

WT
SECTION
ROAD WHEELS & TIRES

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INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

BASIC INSPECTION

INSPECTION AND ADJUSTMENT

TRANSMITTER WAKE UP OPERATION

TRANSMITTER WAKE UP OPERATION : Description

INFOID:000000009161087

If the transmitter or low tire pressure warning control unit is replaced, always perform the transmitter wake-up procedure.

TRANSMITTER WAKE UP OPERATION : Transmitter Wake-up Procedure

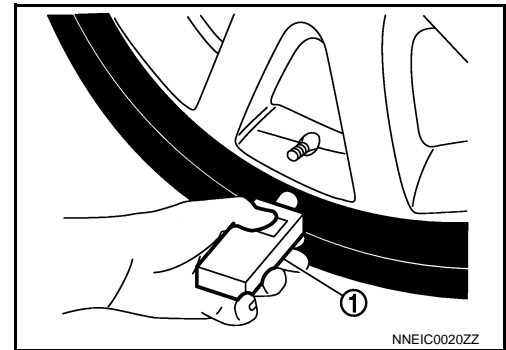
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1. TRANSMITTER WAKE-UP PROCEDURE

1. Turn the ignition switch ON.
2. Contact the transmitter activation tool (J-45295) (1) to the side of the tire at the location to the transmitter.
3. Press and hold the activation tool button while pushing the tool to the tire surface. (approximately for 5 seconds)

CAUTION:

Perform the wake-up procedure starting from the vehicle front left wheel, then repeat the procedure in the order of the front right wheel, rear right wheel, and rear left wheel.



4. Check that the low tire pressure warning lamp blinks in the pattern shown as per the following. The pattern indicates that the transmitter wake-up procedure for the wheel is completed.

Low tire pressure warning lamp blinking timing		Activation tire position
ON OFF		a : 0.3 sec. b : 1.0 sec. Front LH
ON OFF		a : 0.3 sec. b : 1.0 sec. Front RH
ON OFF		a : 0.3 sec. b : 1.0 sec. Rear RH
ON OFF		a : 0.3 sec. b : 1.0 sec. Rear LH
ON OFF		a : 2 sec. b : 0.2 sec. All tires

JPEIC0089GB

5. Check that the turn signal lamps blink twice when the transmitter wake-up procedure for all wheels is completed.
6. Check that the low tire pressure warning lamp turns OFF, after the transmitter wake-up procedure is completed for all wheels and turns OFF.

Is the transmitter wake-up procedure completed?

YES >> Perform the transmitter ID registration procedure. Refer to [WT-3. "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"](#).

NO >> Perform trouble diagnosis for the transmitter. (This work is recommended to be performed by GT-R certified NISSAN dealer.)

ID REGISTRATION PROCEDURE

ID REGISTRATION PROCEDURE : Description

INFOID:000000009161089

If the transmitter or low tire pressure warning control unit is replaced, always perform the transmitter ID registration.

INSPECTION AND ADJUSTMENT

< BASIC INSPECTION >

ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure INFOID:000000009161090

1. TRANSMITTER ID REGISTRATION PROCEDURE

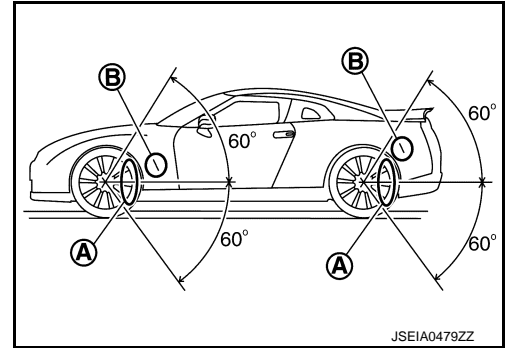
CAUTION:

- To perform ID registration, observe the following points:
- Never register ID in a place where radio waves are interfered (e.g. radio tower).
 - Never register ID in a place close to vehicles including TPMS.

☑ With CONSULT

1. Turn the ignition switch ON.
2. Display the "WORK SUPPORT" screen and select "ID REGIST".
3. Select the start button on the "ID REGIST" screen.
4. Position transmitter within the range (A) to register ID.

