

Genuine NISSAN Transmission oil R35 special (100% synthetic oil)

The GT-R uses a multiple-disc dual wet clutch transmission. The specially developed transmission oil maximizes the friction characteristics of the clutch and the lubrication of the gear bearings.

The use of additives is prohibited.

The use of additives or other transmission oil may cause internal transmission or clutch damage.

DIFFERENTIAL OIL (front and rear)

Differential Oil R35 COMPETITION type 2189E

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Use only the Differential Oil R35 COMPETITION type 2189E that can keep the oil temperature low in order to protect all parts of the differential and maximize the performance of the Limited Slip Differential (LSD).

The use of additives is prohibited.

Using additives or any other than the specified differential oil may cause the oil temperature to increase and the final drive to be damaged. Also it may cause vibration and adversely the vehicle handling characteristics.

BRAKE FLUID

Genuine NISSAN Brake Fluid R35 Special II

Genuine NISSAN Brake Fluid R35 Special II is the factory fill brake fluid. The Vehicle Dynamic Control (VDC) unit and other related parts were specially designed for this brake fluid. NISSAN cannot ensure proper operation of the vehicle if other brake fluid is used.

TIRES AND ROAD WHEELS

Genuine GT-R tires and road wheels

Use only genuine GT-R tires and road wheels.

Tires

The GT-R uses specially designed run-flat tires and matching road wheels. Use of these specially developed tires and wheels provides the greatest potential for maximum performance.

- Using non-genuine GT-R tires may cause power train system damage if the vehicle is driven in a flat tire situation, even if run flat tires are used. This may also prevent the vehicle from being stopped safely.
- Using non-genuine GT-R tires may also cause tire failure due to excessive heat buildup caused by tire distortion while driving.
- Using non-genuine GT-R tires may affect the operation of the VDC system.

Tire replacement:

- When tire replacement is required, replacing tires as a set of four with new tires is recommended. However,
 if a tire is punctured or damaged, it may be possible to replace only the damaged tire. Determining whether
 one tire or a complete set of tires should be replaced is based on a number of factors including tire wear and
 condition.
- The GT-R uses specially designed run-flat tires which have a rigid side wall. Special equipment and procedures are required when replacing these tires.
- Specific tire changing equipment must be used to remove the GT-R tires from the wheel and to install the GT-R tires onto the wheel. It is only possible to reuse the tires when they have no cracks and/or deformations on the bead portion of the tire. If the incorrect equipment is used to remove the GT-R tires from the wheel and to install the GT-R tires onto the wheel, cracks and deformation may occur on the bead portion of the tires meaning that the tires cannot be reused.

Road wheels

Using non-genuine GT-R wheels may cause the following:

- vehicle vibration
- the tire coming loose from the wheel during a flat tire
- reduced wheel lug nut tightness

SUSPENSION

Genuine GT-R special suspension

Use only genuine GT-R special suspension components.

Using non-genuine GT-R suspension components can affect vehicle performance and may cause body damage when driving depending on the road conditions.

GT-R TRACK PACK option genuine special suspension (if so equipped)

Models with the TRACK PACK option are equipped with specially tuned shock absorbers, springs and suspension that optimizes performance driving.

BRAKE PAD AND DISC ROTOR

Genuine GT-R brake pads and disc rotors

Use only genuine GT-R brake pads and disc rotors.

This vehicle is equipped with cross-drilled floating rotors and radial-mounted six-piston monoblock calipers. This helps to achieve excellent stopping performance and fade-resistance.

Using non-genuine GT-R Brake pads or rotors can affect vehicle braking performance and the operation of the ABS and VDC system.

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Replacement of brake pads and disc rotors

NISSAN generally recommends to replace all four sets of brake pads and disc rotors at the same time to maintain maximum brake performance.

However, replacing only the brake pads may be allowed in some cases (four wheels or only front wheels depending on the conditions). A GT-R certified technician must inspect the vehicle and determine that only the brake pads need to be replaced. In this case, replacing all brake pads and disc rotors as a set is not necessary.

Note that the replacement of brake pads and the disc rotors as a set on all four wheels should be performed when a GT-R certified technician determines that this is the correct repair.

If the inside of the disc rotors are cold during the winter and the surface becomes hot due to a heavy force being applied repeatedly to the brakes, cracks may occur near the coolant hole on the surface of the disc rotor. Cracks may also occur due to a heavy force being repeatedly applied to the brakes during high performance driving. In these cases it may be necessary to replace the disc rotors or brake pads depending on the condition of the crack.

EXHAUST MUFFLER AND TRUNK CARPET

Genuine GT-R special exhaust muffler and trunk carpet.

Use only the genuine GT-R special exhaust muffler and trunk carpet.

The GT-R exhaust system is designed to provide the maximum vehicle performance and to protect the vehicle from high exhaust gas temperatures.

If non-genuine GT-R specification parts are used it is possible that the muffler or other exhaust system parts will deform and cause damage to the underbody. Non-genuine GT-R specification parts can also affect vehicle performance and possibly lead to turbocharger, engine or power train related parts including transmission, damage.

Also, do not remove the trunk carpet from the vehicle for any reason. The carpet insulates the vehicle interior from the heat of the muffler and from the noise of the transmission.

EXTERIOR PARTS (spoiler, etc.)

Do not modify exterior parts.

The GT-R was developed using a special wind tunnel to help make sure the vehicle is aerodynamically balanced. Additionally, the wind tunnel was used to help make sure cool air flows to the brakes, radiator and other components. Additions of non-GT-R specific accessory exterior parts can change the air flow over and around the body. This can affect vehicle balance and cooling of various systems.

For example, if the front bumper is modified, there is a possibility that brake cooling performance may be reduced due to the decrease of the air flow to the brake system.

Use only GT-R special specification parts.

Front bumper

The shape of the bumper helps pull air into the engine compartment through the front wheel housing to cool the radiator and brakes. Installing an aftermarket bumper may affect the air flow in the engine compartment and decrease the brake and engine cooling performance. An aftermarket bumper may also change vehicle balance by reducing front down force.

Rear spoiler

Installing an aftermarket rear wing may change the down force balance between front and rear of the vehicle. This can affect the handling characteristics of the vehicle and affect the operation of the ABS and VDC systems

CAUTION:

Modifications to exterior parts may affect engine and transmission cooling performance which can increase the temperature in the engine compartment. This can affect the operation or damage parts located in the engine compartment.

Dry carbon fiber parts (If so equipped)

The dry carbon fiber parts are made using the same composite method used for race cars. The dry carbon fiber rear spoiler has a special coating to enhance the feel of the material.

CAUTION:

- Do not use chemical agents (for example: wax, coating agent, compound agent, etc.) on the dry carbon fiber parts because they can damage the material. When the carbon fiber parts become dirty, dilute one cap of mild detergent with a bucket of water and use that mixture to clean the carbon fiber parts.
- The dry carbon fiber parts may turn yellow due to age deterioration because of the characteristics of the material. Storing the vehicle outside in direct sunlight for extended periods of time may cause

< FEATURES OF NEW MODEL >

discoloration and deterioration. NISSAN recommends that you do not store the vehicle in direct sunlight to protect the rear spoiler.

NOTE:

The surfaces of the dry carbon fiber parts are lightly coated like a race car so that you can feel the proper texture of real carbon, which may feel rough. This is normal.

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GENERAL MAINTENANCE

PERIODIC MAINTENANCE

GENERAL MAINTENANCE

Explanation of 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 checks and inspections themselves or have a GT-R certified NISSAN dealers do them.

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OUTSIDE THE VEHICLE

ne maintenance items listed he	re should be performed from time to time, unless otherwise specified.	
Item		Reference page
Tires	Check the pressure with a gauge often and always prior to long distance trips. Adjust the pressure in all tires to the pressure specified. Check carefully for damage, cuts or excessive wear. NOTE: Check the pressure of all four tires on the multi function display. See the separate Multi Function Display Owner's Manual. The tires of this vehicle are filled with nitrogen gas. When the tire pressure is low, fill the tires with nitrogen. Contact a GT-R certified NISSAN dealer for information on filling the tires with nitrogen. If nitrogen is not available, compressed air may be safely used under normal driving conditions. However, NISSAN recommends refilling with nitrogen for maximum tire performance.	<u>WT-13</u>
Wheel nuts	When checking the tires, make sure no nuts are missing, and check for any loose nuts. Tighten if necessary.	_
Tire rotation	Tires cannot be rotated because the vehicle is equipped with different sized tires in the front and rear.	_
Tire Pressure Monitoring System (TPMS) transmitter components	Replace the TPMS transmitter grommet seal, valve core and cap when the tires are replaced due to wear or age.	<u>WT-12</u>
Tire, 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. Wheel alignment needs to be measured and adjusted by a GT-R certified NISSAN dealer.	<u>WT-13</u> FSU-7 RSU-5
Windshield	Clean the windshield on a regular basis. Check the windshield at least every six months for cracks or other damage. Have a damaged windshield repaired by a qualified repair facility.	_
Windshield wiper blades	Check for cracks or wear if they do not wipe properly.	_
Doors and engine hood	Check that all doors and the engine hood operate properly. Also make sure that all latches lock securely. Lubricate if necessary. Make sure that the secondary latch keeps the hood from opening when the primary latch is released. When driving in areas using road salt or other corrosive materials, check lubrication frequently.	<u>MA-44</u>
Lamps	Clean the headlamps on a regular basis. Make sure that the headlamps, stop lamps, tail lamps, turn signal lamps, and other lamps are all operating properly and installed securely. Also check headlamp aim.	_

INSIDE THE VEHICLE

The maintenance items listed here should be checked on a regular basis, such as when performing periodic maintenance, cleaning the vehicle,

Item		Reference page
Warning lamps and chimes	Make sure that all warning lamps and chimes are operating properly.	_
Windshield wiper and washer	Check that the wipers and washer operate properly and that the wipers do not streak.	_
Windshield defroster	Check that the air comes out of the defroster outlets properly and in sufficient quantity when operating the heater or air conditioner.	_

GENERAL MAINTENANCE

< PERIODIC MAINTENANCE >

Item		Reference page
Steering wheel	Check that it has the specified play. Check for changes in the steering condition, such as excessive play, hard steering or strange noises. Free play: Less than 35 mm (1.38 in)	-
Seats	Check seat position controls such as seat adjusters, seatback recliner, etc. to make sure they operate smoothly and that all latches lock securely in every position. Check that the head restrains move up and down smoothly and that the locks (if equipped) hold securely in all latched positions.	_
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.	<u>MA-44</u>
Accelerator pedal	Check the pedal for smooth operation and make sure the pedal does not catch or require uneven effort. Keep the floor mat away from the pedal.	_
Brakes	Check that the brakes do not pull the vehicle to one side when applied.	_
Brake pedal and booster	Check the pedal for smooth operation. If the brake pedal suddenly goes down further than normal, the pedal feels spongy or the vehicle seems to take longer to stop, see a GT-R certified NISSAN dealer immediately. Keep the floor mat away from the pedal.	<u>BR-7</u> <u>BR-13</u>
Parking brake	Check the parking brake operation regularly. The vehicle should be securely held on a fairly steep hill with only the parking brake applied. If the parking brake needs to be adjusted, see a GT-R certified NISSAN dealer.	<u>PB-4</u>
Transmission "Park" mechanism	On a fairly steep hill, check that the vehicle is held securely with the shift lever in the P (Park) position without applying any brakes.	_
JNDER THE HOOD A	ND VEHICLE	
he maintenance items listed he	ere should be checked periodically (e.g. each time you check the engine oil or refuel).	
Item		Reference page
Windshield washer fluid	_	
Engine coolant level	Check the coolant level when the engine is cold.	<u>CO-4</u>
Radiator and hoses	Check the front of the radiator and clean off any dirt, insects, leaves, etc., that may have accumulated. Make sure the hoses have no cracks, deformation, deterioration, rot or loose connections.	_
Brake fluid level	Make sure that the brake fluid level is between the "MAX" and "MIN" lines on the reservoir.	MA-39
Battery	Check the fluid level in each cell. It should be between the "MAX" and "MIN" lines. Vehicles operated in high temperatures or under severe conditions require frequent checks of the battery fluid level.	PG-3
Engine drive belt	Make sure that no belt is frayed, worn, cracked or oily.	MA-24
Engine oil level	Check the level after parking the vehicle on a level spot and turning off the engine. Wait at least 5 minutes for the oil to drain back into the oil pan before checking the oil.	<u>LU-4</u>
Power steering fluid level and lines	Check the level when the fluid is cold, with the engine off. Check the lines for improper attachment, leaks, cracks, etc.	<u>MA-41</u>
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 in the engine compartment, immediately have the exhaust system inspected by a GT-R certified NISSAN dealer.	_
Underbody	The underbody is frequently exposed to corrosive substances such as those used on icy roads or to control dust. It is very important to remove these substances, otherwise rust will form on the floor pan, frame, fuel lines and around the exhaust system. At the end of winter, the underbody should be thoroughly flushed with plain water, being careful to clean those areas where mud and dirt can easily accumulate.	_
Fluid leaks	Check under the vehicle for fuel, oil, water or other fluid leaks after the vehicle has been parked for a while. Water dripping from the air conditioner after use is normal. If you should notice any leaks or gasoline fumes are evident, check for	_

