

SECTION **RSU**
 REAR SUSPENSION

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RSU

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PRECAUTION

PRECAUTIONS

Precautions for Suspension

INFOID:000000007580322

- When installing rubber bushings, the final tightening must be carried out under unladen conditions with tires on ground. Spilled oil might shorten the life of rubber bushings. Be sure to wipe off any spilled oil.
- Unladen conditions mean that fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.
- After servicing suspension parts, be sure to check wheel alignment.
- Self-lock nuts are not reusable. Always use new ones when installing. Since new self-lock nuts are pre-oiled, tighten as they are.
- The tightening surface must be kept free from oil/grease.
- When jacking up the vehicle with a floor jack, never hang the jack on the suspension beam.

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RSU

PREPARATION

< PREPARATION >

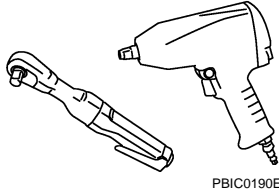
[2WD]

PREPARATION

PREPARATION

Commercial Service Tools

INFOID:000000007580323

Tool name	Description
Power tool  PBIC0190E	Loosening bolts and nuts

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SYMPTOM DIAGNOSIS >

[2WD]

SYMPTOM DIAGNOSIS

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

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

Symptom		Possible cause and SUSPECTED PARTS											Reference	
		Improper installation, looseness	Shock absorber deformation, damage or deflection	Bushing or mounting deterioration	Parts interference	Spring fatigue	Suspension looseness	Incorrect wheel alignment	REAR AXLE AND REAR SUSPENSION	TIRE	ROAD WHEEL	BRAKE		
Symptom	REAR SUSPENSION	Noise	x	x	x	x	x	x		x	x	x	x	RSU-8, RSU-11, RSU-13
		Shake	x	x	x	x		x		x	x	x	x	RSU-8
		Vibration	x	x	x	x	x			x	x			—
		Shimmy	x	x	x	x			x	x	x	x	x	—
		Judder	x	x	x					x	x	x	x	RSU-12
		Poor quality ride or handling	x	x	x	x	x		x	x	x	x		RSU-8, RSU-11, RSU-13 RSU-7
													NVH in RAX and RSU sections	
													NVH in WT section	
													NVH in WT section	
													NVH in BR section	

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REAR SUSPENSION ASSEMBLY

< PERIODIC MAINTENANCE >

[2WD]

PERIODIC MAINTENANCE

REAR SUSPENSION ASSEMBLY

Inspection

INFOID:000000007580325

COMPONENT PART

Check the mounting conditions (looseness, backlash) of each component and component conditions (wear, damage) are normal.

SHOCK ABSORBER ASSEMBLY

Check for oil leakage, damage, and replace if necessary.

WHEEL ALIGNMENT

< PERIODIC MAINTENANCE >

[2WD]

WHEEL ALIGNMENT

Inspection

INFOID:000000007580326

DESCRIPTION

CAUTION:

- The adjustment mechanisms of camber and toe-in are not included.
- If camber and toe-in is outside the standard, check front suspension parts for wear and damage. Replace suspect parts if a malfunction is detected.

Measure wheel alignment under unladen conditions.

NOTE:

“Unladen conditions” means that fuel, engine coolant, and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

PRELIMINARY CHECK

Check the following:

- Tires for improper air pressure and wear. Refer to [WT-50, "Tire Air Pressure"](#).
- Road wheels for runout.
- Wheel bearing axial end play. Refer to [RAX-4, "Inspection"](#).
- Shock absorber operation.
- Each mounting point of axle and suspension for looseness and deformation.
- Each of rear suspension beam and shock absorber for cracks, deformation, and other damage.
- Vehicle height (posture).

GENERAL INFORMATION AND RECOMMENDATIONS

- A four-wheel thrust alignment should be performed.
- This type of alignment is recommended for any NISSAN/INFINITI vehicle.
- The four-wheel “thrust” process helps ensure that the vehicle is properly aligned and the steering wheel is centered.
- The alignment rack itself should be capable of accepting any NISSAN/INFINITI vehicle.
- The rack should be checked to ensure that it is level.
- Check the machine is properly calibrated.
- Your alignment equipment should be regularly calibrated in order to give correct information.
- Check with the manufacturer of your specific equipment for their recommended Service/Calibration Schedule.

ALIGNMENT PROCESS

IMPORTANT:

Use only the alignment specifications listed in this Service Manual.

- When displaying the alignment settings, many alignment machines use “indicators”: (Green/red, plus or minus, Go/No Go). **Never use these indicators.**
- The alignment specifications programmed into your machine that operate these indicators may not be correct.
- This may result in an ERROR.
- Most camera-type alignment machines are equipped with both “Rolling Compensation” method and optional “Jacking Compensation” method to “compensate” the alignment targets or head units. “Rolling Compensation” is the preferred method.
- If using the “Rolling Compensation” method, after installing the alignment targets or head units, push or pull on the rear wheel to move the vehicle. **Do not push or pull on the vehicle body.**
- If using the “Jacking Compensation” method, after installing the alignment targets or head units, raise the vehicle and rotate the wheels 1/2 turn both ways.

NOTE:

- Do not use the “Rolling Compensation” method if you are using sensor-type alignment equipment.
- Follow all instructions for the alignment machine you're using for more information.

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REAR SHOCK ABSORBER

< REMOVAL AND INSTALLATION >

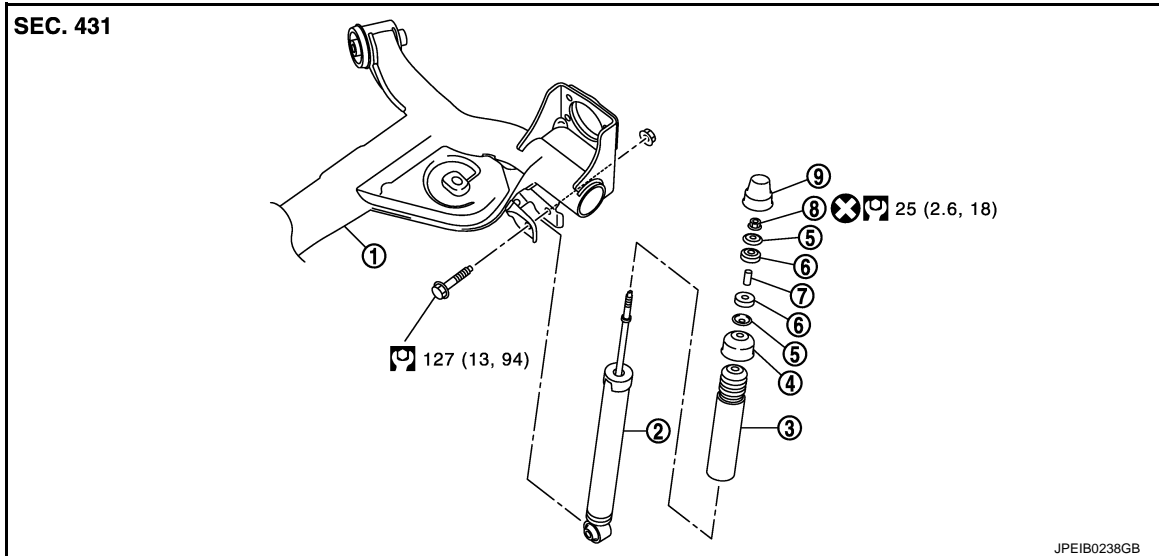
[2WD]

REMOVAL AND INSTALLATION


REAR SHOCK ABSORBER


Exploded View

INFOID:000000007580327



- | | | |
|-------------------------|------------------------|-----------------|
| 1. Rear suspension beam | 2. Shock absorber | 3. Bound bumper |
| 4. Bound bumper cover | 5. Washer | 6. Bushing |
| 7. Distance tube | 8. Piston rod lock nut | 9. Cap |

 Always replace after every disassembly.

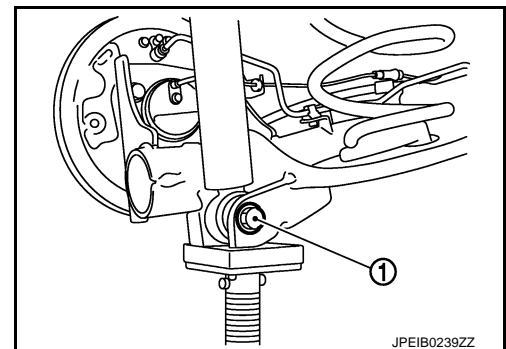
 N·m (kg-m, ft-lb)

Removal and Installation

INFOID:000000007580328

REMOVAL

1. Remove tires with power tool. Refer to [WT-43, "Removal and Installation"](#).
2. Set suitable jack under rear suspension beam.
CAUTION:
 - Never damage the suspension beam with a jack.
 - Check the stable condition when using a jack.
3. Remove shock absorber mounting bolt (lower side) (1).
4. Remove shock absorber mask. Refer to [INT-32, "Exploded View"](#).
5. Remove cap.

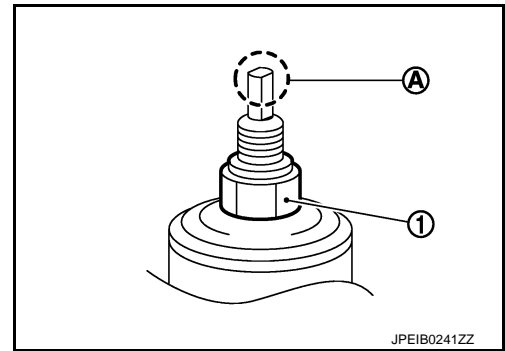


REAR SHOCK ABSORBER

[2WD]

< REMOVAL AND INSTALLATION >

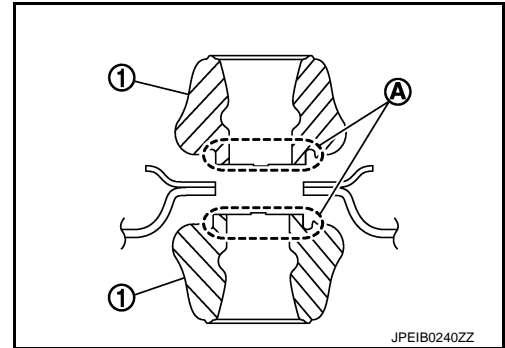
6. Remove piston rod lock nut (1), and then remove washer and bushing.
NOTE:
To loosen piston rod lock nut, fix the tip (A) of the piston rod.
7. Remove shock absorber assembly.
8. Remove bushing, distance tube, washer, bound bumper cover, and bound bumper from shock absorber.
9. Perform inspection after removal. Refer to [RSU-10. "Inspection"](#).