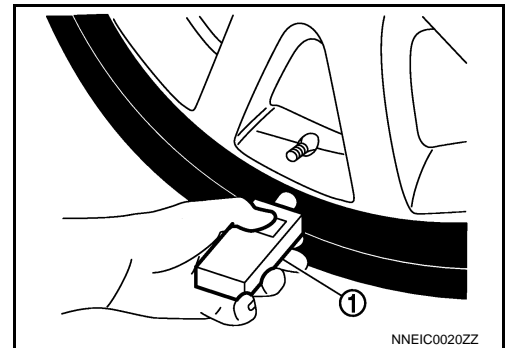
B : Position receiver



5. Press the transmitter activation tool (J-45295) (1) against the side of the tire at the location closest to the transmitter.
6. Wait until the indicator lamp turns off (approximately 5 seconds).

CAUTION:

Perform the ID registration procedure starting from the vehicle front left wheel, then repeat the procedure in the order of the front right wheel, rear right wheel, and rear left wheel.



7. When ID registration is completed, check the following pattern at each wheel.

Sequence	ID registration position	Turn signal lamp	CONSULT
1	Front left wheel	2 blinks	"Red" ↓ "Green"
2	Front right wheel		
3	Rear right wheel		
4	Rear left wheel		

8. After the ID registration procedure for all wheels is completed, press "END" to end ID registration, and check that ID registration for all wheels is completed.

Is the check result normal?

YES >> ID registration END.

NO >> Performs trouble-diagnosis of the Tire Pressure Monitoring System (TPMS). (This work is recommended to be performed by GT-R certified NISSAN dealer.)

DIAGNOSIS SYSTEM (LOW TIRE PRESSURE WARNING CONTROL UNIT)

< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION

DIAGNOSIS SYSTEM (LOW TIRE PRESSURE WARNING CONTROL UNIT)

CONSULT Function

INFOID:000000009161096

FUNCTION

The diagnosis functions (main functions) include the following: "WORK SUPPORT".

Diagnostic test mode	Function
Work support	In this mode, it is possible to make quick and accurate adjustments by following the instructions on the CONSULT display.

WORK SUPPORT

Refer to [WT-3. "ID REGISTRATION PROCEDURE : Transmitter ID Registration Procedure"](#).

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:000000009161163

Use chart below to find the cause of the symptom. If necessary, repair or replace these parts.

Symptom		Possible cause and SUSPECTED PARTS																	
		Improper installation, looseness	Out-of-round	unbalance	Incorrect tire pressure	Uneven tire wear	Deformation or damage	Non-uniformity	Incorrect tire size	PROPELLER SHAFT	DIFFERENTIAL	FRONT AXLE AND FRONT SUSPENSION	REAR AXLE AND REAR SUSPENSION	TIRES	ROAD WHEELS	DRIVE SHAFT	BRAKE	STEERING	
Reference		FSU-6, FSU-10	—	—	WT-13, "Tire"	—	—	—	WT-13, "Tire"	NVH in DLN section.	NVH in DLN section.	NVH in FAX and FSU sections.	NVH in RAX and RSU sections.	Refer to TIRES in this chart.	Refer to ROAD WHEEL in this chart.	NVH in FAX, RAX section.	NVH in BR section.	NVH in ST section.	
TIRES	Noise	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	
	Shake	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	
	Vibration				x				x	x	x	x			x			x	
	Shimmy	x	x	x	x	x	x	x	x			x	x		x		x	x	
	Judder	x	x	x	x	x	x		x			x	x		x		x	x	
	Poor quality ride or handling	x	x	x	x	x	x		x			x		x	x				
	ROAD WHEEL	Noise	x	x	x			x			x	x	x	x	x		x	x	x
		Shake	x	x	x			x			x		x	x	x		x	x	x
		Shimmy, Judder	x	x	x			x					x	x	x			x	x
		Poor quality ride or handling	x	x	x			x					x	x	x				

x: Applicable

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PRECAUTIONS

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PRECAUTION

PRECAUTIONS

Precaution for Working Range at a Regular Dealership

INFOID:000000009189411

CAUTION:

The service items unmentioned on this manual are recommended to be performed by a GT-R certified NISSAN dealer. Because those service items require special equipment and a GT-R certified technical staff who completed special training.