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the cause and correct it immediately.

normal. If you should notice any leaks or gasoline fumes are evident, check for

PERFORMANCE OPTIMIZATION SERVICES

< PERIODIC MAINTENANCE >

PERFORMANCE OPTIMIZATION SERVICES

Explanation of Performance Optimization Services

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In addition to the regular maintenance recommended by NISSAN, the GT-R requires the following Inspections;

- Measurement and adjustment of wheel Alignment
- Transmission settings
- Engine setting (balancing of air flow for bank 1 and bank 2)
- Checking the exhaust finisher and rear bumper clearance
- Increase tightening of the strut support bar attachment section with the shock absorber

These inspections are required at the following intervals: 1,000 miles, 12 months, 24 months and 36 months.

These inspections will be performed free of charge for labor at a GT-R certified NISSAN dealer only. See the NISSAN GT-R Warranty Information Booklet for details.

After the four free inspections, these items are included in the regular scheduled maintenance.

*Repairs and adjustments involving part replacement, etc. determined to be necessary as a result of these inspections must be performed at the customer's expense.

Inspection item			on timing Months)		Remarks		
	1,000	12M	24M	36M			
Measurement and adjustment of wheel alignment (Unladen*1)		X	X	X	Front	FSU-15, "EXCEPT TRACK PACK-SPECIFIC SUSPEN- SION : Wheel Alignment"*2	
Measurement and adjustment of wheel alignment (Offiaderi 1)	Х	^	^	^	Rear	RSU-14, "EXCEPT TRACK PACK-SPECIFIC SUSPEN- SION : Wheel Alignment"	
Transmission settings	Х	Х	Х	Х		_	
Engine settings (balancing of air flow for bank 1 and bank 2)	Х	Х	Х	Х		_	
Checking the exhaust finisher and rear bumper clearance	Х	Х	Х	Х		_	
Increase tightening of the strut support bar attachment section with the shock absorber	Х					-	

X: Applicable

 This vehicle is equipped with a high performance suspension. The vehicle's wheel alignment needs to be measured and adjusted (if necessary) by a GT-R certified NISSAN dealer as necessary as the vehicle is driven and the suspension parts break-in. Whether the vehicle is primarily for city driving or high performance driving, settings can be performed according to the customer's needs.
 Preventing toe-out:

Regarding the amount of toe-in, because toe-out causes lopsided wear on the tires or damage to localized areas inside the tires due to heat generation, be sure to adjust to toe-in. Also, heat may be generated in localized areas if the toe-in amount is excessive. Particularly when engaging in high performance driving or driving at extremely high speed, be sure to adjust the front toe-in to 0.059 in (1.5 mm) or less, and rear toe-in to 0.079 in (2.0 mm) or less. Any damage caused by failing to adjust the toe-in within the specified range will not be covered by warranty.

- The design of the clutch and transmission requires inspection and adjustment of the clutch and shift forks by a GT-R certified NISSAN dealer at the recommended intervals. If the transmission setting is not complete, excessive loads may be applied to the transmission and power train system parts during starting and shifting, which may result in a malfunction or damage.
- Each cylinder bank of this engine operates independently due to the vehicle's twin turbocharger design. Each side of the engine must operate at the same level of performance. The air flow of each bank must be checked and adjusted as necessary by a GT-R certified NISSAN dealer.
- Clearance between the enlarged-diameter exhaust finisher and the rear bumper is realized by using highly rigid exhaust mount rubber to control rear muffler vibration. The clearance between the exhaust finisher and

^{*1:} Fuel full

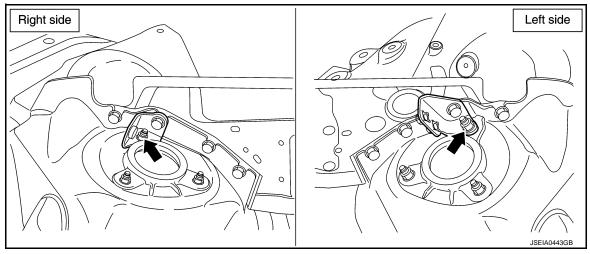
^{*2:} Kingpin inclination data are just reference values.

PERFORMANCE OPTIMIZATION SERVICES

< PERIODIC MAINTENANCE >

the rear bumper may alter as the exhaust mount rubber changes shape due to vibration, passage of time and high exhaust temperature during high performance driving. Therefore, inspection of the clearance is necessary during the GT-R special inspection and when engaging in performance driving.

 During the first GT-R special inspection (after 1,000 miles), the strut support bar attachment bracket and shock absorber (each one on the left and right sides) must be tightened to the specified tightening specification. The strut support bar attachment bracket and shock absorber (each one on the left and right sides) must be tightened to the specified tightening specification 300-600 miles (500-1,000 km) after the support bar or shock absorber have been removed or installed.



Sample of GT-R Performance Optimization Service Log

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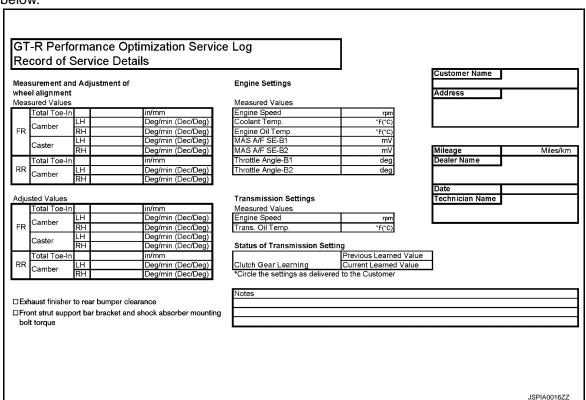
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Every time performance optimization services are carried out, be sure to fill the measured values and adjusted values in the performance optimization service log of the customer's GT-R service and maintenance guide shown below.



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PERIODIC MAINTENANCE

Introduction of Periodic Maintenance

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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 (100,000 km) or 60 months, continue the periodic maintenance at the same mileage/time intervals.

Schedule 1	 Follow Periodic Maintenance Schedule 1 if the driving habits frequently include one or more of the following driving conditions: Repeated short trips of less than 5 miles (8 km). Repeated short trips of less than 10 miles (16 km) with outside temperatures remaining below freezing. Operating in hot weather in stop-and-go "rush hour" traffic. Extensive idling and/or low speed driving for long distances, such as police, taxi or door-to-door delivery use. Driving in dusty conditions. Driving on rough, muddy, or salt spread roads. 	Emission Control System Maintenance Chassis and Body Maintenance	<u>MA-12</u>
Schedule 2	Follow Periodic Maintenance Schedule 2 if none of driving conditions shown in	Emission Control System Maintenance	MA-13
	Schedule 1 apply to the driving habits.	Chassis and Body Maintenance	<u>IVIA-13</u>

Schedule 1

EMISSION CONTROL SYSTEM

Abbreviations: R = Replace. I = Inspect. Correct or replace if necessary. []: At the mileage intervals only <>: Performed based on the number of months only GCND: This work should be performed by GT-R certified dealer.

MAINTENANCE OPERATION		MAINTENANCE INTERVAL									Refer-	
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	6 (10) 6	12 (20) 12	18 (30) 18	24 (40) 24	30 (50) 30	36 (60) 36	42 (70) 42	48 (80) 48	54 (90) 54	60 (100) 60	ence Section - Page or - Content Title
Drive belt	NOTE (1)				l*		l*		l*		I *	MA-24
Air cleaner filter	NOTE (2)					[R]					[R]	MA-27
EVAP vapor lines					I *				l*			MA-31
Fuel lines					l*				l*			GCND
Fuel filter	NOTE (3)											_
Engine coolant					R*				R*			MA-25
Engine oil	NOTE (4)	R	R	R	R	R	R	R	R	R	R	MA-28
Engine oil filter (Use genuine NISSAN engine oil filter or equivalent.)	NOTE (4)	R	R	R	R	R	R	R	R	R	R	MA-29
Spark plugs (Iridium-tipped type)	NOTE (5)										[R]	MA-30
Intake & exhaust valve clear- ance*	NOTE (6)											GCND
Engine startability and abnormal sound			<l>*</l>		<l>*</l>		<l>*</l>		<l>*</l>		<l>*</l>	_
Driving performance at low and accelerating speed			<l>*</l>		<l>*</l>		<l>*</l>		<l>*</l>		<l>*</l>	_
Throttle chamber deposits	NOTE (7)		<l>*</l>		<l>*</l>		<l>*</l>		<l>*</l>		<l>*</l>	MA-31
Engine settings	NOTE (8)								l*		I *	MA-10

NOTE:

⁽¹⁾ Replace the drive belt if found damaged or if the auto belt tensioner reading reaches the maximum limit.

⁽²⁾ If operating mainly in dusty conditions, more frequent maintenance may be required.

< PERIODIC MAINTENANCE >

- (3) Maintenance-free item. For service procedures, refer to FL section.
- (4) Replace the engine oil and engine oil filter at the same time. After a high performance driving [engine oil temperature while driving: 230°F (110°C) 266°F (130°C)], change both engine oil and oil filter every 3,000 miles (5,000 km). If engine oil temperature exceeds 266°F (130°C) while driving, change both engine oil and oil filter immediately even when the timing is premature for changing oil.
- (5) Replace spark plug when the spark plug gap reaches 1.0 mm (0.039 in) or more, even if within specified periodic replacement mileage.
- (6) Periodic maintenance is not required. However, if valve noise increases, inspect valve clearance.
- (7) Visually inspect the throttle chamber for deposits and clean as necessary.
- (8) Balancing of air flow for bank 1 and bank 2 at specified intervals. However, if the performance optimization services including this inspection at 36 months (free of charge) have not been finished yet, this inspection is not necessary.
- *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.

CHASSIS AND BODY

Abbreviations: R = Replace. I = Inspect. Correct or replace if necessary. []: At the mileage intervals only. < >: Performed based on the number of months only GCND: This work should be performed by GT-R certified dealer.

MAINTENANCE OPERATION	CE OPERATION MAINTENANCE INTERVAL									Reference		
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	6 (10) 6	12 (20) 12	18 (30) 18	24 (40) 24	30 (50) 30	36 (60) 36	42 (70) 42	48 (80) 48	54 (90) 54	60 (100) 60	Content Title
Brake lines & cables			_		I		I		I		I	MA-39
Brake hoses											<r></r>	MA-39
Brake pads & rotors		I	Ι	Ι	- 1	I	I	I	I	I	I	MA-40
Brake fluid					<r></r>				<r></r>			MA-40
Transmission oil & differential gear oil (front & rear)			I		I		[R]		I		I	MA-32 MA-34 MA-37 MA-37
Steering gear & linkage, axle & suspension parts		I	I	I	I	I	I	I	I	I	I	MA-41 MA-42
Steering linkage ball joints		I	1	Ι	I	I	I	I	I	Ι	I	GCND
Front suspension ball joints		I	I	I	I	1	I	I	I	I	I	GCND
Drive shaft boots and propeller shaft		I	I	I	_	I	I	I	I	I	I	MA-43 GCND
Exhaust system		I	I	I	I	I	I	I	I	I	I	GCND
In-cabin microfilter			R		R		R		R		R	VTL-7
Transmission settings	NOTE (1)								I		I	GCND
Measurement and adjust- ment of wheel alignment	NOTE (1)								I		I	<u>FSU-7</u> <u>RSU-5</u>
Exhaust finishers to rear bumper clearance	NOTE (1)								I		I	GCND

NOTE:

(1) If the performance optimization services at 36 months (free of charge) including this inspection have not been finished yet, this inspection is not necessary.