INSTALLATION

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

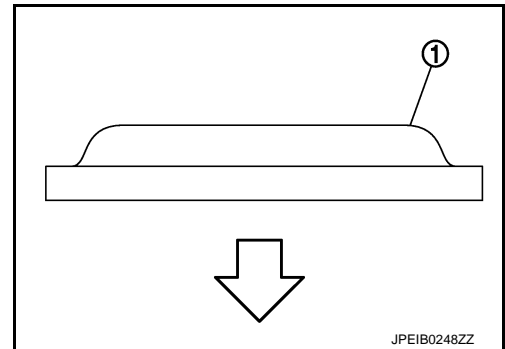
- To install bushings (1), securely insert protrusion (A) into the hole on the vehicle body side.



- Install washer (1) in the direction shown in the figure.

← : Bushing side

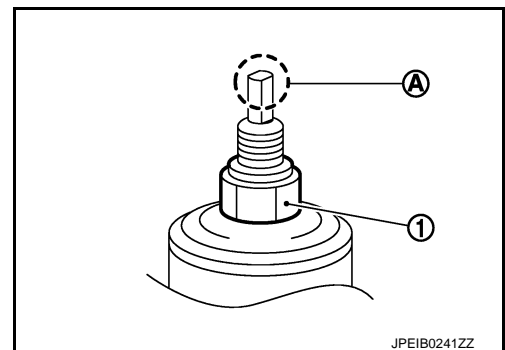
- Perform final tightening of bolts and nuts at the shock absorber lower side (rubber bushing), under unladen conditions with tires on level ground.



- Hold a head (A) of shock absorber piston rod not to have it rotate, then tighten the piston rod lock nut (1) to the specified torque.

CAUTION:

Never reuse piston rod lock nut.



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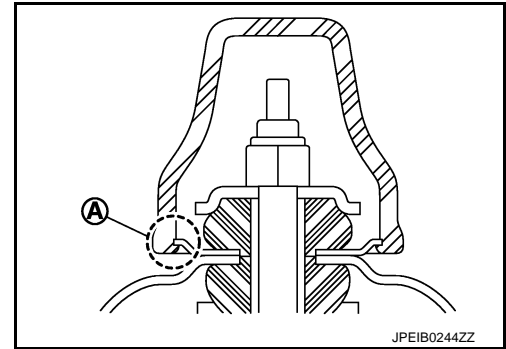
RSU

REAR SHOCK ABSORBER

[2WD]

< REMOVAL AND INSTALLATION >

- When installing the cap, securely engage the cap groove (A) with the flange on the vehicle side.
- Perform inspection after installation. Refer to [RSU-10. "Inspection"](#).
- After replacing the shock absorber, always follow the disposal procedure to discard the shock absorber. Refer to [RSU-10. "Inspection"](#).



INFOID:000000007580329

Inspection

INSPECTION AFTER REMOVAL

Shock Absorber

Check the following items, and replace the part if necessary.

- Shock absorber for deformation, cracks, and other damage.
- Piston rod for damage, uneven wear, and distortion.
- Oil leakage

Bound Bumper, Bushing

Check for cracks and damage. Replace it if necessary.

Washer, Bound Bumper Cover, Distance Tube

- Check for cracks and damage. Replace it if necessary.

INSPECTION AFTER INSTALLATION

Check wheel alignment. Refer to [RSU-7. "Inspection"](#).

Disposal

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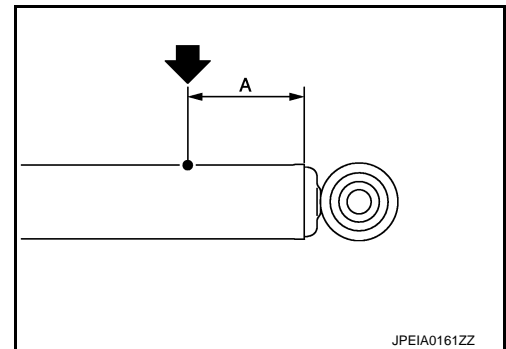
1. Set shock absorber horizontally to the ground with the piston rod fully extracted.
2. Drill 2 – 3 mm (0.08 – 0.12 in) hole at the position (●) from top as shown in the figure to release gas gradually.

CAUTION:

- **Wear eye protection (safety glasses).**
- **Wear gloves.**
- **Be careful with metal chips or oil blown out by the compressed gas.**

NOTE:

- Drill vertically in this direction.
- Directly to the outer tube avoiding brackets.
- The gas is clear, colorless, odorless, and harmless.



A : 20 – 30 mm (0.79 – 1.18 in)

3. Position the drilled hole downward and drain oil by moving the piston rod several times.

CAUTION:

Dispose of drained oil according to the law and local regulations.

COIL SPRING

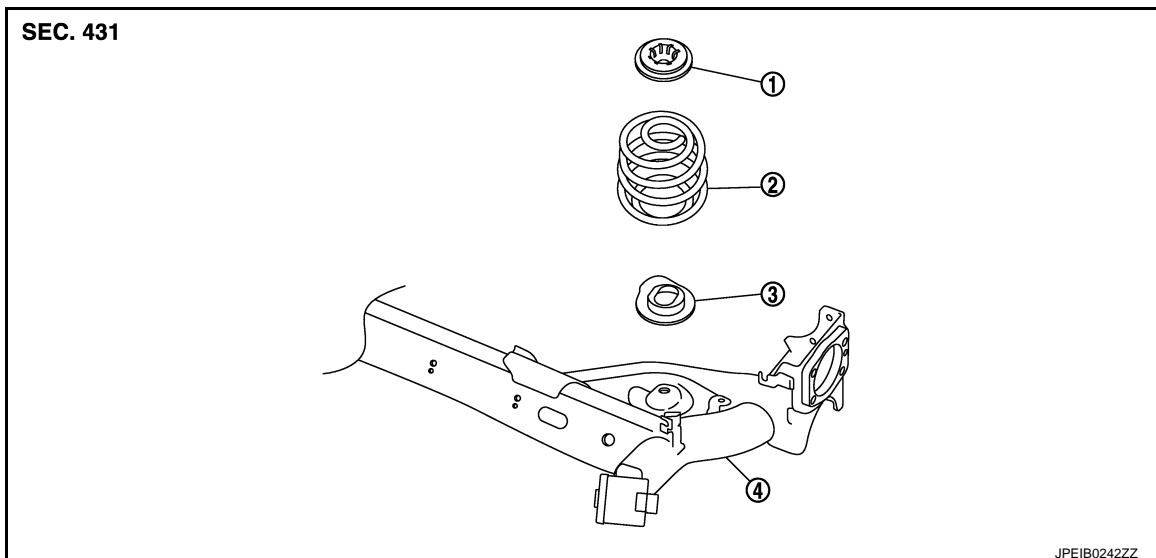
< REMOVAL AND INSTALLATION >

[2WD]

COIL SPRING

Exploded View

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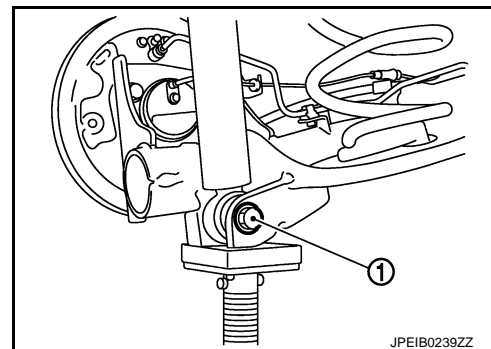
1. Upper rubber seat
2. Coil spring
3. Lower rubber seat
4. Rear suspension beam

Removal and Installation

INFOID:000000007580332

REMOVAL

1. Remove tires with power tool. Refer to [WT-43, "Removal and Installation"](#).
2. Set jack under rear suspension beam.
CAUTION:
 - Never damage the suspension beam with a jack.
 - Check the stable condition when using a jack.
3. Remove rear shock absorber mounting bolts (lower side). Refer to [RSU-8, "Exploded View"](#).
4. Slowly lower jack, then remove upper rubber seat, coil spring and lower rubber seat from rear suspension beam.
CAUTION:
Operate while checking that jack supporting status is stable.
5. Perform inspection after removal. Refer to [RSU-12, "Inspection"](#).



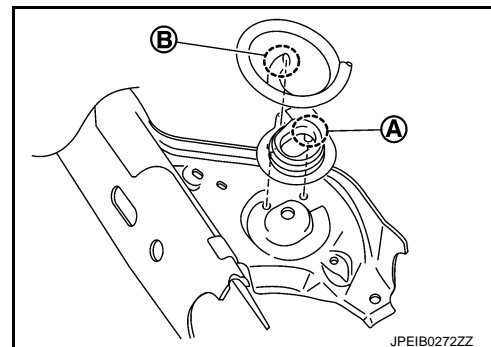
INSTALLATION

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

- Install lower rubber seat with its protrusion (A) on the lower area aligned with the hole of rear suspension beam.

B : Coil spring lower end

- Securely install coil spring with the lower end of the major diameter aligned with the steps of lower rubber seat.
- Perform inspection after installation. Refer to [RSU-12, "Inspection"](#).



COIL SPRING

< REMOVAL AND INSTALLATION >

[2WD]

Inspection

INFOID:000000007580333

INSPECTION AFTER REMOVAL

Check lubber seat and coil spring for deformation, crack, and damage. Replace it if necessary.

INSPECTION AFTER INSTALLATION

Check wheel alignment. Refer to [RSU-7, "Inspection"](#).