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000009161164

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see "SRS AIR BAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precautions Necessary for Steering Wheel Rotation After Battery Disconnection

INFOID:000000009161165

CAUTION:

Comply with the following cautions to prevent any error and malfunction.

- Before removing and installing any control units, first turn the ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

For vehicle with steering lock unit, if the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

If turning the steering wheel is required with the battery disconnected or discharged, follow the operation procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.

PRECAUTIONS

< PRECAUTION >

NOTE:

Supply power using jumper cables if battery is discharged.

2. Turn the ignition switch to ACC position.
(At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
4. Perform the necessary repair operation.
5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the ignition switch is turned to LOCK position.)
6. Perform self-diagnosis check of all control units using CONSULT.

Precaution for Battery Service

INFOID:000000009161166

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

Service Notice and Precautions

INFOID:000000009161167

CAUTIONS

- GT-R Genuine road wheel is designed for each type of vehicle. Use it on the specified vehicle only.
- Use Genuine NISSAN parts for the wheel nuts and wheel lock nuts.
- If tire wear is uneven, explain the circumstances to the customer and obtain the customer's approval, then adjust the wheel alignment. Refer to [FSU-7. "Inspection"](#) (Front), [RSU-5. "Inspection"](#) (Rear).
- When changing the tires, please recommend the users to change all 4 tires as a set, and always perform ID registration.
- Low tire pressure warning lamp blinks for 1min, then turns ON when occurring any malfunction except low tire pressure. Delete the memory with CONSULT, or register the ID to turn low tire pressure warning lamp OFF.
- The paint of road wheels and the center cap has a special hue. Since time degradation causes change in hue and wheels exhibit a wide range of color variation, the color of a replacement wheel may be different.
- When a vehicle is brought in vibration condition, it is necessary to check with the customer for the history of hitting protruding portions and dents, such as road projections, and to check for wheel balance and squeaks occurring from the inside of tires. If there is a malfunction, the tire must be replaced.
- For winter tires, use run flat tires recommended by NISSAN dealer.
- Check to use the specific tires for GT-R. The damages or failures resulting from the use of tires other than specified tires for GT-R cannot be covered by warranty. Refer to the following table for the details of applicable tires.

Tire

⊙: Applicable as a standard or option (covered by warranty) ○: Suitable (covered by warranty) –: Not applicable (Not covered by warranty)

Summer tire				All-season tire	Winter tire	
DUNLOP SP SPORT MAXX GT 600 DSST CTT	DUNLOP SP SPORT 600 DSST	BRIDGESTONE POTENZA RE070R*2 (Without "R2" mark*3)	BRIDGESTONE POTENZA RE070R*2 (With "R2" mark*3)	DUNLOP SP SPORT 7010	DUNLOP GRASPIC DSX	BRIDGESTONE BLIZZAK LM-25
⊙	–	–	–	⊙	○*1	–

*1: GT-R specified tire recommended by GT-R certified NISSAN dealer.

*2: The specification of the BRIDGESTONE POTENZA RE070R tire has been modified since this vehicle.
(No modifications are applied to the DUNLOP SP SPORT 600 DSST tire.)

Use tires (marked with "R2" mark) specified for this vehicle (VIN: From R35-020001) when replacing the BRIDGESTONE POTENZA RE070R tire.

Note that tires (not marked with "R2" mark) that were manufactured before December 2009 cannot be used.