Schedule 2

EMISSION CONTROL SYSTEM

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< PERIODIC MAINTENANCE >

Abbreviations: R = Replace. I = Inspect. Correct or replace if necessary. []: At the mileage intervals only < >: Performed based on the number of months only GCND: This work should be performed by GT-R certified dealer.

MAINTENANCE OPERATION			MAINTENANCE INTERVAL									Reference
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	6 (10) 6	12 (20) 12	18 (30) 18	24 (40) 24	30 (50) 30	36 (60) 36	42 (70) 42	48 (80) 48	54 (90) 54	60 (100) 60	Section - Page or - Content Ti- tle
Drive belt	NOTE (1)				I *		I *		I *		I *	MA-24
Air cleaner filter						[R]					[R]	MA-27
EVAP vapor lines					l*				I *			MA-31
Fuel lines					l*				l*			GCND
Fuel filter	NOTE (2)											_
Engine coolant					R*				R*			MA-24
Engine oil	NOTE (3)	R	R	R	R	R	R	R	R	R	R	MA-28
Engine oil filter (Use genuine NISSAN engine oil filter or equivalent.)	NOTE (3)	R	R	R	R	R	R	R	R	R	R	MA-29
Spark plugs (Iridium-tipped type)	NOTE (4)										[R]	MA-30
Intake & exhaust valve clearance*	NOTE (5)											GCND
Engine startability and abnormal sound			<l>*</l>		<l>*</l>		<l>*</l>		<l>*</l>		<l>*</l>	_
Driving performance at low and accelerating speed			<l>*</l>		<l>*</l>		<l>*</l>		<l>*</l>		<l>*</l>	_
Throttle chamber deposits	NOTE (6)		<l>*</l>		<l>*</l>		<l>*</l>		<l>*</l>		<l>*</l>	MA-31
Engine settings	NOTE (7)								l*		l*	<u>MA-10</u>

NOTE:

- (1) Replace the drive belt if found damaged or if the auto belt tensioner reading reaches the maximum limit.
- (2) Maintenance-free item. For service procedures, refer to FL section.
- (3) Replace the engine oil and engine oil filter at the same time. After a high performance driving [engine oil temperature while driving: 230°F (110°C) 266°F (130°C)], change both engine oil and oil filter every 3,000 miles (5,000 km). If engine oil temperature exceeds 266°F (130°C) while driving, change both engine oil and oil filter immediately even when the timing is premature for changing oil.
- (4) Replace spark plug when the spark plug gap reaches 1.0 mm (0.039 in) or more, even if within specified periodic replacement mileage.
- (5) Periodic maintenance is not required. However, if valve noise increases, inspect valve clearance.
- (6) Visually inspect the throttle chamber for deposits and clean as necessary.
- (7) Balancing of air flow for bank 1 and bank 2 at specified intervals. However, if the performance optimization services including this inspection at 36 months (free of charge) have not been finished yet, this inspection is not necessary.
- *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.

CHASSIS AND BODY

Abbreviations: R = Replace. I = Inspect. Correct or replace if necessary.[]: At the mileage intervals only. < >: Performed based on the number of months only GCND: This work should be performed by GT-R certified dealer.

MAINTENANCE OPERAT	MAINTENANCE INTERVAL								Reference			
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	6 (10) 6	12 (20) 12	18 (30) 18	24 (40) 24	30 (50) 30	36 (60) 36	42 (70) 42	48 (80) 48	54 (90) 54	60 (100) 60	Section - Page or - Content Title
Brake lines & cables			I		I		I		I		I	MA-39
Brake hoses											<r></r>	MA-39
Brake pads & rotors			Ι		I		I		I		I	<u>MA-40</u>

< PERIODIC MAINTENANCE >

MAINTENANCE OPERATION					MAIN	TENAN	ICE INT	ERVAL	-			Reference
Perform at number of miles, kilometers or months, whichever comes first.	Miles x 1,000 (km x 1,000) Months	6 (10) 6	12 (20) 12	18 (30) 18	24 (40) 24	30 (50) 30	36 (60) 36	42 (70) 42	48 (80) 48	54 (90) 54	60 (100) 60	Section - Page or - Content Title
Brake fluid					<r></r>				<r></r>			MA-40
Transmission oil & differential gear oil (front & rear)			ı		I		[R]		I		I	MA-32 MA-34 MA-37 MA-37
Steering gear & linkage, axle & suspension parts					I				I			MA-41 MA-42
Steering linkage ball joints					I				I			GCND
Front suspension ball joints					I				I			GCND
Drive shaft boots and propeller shaft			I		I		I		I		1	MA-43 GCND
Exhaust system					- 1				Ι			GCND
In-cabin microfilter			R		R		R		R		R	VTL-7
Transmission setting	NOTE (1)								I		1	GCND
Measurement and adjust- ment of wheel alignment	NOTE (1)								I		I	FSU-7 RSU-5
Exhaust finishers to rear bumper clearance	NOTE (1)								I		I	GCND

NOTE:

(1) If the performance optimization services at 36 months (free of charge) including this inspection have not been finished yet, this inspection is not necessary.

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< PERIODIC MAINTENANCE >

ADDITIONAL MAINTENANCE ITEMS

Description INFOID:000000009161751

The information and specifications below apply only when engaging in performance driving.

The following information applies only if the owners engage in performance driving such as driving your GT-R for extended periods under the following conditions.

- Higher-RPM (approaching red line) operation
- Frequent high pedal force braking from moderate and higher speeds
- Frequent throttle activation
- · Fast revving throughout the RPM range

In such cases, the following additional maintenance guidelines apply.

We recommend that all GT-R maintenance be performed at a GT-R certified NISSAN dealer. NISSAN will only pay for NISSAN GT-R Performance Optimization Services performed at a GT-R certified NISSAN dealer.

Precautions on Performance Driving

INFOID:0000000009161752

Checking the temperature of the coolant and oils on the multi-function display.

When the temperatures of the engine coolant and oil, and the oil pressure exceed the normal range, the color of the meter on the multifunction display turns red to warn the driver.

When engaging in high performance driving, switch the display to the function meter to display the temperature of the engine coolant and oil, and the oil pressure. When the color of the meterdisplay turns red, perform cool down driving. When the values of the temperature and pressure return to the normal range, the color of the meter display will turn back to white.

Warning temperature:

- Engine coolant temperature: 230°F (110°C) or higher*1
- Engine oil temperature: 275°F (135°C) or higher*1
- Transmission oil temperature: 284°F (140°C) or higher*2

COOL DOWN

Cool down the vehicle to help extend the life of the vehicle if coolant temperatures are extremely high. Drive the vehicle at 37 to 50 MPH (60 to 80 km/h), in 5th or 6th gear for 2 to 3 miles (3 to 5 km) and then stop the engine.

REFUELING PRECAUTIONS

WARNING:

Do not attempt to top off the fuel tank after the fuel pump nozzle shuts off automatically. Continued refueling may cause fuel overflow, resulting in fuel spray and possibly a fire. The fuel tank is full at the first automatic shutoff.

To maximize vehicle performance, the fuel tank is located as low as possible to lower the vehicle center of gravity. The tank is also divided into two parts. This fuel tank design causes higher pressures inside the tank than other vehicles so fuel spillage is possible by trying to top off the fuel tank after automatic shutoff.

When more than half of the fuel remains in the tank, the pressure and temperature in the fuel tank may increase. This may cause evaporated fuel spray and a hissing sound when the fuel cap is opened. It may be difficult to refuel the vehicle, but this does not indicate a malfunction.

This phenomenon may not occur after the temperature inside the fuel tank decreases.

To avoid the above phenomenon, open the cap gently to gradually release the pressure from the tank, then slowly refuel the vehicle.

^{*1:} If the engine coolant temperature increases above 230°F (110°C), the color of the meter display changes to red to warn of a possible overheat condition and engine output is reduced. When the engine oil temperature is higher than 275°F (135°C), the meter display changes to red maximum engine speed is automatically limited to 4,000 rpm, and the transmission automatically changes from the M position to the A position.

^{*2:} If the transmission oil temperature increases to over 284°F (140°C), the color of the meter display on the multi function display changes to red. However, the vehicle can continue to be driven until the temperature reaches 295°F (146°C). If the oil temperature exceeds 248°F (140°C) while driving (the color of the meter display turns red), change both the transmission and the differential oil after driving because these fluids have deteriorated because of the heat.

< PERIODIC MAINTENANCE >

Inspection and Adjustments before Performance Driving

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The information and specifications below apply only when engaging in performance driving.

FLUIDS

- Check the engine, transmission, differential and under vehicle surfaces for oil and coolant leaks.
- Check the fluid levels and adjust as necessary using the specified fluid as described under the conditions listed in RECOMMENDED FLUIDS AND MAINTENANCE INTERVAL.
- NISSAN recommends to adjust the engine oil level to be 0.4 in (10 mm)(1/2 US qt (0.5 liter)) below the H
 mark on the engine oil dipstick.
- Before checking the oil level, run the engine until it reaches operating temperature and wait at least 5 minutes after turning off the engine. Make sure the oil level always remains above the L mark.
- When the vehicle is delivered, the engine oil is set to "H 0.4 in (10 mm)" for optimal high performance driving.
- Adjust the power steering fluid level to the R mark on the power steering dipstick when the fluid temperature is hot or when the fluid temperature is cold.

Fluid temperature:

Hot: 122 to 176°F (50 to 80°C) Cold: 32 to 86°F (0 to 30°C)

COOLANT LEVEL and MIXTURE RATIO

Check the coolant level in the pressurized coolant reservoir. Adjust the level so that the fluid is between the MAX and MIN markings. For the coolant, use Genuine NISSAN Long Life Coolant.

(On delivery of new vehicle, the reservoir is filled to the MIN level. Be sure to replenish approximately 1/4 to 3/8 qt (0.3 to 0.4 liter) of coolant.)

CAUTION:

Do not overfill the coolant. This may increase the pressure in the cooling system and cause coolant leaks.

To maximize vehicle performance, the coolant mixture ratio should be a combination of 30% coolant/antifreeze and 70% demineralized or distilled water for maximum cooling system performance regardless of ambient temperatures.

If ambient temperatures are anticipated below 5°F (-15°C), make sure a proper mixture ratio of 50% antifreeze and 50% demineralized or distilled water mix is used.

ENGINE and POWERTRAIN

- Inspect the areas surrounding of the catalytic converter for heat deterioration.
- Check the engine, transmission, differential and under the vehicle for oil and coolant leaks.
- Always perform the transmission setting. After that, adjust the clutch clearance so that the clearance is smaller than the usual clearance. Large clutch clearance increases clutch heat generation. This leads to an increase in temperature of the transmission oil. In addition, a more direct shifting feel can be obtained by adjusting the clearance to be small. Perform the adjustment again after High Performance Driving.

CAUTION:

Failure to have the clutch properly adjusted before performance driving may cause the transmission oil temperature to increase which may cause transmission damage.

- Inspect to see whether the clearance between the exhaust finisher and rear bumper is maintained at above 0.24 in (6 mm) (up/down) and above 0.20 in (5 mm) (left/right).
- Inspect drive shaft universal joint dust boots for cracks and damage. Replace as necessary.

SUSPENSION and WHEEL ALIGNMENT

- Check the steering and suspension system and other links for loose and/or damaged parts.
- Measure and adjust the wheel alignment.

Preventing toe-out:

Regarding the amount of toe-in, because toe-out causes lopsided wear on the tires or damage to localized areas inside the tires due to heat generation, be sure to adjust to toe-in. Also, heat may be generated in localized areas if the toe-in amount is excessive. Particularly when engaging in high performance driving or driving at extremely high speed, be sure to adjust the front toe-in to 0.059 in (1.5 mm) or less, and rear toe-in to 0.079 in (2.0 mm) or less. Any damage caused by failing to adjust the toe-in within the specified range will not be covered by warranty.