REAR SUSPENSION BEAM

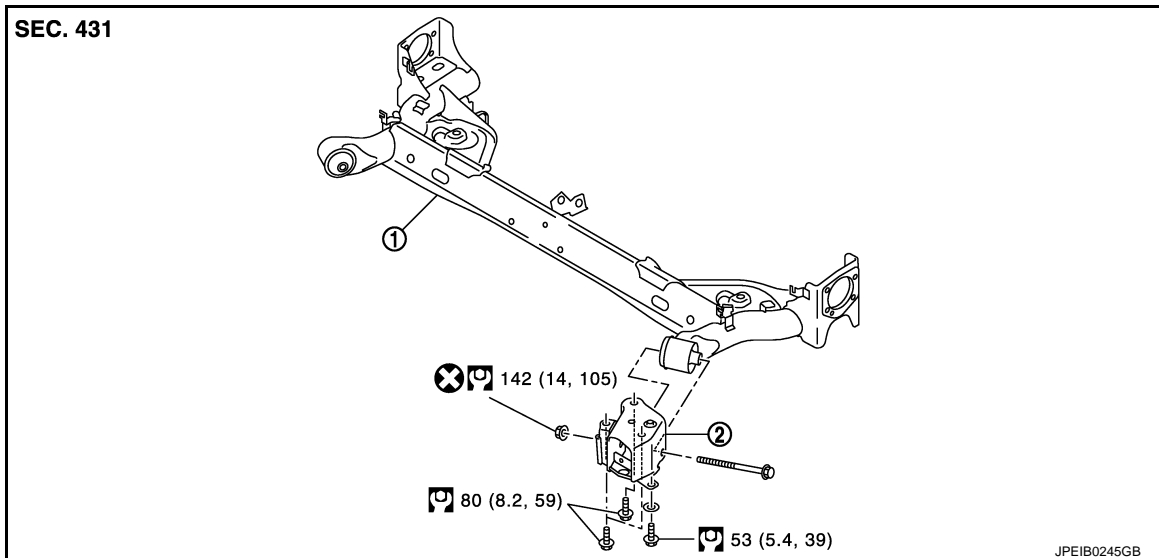
< REMOVAL AND INSTALLATION >

[2WD]

REAR SUSPENSION BEAM

Exploded View

INFOID:000000007580334



1. Rear suspension beam
2. Rear suspension arm bracket

⊗: Always replace after every disassembly.

⊞: N·m (kg-m, ft-lb)

Removal and Installation

INFOID:000000007580335

REMOVAL

1. Remove tires with power tool. Refer to [WT-43, "Removal and Installation"](#).
2. Drain brake fluid. Refer to [BR-10, "Draining"](#).
3. Remove wheel sensor and sensor harness. Refer to [BRC-129, "REAR WHEEL SENSOR : Removal and Installation"](#).
4. Remove brake caliper assembly. Refer to [BR-53, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).
5. Remove disc rotor. Refer to [RAX-5, "Removal and Installation"](#).
6. Remove parking brake shoe assembly. Refer to [PB-8, "Removal and Installation"](#).
7. Remove parking brake cable from back plate and rear suspension beam. Refer to [PB-6, "Removal and Installation"](#).
8. Separate brake hose and brake tube. Refer to [BR-27, "REAR : Removal and Installation"](#).
9. Set suitable jack under rear suspension beam.
CAUTION:
 - Never damage the suspension beam with a jack.
 - Check the stable condition when using a jack.
10. Remove shock absorber mounting bolts (lower side). Refer to [RSU-8, "Removal and Installation"](#).
11. Remove coil spring. Refer to [RSU-11, "Removal and Installation"](#).
12. Remove rear suspension arm bracket mounting bolts.
13. Remove rear suspension arm beam mounting bolts and nuts.
14. Slowly lower jack, remove rear suspension arm bracket and rear suspension beam from vehicle.
CAUTION:
 - Operate while checking that jack supporting status is stable.
15. Remove wheel hub assembly. Refer to [RAX-5, "Removal and Installation"](#).
16. Remove rear suspension arm bracket from rear suspension beam.

REAR SUSPENSION BEAM

[2WD]

< REMOVAL AND INSTALLATION >

17. Perform inspection after removal. Refer to [RSU-14, "Inspection"](#).

INSTALLATION

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

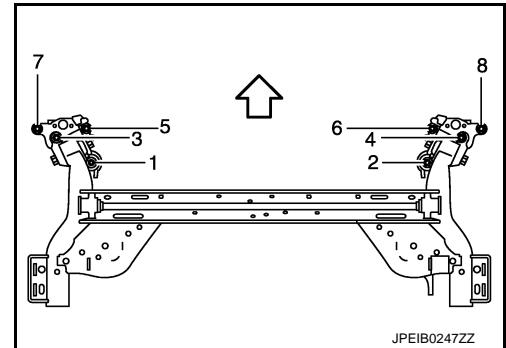
- Never reuse rear suspension beam mounting nut.
- To install rear suspension arm bracket to the vehicle, temporarily tighten the bolts before tightening to the specified torque, referring to the tightening method and the numerical order shown below:

Temporary tightening : 1 → 2 → 3 → 4

Final tightening (specified torque) : 5 → 6 → 3 → 4 → 1 → 2 → 7 → 8

← : Vehicle front

- Perform final tightening of rear suspension beam installation position (rubber bushing), under unladen conditions with tires on level ground.
- Perform inspection after installation. Refer to [RSU-14, "Inspection"](#).



INFOID:0000000007580336

Inspection

INSPECTION AFTER REMOVAL

Check rear suspension beam and rear suspension beam bracket for deformation, cracks or damage. Replace the part if necessary.

INSPECTION AFTER INSTALLATION

1. Check wheel sensor harness for proper connection. Refer to [BRC-127, "REAR WHEEL SENSOR : Exploded View"](#).
2. Adjust parking brake. Refer to [PB-3, "Inspection and Adjustment"](#).
3. Check wheel alignment. Refer to [RSU-7, "Inspection"](#).

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[2WD]

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Wheel Alignment

INFOID:000000007580337

FOR USA MODELS

Item		Standard	
Camber Degree minute (Decimal degree)	Minimum	-2° 01' (-2.01°)	
	Nominal	-1° 31' (-1.52°)	
	Maximum	-1° 01' (-1.02°)	
Toe-in	Total toe-in Distance	Minimum	In 0.1 mm (In 0.004 in)
		Nominal	In 4.1 mm (In 0.161 in)
		Maximum	In 8.1 mm (In 0.319 in)
	Toe angle (left wheel and right wheel) ^{*1} Degree minute (Decimal degree)	Minimum	In 0° 01' (In 0.02°)
		Nominal	In 0° 21' (In 0.35°)
		Maximum	In 0° 41' (In 0.68°)

Measure value under unladen^{*2} conditions.

*1: Since adjustment mechanism is not included, the value of the left and right wheels (both wheels) must be used as the standard value.

*2: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

FOR CANADA MODELS

Item		Standard	
Camber Degree minute (Decimal degree)	Minimum	-2° 01' (-2.01°)	
	Nominal	-1° 31' (-1.52°)	
	Maximum	-1° 01' (-1.02°)	
Toe-in	Total toe-in Distance	Minimum	0.0 mm (0.0 in)
		Nominal	In 4.0 mm (In 0.16 in)
		Maximum	In 8.0 mm (In 0.31 in)
	Toe angle (left wheel and right wheel) ^{*1} Degree minute (Decimal degree)	Minimum	In 0° 01' (In 0.02°)
		Nominal	In 0° 21' (In 0.35°)
		Maximum	In 0° 41' (In 0.68°)

Measure value under unladen^{*2} conditions.

*1: Since adjustment mechanism is not included, the value of the left and right wheels (both wheels) must be used as the standard value.

*2: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

Wheelarch Height

INFOID:000000007580338

FOR USA MODELS

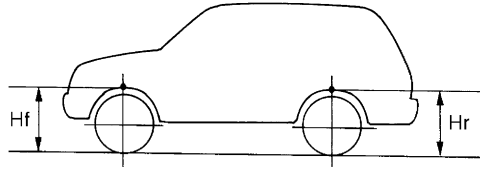
Item	Standard	
Transaxle	M/T	CVT
Front (Hf)	734 mm (28.90 in)	735 mm (28.94 in)

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[2WD]

Item	Standard	
Transaxle	M/T	CVT
Rear (Hr)	745 mm (29.33 in)	746 mm (29.37 in)



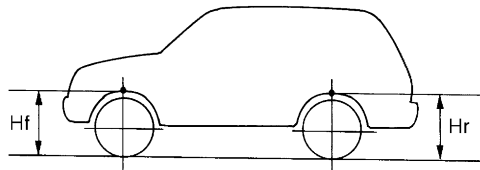
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Measure value under unladen* conditions.

*: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

FOR CANADA MODELS

Item	Standard	
Transaxle	M/T	CVT
Front (Hf)	734 mm (28.90 in)	736 mm (28.98 in)
Rear (Hr)	745 mm (29.33 in)	747 mm (29.41 in)



SFA746B

Measure value under unladen* conditions.

*: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

< PRECAUTION >

PRECAUTION

PRECAUTIONS

Precautions for Suspension

INFOID:000000007580339

- When installing rubber bushings, the final tightening must be carried out under unladen conditions with tires on ground. Spilled oil might shorten the life of rubber bushings. Be sure to wipe off any spilled oil.
- Unladen conditions mean that fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.
- After servicing suspension parts, be sure to check wheel alignment.
- Self-lock nuts are not reusable. Always use new ones when installing. Since new self-lock nuts are pre-oiled, tighten as they are.
- The tightening surface must be kept free from oil/grease.