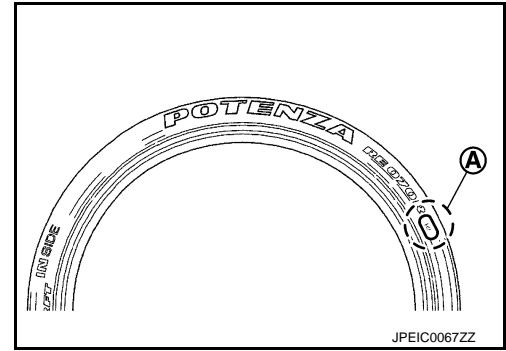
NOTE:

The BRIDGESTONE POTENZA RE070R tire (marked with "R2" mark) can be used, for manufactured before December 2009 vehicle (VIN: Up to R35-019999).

PRECAUTIONS

< PRECAUTION >

*3: The “R2” mark is inscribed on the tire sidewall as shown by (A) in the figure.



Road wheel

⊙: Applicable as a standard or option (covered by warranty) ○: Suitable (covered by warranty) –: Not applicable (Not covered by warranty)

Grade	Road wheel		
	GT-R specified road wheel (10 spoke wheels)	GT-R specified road wheel (6 spoke wheels)	Except for GT-R road wheel
GT-R Premium edition	⊙	○	–
GT-R Black edition	○	⊙	–

CAUTIONS FOR REMOVAL AND INSTALLATION

- Always use them after adjusting the wheel balance. For the balance weights, use GT-R Genuine road wheel weights.
- Be careful of the oil that contacts bolt and nut threads, or the nut seat.
- Never use power tools when working with the lock nuts.
- When tightening the wheel nuts, tighten when the wheel is cold and tighten to the specified torque.
- When installing road wheels onto the vehicle, always wipe off any dirt or foreign substances to prevent them from being trapped between the contact surfaces of the disk rotor and wheel.
- When assembling the tire and wheel assembly, if the red mark on the tire sidewall is identifiable, tighten the wheel nuts so that the red mark faces up.
- When installing or removing the road wheels to from the vehicle, be careful of scratches due to contact between the road wheels and the hub bolts, brake calipers, disk rotors, brake tubes, brake hoses, or other parts.
- Replace grommet seal of transmitter in TPMS, when replacing each tire by reaching the wear limit.
- GT-R-specific wheels have a large diameter and a wide rim width. This may cause deformation in rim if the rim gets a strong impact with no tire installed. Even a minute deformation may result in a fatigue fracture. Therefore, always check rim runout after an impact even when no deformation is apparently found.
- ID registration is required after the replacement of tires, transmitter, or low tire pressure warning control unit.
- To put the valve cap back on the transmitter, securely turn the valve cap by hand. Never use a tool to prevent damage to the valve cap.
- Handle road wheel and center cap with care to prevent scratches on their paint. The scratches become noticeable, if any.

CAUTIONS FOR CAR WASH

- Use caution when handling the road wheels, because they can be easily scratched. When removing dirt, do not use any abrasives, a wire brush, or other items that may scratch the coating. Use a neutral detergent if a detergent is needed.
- Never wash wheels in a high-speed car washing machine.
- After driving on roads scattered with anti-icing salts, wash off the wheels completely.
- Rewash the back of wheels when removing wheels for replacement of tires or when cleaning the underbody of the vehicle.

CAUTIONS FOR DRIVING

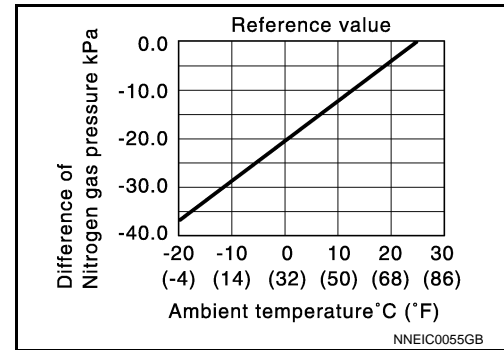
- Never run over sharp objects, and never run over or rub against sidewalks or curbstones while driving.
- Only if a snapping sound is heard from the road wheel when driving while the road wheel is cold, clean the surfaces where the road wheel and disk rotor contact each other and tighten them (when cold) to a wheel nut tightening torque of 147.1 N·m (15 kg·m, 109 ft·lb).