Excessive toe-out can cause uneven tire wear or damage to areas inside the tires due to high heat. Be sure to have the wheel alignment toe setting checked and adjusted before any performance driving.

WHEELS and TIRES

Check tire wear and cracking.

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Revision: 2012 November MA-17 2014 GT-R

< PERIODIC MAINTENANCE >

- Inspect the tire side wall for damage.
- Check the tire pressure and adjust the pressure as necessary when the tires are cold.

Tire pressure:

When the tire temperature has increased after the vehicle was driven at high speed or you have engaged in high performance driving, adjust the tire pressure as follows to balance the rigidity between the front and rear tires

Condition	Pressure PSI (kPa)
Starting to drive (Tires are cold)	Front: 30.5 (210) - 31.9 (220) Rear: 29 (200)
Increasing tire pressure (Tires are hot)	Front: Not exceeding 39.2 (270) Rear: Not exceeding 37.8 (260)

The tire pressure changes depending on the outside temperature or altitude. Check the tire pressure regularly and when the climate conditions change.

WARNING:

Keep your tires inflated to the correct tire pressure. Driving with low tire pressure can damage some powertrain systems and affect the operation of the ABS and VDC systems. Low tire pressure may also cause tire failure and result in serious personal injury or death.

- Make sure the tire valve stem cap is installed and that the valve stem is tight. When installing the cap, make sure to tighten the cap by hand. If a tool is used to tighten the cap, the cap may be damaged.
- Make sure the wheel nuts are tight.
- Make sure the drive shaft nuts are tight.
- Make sure to replace the grommet seal, the valve core and the valve cap of the Tire Pressure Monitoring System (TPMS) sensor attached to the wheel every 3 years for performance driving use. Replace them every 5 years even when not engaging in performance driving. A dirty grommet seal will cause the air leak from the tire.
- Make sure that the TPMS sensor installation nuts and the sensor valve are tight and there is no nitrogen leak.
- Use only a NISSAN genuine valve cap or equivalent.
- Check wheel hub run out and that the wheel rotates smoothly without any friction. Check these with the tires removed whenever an inspection is performed with the vehicle jacked up.
- Secure road wheel balance weights with aluminum tape.
- Check that the wheel nuts are not stripped.
- Make sure the tire has not slipped on the wheel causing the assembly to be out of balance. The reference
 marks on the tire and wheel should be aligned. If the reference marks are not aligned, the tire has slipped on
 the wheel. Have the wheels/tires rebalanced. Make sure the old reference marks are erased and new reference marks are applied to the wheel and tire. When installing new tires on the wheels, make sure new reference marks are applied to the wheels and tires.

BRAKES

- Check for the heat deterioration of the brakes and parts around the brakes.
- It is recommended that you remove air from the brake system after any of the following:
 - When engaging in high performance driving for the first time after purchasing a new vehicle.
 - After replacing the brake fluid.
 - When engaging in high performance driving for a sustained period of time.

It is recommended that bleeding the brake be performed when the brake calipers are hot (about 212°F (100°C)).

Brake Pad:

NISSAN recommends adding an additional cross spring to the front calipers before engaging in performance
driving. The additional spring reduces brake pad movement resulting from cornering forces and will reduce
the stroke of the brake pedal. If a cross spring is added, a clattering or squeaking sound may be heard on
rare occasions.

Brake Pad Brake-in Procedure:

NISSAN recommends performing the brake pad break in procedure until the surface of the brake pad is covered with a 0.04 to 0.08 in (1 to 2 mm) thick white coating. To achieve this result the temperature of the brake pads must reach 1,112°F (600°C). To achieve this result perform the following:

- Drive the vehicle at a speed of 75 MPH (120 km/h) and slow down to 12 MPH (20 km/h) with a 0.6G rate of braking. Repeat this procedure about 15 times.
- Cool down the brakes by driving at 37 to 50 MPH (60 to 80 km/h), in 5th or 6th gear for 2 to 3 miles (3 to 5 km) after the break in procedure is completed.

< PERIODIC MAINTENANCE >

CAUTION:

Never perform the break in procedure on a public road.

Inspection and Adjustments after Performance Driving

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NOTE:

At the completion of performance driving, all fluids and adjustments should be returned to their normal conditions and settings as specified.

FLUIDS

- Check the engine, transmission, differential and under the vehicle for oil and coolant leaks.
- Check the fluid levels and adjust as necessary using the specified fluid as described under the conditions listed in RECOMMENDED FLUIDS AND MAINTENANCE INTERVAL. If you do not drive under the conditions listed, refer to the applicable NISSAN Service and Maintenance Guide.
- When changing fluids, be sure to use the specified fluids as described in the RECOMMENDED FUELS/ LUBRICANTS Chart in the Technical and Consumer Information section of owner's manual.

Recommended Fluids and Maintenance Interval

ITEMS	Engine Oil					
GT-R SPECIFIED FLUIDS	Mobil 1 (0W-40)* ¹					
	When the oil temperature stays below 230°F (110°C) while driving	Change engine oil and engine oil filter at the same interval as Schedule 1 and 2 in the 2014 NISSAN GT-R Service and Maintenance Guide section.				
MAINTENANCE INTERVAL	When the oil temperature reaches between 230°F (110°C) and 266°F (130°C) while driving	Change engine oil and engine oil filter every 3,000 miles (5,000 km).				
	When the oil temperature exceeds 266°F (130°C) while driving	Change engine oil and engine oil filter immediately after stopping.				

ITEMS	Transmission Oil					
GT-R SPECIFIED FLUIDS	Genuine NISSAN Transmission Oil R35 Special					
	When the oil temperature stays below 248°F (120°C) while driving	Change transmission oil at the same interval as Scheoule 1 and 2 in the 2014 NISSAN GT-R Service and Main tenance Guide section.				
MAINTENANCE INTERVAL	When the oil temperature reaches between 248°F (120°C) and 284°F (140°C) while driving	Change transmission oil every 3,000 miles (5,000 km).				
	When the oil temperature exceeds 284°F (140°C) while driving	Change both transmission oil and differential oil immediately after stopping. Differential oil temperature usually increases concurrently.				

ITEMS	Differential Oil (front and rear)					
GT-R SPECIFIED FLUIDS	Differential Oil R35 COMPETITION type 2189E*2					
	When the oil temperature stays below 248°F (120°C) while driving	Change differential oil at the same interval as Schedule 1 and 2 in the 2014 NISSAN GT-R Service and Maintenance Guide section.				
MAINTENANCE INTERVAL	When the oil temperature reaches between 248°F (120°C) and 284°F (140°C) while driving	Change differential oil every 3,000 miles (5,000 km).				
	When the oil temperature exceeds 284°F (140°C) while driving	Change both transmission oil and differential oil immediately after stopping. Differential oil temperature usually increases concurrently as the transmission oil temperature.				

ITEMS	Brake Fluid
GT-R SPECIFIED FLUIDS	Genuine NISSAN Brake Fluid R35 Special II*3
MAINTENANCE INTERVAL	Change brake fluid every 3,000 miles (5,000 km).

< PERIODIC MAINTENANCE >

- *1: Mobil 1 (0W-40) (100% synthetic) is the factory fill oil. The VR38 engine with its plasma-sprayed bores was developed using this oil. NISSAN cannot ensure proper engine operation and durability if other 0W-40 synthetic oil is used. If Mobil 1 (0W-40) is not available, Mobil 1 (10W-40) (100% synthetic) may be used, however, some performance loss may be noticed.
- *2: The differential oil temperature cannot be displayed on the multi function display. The differential oil temperature can be checked with the transmission oil temperature since both usually increases or decrease concurrently.
- *3: Genuine NISSAN Brake Fluid R35 Special II is the factory fill brake fluid. The Vehicle Dynamic Control (VDC) unit and other related parts were specially designed for this brake fluid and NISSAN cannot ensure the best performance and proper operation of the vehicle if other brake fluid is used.

SUSPENSION and WHEEL ALIGNMENT

- Check the steering and suspension system and other links for loose and/or damaged parts.
- Measure and adjust the wheel alignment.

Preventing Toe-out:

Regarding the amount of toe-in, because toe-out causes lopsided wear on the tires or damage to localized areas inside the tires due to heat generation, be sure to adjust to toe-in. Also, heat may be generated in localized areas if the toe-in amount is excessive. Particularly when engaging in high performance driving or driving at extremely high speed, be sure to adjust the front toe-in to 0.059 in (1.5 mm) or less, and rear toe-in to 0.079 in (2.0 mm) or less. Any damage caused by failing to adjust the toe-in within the specified range will not be covered by warranty.

WHEEL and TIRES

- · Check tire wear and cracking.
- Inspect the tire side wall for damage.
- Check the tire pressure and adjust the pressure as necessary when the tires are cold. (See previous page's charts)
- Check that the wheel nuts are not stripped. Check if there is no deformation on the contact surface of the nuts.
- · Make sure the wheel nuts are tight.
- · Make sure the drive shaft nuts are tight.
- Check wheel hub run out and that the wheel rotates smoothly without any friction. Check these with the tires removed whenever an inspection is performed with the vehicle jacked up.
- Make sure the tire has not slipped on the wheel causing the assembly to be out of balance. The reference marks on the tire and wheel should be aligned. If the reference marks are not aligned, the tire has slipped on the wheel. Have the wheels/tires rebalanced. Make sure the old reference marks are erased and new reference marks are applied to the wheel and tire. When installing new tires on the wheels, make sure new reference marks are applied to the wheels and tires.
- Make sure that the TPMS sensor installation nuts and the sensor valve are tight and there is no nitrogen leak.

BRAKES

- Check for the heat deterioration of the brakes and parts around the brakes.
- Check the condition of the brake pads and disc rotors and replace them as necessary.

ENGINE and POWERTRAIN

- Inspect the area surrounding the catalytic converter for heat deterioration.
- Inspect to see whether the clearance between the exhaust finisher and rear bumper is maintained at above 0.24 in (6 mm) (up/down) and above 0.20 in (5 mm) (left/right).
- Inspect drive shaft universal joint dust boots for cracks and damage. Replace as necessary.
- Check the engine, transmission, differential and under the vehicle for oil and coolant leaks.
- The clutch clearance and shift fork position may need to be adjusted.
- Check that there is no abnormal noise, vibrations or warning lights illuminated when making tight turns at slow speed (for tight corner braking phenomenon).