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PREPARATION

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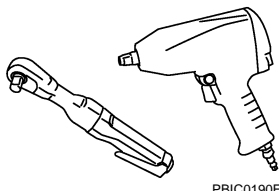
[AWD]

PREPARATION

PREPARATION

Commercial Service Tools

INFOID:000000007580340

Tool name	Description
Power tool  PBIC0190E	Loosening bolts and nuts

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SYMPTOM DIAGNOSIS >

[AWD]

SYMPTOM DIAGNOSIS

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:000000007580341

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

Symptom		Possible cause and SUSPECTED PARTS													Reference																
REAR SUSPENSION	Noise	x	x	x	x	x	x	x			x	x	x	x	x	RSU-23, RSU-26, RSU-28, RSU-30, RSU-32, RSU-34, RSU-35															
	Shake	x	x	x	x		x				x					RSU-23, RSU-26, RSU-28, RSU-30, RSU-32, RSU-34, RSU-35															
	Vibration	x	x	x	x	x					x					RSU-23, RSU-26, RSU-28, RSU-30, RSU-32, RSU-34, RSU-35															
	Shimmy	x	x	x	x			x								RSU-23, RSU-26, RSU-28, RSU-30, RSU-32, RSU-34, RSU-35															
	Judder	x	x	x												RSU-23, RSU-26, RSU-28, RSU-30, RSU-32, RSU-34, RSU-35															
	Poor quality ride or handling	x	x	x	x	x		x	x							RSU-23, RSU-26, RSU-28, RSU-30, RSU-32, RSU-34, RSU-35															
		Improper installation, looseness	Shock absorber deformation, damage or deflection	Bushing or mounting deterioration	Parts interference	Spring fatigue	Suspension looseness	Incorrect wheel alignment	Stabilizer bar fatigue	PROPELLER SHAFT	DIFFERENTIAL	REAR AXLE AND REAR SUSPENSION	TIRE	ROAD WHEEL	DRIVE SHAFT	BRAKE	STEERING	RSU-24	—	—	RSU-27	RSU-21	RSU-34	NVH in DLN section.	NVH in DLN section.	NVH in RAX and RSU sections.	NVH in WT section.	NVH in WT section.	NVH in RAX section.	NVH in BR section.	NVH in ST section.

x: Applicable

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RSU

REAR SUSPENSION ASSEMBLY

< PERIODIC MAINTENANCE >

[AWD]

PERIODIC MAINTENANCE

REAR SUSPENSION ASSEMBLY

Inspection

INFOID:000000007580342

MOUNTING INSPECTION

Check the mounting conditions (looseness, backlash) of each component and component conditions (wear, damage) are normal.

SHOCK ABSORBER

Check for oil leakage and damage. Replace it if necessary.

WHEEL ALIGNMENT

[AWD]

< PERIODIC MAINTENANCE >

WHEEL ALIGNMENT

Inspection

INFOID:000000007580343

DESCRIPTION

Measure wheel alignment under unladen conditions.

NOTE:

"Unladen conditions" means that fuel, engine coolant, and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

PRELIMINARY CHECK

Check the following:

- Tires for improper air pressure and wear. Refer to [WT-50, "Tire Air Pressure"](#).
- Road wheels for runout.
- Wheel bearing axial end play. Refer to [RAX-12, "Inspection"](#).
- Shock absorber operation.
- Each mounting point of axle and suspension for looseness and deformation.
- Each of lower link, upper link, rear suspension member, suspension arm, and shock absorber for cracks, deformation, and other damage.
- Vehicle height (posture).

GENERAL INFORMATION AND RECOMMENDATIONS

- A four-wheel thrust alignment should be performed.
- This type of alignment is recommended for any NISSAN/INFINITI vehicle.
- The four-wheel "thrust" process helps ensure that the vehicle is properly aligned and the steering wheel is centered.
- The alignment rack itself should be capable of accepting any NISSAN/INFINITI vehicle.
- The rack should be checked to ensure that it is level.
- Make sure the machine is properly calibrated.
- Your alignment equipment should be regularly calibrated in order to give correct information.
- Check with the manufacturer of your specific equipment for their recommended Service/Calibration Schedule.

ALIGNMENT PROCESS

IMPORTANT:

Use only the alignment specifications listed in this Service Manual.

- When displaying the alignment settings, many alignment machines use "indicators": (Green/red, plus or minus, Go/No Go). **Never use these indicators.**
- The alignment specifications programmed into your machine that operate these indicators may not be correct.
- This may result in an ERROR.
- Most camera-type alignment machines are equipped with both "Rolling Compensation" method and optional "Jacking Compensation" method to "compensate" the alignment targets or head units. "Rolling Compensation" is the preferred method.
- If using the "Rolling Compensation" method, after installing the alignment targets or head units, push or pull on the rear wheel to move the vehicle. **Do not push or pull on the vehicle body.**
- If using the "Jacking Compensation" method, after installing the alignment targets or head units, raise the vehicle and rotate the wheels 1/2 turn both ways.

NOTE:

- Do not use the "Rolling Compensation" method if you are using sensor-type alignment equipment.
- Follow all instructions for the alignment machine you're using for more information.

Adjustment

INFOID:000000007580344

CAMBER, TOE-IN

CAUTION:

- **Adjust camber first, then adjust toe-in last. never change the order.**
- **If camber angle needs to be adjusted, toe-in adjustment is necessary.**
- **Minimize difference of left and right toe-in within tolerance.**

1. Loosen mounting nuts of upper link and lower link on the suspension member side.

WHEEL ALIGNMENT

[AWD]

< PERIODIC MAINTENANCE >

- Adjust camber and toe-in by turning upper link adjusting bolt (1) and lower link adjusting bolt (2) alternately.

- A : Left side
- B : Right side

NOTE:

Upper link adjusting bolt

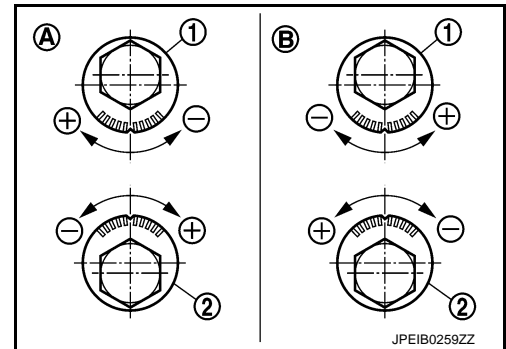
Positive direction : Upper link slides into inner side of vehicle.

Negative direction : Upper link slides into outer side of vehicle.

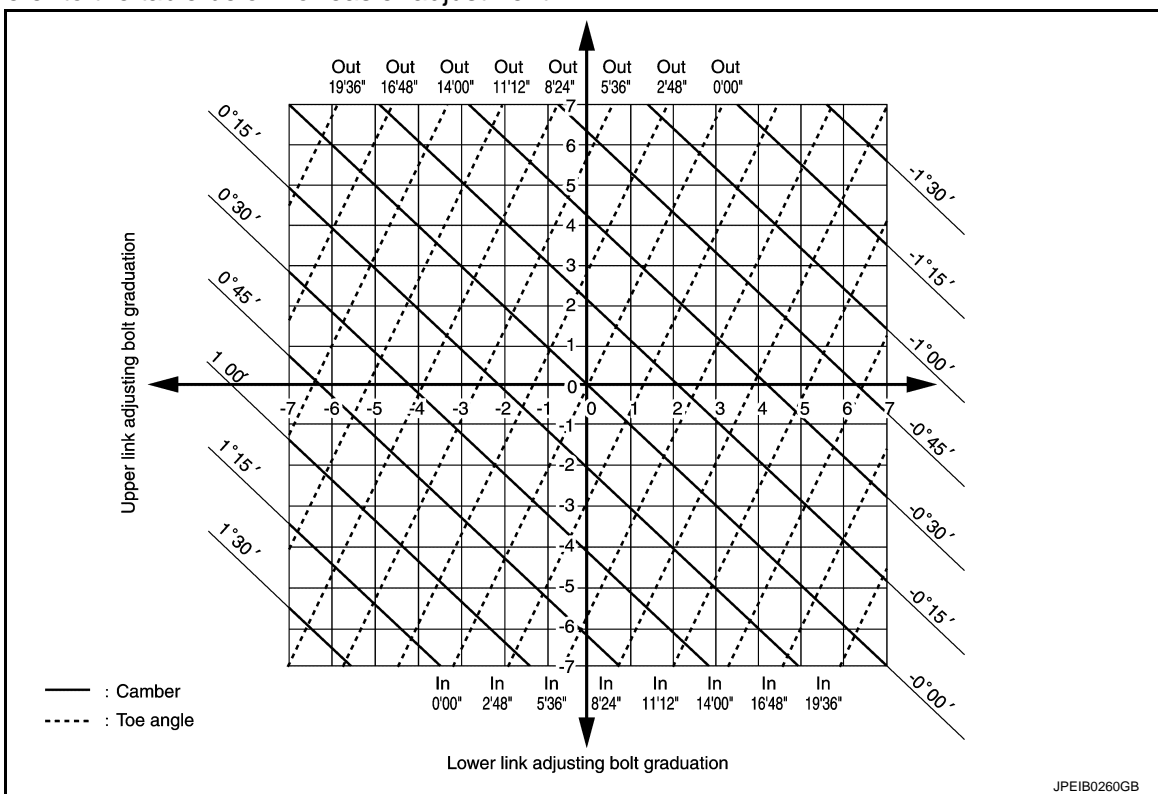
Lower link adjusting bolt

Positive direction : Lower link slides into outer side of vehicle.

Negative direction : Lower link slides into inner side of vehicle.



- Refer to the table below for easier adjustment.



- Obtain the amount of camber and toe-in by calculating the difference between the measurement result and the standard value.
- Obtain the needed adjustment amount from the graph and move adjusting bolts, respectively.

- After adjustment, tighten mounting nuts of upper link and lower link on the suspension member side.

CAUTION:

When tightening nut to the specified torque, the bolt must be fixed with a wrench.

- Adjust neutral position of steering angle sensor. Refer to [BRC-56. "Work Procedure"](#).