CAUTIONS FOR TIRE PRESSURE

PRECAUTIONS

< PRECAUTION >

- Always check and adjust tire pressure before delivering a new vehicle or maintenance-performed vehicle to the customer.
- Fill nitrogen gas into the tires.
- Set the nitrogen gas pressure as follows:
 - Front tire: 200 kPa (2.0 kg/cm², 29 psi)
 - Rear tire: 200 kPa (2.0 kg/cm², 29 psi)
- Before high performance driving, tire inner pressure is recommended to be adjusted under normal temperature as follows:
 - Front wheel: 210 – 220 kPa (2.1 – 2.2 kg/cm², 30 – 32 psi)
 - Rear wheel: 200 kPa (2.0 kg/cm², 29 psi)
- An internal pressure of tires is reduced depending on changes in air temperature and altitude, or a temporal change. Driving a vehicle with the tire pressure low is dangerous and may damage tires. Therefore, it is required to periodically set tire internal pressure to a specified value. Refer to [WT-13, "Tire"](#).



INSPECTIONS REQUIRED FOR BEFORE AND AFTER SPORTS DRIVING

- Immediately after installing tire to wheel, the tire does not fit sufficiently with the wheel. This may cause a deviation in matching mark position of rotation direction. Never place a burden on tires (e.g. performance driving) particularly for two days after tire change.
- Check for tire internal pressure and the positioning (rim deviation) in rotational directions for wheels and inner tires.
- Check wheel lock nuts, the valve nut and valve core of the transmitter of the tire inflation pressure warning system for looseness.
- Tighten up wheel lock nut within tightening torque of 147.1 N·m (15 kg-m, 109 ft-lb) before and after sports driving.
- Check tires for deformation, cracks and other damage.
- Before high performance driving, tire inner pressure is recommended to be adjusted under normal temperature as follows:
 - Front wheel: 210 – 220 kPa (2.1 – 2.2 kg/cm², 30 – 32 psi)
 - Rear wheel: 200 kPa (2.0 kg/cm², 29 psi)
- To prevent the balance weight of tire wheel from being flaked, make sure to apply aluminum tape over the balance weight, when driving at a high speed, over 200 km/h (124 MPH), and/or prior to circuit driving.
- To prevent wheel cap from coming off, remove it or fix it with a tape before driving.

PREPARATION

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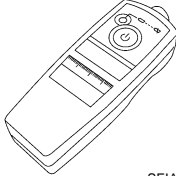
PREPARATION

PREPARATION

Special Service Tool

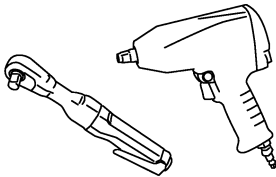
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The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
— (J-45295) Transmitter activation tool  SEIA0462E	ID registration

Commercial Service Tool

INFOID:000000009161170

Tool name	Description
Power tool  PBIC0190E	Loosening wheel nuts

ROAD WHEEL TIRE ASSEMBLY

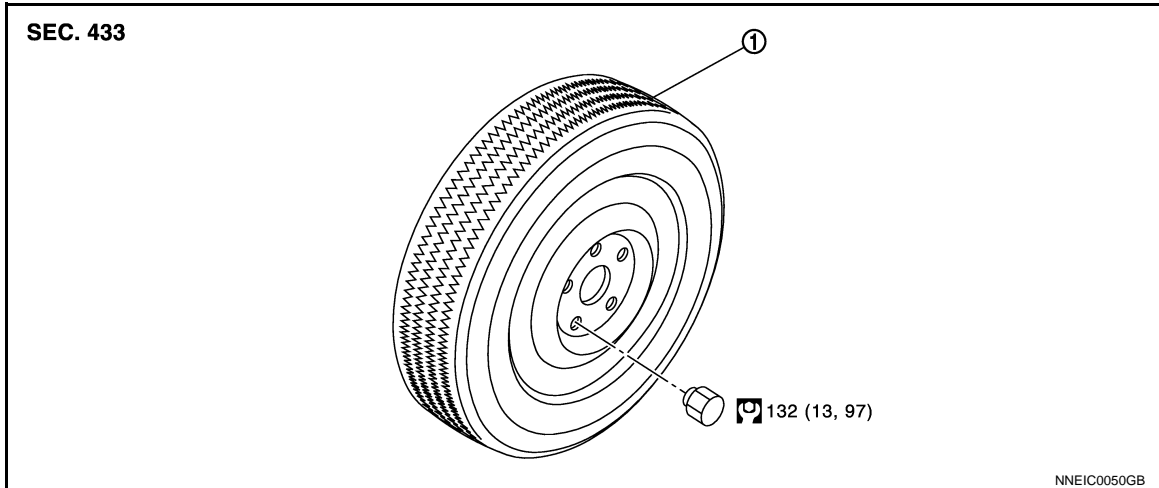
< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