< PERIODIC MAINTENANCE >

MAINTENANCE RECORD LIST

Customer Name:	Mileage: Mileage: GT-R Dealer name:	Date: Technician Name:	Memo:
	■Wheel and Tire B A Apply aluminum tape over the wheel balance weight Inspect the wheel nuts for deformation Inspect the wheel nut for deformation Inspect the wheel nut and the wheel hub lock nut for looseness Tighten the wheel nut with the standard torque Inspect the wheel hut with the standard torque Align the reference marks on the tire and the inner wheel Align the reference marks on the tire and the inner wheel (rim deviation)	Inspect and adjust the tire pressure Inspect the air valve and nut of the fire for looseness Inspect the tire for nitrogen leakage Inspect the groove of the fire Inspect the fire for uneven and abnormal wear Inspect the tire for damage and crack Inspect the tire for damage and crack	■ Steering B A Inspect the rod and arm of the steering system for looseness, backlash and damage Suspension B A Inspect the shock absorber for damage and oil leakage inspect the suspension for looseness of mounting and connection, backlash and damage Connection, backlash and damage Connection, backlash and Replaced Parts Other Maintenance Items and Replaced Parts
ADDITIONAL MAINTENANCE ITEMS FOR PERFORMANCE DRIVING-2013 GT-R MAINTENANCE RECORD LIST (Inspection before and after driving) NA Normal L Replace X Tighten T Clean C Adjust A Repair D Disassemble O Lubricate L Omission P	■ Fluids and Lubricants B A (B: Before, A: After) Inspect the underbody for leakage and smears of oil, fluid and coolant Adjust/Inspect the engine oil level (temperature record, leakage and smears) Adjust the engine coolant level and mixture ratio in the pressurized radjust the engine coolant level and mixture ratio in the pressurized radjust the power steering fluid for level and check for leakage Inspect the brake fluid for level Inspect the transmission and final differential gear oil for oil temperature record and leakage and smears	■Engine B A Inspect the surrounding of the catalyst converter for heat deterioration Inspect the exhaust finisher and (only for vehicles with GT-R genuine exhaust) rear bumper clearance Inspect and adjust clearance between the exhaust and its surrounding parts	■ Transmission B Adjust the clutch clearance (clutch gear learning) Inspect whether tight corner braking phenomenon does not become extremely strong ■ Driveshaft B A Inspect the dust boot of the drive shaft universal joint for crack and damage ■ Brake System B A Inspect the brake pipe and hose for leakage, damage and improper connection inspect the brake pad for wear, colour/temperature indication, damage and crack inspect the brake master cylinder and the caliper for fluid leakage Bleed the air from brake fluid Inspect the brake surrounding parts for heat deterioration Perform brake pad break-in (only when engaging in the first performance driving after replacing the brake pads)

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RECOMMENDED FLUIDS AND LUBRICANTS

< PERIODIC MAINTENANCE >

RECOMMENDED FLUIDS AND LUBRICANTS

Fluids and Lubricants

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			Car	pacity (Approxim	nate)	Recommended Fluids/Lubricants
			US measure	Imp measure	Liter	Recommended Fluids/Eublicants
Engine oil	With oil filter change		5-1/4 qt	4-3/8 qt	5.0	
Drain and refill	Without of change	il filter	4-3/4 qt	4 qt	4.5	Mobil 1 (0W-40)*1
Dry engine (Ove	rhaul)		6-4/8 qt	5-4/8 qt	6.2	
Cooling avetem	With rese	rvoir tank	12 qt	10 qt	11.3	Genuine NISSAN Long Life Antifreeze/ Coolant
Cooling system	Reservoir	tank	1-1/4 qt	1 qt	1.2	(blue) or equivalent
Transmission oil	Transmission oil*5		9-7/8 qt	8-1/4 qt	9.4	Genuine NISSAN Transmission Oil R35 Special*2
Differential goar	oil	Front	1-3/8 pt	1-1/8 pt	0.65	Genuine NISSAN Differential Oil R35 COMPETI-
Differential gear	OII	Rear	2-7/8 pt	2-3/8 pt	1.35	TION type 2189E*2
Transfer fluid			_	_	_	_
Power steering f	luid (PSF)		1-1/8 qt	7/8 qt	1.0	Genuine NISSAN PSF or equivalent*3
Brake fluid	Brake fluid		_	_	_	Genuine NISSAN Brake Fluid R35 Special II*4
Multi-purpose grease		_	_	_	NLGI No. 2 (Lithium soap base)	
Windshield washer fluid		_	_	_	Genuine NISSAN Windshield Washer Concentrate Cleaner & Antifreeze or equivalent	
Fuel recommend	dation		_	_	_	Refer to GI-28, "Fuel".

^{*1:} Mobil 1 (0W-40) (100% synthetic) is the factory fill oil. The VR38 engine with its plasma-sprayed bores was developed using this oil. NISSAN cannot ensure proper engine operation and durability if other 0W-40 synthetic oil is used. If Mobil 1 (0W-40) is not available, Mobil 1 (10W-40) (100% synthetic) may be used; however, some performance loss may be noticed. For further details, see "Engine Oil Recommendation".

Engine Oil Recommendation

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It is essential to choose the correct grade, quality, and viscosity engine oil to ensure satisfactory engine life and performance. Mobil 1 (0W-40) (100% synthetic) is the factory fill oil. The VR38 engine with its plasma-sprayed bores was developed using this oil. NISSAN cannot ensure proper engine operation and durability if other 0W-40 synthetic oil is used. If Mobil 1 (0W-40) is not available, Mobil 1 (10W-40) (100% synthetic) may be used; however, some performance loss may be noticed.

Using an engine oil other than that specified could adversely affect the engine.

Anti-Freeze Coolant Mixture Ratio

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The engine cooling system is filled at the factory with a pre-diluted mixture of 50% Genuine NISSAN Long Life Antifreeze/Coolant (blue) and 50% water to provide year-round anti-freeze and coolant protection. The antifreeze solution contains rust and corrosion inhibitors. Additional engine cooling system additives are not necessary.

WARNING:

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

^{*2:} The use of fluids and lubricants other than the specified may cause vehicle malfunctions and result in non-warranty vehicle repairs.

^{*3:} DEXRON™ VI type ATF or Canada NISSAN Automatic Transmission Fluid may also be used.

^{*4:} Genuine NISSAN Brake Fluid R35 Special II is the factory fill brake fluid. The Vehicle Dynamic Control (VDC) unit and other related parts were specially designed for this brake fluid and NISSAN cannot ensure the best performance and proper operation of the vehicle if other brake fluid is used.

^{*5:} All of the fluid cannot be removed when servicing the transmission. The actual refill amount may be less than shown.

RECOMMENDED FLUIDS AND LUBRICANTS

< PERIODIC MAINTENANCE >

tor. See precautions in "If your vehicle overheats" found in the "In case of emergency' section of this manual.

• The radiator is equipped with a pressure type radiator cap. To prevent engine damage, use only a genuine NISSAN radiator cap.

CAUTION:

- When adding or replacing coolant, be sure to use only Genuine NISSAN Long Life Antifreeze/Coolant (blue) or equivalent. Genuine NISSAN Long Life Antifreeze/Coolant (blue) is pre-diluted to provide antifreeze protection to -34°F (-37°C). If additional freeze protection is needed due to weather where you operate your vehicle, add Genuine NISSAN Long Life Antifreeze/Coolant (blue) concentrate following the directions on the container. If an equivalent coolant other than Genuine NISSAN Long Life Antifreeze/Coolant (blue) is used, follow the coolant manufactur's instructions to maintain minimum antifreeze protection to -34°F (-37°C). The use of other types of coolant solutions other than Genuine NISSAN Long Life Antifreeze/Coolant (blue) or equivalent may damage the engine cooling system.
- The life expectancy of the factory-fill coolant is 24,000 miles (38,4000 km) or 2 years. Mixing any other type of coolant other than Genuine NISSAN Long Life Antifreeze/Coolant (blue), including Genuine NISSAN Long Life Antifreeze/Coolant (green), or the use of non-distilled water will reduce the life expectancy of the factory-fill coolant. Refer to the GT-R Service and Maintenance Guide for more details.

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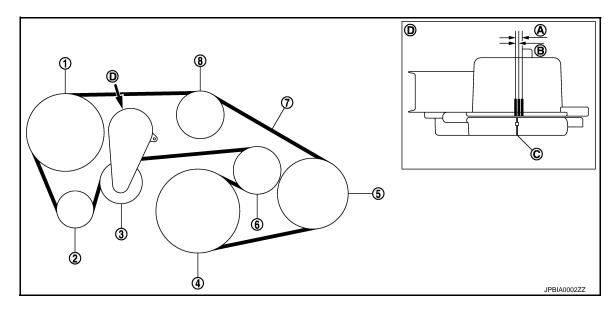
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DRIVE BELT

DRIVE BELT: Exploded View

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

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

DRIVE BELT: Checking

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WARNING:

Be sure to perform this step when engine is stopped.

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

NÓTE:

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

DRIVE BELT: Tension Adjustment (GT-R certified NISSAN dealer)

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Refer to MA-45, "DRIVE BELT: Drive Belt (GT-R certified NISSAN dealer)".

ENGINE COOLANT

ENGINE COOLANT: Inspection

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BASIC INSPECTION

Checking Engine Room

- Visually check engine room for smears*1 and leakage*2 of engine coolant when engine is cool.
 - *1: Engine coolant does not drop.
 - *2: Engine coolant drop.

< PERIODIC MAINTENANCE >

- Check engine assembly and cooling system for smears and leakage of engine coolant.
- Observe the clearance between the engine and radiator to check that there is no engine coolant collected on the front under cover.

Additional Inspection

- Check that engine coolant temperature history is not stored in ECM. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
- Perform this additional inspection after driving under conditions listed below:
- Higher-RPM (approaching redline) operation
- Frequent high pedal force braking from moderate and higher speeds
- Frequent throttle activation
- Fast revving throughout the RPM range
- Remove front under cover. Refer to EXT-37, "FRONT UNDER COVER: Exploded View".
- Visually check the bottom of the engine for smears and leakage of engine coolant.

LEVEL

- Check that the reservoir tank engine coolant level is at the midpoint between the "MIN" (B) to "MAX" (A) with the engine cold. **CAUTION:**
 - If engine coolant level exceeds the MAX line, leakage of engine coolant may occur during the rise in internal pressure in the engine coolant path. Therefore, thoroughly check that engine coolant level is below the MAX line.
 - Refill Genuine NISSAN Long Life Antifreeze/Coolant (blue) or equivalent in its quality mixed with water (distilled or demineralized). Refer to MA-22, "Fluids and Lubricants".
- Adjust the engine coolant level if necessary.
- · Check that the reservoir tank cap is tightened.



LEAKAGE

Engine Assembly

- Visually check engine assembly and surround area for smears of engine coolant.
- Wipe out smeared engine coolant using part cleaner or the equivalent.
- Check again for engine coolant smears.

Radiator and Cooling System

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

Testing pressure : Refer to CO-10, "Radiator".

Never remove radiator cap and reservoir tank cap when engine is hot. Serious burns could occur from high-pressure engine coolant escaping from engine cooling system. **CAUTION:**

Higher test pressure than that specified may cause radiator

damage. NOTE:

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

If anything is found, repair or replace damaged parts.



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WARNING:

- Never change engine coolant when the engine is hot to avoid being scalded.
- Wrap a thick cloth around reservoir tank cap and carefully remove reservoir tank cap. First, turn reservoir tank cap a quarter of a turn to release built-up pressure. Then turn reservoir tank cap all the way.
- Remove engine undercover. Refer to EXT-35, "ENGINE UNDER COVER: Exploded View".

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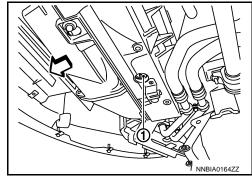
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< PERIODIC MAINTENANCE >

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

: Vehicle front



- 3. Remove reservoir tank if necessary, drain engine coolant, and clean reservoir tank before installing.
- Check drained engine coolant for contaminants such as rust, corrosion or discoloration. If contaminated, flush the engine cooling system. Refer to CO-6, "Flushing".

ENGINE COOLANT: Refilling

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(A)

(B)

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CAUTION:

- Do not reuse O-rings.
- Do not put additive such as waterleak preventive, since it may cause cooling waterway clogging.
- . When refilling use Genuine NISSAN Long Life Antifreeze/Coolant (blue) or equivalent in its quality mixed with water (distilled or demineralized). Refer to MA-22, "Fluids and Lubricants".
- Install reservoir tank if removed.
- Install radiator drain plug.

CAUTION:

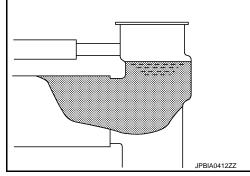
Be sure to clean drain plug and install with new O-ring.

Tightening torque : 1.2 N·m (0.12 kg-m, 11 in-lb)

- 3. Check that each hose clamp has been firmly tightened.
- Fill radiator to specified level.
 - · Pour engine coolant through engine coolant filler neck slowly of less than 2 ℓ (2-1/8 US qt, 1-3/4 Imp qt) a minute to allow air in system to escape.

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

: Refer to <u>CO-10</u>, "Periodical Maintenanc e Specification".



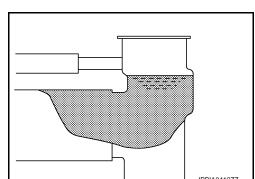
- Install radiator cap.
- Fill reservoir tank to "MAX" level line with engine coolant if nec-6. essary.

A: MAX B:MIN

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

: Refer to <u>CO-10</u>, "Periodical Maintenanc e Specification".