REAR SHOCK ABSORBER

< REMOVAL AND INSTALLATION >

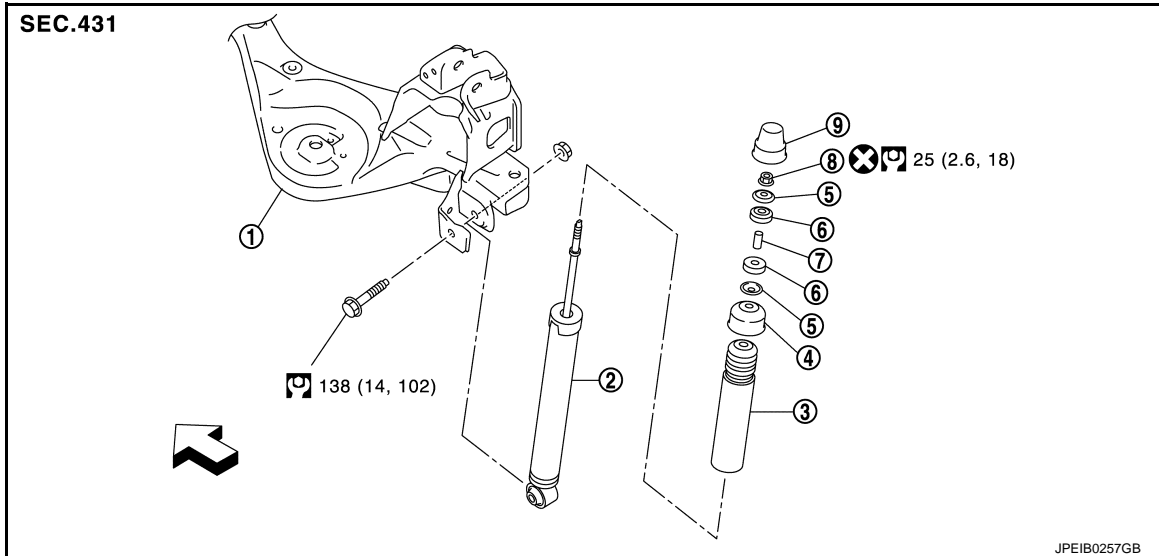
[AWD]

REMOVAL AND INSTALLATION

REAR SHOCK ABSORBER

Exploded View

INFOID:000000007580345



- | | | |
|-----------------------|------------------------|-----------------|
| 1. Suspension arm | 2. Shock absorber | 3. Bound bumper |
| 4. Bound bumper cover | 5. Washer | 6. Bushing |
| 7. Distance tube | 8. Piston rod lock nut | 9. Cap |

←: Vehicle front

⊗: Always replace after every disassembly.

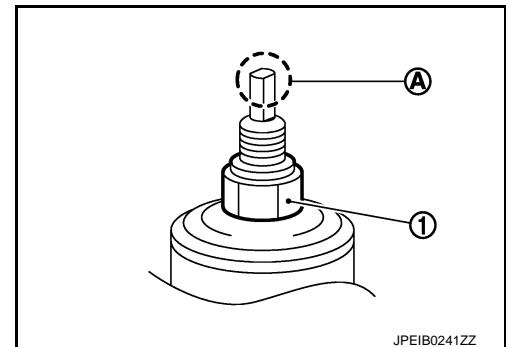
⊞: N·m (kg·m, ft·lb)

Removal and Installation

INFOID:000000007580346

REMOVAL

1. Remove tires with power tool. Refer to [WT-43, "Removal and Installation"](#).
2. Set suitable jack under suspension arm.
CAUTION:
 - Never damage the suspension arm with a jack.
 - Check the stable condition when using a jack.
3. Remove shock absorber mounting bolt and nut (lower side).
4. Remove shock absorber mask. Refer to [INT-32, "Exploded View"](#).
5. Remove cap.
6. Remove piston rod lock nut (1), and then remove washer and bushing.
NOTE:
To loosen piston rod lock nut, fix the tip (A) of the piston rod.
7. Remove shock absorber assembly.
8. Remove bushing, distance tube, bound bumper cover, and bound bumper from shock absorber.
9. Perform inspection after removal. Refer to [RSU-24, "Inspection"](#).



INSTALLATION

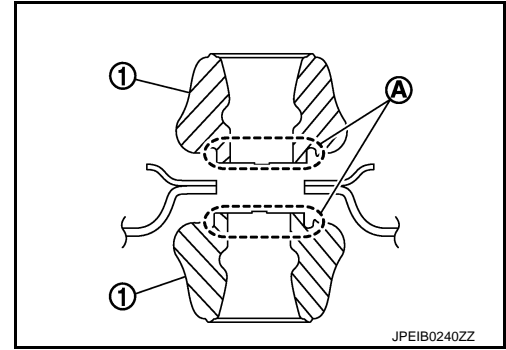
REAR SHOCK ABSORBER

[AWD]

< REMOVAL AND INSTALLATION >

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

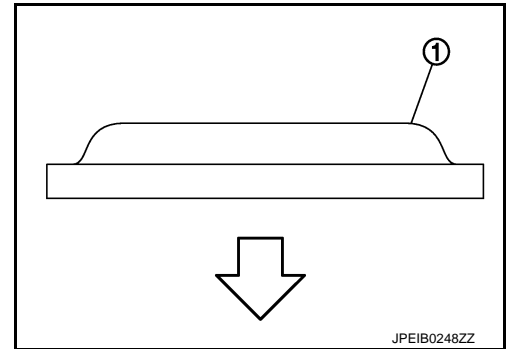
- To install bushings (1), securely insert protrusion (A) into the hole on the vehicle body side.



- Install washer (1) in the direction shown in the figure.

⇐ : Bushing side

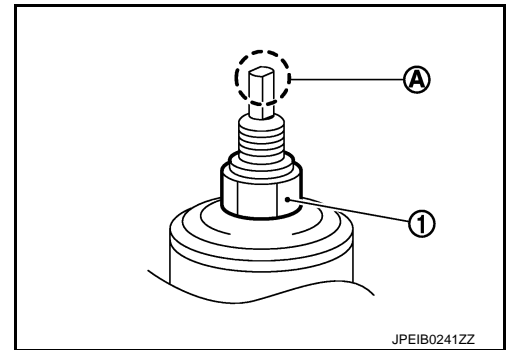
- Perform final tightening of bolts and nuts at the shock absorber lower side (rubber bussing), under unladen conditions with tires on level ground.



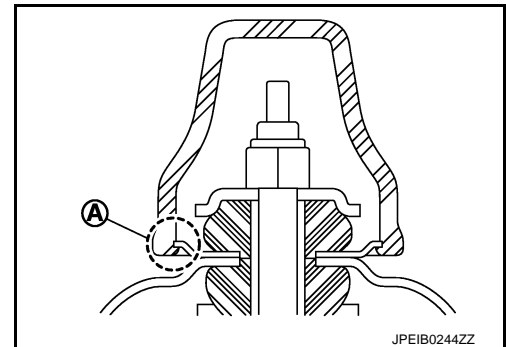
- Hold a head (A) of shock absorber piston rod not to have it rotate, then tighten the piston rod lock nut (1) to the specified torque.

CAUTION:

Never reuse piston rod lock nut.



- When installing the cap, securely engage the cap groove (A) with the flange on the vehicle side.
- Perform inspection after installation. Refer to [RSU-24, "Inspection"](#).
- After replacing the shock absorber, always follow the disposal procedure to discard the shock absorber. Refer to [RSU-24, "Inspection"](#).



Inspection

INSPECTION AFTER REMOVAL

Shock Absorber

Check the following items, and replace the part if necessary.

- Shock absorber for deformation, cracks, and other damage.
- Piston rod for damage, uneven wear, and distortion.
- Oil leakage

REAR SHOCK ABSORBER

[AWD]

< REMOVAL AND INSTALLATION >

Bound Bumper, Bushing

Check for cracks and damage. Replace it if necessary.

Washer, Bound Bumper Cover, Distance Tube

- Check for cracks and damage. Replace it if necessary.

INSPECTION AFTER INSTALLATION

Check wheel alignment. Refer to [RSU-21, "Inspection"](#).

Disposal

INFOID:000000007580348

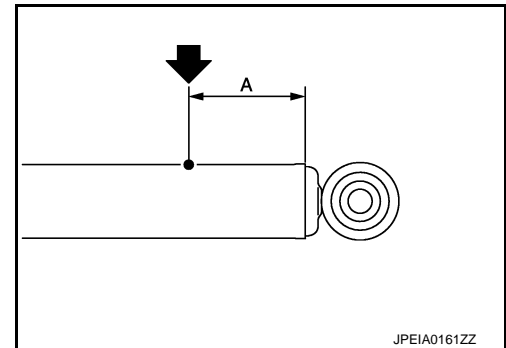
1. Set shock absorber horizontally to the ground with the piston rod fully extracted.
2. Drill 2 – 3 mm (0.08 – 0.12 in) hole at the position (●) from top as shown in the figure to release gas gradually.

CAUTION:

- **Wear eye protection (safety glasses).**
- **Wear gloves.**
- **Be careful with metal chips or oil blown out by the compressed gas.**

NOTE:

- Drill vertically in this direction.
- Directly to the outer tube avoiding brackets.
- The gas is clear, colorless, odorless, and harmless.



A : 20 – 30 mm (0.79 – 1.18 in)

3. Position the drilled hole downward and drain oil by moving the piston rod several times.

CAUTION:

Dispose of drained oil according to the law and local regulations.