ROAD WHEEL TIRE ASSEMBLY

Exploded View

INFOID:000000009161172



1. Tire assembly

Refer to [GI-4. "Components"](#) for symbols in the figure.

Removal and Installation

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REMOVAL

1. Remove wheel nuts with a power tool.
2. Remove tire assembly.

INSTALLATION

Install in the reverse order of removal.

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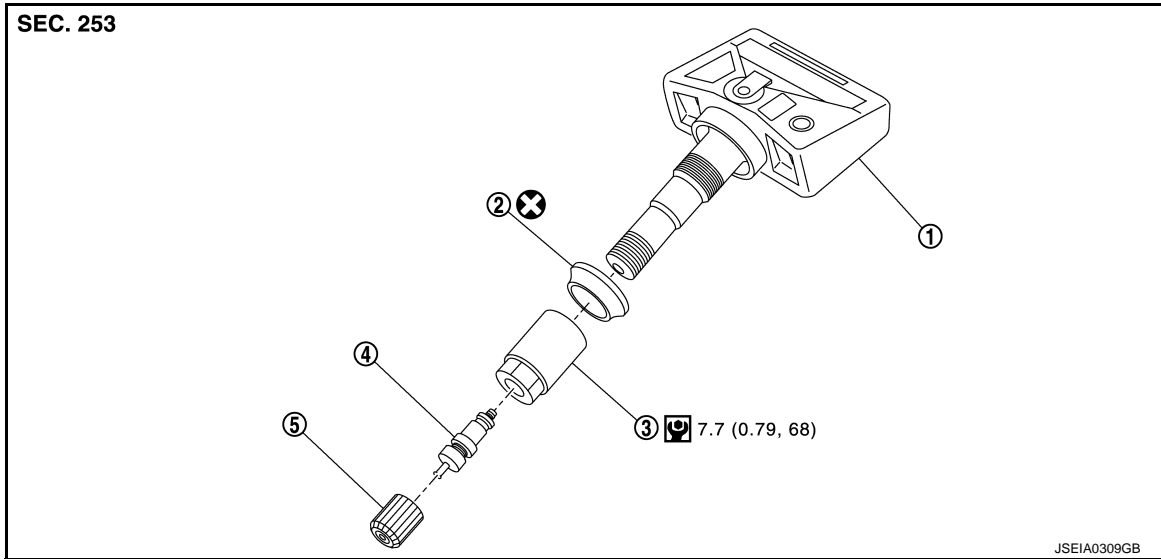
TRANSMITTER

< REMOVAL AND INSTALLATION >

TRANSMITTER

Exploded View

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- | | | |
|----------------|-----------------|--------------|
| 1. Transmitter | 2. Grommet seal | 3. Valve nut |
| 4. Valve core | 5. Cap | |

Refer to [GI-4, "Components"](#) for symbols in figure.

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Tire

INFOID:000000009161182

INTERNAL PRESSURE OF TIRES

Unit: kPa (kg/cm², psi)

Item	Standard	
	Front	Rear
255/40ZRF20 (97Y)	200 (2.0, 29)	—
285/35ZRF20 (100Y)	—	200 (2.0, 29)
255/40RF20 97W	200 (2.0, 29)	—
285/35RF20 100W	—	200 (2.0, 29)

CAUTION:

- Fill with nitrogen gas.
- Adjust the tire pressure to the value listed above at normal temperature.