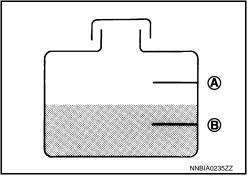
- 7. Install reservoir tank cap, and then start the engine.
- Warm up engine until thermostat opens. Standard for warming-up time is approximately 10 minutes at 3,000 rpm.
 - Check thermostat opening condition by touching radiator hose (lower) to see a flow of warm water. **CAUTION:**



< PERIODIC MAINTENANCE >

Watch water temperature gauge so as not to overheat engine.

- Stop the engine and cool down to less than approximately 50°C (122°F).
 - Cool down using fan to reduce the time.
 - If necessary, refill radiator up to filler neck with engine coolant.
- 10. Repeat steps 6 through 9 two or more times with radiator cap and reservoir tank cap installed until engine coolant level no longer drops.
- 11. When the coolant level of the radiator stops lowering, refill reservoir tank to the midpoint between the "MIN" (B) and "MAX" (A) of the reservoir tank.



- 12. Check cooling system for leakage with engine running.
- 13. Warm up the engine, and check for sound of engine coolant flow while running engine from idle up to 3,000 rpm with heater temperature controller set at several positions between "COOL" and "WARM".
 - Sound may be noticeable at heater unit.
- 14. Repeat step 13 three times.
- 15. If sound is heard, bleed air from cooling system by repeating steps from 3 to 13 until engine coolant level no longer drops.
- 16. Recheck reservoir tank engine coolant level with the engine completely cold. Refer to MA-24, "ENGINE **COOLANT**: Inspection".

ENGINE COOLANT: Flushing

Install reservoir tank if removed, and radiator drain plug. **CAUTION:**

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

Tightening torque : 1.2 N·m (0.12 kg-m, 11 in-lb)

- 2. Fill radiator and reservoir tank with water.
- Run the engine and warm it up to normal operating temperature.
- Rev the engine two or three times under no-load.
- Stop the engine and wait until it cools down.
- 6. Drain water from the system. Refer to <a>CO-5, "Draining".
- Repeat steps 1 through 6 until clear water begins to drain from radiator.

AIR CLEANER FILTER

AIR CLEANER FILTER: Removal and Installation

REMOVAL

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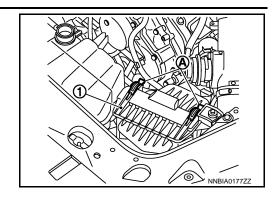
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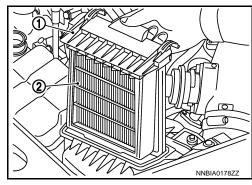
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< PERIODIC MAINTENANCE >

1. Unhook clips (A) and remove holder (1) from air cleaner case.



2. Remove air cleaner filter (2) from holder (1).



INSTALLATION

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

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

ENGINE OIL

ENGINE OIL: Draining

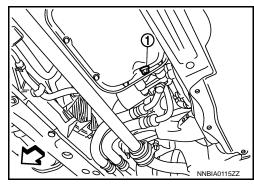
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WARNING:

- Be careful not to get burned, as engine oil may be hot.
- Prolonged and repeated contact with used engine oil may cause skin cancer. Try to avoid direct skin contact with used engine oil. If skin contact is made, wash thoroughly with soap or hand cleaner as soon as possible.
- Warm up the engine, and check for engine oil leakage from engine components. Refer to <u>LU-4, "Inspection"</u>.
- 2. Stop the engine and wait for 5 minutes.
- Loosen oil filler cap.
- 4. Remove front undercover. Refer to EXT-37, "FRONT UNDER COVER: Exploded View".
- 5. Remove drain plug (1) and then drain engine oil.

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ENGINE OIL: Refilling

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Install drain plug with new washer.

CAUTION:

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

< PERIODIC MAINTENANCE >

Tightening torque : 34.3 N·m (3.5 kg-m, 25 ft-lb)

Refill with new engine oil. Engine oil specification and viscosity: Refer to MA-22, "Fluids and Lubricants".

Engine oil capacity : Refer to LU-9, "Periodical Maintenance Specification".

CAUTION:

- When filling engine oil, never pull out oil level gauge.
- The refill capacity depends on the engine oil temperature and drain time. Use these specifications for reference only.
- Always use oil level gauge to determine the proper amount of engine oil in engine.
- 3. Warm up the engine and check area around drain plug and oil filter for engine oil leakage.
- 4. Stop the engine and wait for 5 minutes.
- 5. Check the engine oil level. Refer to <u>LU-4, "Inspection"</u>.

OIL FILTER

OIL FILTER: Removal and Installation

REMOVAL

CAUTION: Oil filter is provided with relief valve. Use genuine NISSAN oil filter or equivalent.

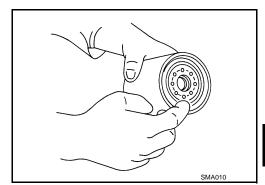
- Be careful not to get burned when engine and engine oil may be hot.
- When removing, prepare a shop cloth to absorb any engine oil leakage or spillage.
- Never allow engine oil to adhere to drive belt.
- Completely wipe off any engine oil that adheres to engine and vehicle.
- Remove front undercover. Refer to EXT-37, "FRONT UNDER COVER: Exploded View".
- Using oil filter wrench [SST: KV10115801 (J-38956)] (A), remove oil filter.

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INSTALLATION

Remove foreign materials adhering to oil filter installation surface.

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



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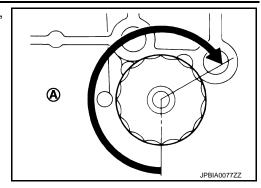
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< PERIODIC MAINTENANCE >

 Screw oil filter manually until it touches the installation surface, then tighten it by 2/3 turn (A). Or tighten to the specification.

Oil filter:

(1.8 kg-m, 13 ft-lb)



OIL FILTER: Inspection

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INSPECTION AFTER INSTALLATION

- 1. Check the engine oil level. Refer to <u>LU-4, "Inspection"</u>.
- 2. Start the engine, and check there is no leakage of engine oil.
- 3. Stop the engine and wait for 5 minutes.
- 4. Check the engine oil level, and adjust the level. Refer to LU-4, "Inspection".

SPARK PLUG

SPARK PLUG: Removal and Installation

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REMOVAL

- 1. Remove engine cover with power tool. Refer to EM-10, "Exploded View".
- Remove intake manifold collector. Refer to <u>EM-17</u>, "<u>Exploded View</u>".
 CAUTION:

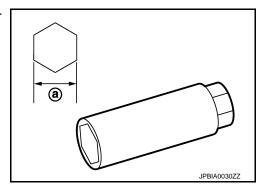
Mark the parts with paint in advance of the reinstallation to prevent misalignment between the intake manifold collector and intake manifold.

- Remove ignition coil.
- 4. Remove spark plug with a spark plug wrench (commercial service tool).

a : 14 mm (0.55 in)

CAUTION:

Never drop or shock spark plug.



INSTALLATION

Installation is the reverse order of removal.

SPARK PLUG: Inspection

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INSPECTION AFTER REMOVAL

Use the standard type spark plug for normal condition.

Spark plug (Standard type) : Refer to MA-45, "SPARK PLUG : Spark

Plug".

CAUTION:

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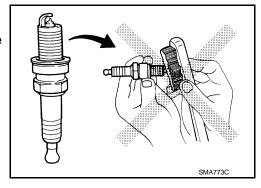
- · Never drop or shock spark plug.
- Never use a wire brush for cleaning.
- If plug tip is covered with carbon, spark plug cleaner may be used.

Cleaner air pressure:

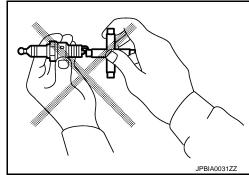
Less than 588 kPa (6 kg/cm², 85 psi)

Cleaning time:

Less than 20 seconds



- Measure spark plug gap. When it exceeds the limit, replace spark plug even if it is within the specified replacement mileage. Refer to EM-28, "Spark Plug".
- Spark plug gap adjustment is not required between replacement intervals.



THROTTLE CHAMBER

THROTTLE CHAMBER: Inspection

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Visually inspect the throttle chamber for deposits and clean as necessary.

EVAP VAPOR LINES

EVAP VAPOR LINES: Inspection

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- 1. Visually inspect EVAP vapor lines for improper attachment and for cracks, damage, loose connections, chafing and deterioration. Refer to EC-24, "Inspection".
- 2. Inspect fuel tank filler cap vacuum relief valve for clogging, sticking, etc.

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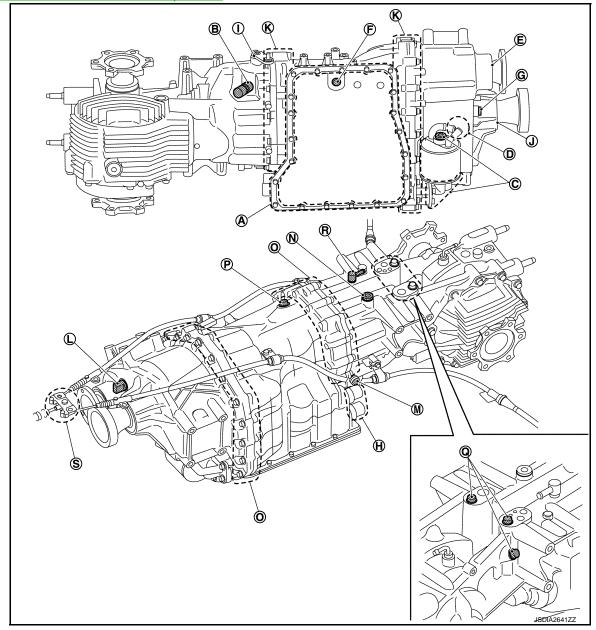
CHASSIS MAINTENANCE TRANSMISSION OIL

TRANSMISSION OIL: Inspection

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LEAKAGE CHECK

- Visually check transmission assembly surrounding area (oil seal, drain plug, filler plug, transmission case, etc.) for smears and leakage of transmission oil.
- Check also the leakage or bleeding around rear final drive. For rear final drive check, refer to MA-37, "REAR DIFFERENTIAL GEAR OIL: Inspection".



< PERIODIC MAINTENANCE >

Status		Parts	Required operation	Reference	
		A: Mating surface between oil pan and case	Check the seal surface condition. Replace the oil pan gasket only if there is a non-standard condition. Check for oil leakage.		•
		B: Park position switch	Check the mounting surface condition. Replace the plain washer only if there is not any other malfunctioning condition. Check for oil leakage.	This work is	
	surface and heat excha bolt	D: Water hose connection (Engine cool-	 C: Check the seal surface condition. If it is normal, replace the O-ring of the part where oil leakage arises and the single-use parts removed during procedure. Check for oil leakage. D: Check the seal surface condition. If it is normal, replace the clamp of the part where engine coolant leakage arises. Check for engine coolant leakage. 	recom- mened to be performed by GT-R cer- tified NIS- SAN dealer.	
		E: Front oil seal	Check the oil seal mounting surface and sliding surface condition. Replace the front oil seal only if there is not any other malfunctioning condition. Check for oil leakage.		
Oil leak- age ^{*1, *2}		F: Drain plug	Replace the drain plug. Check for oil leakage.	<u>TM-19</u>	
age ·· -		G: Filler plug	Replace the filler plug gasket. Check for oil leakage.	TM-20	
		H: Transmission harness connector I: Oil seal of parking lever J: Oil seal of companion flange (transmission side) of main propeller shaft assembly K: Transmission case joining portion L: AWD solenoid	Replace the transmission assembly.	This work is recom-mened to be	-
		M: 3rd-5th check pin	Replace the plain washer. Check for oil leakage.	performed by GT-R cer-	
	Trans-	N: Filler plug	Replace the filler plug gasket. Check for oil leakage.	tified NIS- SAN dealer.	
	mission	O: Transmission case joining portion	Replace the transmission assembly.		
	assem- bly (sin-	P: Idler bolt Q: Plug	Replace the plain washer or O-ring. Check for oil leakage.		
	gle unit)	R: Breather	Clean and wipe spouted oil with a part cleaner. Fill with oil to the specified oil level, if necessary.	_	-
Oil smears ^{*3}		t of the transmission assembly, including the uiring oil leakage check.	Use part cleaner or the equivalent to wipe out smeared oil. Then, check for oil leakage.	_	-
Grease drop ^{*4}	S: Parking cable		Wipe excess grease off.	_	-

- *1: When the oil drops
- *2: If oil leakage is detected, perform necessary procedures, check for oil leakage, and adjust oil level to the proper level.
- · *3: When the oil does not drop
- *4: The grease applied to parking cable part can melt to generate a drop due to heat. Be careful not to confuse it with transmission oil leakage.

CONDITION CHECK

Remove the filler plug, insert a finger into the filler hole, and judge the oil conditions from the transmission oil applied to the inside of the transmission case.

CAUTION:

Be careful not to cut the finger with edges.

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< PERIODIC MAINTENANCE >

Transmission oil status	Possible cause	Required operation
Varnish-like condition (It is as thick as varnish).	Clutch is burned.	Change the transmission oil. Check the transmission assembly or any other parts on the vehicle.
Milky or cloudy	Water is mixed in the fluid. Example: Inflow of engine coolant by internal explosion of heat exchanger Inflow of water from breather by flood, etc.	Change the transmission oil. Check for flooded area.
A large amount of metal particles are contained in the fluid.	Sliding portions in the transmission assembly are excessively worn.	Change the transmission oil. Check the transmission assembly operation for any malfunctioning condition.

OIL CHANGE TIMING

Judging When to Change Transmission Oil by Oil Temperature

Transmission oil temperature while driving	Interval of transmission oil change
Not exceeding 120°C (248°F)	Change both transmission oil and differential oil every 60,000 km (36,000 miles)
From 120°C (248°F) – 140°C (284°F)	Change both transmission oil and differential oil every 5,000 km (3,000 miles)
Higher than 140°C (284°F)	Change both transmission oil and differential oil immediately.

How to Check Transmission Oil Temperature History With CONSULT

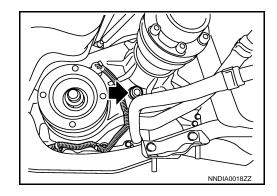
- Turn ignition switch ON.
- 2. Select "SHOW OIL TEMP HISTORY" in "Work support" in "TRANSMISSION".
- 3. Check transmission oil temperature frequency history to judge the timing of oil change.

Transmission oil temperature frequency history	Timing of oil chang
At least one count in "Oil Temperature Frequency 5"	Change both transmission oil and differential oil immediately.
At least one count in "Oil Temperature Frequency 4"	Change both transmission oil and differential oil ever 5,000 km (3,000 miles).
No count in both "Oil Temperature Frequency 4" and "Oil Temperature Frequency 5"	Change both transmission oil and differential oil ever 60,000 km (36,000 miles).

TRANSMISSION OIL: Draining

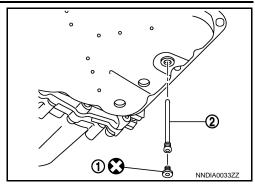
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- 1. Remove the front diffuser. Refer to EXT-39, "FRONT DIFFUSER: Exploded View".
- 2. Remove the heat insulator.
- 3. Remove the filler plug (←).



< PERIODIC MAINTENANCE >

- 4. Remove the drain plug (1) and drain tube (2) from the oil pan, and then drain the transmission oil.
- Install the drain tube to the oil pan. Refer to <u>TM-19</u>, "<u>Exploded</u> View".



TRANSMISSION OIL: Filling

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REPLACEMENT/ADJUSTMENT PROCEDURE

NOTE:

Replace the filler plug gasket and drain plug with new ones after oil level adjustment.

 Remove the filler plug () and drain plug, and then fill with the transmission oil until it leaks from the drain hole.

Transmission oil : Refer to TM-21, "General Specification".

CAUTION:

- Always use the specified transmission oil. In addition, always use the filler after cleaning. If use/mixed use/misuse of the transmission oil other than the specified brand occurs, the original performance cannot be obtained or it may cause serious malfunctions.
- · Check that dust does not mix.
- Always use paper towels. Never use waste cloth.
- 2. Install the filler plug and drain plug. Refer to <u>TM-20, "Exploded View"</u> (filler plug), <u>TM-19, "Exploded View"</u> (drain plug).
- 3. Start engine with shift position in P range and keep it until transmission system check is complete. **CAUTION:**
 - If the oil does not fully circulate in transmission oil line after engine start, it could cause an oil flowing sound (such as hissing sound). Keep it at idle for several minutes in that case.
 - Because of incomplete oil circuit in transmission oil line, a transmission warning light could illuminate at transmission system check. In this case, keep it at idle for several minutes, and then restart the engine.
- With depressing the brake pedal, shift the selectro lever to A range (wait for 5 seconds) → N range (wait for 5 seconds) → P range.
- 5. Stop the engine.
- Remove the filler plug and drain plug, and then fill with the transmission oil until it leaks from the drain hole.
- 7. Install the filler plug and drain plug. Refer to TM-20, "Exploded View" (filler plug), TM-19, "Exploded View" (drain plug).
- 8. Install the heat insulator.
- 9. Start the engine and run it at idle. Run the engine until the oil temperature reaches 50°C (122°F) while checking FLUID TEMP in "DATA MONITOR" of CONSULT.
- 10. With depressing the brake pedal, shift the selectro lever to A range (wait for 5 seconds) → N range (wait for 5 seconds) → P range.
- 11. Stop the engine and wait for 5 minutes.
- 12. Remove the drain plug. Install the drain plug when the transmission oil begins to drip (1 drop/1 second). Refer to TM-19, "Exploded View".
 - **CAUTION:**
 - Perform from step 11 to step 12 within 25 minutes.
 - Repeat the procedure from step 6 if the transmission oil does not leak from the drain hole.

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< PERIODIC MAINTENANCE >

- · Never reuse drain plug.
- 13. Replace the filler plug gasket with new ones.

CAUTION:

Never reuse filler plug gasket.

- 14. Install the front diffuser. Refer to EXT-39, "FRONT DIFFUSER: Exploded View".
- Select "OIL TEMP HISTORY RESET" in "WORK SUPPORT" of CONSULT.
- 16. Touch "START" to reset oil temperature history.

REFILL ADJUSTMENT PROCEDURE

NOTE:

Replace the filler plug gasket and drain plug with new ones after oil level adjustment.

- 1. Remove the front diffuser. Refer to EXT-39, "FRONT DIFFUSER: Exploded View".
- Remove the heat insulator.
- 3. Start engine with shift position in P range and keep it until transmission system check is complete.
- 4. With depressing the brake pedal, shift the selectro lever to A range (wait for 5 seconds) → N range (wait for 5 seconds) → P range.
- 5. Stop the engine.
- 6. Remove the filler plug () and drain plug, and then fill with the transmission oil until it leaks from the drain hole.

Transmission oil : Refer to <u>TM-21, "General Specification"</u>.

CAUTION:

- Always use the specified transmission oil. In addition, always use the filler after cleaning. If use/mixed use/misuse of non-specified transmission oil other than the specified brand occurs, the original performance cannot be obtained or it may cause serious malfunctions.
- · Check that dust does not mix.
- Always use paper towels. Never use waste cloth.
- 7. Install the filler plug and drain plug. Refer to <u>TM-20, "Exploded View"</u> (filler plug), <u>TM-19, "Exploded View"</u> (drain plug).
- 8. Install the heat insulator.
- Start the engine and run it at idle. Run the engine until the oil temperature reaches 50°C (122°F) while checking FLUID TEMP in "DATA MONITOR" of CONSULT.
- 10. With depressing the brake pedal, shift the selectro lever to A range (wait for 5 seconds) \rightarrow N range (wait for 5 seconds) \rightarrow P range.
- 11. Stop the engine and wait for 5 minutes.
- Remove the drain plug. Install the drain plug when the transmission oil begins to drip the drop status (1 drop/1 second). Refer to <u>TM-19</u>, "<u>Exploded View</u>".

CAUTION:

- Perform from step 11 to step 12 within 25 minutes.
- Repeat the procedure from step 6 if the transmission oil does not leak from the drain hole.
- Never reuse drain plug.
- Replace the filler plug gasket with new ones.

CAUTION:

Never reuse filler plug gasket.

14. Install the front diffuser. Refer to EXT-39, "FRONT DIFFUSER: Exploded View".

TRANSFER FLUID

TRANSFER FLUID: Transfer Fluid

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CAUTION:

Refer to TM-13, "Filling" because the transfer is integrated with the transmission.

FRONT DIFFERENTIAL GEAR OIL: F160A

< PERIODIC MAINTENANCE >

FRONT DIFFERENTIAL GEAR OIL: F160A: Inspection

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OIL LEAKAGE

Visually check final drive assembly surrounding area for smears and leakage of defferential gear oil.

Status	Parts	Required operation
Smears*1	Each part on the final drive assembly	Use part cleaner or the equivalent to wipe out smeared oil. Then, check for oil leakage.
	Oil seal	Check the oil seal mounting surface and sliding surface for abnormalities. If it is normal, replace only oil seal. Then, check for oil leakage.
Leakage ^{*2}	Filler plug	Replace the filler plug gasket. Then, check for oil leakage.
Drain plug Mating surface between Gerear cover.	Drain plug	Replace the drain plug gasket. Then, check for oil leakage.
	Mating surface between Gear carrier and rear cover.	Check the seal surface for abnormalities. If it is normal, replace only rear cover gasket. Then, check for oil leakage.

^{*1:} When the oil does not drop

OIL LEVEL

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

CAUTION:

Never start engine while checking oil level.

• Set a gasket on filler plug (1) and install it on final drive, and then tighten to the specified torque.

Standard

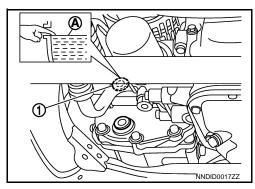
: 35 N-m (3.6 kg-m, 26 ft-lb) Filler plug tightening torque

CAUTION:

OIL LEAKAGE

Never reuse gasket. REAR DIFFERENTIAL GEAR OIL

REAR DIFFERENTIAL GEAR OIL: Inspection



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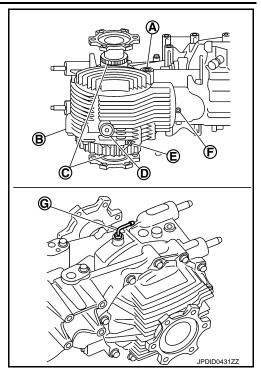
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^{*2:} When the oil drops

< PERIODIC MAINTENANCE >

 Visually check final drive assembly surrounding area for smears and leakage of differential gear oil.



Status	tus Parts Required operation		Required operation
		A: Filler plug	Replace gasket. If oil leakage continues even after replace the transmission assembly. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
		B: Side cover	Replace the transmission assembly. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
	C: Oil seal	Replace side oil seal. (This work is recommended to be performed by GT-R certified NISSAN dealer.) CAUTION: Always replace side oil seal together with side flange. (If side oil seal is abnormal, then side flange may also be abnormal.)	
Leakage ^{*1, 2}	Leakage*1, 2 Transmission assembly (on-board/single unit)	D: Drain plug	Replace gasket. If oil leakage continues even after replace the transmission assembly. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
		E: Guide hole	Replace side oil seal (left side). (This work is recommended to be performed by GT-R certified NISSAN dealer.) CAUTION: Always replace side oil seal (left side) together with side flange (left side). [If side oil seal (left side) is abnormal, then side flange (left side) may also be abnormal.] 2. If oil leakage continues even after replacing side oil seal, check guide hole. If guide hole is abnormal, replace transmission assembly. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
Transmission assembly (single unit)	F: Air vent	Replace the transmission assembly. (This work is recommended to be performed by GT-R certified NISSAN dealer.)	
	-	G: Breather	Clean and wipe spouted oil with a part cleaner. Fill with oil to the specified oil level, if necessary.
Smears*3	Each part on the final driving the parts requiring oil		Use part cleaner or the equivalent to wipe out smeared oil. Then, check for oil leakage.

^{*1:} When the oil drops

^{*2:} If oil leakage is detected, perform necessary procedures, check for oil leakage, and adjust oil level to the proper level.

< PERIODIC MAINTENANCE >

- *3: When the oil does not drop
- Visually check transmission assembly surrounding area (oil seal, drain plug, filler plug, transmission case, etc.) for smears and leakage of transmission oil. Refer to MA-32, "TRANSMISSION OIL: Inspection".

OIL LEVEL

CAUTION:

Oil volume cannot be checked by oil level height.

Remove filler plug (1) and gasket.

CAUTION:

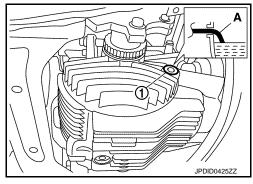
Never start engine while checking oil level.

- Insert wire (A) etc. from filler plug mounting hole to confirm if the oil attaches.
 - If oil does not attach at the end of the wire, confirm that there is not leakage, then refill the oil. (This work is recommended to be performed by GT-R certified NISSAN dealer.)

CAUTION:

Prevent foreign matter from getting into final drive.

3. Set a gasket on filler plug and install it on final drive, and then tighten to the specified torque.



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Standard

Filler plug tightening : 34.5 N-m (3.5 kg-m, 25 ft-lb)

torque

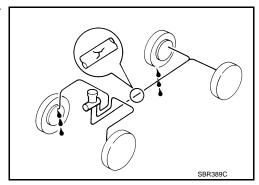
CAUTION:

Never reuse gasket.

BRAKE LINES AND CABLES

BRAKE LINES AND CABLES: Inspection

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

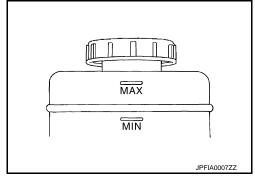


BRAKE FLUID

BRAKE FLUID : Inspection

BRAKE FLUID LEVEL

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



BRAKE LINE

< PERIODIC MAINTENANCE >

1. Check the brake line (tube and hose) for any cracks or damage.

CAUTION:

Replace with new ones if necessary.

2. Depress the brake pedal with a force of 785 N (80 kg, 176 lb) and hold down the pedal for approximately 5 seconds with the engine running. Check for any fluid leakage.

CAUTION:

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

BRAKE FLUID: Draining

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CAUTION:

- Never spill or splash brake fluid on painted surfaces. Brake fluid may seriously damage paint. Wipe it out immediately and wash with water if it gets on a painted surface.
- Turn the ignition switch OFF and disconnect the ABS actuator and electric unit (control unit) connector or the battery negative terminal before performing work.
- Wrap the flare nut wrench with waste cloth to protect the caliper from damage.
- If the brake fluid adheres to the caliper or disc rotor, quickly wipe it out.
- 1. Remove tires. Refer to WT-11, "Exploded View".
- Connect a vinyl tube to the bleeder valve.
- 3. Depress the brake pedal and loosen the bleeder valve to gradually discharge brake fluid.

BRAKE FLUID : Refilling

INFOID:0000000009161792

CAUTION:

- Never spill or splash brake fluid on painted surfaces. Brake fluid may seriously damage paint. Wipe it
 out immediately and wash with water if it gets on a painted surface.
- Turn the ignition switch OFF and disconnect the ABS actuator and electric unit (control unit) connector or the battery negative terminal before performing work.
- Wrap the flare nut wrench with waste cloth to protect the caliper from damage.
- If the brake fluid adheres to the caliper or disc rotor, quickly wipe it out.
- Never allow foreign matter (e.g. dust) and oils other than brake fluid to enter the reservoir tank.
- Since brake fluid is susceptible to deterioration from moisture, discard brake fluid remaining in the container.
- Check that there is no foreign material in the reservoir tank, and refill the brake fluid with new one.
 CAUTION:

Never reuse drained brake fluid.

- 2. Loosen the bleeder valve, slowly depress the brake pedal to the full stroke, and then release the pedal. Repeat this operation at intervals of 2 or 3 seconds until all of the brake fluid is discharged. Then close the bleeder valve with the brake pedal depressed. Repeat the same work on each wheel.
- 3. Perform the air bleeding. Refer to BR-10, "Bleeding Brake System".

DISC BRAKE

DISC BRAKE: Inspection

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DISC ROTOR

Check condition, wear, and damage.

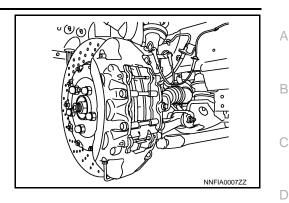
CALIPER

· Check for leakage.

BRAKE PAD

< PERIODIC MAINTENANCE >

· Check for wear or damage.



DISC BRAKE: Front Disc Brake

INFOID:0000000009161794 Unit: mm (in.) D

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	Item	Limit
Brake pad	Wear thickness	4.5 (0.177)
Disc rotor	Wear thickness	32.0 (1.260)

DISC BRAKE: Rear Disc Brake

INFOID:0000000009161795

Unit: mm (in.)

	Item	Limit
Brake pad	Wear thickness	4.5 (0.177)
Disc rotor	Wear thickness	28.0 (1.102)

STEERING GEAR AND LINKAGE

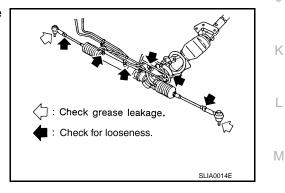
STEERING GEAR AND LINKAGE: Inspection

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STEERING GEAR

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



STEERING LINKAGE

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

POWER STEERING FLUID AND LINES

POWER STEERING FLUID AND LINES: Inspection

FLUID LEVEL

- 1. Check fluid level with engine stopped.
- 2. Check that fluid level is between MIN and MAX. **CAUTION:**

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< PERIODIC MAINTENANCE >

Adjust the fluid level to the R level (B) rather than the fluid level (A) in sports driving mode or in high road driving mode.

Fluid levels at HOT and COLD are different. Do not confuse them.

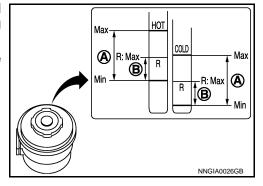
> HOT : Fluid temperature $50 - 80^{\circ}$ C (122 - 176°F) COLD : Fluid temperature $0 - 30^{\circ}$ C (32 - 86°F)

Recommended fluid : Refer to MA-22, "Fluids

and Lubricants".

Fluid capacity : Refer to ST-18, "General

Specifications".



CAUTION:

- The fluid level must not exceed the MAX line. Excessive fluid causes fluid leakage from the cap.
- · Never reuse drained power steering fluid.

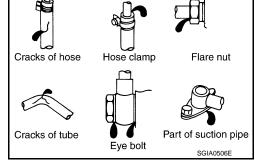
FLUID LEAKAGE

Check hydraulic connections for fluid leakage, cracks, damage, looseness, or wear.

- Run the engine until the fluid temperature reaches 50 to 80°C (122 to 176°F) in reservoir tank, and keep engine speed idle.
- 2. Turn steering wheel several times from full left stop to full right stop.
- Hold steering wheel at each lock position for five seconds and carefully check for fluid leakage.

CAUTION:

Never hold the steering wheel in a locked position for more than 10 seconds. (There is the possibility that power steering oil pump assembly may be damaged.)



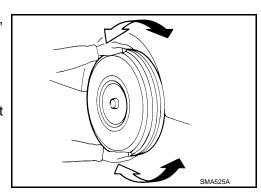
- If fluid leakage at connections occurs, loosen flare nut and then retighten. Do not overtighten connector as this can damage O-ring, washer and connector.
- 5. If fluid leakage from oil pump occurs, check oil pump.
- 6. Check steering gear boots for accumulation of fluid leakage from steering gear.

AXLE AND SUSPENSION PARTS

AXLE AND SUSPENSION PARTS: Inspection

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

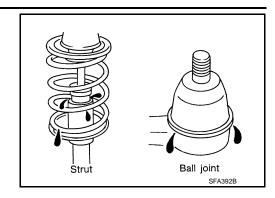
- Shake each wheel to check for excessive play.
- Check wheel bearings for smooth operation.
- Check axle and suspension nuts and bolts for looseness.
- Check strut (shock absorber) for oil leakage or other damage.
- Check suspension ball joint for grease leakage and ball joint dust cover for cracks or other damage.



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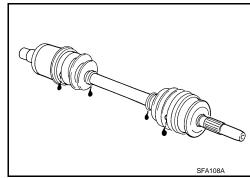


DRIVE SHAFT

DRIVE SHAFT: Inspection

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



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BODY MAINTENANCE

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BODY MAINTENANCE

LOCKS, HINGES AND HOOD LATCH

LOCKS, HINGES AND HOOD LATCH: Lubricating

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For hood and hood lock illustration. Refer to <u>DLK-128</u>, "<u>HOOD ASSEMBLY</u>: <u>Exploded View"</u>. For trunk lid illustration. Refer to <u>DLK-144</u>, "<u>TRUNK LID ASSEMBLY</u>: <u>Exploded View"</u>.

SEAT BELT, BUCKLES, RETRACTORS, ANCHORS AND ADJUSTERS

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

INFOID:0000000009161801

For front seat belt illustration. Refer to <u>SB-6, "SEAT BELT RETRACTOR: Exploded View"</u>. For rear seat belt illustration. Refer to <u>SB-11, "SEAT BELT RETRACTOR: Exploded View"</u>. **CAUTION:**

After any collision, inspect all seat belt assemblies, including retractors and other attached hardwares (I.e. anchor bolt, guide rail set). Nissan recommends to replace all seat belt assemblies in use during a collision, unless not damaged and properly operating after minor collision.
 Also inspect seat belt assemblies not in use during a collision, and replace if damaged or improperly operating.

Seat belt pre-tensioner should be replaced even if the seat belts are not in use during a frontal collision where the driver and passenger air bags are deployed.

- If any component of seat belt assembly is questionable, do not repair. Replace as seat belt assembly.
- If webbing is cut, frayed, or damaged, replace belt assembly.
- · Never oil tongue and buckle.
- Use a genuine NISSAN seat belt assembly.

For details, refer to <u>SB-4</u>, "<u>SEAT BELT RETRACTOR</u>: <u>Inspection</u>", <u>SB-9</u>, "<u>SEAT BELT RETRACTOR</u>: <u>Inspection</u>" in <u>SB section</u>.

- Check anchors for loose mounting
- · Check belts for damage
- Check retractor for smooth operation
- · Check function of buckles and tongues when buckled and released

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

DRIVE BELT

DRIVE BELT : Drive Belt (GT-R certified NISSAN dealer)

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DRIVE BELT

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

ENGINE COOLANT

ENGINE COOLANT: Periodical Maintenance Specification

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ENGINE COOLANT CAPACITY (APPROXIMATELY)

Unit: ℓ (US qt, Imp qt)

Engine coolant capacity [With reservoir tank (Between MIN and MAX level)]	11.3 (12, 10)
Reservoir tank engine coolant capacity (Between MIN and MAX level)	1.2 (1-1/4, 1)

ENGINE OIL

ENGINE OIL: Periodical Maintenance Specification

INFOID:0000000009161804

ENGINE OIL CAPACITY (APPROXIMATELY)

Unit: ℓ (US qt, Imp qt)

Drain and refill	With oil filter change	5.0 (5-1/4, 4-3/8)
	Without oil filter change	4.5 (4-3/4, 4)
Dry engine (Overhaul)		6.2 (6-4/8, 5-4/8)

SPARK PLUG

SPARK PLUG: Spark Plug

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SPARK PLUG

Unit: mm (in)

Make		NGK
Standard type		DILKAR8A8
Con (Naminal)	Standard	0.7 - 0.8 (0.028 - 0.031)
Gap (Nominal)	Limit	1.0 (0.039)

ROAD WHEEL

ROAD WHEEL: Road Wheel (GT-R certified NISSAN dealer)

INFOID:0000000009161806

Item		Limit
Radial runout	Lateral deflection	Less than 0.3 mm (0.012 in)
	Vertical deflection	Less than 0.5 min (0.012 m)
Allowable unbalance	Dynamic (At flange)	Less than 5 g (0.17 oz) (one side)
	Static (At flange)	Less than 10 g (0.35 oz)

Revision: 2012 November MA-45 2014 GT-R

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