COIL SPRING

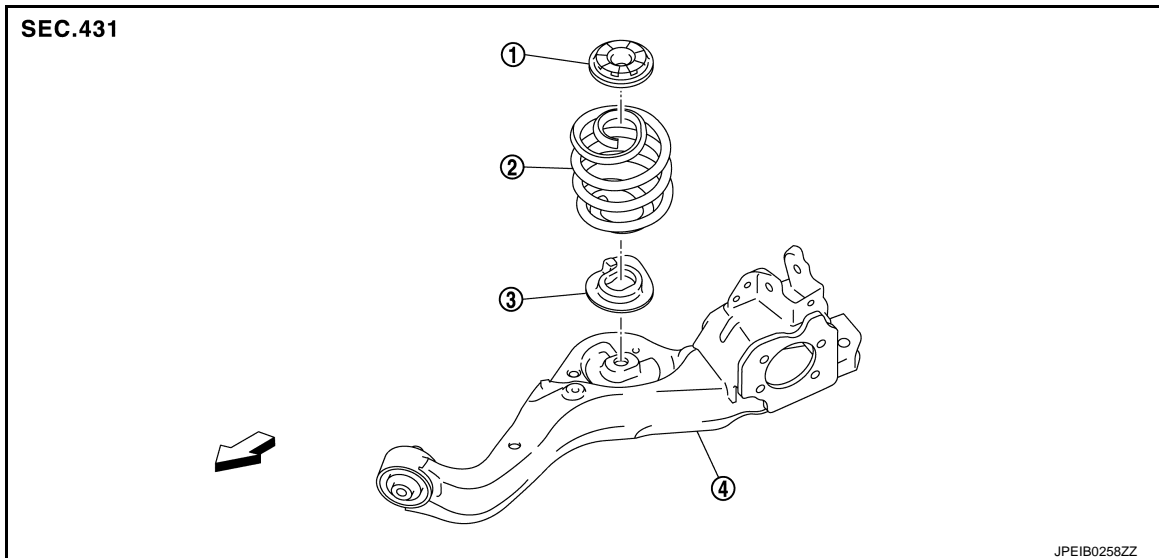
< REMOVAL AND INSTALLATION >

[AWD]

COIL SPRING

Exploded View

INFOID:000000007580349



1. Upper rubber seat
2. Coil spring
3. Lower rubber seat
4. Suspension arm

↶: Vehicle front

Removal and Installation

INFOID:000000007580350

REMOVAL

1. Remove tires with power tool. Refer to [WT-43, "Removal and Installation"](#).
2. Remove wheel sensor and sensor harness. Refer to [BRC-129, "REAR WHEEL SENSOR : Removal and Installation"](#).
3. Set jack under suspension arm.
CAUTION:
 - Never damage the suspension arm with a jack.
 - Check the stable condition when using a jack.
4. Separate rear shock absorber lower side form suspension arm. Refer to [RSU-23, "Removal and Installation"](#).
5. Separate upper link from suspension arm.
6. Slowly lower jack, then remove upper rubber seat, coil spring and lower rubber seat from suspension arm.
CAUTION:
Operate while checking that jack supporting status is stable.
7. Perform inspection after removal. Refer to [RSU-27, "Inspection"](#).

INSTALLATION

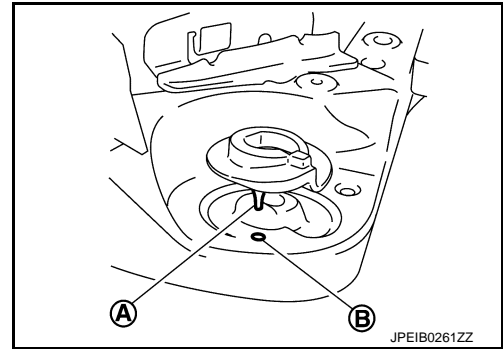
Note the following, and install in the reverse order of removal.

COIL SPRING

< REMOVAL AND INSTALLATION >

[AWD]

- Install the lower rubber seat a projection (A) is attached as suspension arm mounting hole (B).
- Match up lower rubber seat indentions and suspension arm grooves and attach.
- Perform inspection after installation. Refer to [RSU-27, "Inspection"](#).



INFOID:000000007580351

Inspection

INSPECTION AFTER REMOVAL

Check lubber seat and coil spring for deformation, crack, and damage. Replace it if necessary.

INSPECTION AFTER INSTALLATION

1. Check wheel sensor harness for proper connection. Refer to [BRC-127, "REAR WHEEL SENSOR : Exploded View"](#).
2. Check wheel alignment. Refer to [RSU-21, "Inspection"](#).

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RSU

SUSPENSION ARM

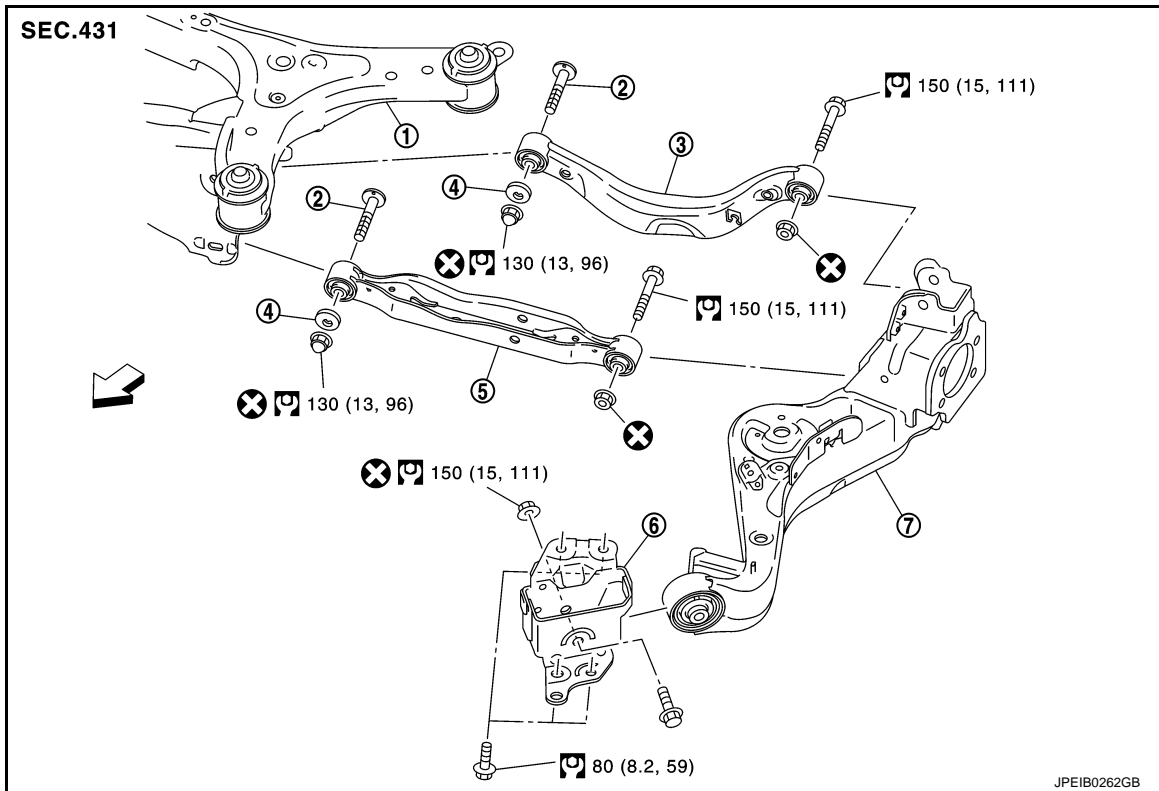
< REMOVAL AND INSTALLATION >

[AWD]

SUSPENSION ARM

Exploded View

INFOID:000000007580352



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|---------------------------|-------------------|---------------------------|
| 1. Rear suspension member | 2. Adjusting bolt | 3. Upper link |
| 4. Eccentric disk | 5. Lower link | 6. Suspension arm bracket |
| 7. Suspension arm | | |

↙: Vehicle front

⊗: Always replace after every disassembly.

🔧: N·m (kg·m, ft·lb)

Removal and Installation

INFOID:000000007580353

REMOVAL

1. Remove tires with power tool. Refer to [WT-43, "Removal and Installation"](#).
2. Drain brake fluid. Refer to [BR-10, "Draining"](#).
3. Remove wheel sensor and sensor harness. Refer to [BRC-129, "REAR WHEEL SENSOR : Removal and Installation"](#).
4. Remove caliper assembly. Hang caliper assembly in a place where it will not interfere with work. Refer to [BR-53, "BRAKE CALIPER ASSEMBLY : Removal and Installation"](#).
CAUTION:
Never depress brake pedal while brake caliper is removed.
5. Remove disc rotor. Refer to [RAX-14, "Removal and Installation"](#).
6. Remove parking brake cable mounting bolt. Refer to [PB-6, "Removal and Installation"](#).
7. Separate the brake tube from the brake hose, and remove lock plate. Refer to [BR-24, "REAR : Exploded View"](#).
8. Remove wheel hub and bearing assembly. Refer to [RAX-14, "Removal and Installation"](#).
9. Remove parking brake shoe and back plate. Refer to [PB-8, "Removal and Installation"](#).

SUSPENSION ARM

[AWD]

< REMOVAL AND INSTALLATION >

10. Set jack under suspension arm.

CAUTION:

- **Never damage the suspension arm with a jack.**
- **Check the stable condition when using a jack.**

11. Remove stabilizer link. Refer to [RSU-34, "Removal and Installation"](#).

12. Remove upper link from suspension arm. Refer to [RSU-32, "Removal and Installation"](#).

13. Remove lower link from suspension arm. Refer to [RSU-30, "Removal and Installation"](#).

14. Remove coil spring from suspension arm. Refer to [RSU-26, "Removal and Installation"](#).

15. Remove suspension arm bracket from vehicle.

16. Remove suspension arm from suspension arm bracket.

17. Perform inspection after removal. Refer to [RSU-29, "Inspection"](#).

INSTALLATION

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

- Perform final tightening of rear suspension member installation position (rubber bussing), under unladen conditions with tires on level ground.
- Never reuse suspension arm mounting nut.
- Perform inspection after installation. Refer to [RSU-29, "Inspection"](#).

Inspection

INFOID:000000007580354

INSPECTION AFTER REMOVAL

Check suspension arm and bushing for deformation, cracks or damage. Replace it if necessary.

INSPECTION AFTER INSTALLATION

1. Check wheel sensor harness for proper connection. Refer to [BRC-127, "REAR WHEEL SENSOR : Exploded View"](#).
2. Adjust parking brake operation (stroke). Refer to [PB-3, "Inspection and Adjustment"](#).
3. Check wheel alignment. Refer to [RSU-21, "Inspection"](#).

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RSU

LOWER LINK

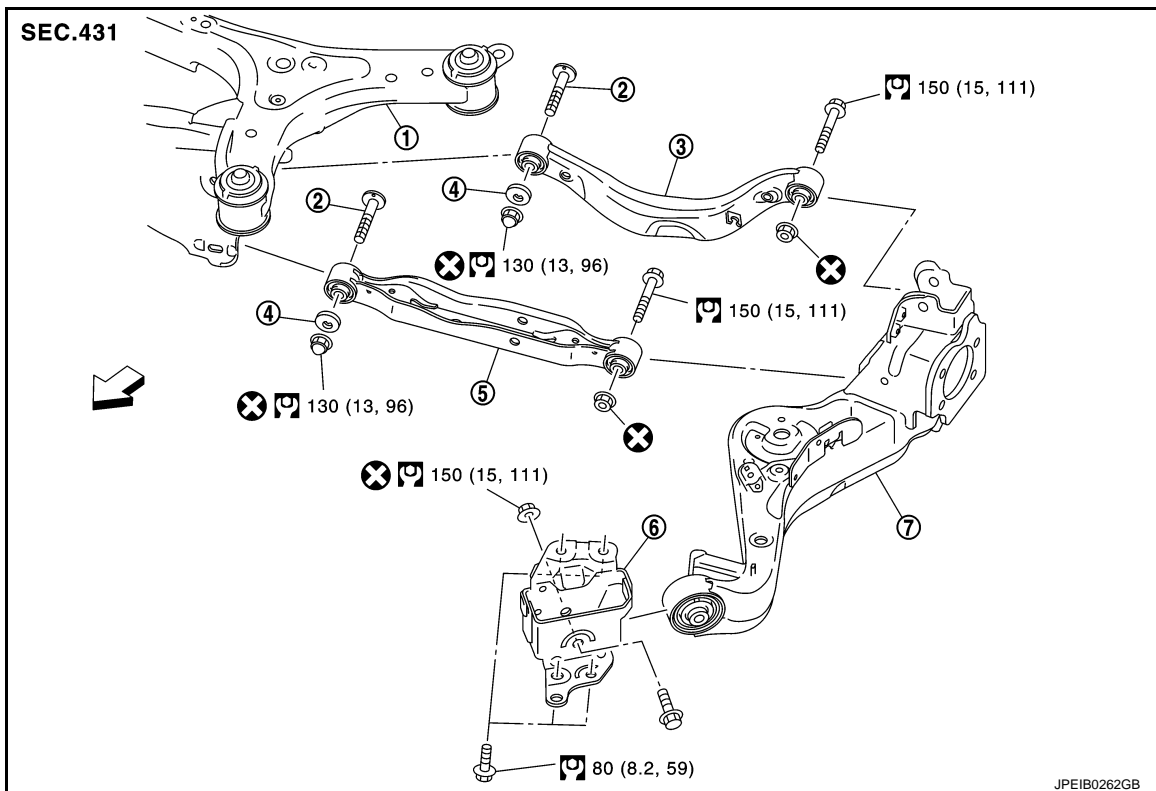
< REMOVAL AND INSTALLATION >

[AWD]

LOWER LINK

Exploded View

INFOID:000000007580355



- | | | |
|---------------------------|-------------------|---------------------------|
| 1. Rear suspension member | 2. Adjusting bolt | 3. Upper link |
| 4. Eccentric disk | 5. Lower link | 6. Suspension arm bracket |
| 7. Suspension arm | | |

↙: Vehicle front

⊗: Always replace after every disassembly.

🔧: N·m (kg·m, ft·lb)

Removal and Installation

INFOID:000000007580356

REMOVAL

1. Remove tires with power tool. Refer to [WT-43, "Removal and Installation"](#).
2. Set jack under suspension arm.
CAUTION:
 - Never damage the suspension arm with a jack.
 - Check the stable condition when using a jack.
3. Remove stabilizer link. Refer to [RSU-34, "Removal and Installation"](#).
4. Remove eccentric disc, adjusting bolt, mounting bolt, and nut, then remove lower link.
5. Perform inspection after removal. Refer to [RSU-31, "Inspection"](#).

INSTALLATION

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

- Perform final tightening of rear suspension member and axle installation position (rubber bushing), under unladen conditions with tires on level ground.
- Never reuse lower link mounting nut.
- Perform inspection after installation. Refer to [RSU-31, "Inspection"](#).

LOWER LINK

< REMOVAL AND INSTALLATION >

[AWD]

Inspection

INFOID:000000007580357

INSPECTION AFTER REMOVAL

Check lower link and bushing for any deformation, cracks, or damage. Replace it if necessary.

INSPECTION AFTER INSTALLATION

Check wheel alignment. Refer to [RSU-21, "Inspection"](#).

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UPPER LINK

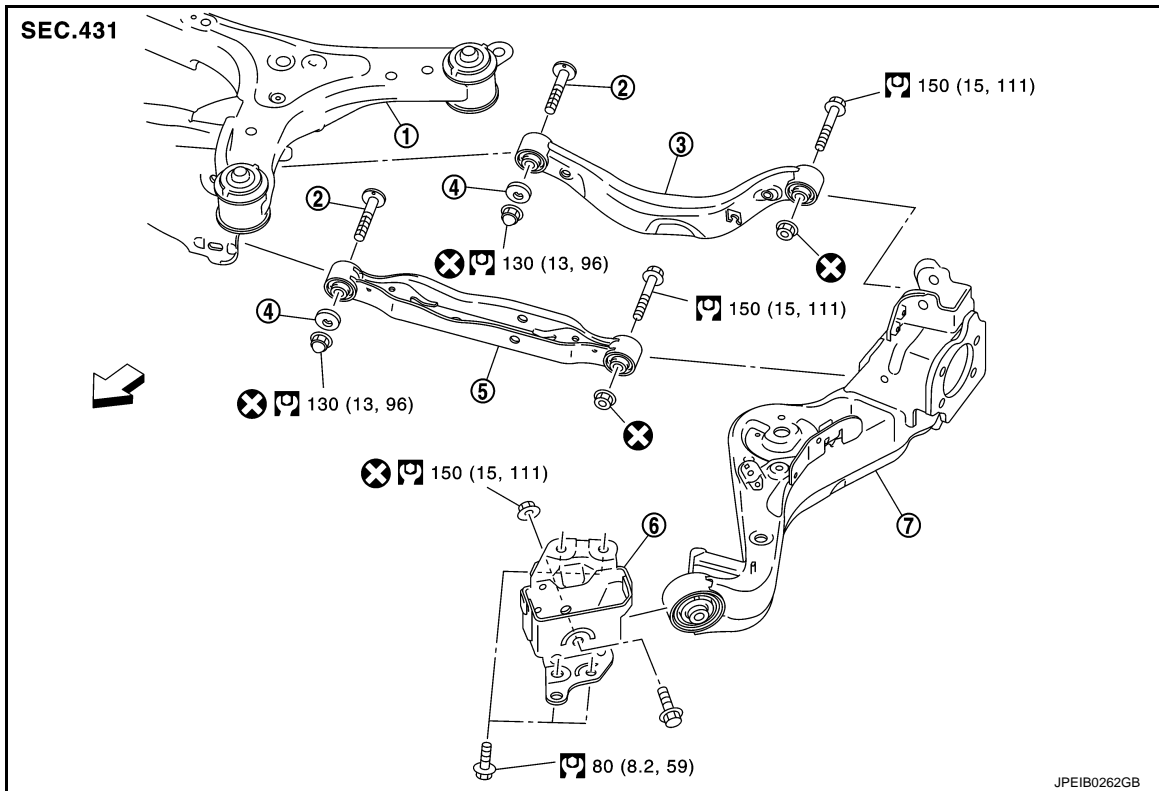
< REMOVAL AND INSTALLATION >

[AWD]

UPPER LINK

Exploded View

INFOID:000000007580358



- | | | |
|---------------------------|-------------------|---------------------------|
| 1. Rear suspension member | 2. Adjusting bolt | 3. Upper link |
| 4. Eccentric disk | 5. Lower link | 6. Suspension arm bracket |
| 7. Suspension arm | | |

↙: Vehicle front

⊗: Always replace after every disassembly.

Ⓜ: N·m (kg-m, ft-lb)

Removal and Installation

INFOID:000000007580359

REMOVAL

1. Remove tires with power tool. [WT-43. "Removal and Installation"](#).
2. Remove wheel sensor and sensor harness. Refer to [BRC-129. "REAR WHEEL SENSOR : Removal and Installation"](#).
3. Set jack under suspension arm.
CAUTION:
 - Never damage the suspension arm with a jack.
 - Check the stable condition when using a jack.
4. Remove eccentric disc, adjusting bolt, mounting bolt, and nut, then remove upper link.
5. Perform inspection after removal. Refer to [RSU-33. "Inspection"](#).

INSTALLATION

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

- Perform final tightening of rear suspension member and axle installation position (rubber bushing), under unladen conditions with tires on level ground.
- Never reuse upper link mounting nut.
- Perform inspection after installation. Refer to [RSU-33. "Inspection"](#).

UPPER LINK

< REMOVAL AND INSTALLATION >

[AWD]

Inspection

INFOID:000000007580360

INSPECTION AFTER REMOVAL

Check upper link and bushing for any deformation, cracks, or damage. Replace it if necessary.

INSPECTION AFTER INSTALLATION

1. Check wheel sensor harness for proper connection. Refer to [BRC-127, "REAR WHEEL SENSOR : Exploded View"](#).
2. Check wheel alignment. Refer to [RSU-21, "Inspection"](#).

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REAR STABILIZER

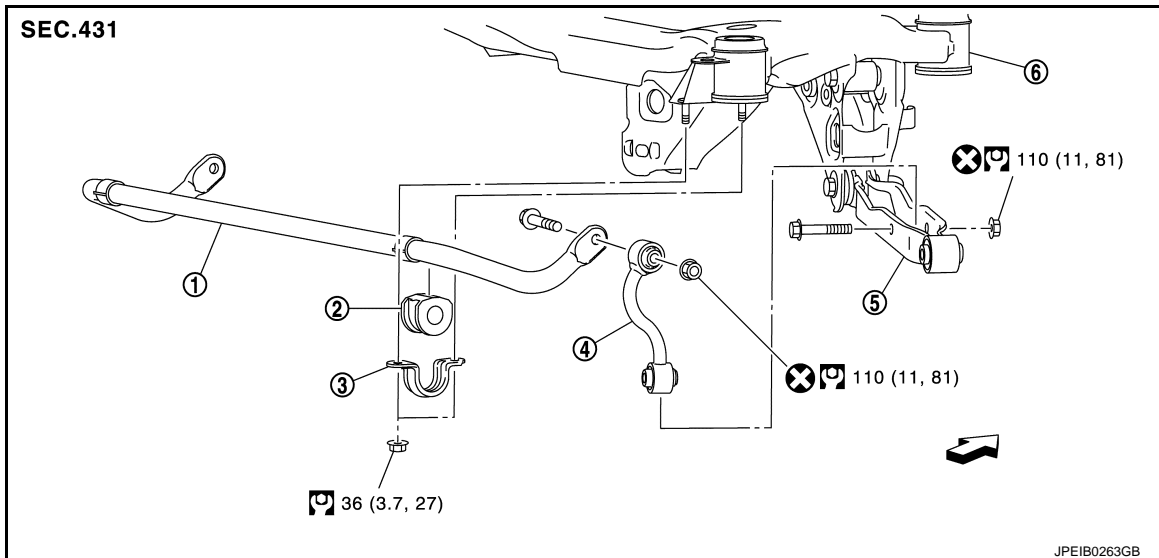
< REMOVAL AND INSTALLATION >

[AWD]

REAR STABILIZER

Exploded View

INFOID:000000007580361



- | | | |
|--------------------|---------------|---------------------------|
| 1. Stabilizer bar | 2. Bushing | 3. Stabilizer clamp |
| 4. Stabilizer link | 5. Lower link | 6. Rear suspension member |

←: Vehicle front

⊗: Always replace after every disassembly.

⊞: N·m (kg·m, ft·lb)

Removal and Installation

INFOID:000000007580362

REMOVAL

1. Remove stabilizer link.
2. Remove center muffler. Refer to [EX-6. "Removal and Installation"](#).
3. Remove mounting nuts on stabilizer clamp, bushing, and stabilizer bar from suspension member.
4. Perform inspection after removal. Refer to [RSU-34. "Inspection"](#).

INSTALLATION

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

- Perform final tightening of rear suspension member and axle installation position (rubber bushing), under unladen conditions with tires on level ground.
- Never reuse stabilizer link mounting nut.

Inspection

INFOID:000000007580363

INSPECTION AFTER REMOVAL

Check stabilizer bar, stabilizer link, stabilizer bushing and stabilizer clamp for deformation, cracks or damage. Replace it if necessary.

REAR SUSPENSION ASSEMBLY

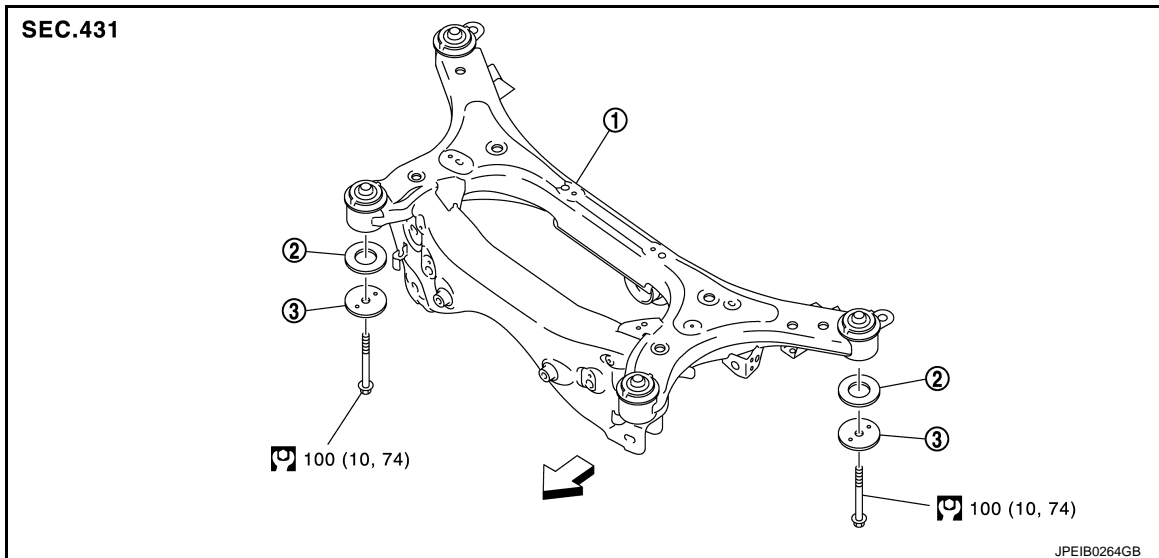
< REMOVAL AND INSTALLATION >

[AWD]

REAR SUSPENSION ASSEMBLY

Exploded View

INFOID:000000007580364



1. Rear suspension member
2. Rebound stopper
3. Washer

←: Vehicle front

: N·m (kg-m, ft-lb)

Removal and Installation

INFOID:000000007580365

REMOVAL

1. Remove tires with power tool. Refer to [WT-43, "Removal and Installation"](#).
2. Remove center muffler. Refer to [EX-6, "Removal and Installation"](#).
3. Remove propeller shaft. Refer to [DLN-125, "Removal and Installation"](#).
4. Remove stabilizer bar. Refer to [RSU-34, "Removal and Installation"](#).
5. Remove wheel sensor and sensor harness. Refer to [BRC-129, "REAR WHEEL SENSOR : Removal and Installation"](#).
6. Remove upper link from suspension arm. Refer to [RSU-32, "Removal and Installation"](#).
7. Remove lower link from suspension arm. Refer to [RSU-30, "Removal and Installation"](#).
8. Remove drive shaft from rear final drive. Refer to [RAX-17, "Removal and Installation"](#).
9. Remove rear final drive. Refer to [DLN-151, "Removal and Installation"](#).
10. Set jack under rear suspension member.
CAUTION:
 - Never damage the suspension member with a jack.
 - Check the stable condition when using a jack.
11. Remove rear suspension member mounting bolts, rebound stopper, and washer.
12. Slowly lower jack, then remove rear suspension member, lower link and upper link from vehicle as a unit.
CAUTION:
Operate while checking that jack supporting status is stable.
13. Remove lower link and upper link from rear suspension member.
14. Perform inspection after removal. Refer to [RSU-36, "Inspection"](#).

INSTALLATION

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

REAR SUSPENSION ASSEMBLY

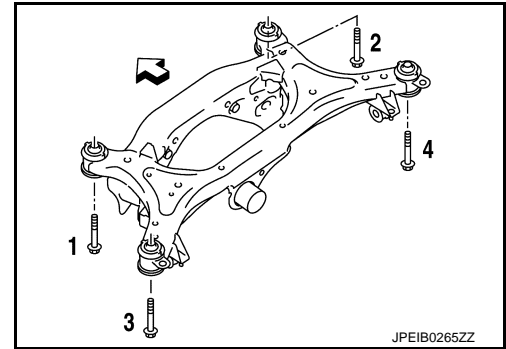
[AWD]

< REMOVAL AND INSTALLATION >

- To install mounting bolts of the suspension member, temporarily tighten them in numerical order shown in the figure and tighten them to the specified torque.

← : Vehicle front

- Perform the final tightening of each parts removed when removing rear suspension assembly under unladen conditions.
- Perform inspection after installation. Refer to [RSU-36, "Inspection"](#).



INFOID:000000007580366

Inspection

INSPECTION AFTER REMOVAL

Check rear suspension member for deformation, cracks, or any other damage. Replace it if necessary.

INSPECTION AFTER INSTALLATION

1. Check wheel sensor harness for proper connection. Refer to [BRC-127, "REAR WHEEL SENSOR : Exploded View"](#).
2. Check wheel alignment. Refer to [RSU-21, "Inspection"](#).

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[AWD]

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Wheel Alignment

INFOID:000000007580367

FOR USA MODELS

Item		Standard	
Camber Degree minute (Decimal degree)	Minimum	-0° 45' (-0.75°)	
	Nominal	0° 00' (0.00°)	
	Maximum	0° 45' (0.75°)	
Toe-in	Total toe-in Distance	Minimum	In 1.1 mm (0.043 in)
		Nominal	In 3.1 mm (0.122 in)
		Maximum	In 5.1 mm (0.201 in)
	Toe angle (left wheel or right wheel) Degree minute (Decimal degree)	Minimum	In 0° 03' (0.05°)
		Nominal	In 0° 08' (0.13°)
		Maximum	In 0° 13' (0.21°)

Measure value under unladen* conditions.

*: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

FOR CANADA MODELS

Item		Standard	
Camber Degree minute (Decimal degree)	Minimum	-0° 43' (-0.71°)	
	Nominal	0° 02' (0.03°)	
	Maximum	0° 47' (0.78°)	
Toe-in	Total toe-in Distance	Minimum	In 0.9 mm (0.035 in)
		Nominal	In 2.9 mm (0.114 in)
		Maximum	In 4.9 mm (0.193 in)
	Toe angle (left wheel or right wheel) Degree minute (Decimal degree)	Minimum	In 0° 02' (0.04°)
		Nominal	In 0° 07' (0.12°)
		Maximum	In 0° 12' (0.20°)

Measure value under unladen* conditions.

*: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

Wheelarch Height

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FOR USA MODELS

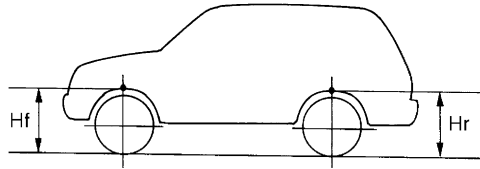
Item	Standard
Front (Hf)	734 mm (28.90 in)

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

[AWD]

Item	Standard
Rear (Hr)	741 mm (29.17 in)



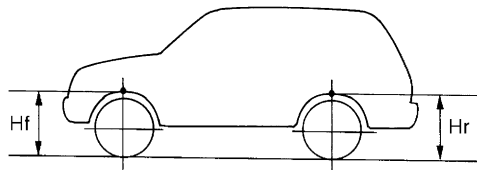
SFA746B

Measure value under unladen* conditions.

*: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.

FOR CANADA MODELS

Item	Standard
Front (Hf)	735 mm (28.94 in)
Rear (Hr)	742 mm (29.21 in)



SFA746B

Measure value under unladen* conditions.

*: Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions.