SECTION RSU
REAR SUSPENSION

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PRECAUTION

PRECAUTIONS

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

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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. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

- **To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, it is recommended that all maintenance and repair be performed by an authorized NISSAN/INFINITI dealer.**
- **Improper repair, 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 the SR section.**
- **Do not 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:

- **When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the Ignition ON or engine running, DO NOT 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 or batteries, and wait at least three minutes before performing any service.**

Precautions for Suspension

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- 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 lubricants 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.

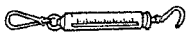
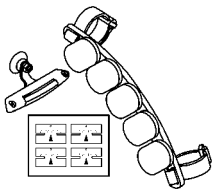
PREPARATION

PREPARATION

Special Service Tool

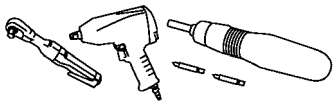
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The actual shape of the tools may differ from those illustrated here.

Tool number (TechMate No.) Tool name	Description
— (J-44372) Pull gauge  LST024	Measuring ball joint swinging force
— (J-49286) Drift and Pull gauge  AWEIA0156ZZ	Measuring drift and pull

Commercial Service Tool

INFOID:0000000014628142

Tool name	Description
Power tool  PIIB1407E	Loosening nuts, screws and bolts

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.

Reference			RSU-8, RSU-14, RSU-16, RSU-17, RSU-18, RSU-20	RSU-5	—	—	—	RSU-8, RSU-14, RSU-16, RSU-17, RSU-18, RSU-20	RSU-6	RSU-5	DLN-104	DLN-120	RAX-5 (FWD) and RAX-13 (AWD)	WT-62	WT-62	RAX-13 (AWD)	BR-48
Possible cause and SUSPECTED PARTS			Improper installation, looseness	Shock absorber deformation, damage or deflection	Bushing or mount deterioration	Parts interference	Spring fatigue	Suspension looseness	Incorrect wheel alignment	Stabilizer fatigue	PROPELLER SHAFT (AWD)	DIFFERENTIAL (AWD)	REAR AXLE	TIRE	WHEEL	DRIVE SHAFT (AWD)	BRAKE
Symptom	REAR SUSPENSION	Noise	×	×	×	×	×	×			×	×	×	×	×	×	×
		Shake	×	×	×	×		×			×		×	×	×	×	×
		Vibration	×	×	×	×	×				×		×	×		×	
		Shimmy	×	×	×	×			×				×	×	×		×
		Shudder	×	×	×								×	×	×		×
		Poor quality ride or handling	×	×	×	×	×		×	×			×	×	×		

×: Applicable

PERIODIC MAINTENANCE

REAR SUSPENSION ASSEMBLY

Inspection and Adjustment

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COMPONENT PART

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

SHOCK ABSORBER

Check the shock absorber for oil leaks or damage. Replace the components if necessary.

WHEEL ALIGNMENT

Inspection

INFOID:0000000014628145

DESCRIPTION

- Measure wheel alignment under unladen conditions.

NOTE:

"Unladen conditions" means that fuel, engine coolant, and lubricants 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-74, "Tire Air Pressure".
- Wheels for runout, deformation, cracks, or other damage. Refer to WT-63, "Inspection".
- Wheel bearings for axial end play. Refer to RAX-6, "Inspection" (FWD), RAX-14, "Inspection" (AWD).
- Shock absorbers for proper operation.
- Each suspension component for cracks, looseness, deformation, and other damages.
- Wheelarch height. Refer to RSU-23, "Wheelarch Height (Unladen*)".

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. Refer to RSU-23, "Wheel Alignment (Unladen*[1])".

- When displaying the alignment settings, many alignment machines use "indicators": (Green/red, plus or minus, Go/No Go). **Do not use these indicators.**
  - The alignment specifications programmed into your alignment 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:

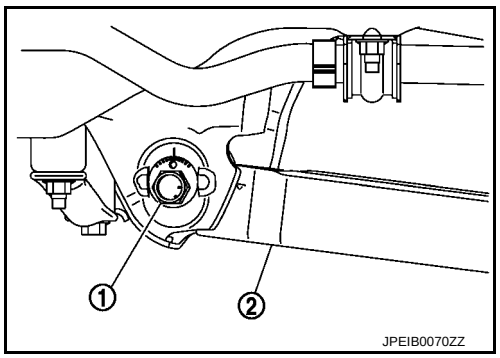
    Do not use the "Rolling Compensation" method if you are using sensor-type alignment equipment.
  - Follow all instructions for the alignment machine you're using for more information.

Adjustment

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CAMBER

1. If camber is outside the standard value, adjust with adjusting bolt (1) in lower link (2).



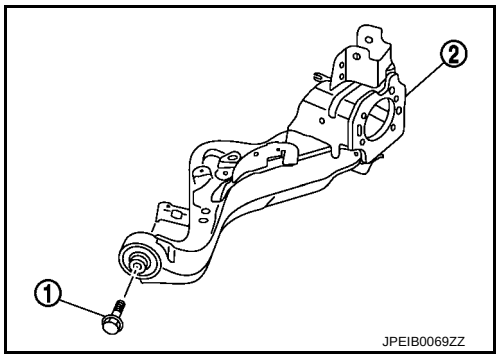
Camber: Refer to RSU-23, "Wheel Alignment (Unladen*1)".

CAUTION:
After adjusting camber, be sure to check toe-in.

2. After adjustment tighten the lower link nut to specification. Refer to RSU-17, "Exploded View".

TOE-IN

1. If toe-in is not within the specification, adjust with adjusting bolt (1) in suspension arm (2).



Toe-In: Refer to RSU-23, "Wheel Alignment (Unladen*1)".

CAUTION:
- **Be sure to adjust equally on RH and LH side with adjusting bolt.**
- **When tightening the nut firmly and checking the torque, use a wrench to prevent turning the bolt.**

2. After adjustment tighten the rear suspension arm nut to specification. Refer to RSU-16, "Exploded View".

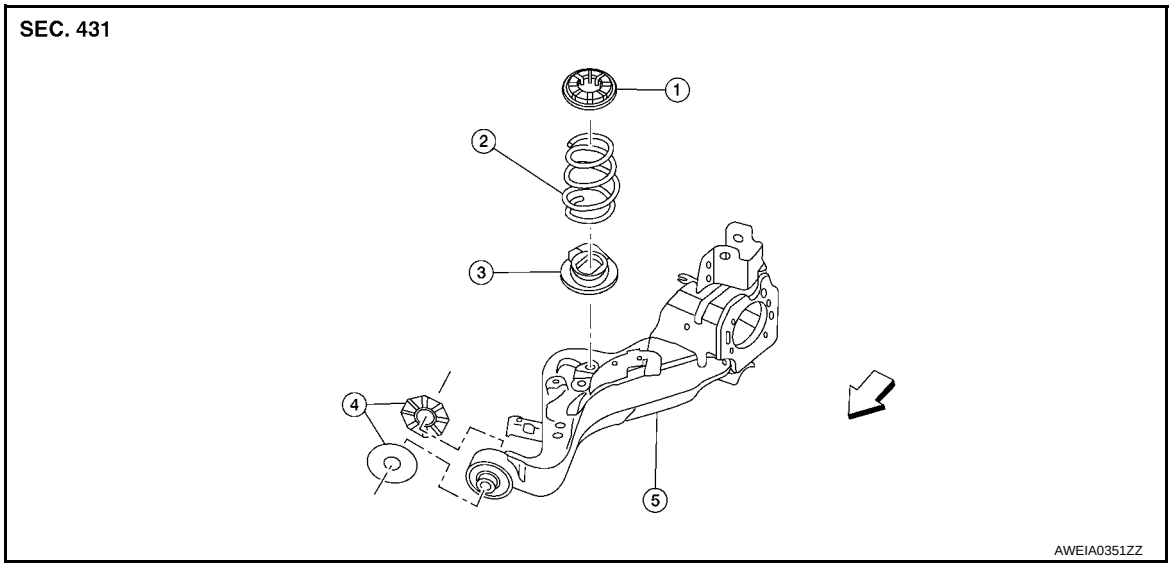
- If toe-in is not still within the specification, inspect and replace any damaged or worn suspension parts.
- After toe-in adjustment, adjust neutral position of steering angle sensor. Refer to BRC-77, "Description".

REMOVAL AND INSTALLATION

COIL SPRING

Exploded View

INFOID:0000000014628147



1. Upper seat
2. Coil spring
3. Lower seat
4. Arm bushing stopper (LH/RH)
5. Rear suspension arm
⇦ Front

Removal and Installation - FWD

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REMOVAL

1. Remove the rear wheel and tire using power tool. Refer to WT-67, "Removal and Installation".
2. Remove the bolt and separate the rear wheel sensor from the wheel hub and bearing. Refer to BRC-201, "REAR WHEEL SENSOR : Exploded View".
   CAUTION:
   - **Failure to separate the rear wheel sensor from the wheel hub and bearing may result in damage to the rear wheel sensor.**
   - **Pull out the rear wheel sensor, being careful to turn it as little as possible. Do not pull on wheel sensor harness.**
3. Remove brake caliper torque member bolts, leaving the brake hose attached. Position brake caliper aside with wire. Refer to BR-77, "BRAKE CALIPER ASSEMBLY : Exploded View".
   CAUTION:
   Do not depress brake pedal while brake caliper is removed.
4. Put alignment marks on the disc brake rotor and on wheel hub and bearing. Remove the disc brake rotor.
   CAUTION:
   Do not drop the disc brake rotor.
5. Support the rear suspension arm using a suitable jack.
   CAUTION:
   Do not damage the rear suspension arm with the suitable jack.
6. Remove the stabilizer connecting rod. Refer to RSU-20, "Exploded View".
7. Separate the parking brake cable from the rear suspension arm. Refer to PB-7, "Exploded View".
8. Remove the rear shock absorber lower bolt and nut. Separate the rear shock absorber from the rear suspension arm. Refer to RSU-8, "Exploded View".
9. Remove the upper link bolt and nut from the rear suspension arm. Separate the upper link from the rear suspension arm. Refer to RSU-16, "Exploded View".

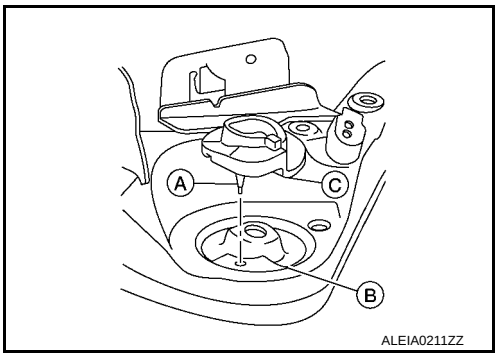
10. Loosen the lower link nut at the rear suspension member. Remove the lower link bolt and nut from the rear suspension arm. Separate the lower link from the rear suspension arm. Refer to RSU-16, "Exploded View".
11. Separate the brake tube from the rear suspension arm. Refer to BR-62, "REAR : Exploded View".
12. Slowly lower the suitable jack supporting the rear suspension arm. Remove the upper seat, the coil spring and the lower seat.

INSPECTION AFTER REMOVAL

Check lower link, bushing and coil spring for deformation, crack, and damage. Replace components if necessary.

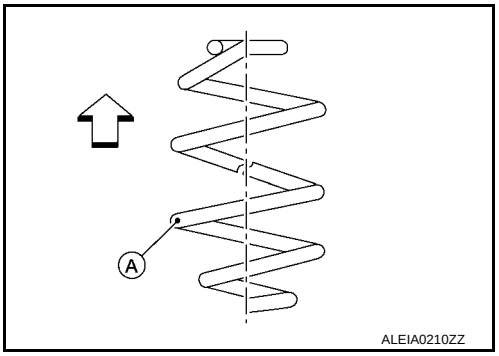
INSTALLATION

1. Align the lower seat indentations (C) with rear suspension arm grooves (B). Install the lower seat protrusion (A) into the hole in the rear suspension arm.
   CAUTION:
   The lower rubber seat protrusion must be securely inserted into the hole of rear suspension arm.



2. Identify the upper side of the coil spring.
   NOTE:
   - The top of the coil spring has a flat shape.
   - The paint identification mark (A) is 1.75 turns from the bottom of the coil spring.

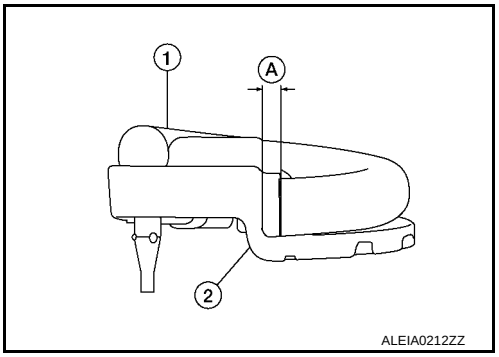
   ⇦ : Upper side



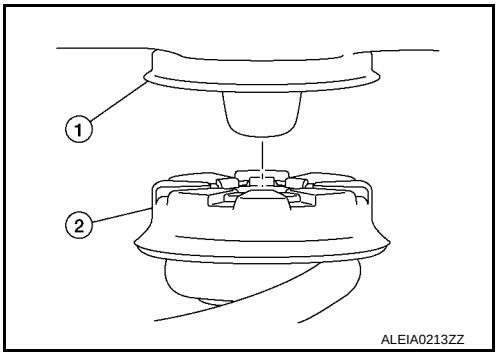
3. Align the coil spring (1) to the lower seat (2). Install coil spring to lower seat.

   Maximum distance (A) : 5mm (0.20 in)

   CAUTION:
   Assemble coil spring so that spring lower end is located in the spring end holding section of lower rubber seat.



4. Align upper seat (2) to the body (1). Slowly raise the suitable jack supporting the rear suspension arm to install the upper seat to the body.



5. Install brake tube to rear suspension arm. Refer to BR-62, "REAR : Exploded View".
6. Install lower link with bolt and nut to the rear suspension arm. Refer to RSU-16, "Exploded View".
   NOTE:
   The final tightening of nuts and bolts is under unladen conditions with tires on level ground.
7. Install upper link with bolt and nut to rear suspension arm. Refer to RSU-16, "Exploded View".
8. Install rear shock absorber with bolt and nut to rear suspension arm. Refer to RSU-14, "Exploded View".
9. Install parking brake cable to rear suspension arm. Refer to PB-7, "Exploded View".
10. Install the stabilizer connecting rod. Refer to RSU-20, "Exploded View".
11. Install the rear wheel sensor to the wheel hub and bearing. Refer to BRC-201, "REAR WHEEL SENSOR : Exploded View".
    CAUTION:
    - **Before installing, make sure there is no foreign material such as iron fragments adhered to the pick-up part of the rear wheel sensor.**
    - **When installing, make sure there is no foreign material such as iron fragments on and in the hole in the wheel hub and bearing for the rear wheel sensor. Make sure no foreign material has been caught in the sensor rotor. Remove and foreign material and clean the mount.**
12. Align the matching marks on the disc brake rotor and on the wheel hub and bearing. Install the disc brake rotor.
13. Position the brake caliper on the disc brake rotor. Install the brake caliper torque member bolts. Refer to BR-77, "BRAKE CALIPER ASSEMBLY : Exploded View".
14. Install the wheel and tire. Refer to WT-67, "Removal and Installation".
15. Perform the final tightening of nuts and bolts under unladen conditions with tires on level ground.

INSPECTION AFTER INSTALLATION

- Check wheel alignment. Refer to RSU-6, "Inspection".
- Adjust the neutral position of the steering angle sensor. Refer to BRC-77, "Description".

Removal and Installation - AWD

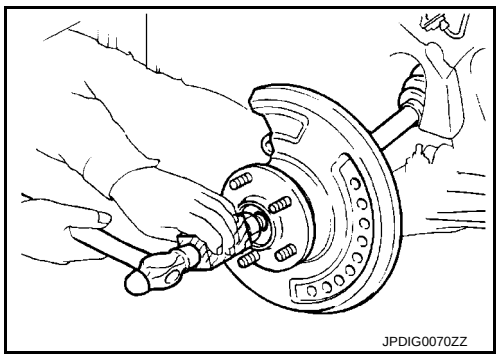
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REMOVAL

1. Remove wheel and tire using power tool. Refer to WT-67, "Removal and Installation"
2. Remove the bolt and separate the rear wheel sensor from the axle housing. Position the rear wheel sensor and harness aside. Refer to BRC-201, "REAR WHEEL SENSOR : Exploded View".
   CAUTION:
   - **Failure to remove the rear speed sensor from the axle housing may result in damage to the rear wheel sensor.**
   - **Pull out the rear wheel sensor, being careful to turn it as little as possible. Do not pull on wheel sensor harness.**
3. Remove brake caliper torque member bolts using power tool, leaving the brake hose attached. Position brake caliper aside with wire. Refer to BR-77, "BRAKE CALIPER ASSEMBLY : Exploded View".
   CAUTION:
   Do not depress brake pedal while brake caliper is removed.
4. Put alignment marks on the disc brake rotor and on the wheel hub and bearing. Remove the disc brake rotor.
   CAUTION:

Do not drop disc brake rotor.

5. Remove the cotter pin.
6. Loosen, but do not remove, the wheel hub lock nut from the drive shaft using power tool.
7. Tap the wheel hub lock nut with a piece of wood and a suitable tool to disengage the drive shaft from the wheel hub and bearing.



CAUTION:
- **Do not place the drive shaft joint at an extreme angle. Be careful not to overextend the slide joint.**
- **Do not allow the drive shaft to hang without support.**

NOTE:
Use a suitable puller if the drive shaft cannot be separated from the wheel hub and bearing.

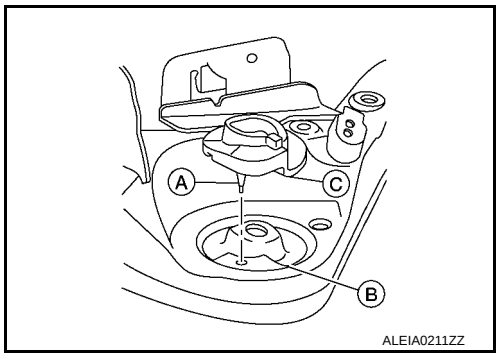
8. Remove the wheel hub lock nut.
9. Support the rear suspension arm using a suitable jack.
CAUTION:
Do not damage the rear suspension arm with suitable jack.
10. Remove stabilizer connecting rod. Refer to RSU-20, "Exploded View".
11. Separate the parking brake cable from the rear suspension arm. Refer to PB-7, "Exploded View".
12. Remove the rear shock absorber lower bolt and nut. Separate the rear shock absorber from the rear suspension arm. Refer to RSU-14, "Exploded View".
13. Remove the upper link bolt and nut from the rear suspension arm. separate the upper link from the rear suspension arm. Refer to RSU-18, "Exploded View".
14. Loosen the lower link nut at the rear suspension member. Remove the lower link bolt and nut from the rear suspension arm. Separate the lower link from the rear suspension arm. Refer to RSU-17, "Exploded View".
15. Separate the brake tube from the rear suspension arm. Refer to BR-62, "REAR : Exploded View".
16. Slowly lower the suitable jack supporting the rear suspension arm. Remove the upper seat, coil spring and lower seat.

INSPECTION AFTER REMOVAL

Check lower link, bushing and coil spring for deformation, crack, and damage. Replace components if necessary.

INSTALLATION

1. Align the lower seat indentations (C) with rear suspension arm grooves (B). Install the lower seat protrusion (A) into the hole in the rear suspension arm.

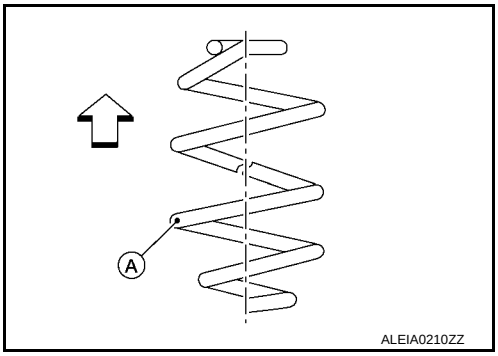


CAUTION:
The lower rubber seat protrusion must be securely inserted into the hole of rear suspension arm.

2. Identify the upper side of the coil spring.
NOTE:
- The top of the coil spring has a flat shape.

- The paint identification mark (A) is 1.75 turns from the bottom of the coil spring.

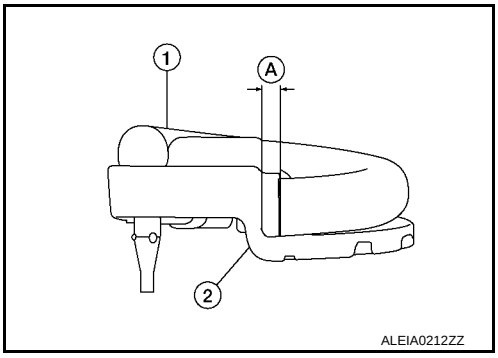
⇦ : Upper side



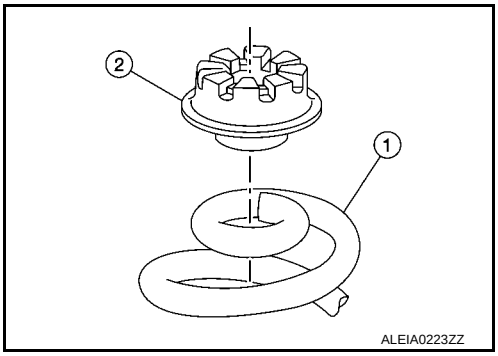
3. Align the coil spring (1) to the lower seat (2). Install coil spring to lower seat.

Maximum distance (A) : 5mm (0.20 in)

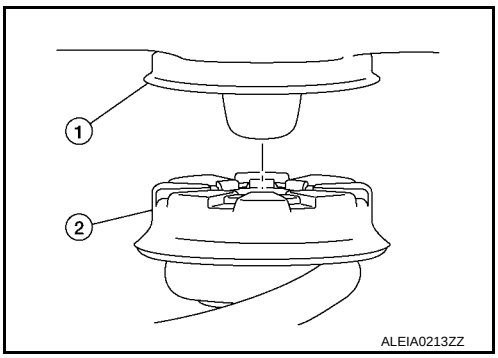
CAUTION:
Assemble coil spring so that spring lower end is located in the spring end holding section of lower rubber seat.



4. Align the coil spring (1) to the upper seat (2). Install the upper seat to the coil spring.



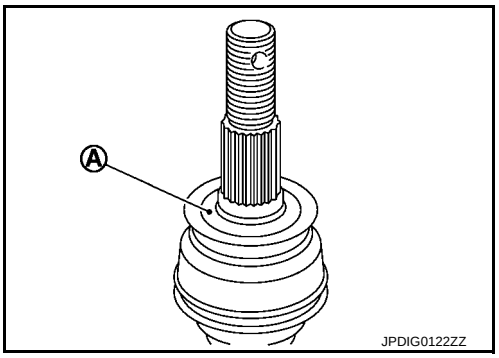
5. Align upper seat (2) to the body (1). Slowly raise the suitable jack supporting the rear suspension arm to install the upper seat to the body.



6. Install the brake tube to the rear suspension arm. Refer to BR-62, "REAR : Exploded View".
7. Install the lower link with the bolt and nut to the rear suspension arm. Refer to RSU-17, "Exploded View".
NOTE:
The final tightening of nuts and bolts is under unladen conditions with tires on level ground.
8. Install the upper link with the bolt and nut to the rear suspension arm. Refer to RSU-18, "Exploded View".
9. Install the rear shock absorber with the bolt and nut to the rear suspension arm. Refer to RSU-14, "Exploded View".
10. Install parking brake cable to rear suspension arm. Refer to PB-7, "Exploded View".
11. Install the stabilizer connecting rod. Refer to RSU-20, "Exploded View".
12. Clean the mating surfaces of the wheel hub lock nut and the wheel hub and bearing.

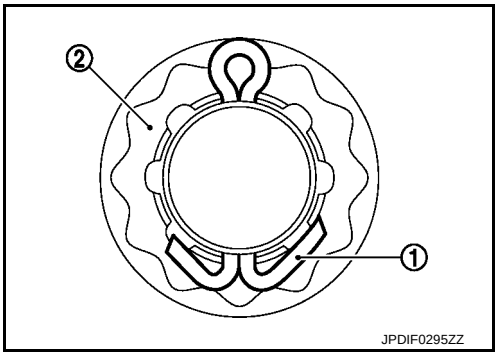
CAUTION:
Do not apply lubricating oil to these mating surfaces.

13. Clean the mating surfaces of the joint sub-assembly and the wheel hub and bearing. Apply Molykote M77 lubricant to the surface (A) of the joint sub-assembly.
CAUTION:
Apply lubricant to cover the entire flat mating surface of the joint sub-assembly.
NOTE:
Always check with the Parts Department for the latest parts information.



14. Install the drive shaft to the wheel hub and bearing. Hold the wheel hub and bearing. Install the wheel hub lock nut. Refer to RAX-19, "Exploded View".
CAUTION:
- **Since the drive shaft is assembled by press fitting, use a torque wrench to tighten the wheel hub lock nut. Do not use a power tool.**
- **Too much torque causes axle noise. Too little torque causes wheel bearing looseness. Tighten the wheel hub lock nut to the specification.**

15. Install the cotter pin. Securely bend the cotter pin to prevent rattles.
CAUTION:
Do not reuse cotter pin.



16. Install the rear wheel sensor to the axle housing. Refer to BRC-201, "REAR WHEEL SENSOR : Exploded View".
CAUTION:
- **Before installing, make sure there is no foreign material such as iron fragments adhered to the pick-up part of the rear wheel sensor.**
- **When installing, make sure there is no foreign material such as iron fragments on and in the hole in the axle housing for the rear wheel sensor. Make sure no foreign material has been caught in the sensor rotor. Remove and foreign material and clean the mount.**

17. Align the matching marks on the disc brake rotor and on the wheel hub and bearing. Install the disc brake rotor.
18. Position the brake caliper on the disc brake rotor. Install the brake caliper torque member bolts. Refer to BR-77, "BRAKE CALIPER ASSEMBLY : Exploded View".
19. Install the wheel and tire. Refer to WT-67, "Removal and Installation".
20. Perform the final tightening of nuts and bolts under unladen conditions with tires on level ground.

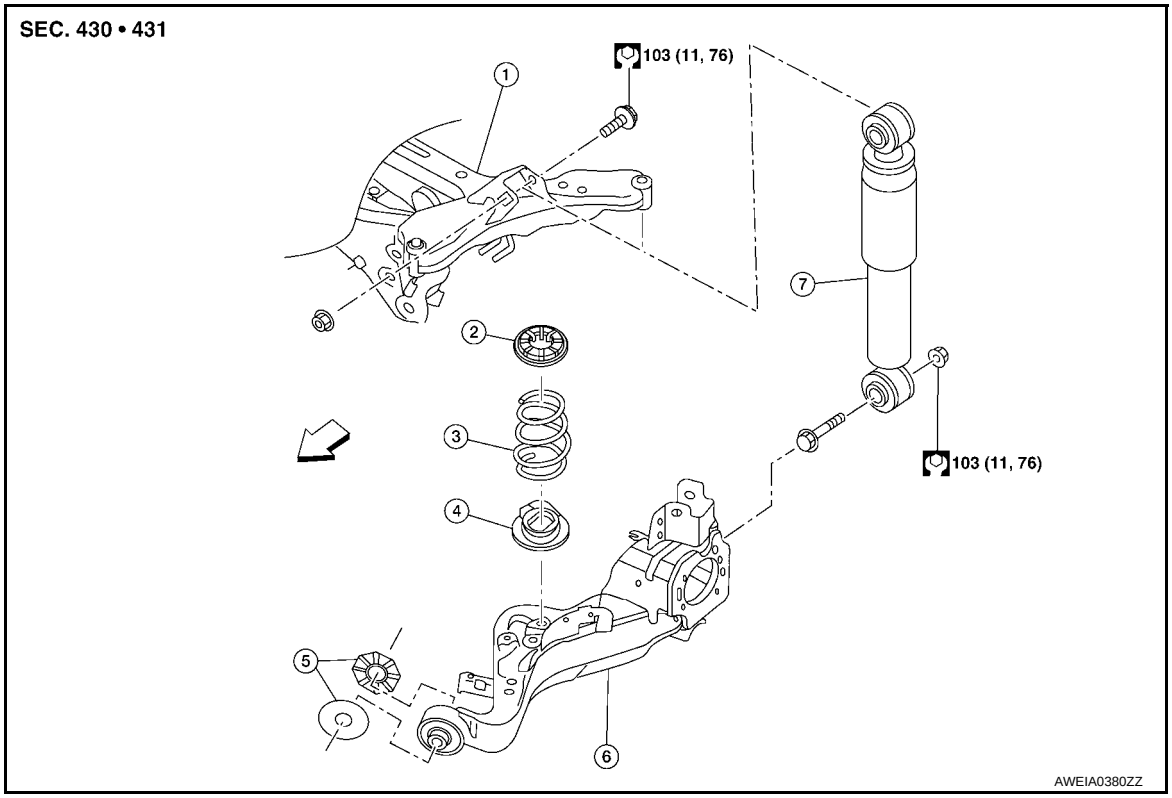
INSPECTION AFTER INSTALLATION

- Check wheel alignment. Refer to RSU-6, "Inspection".
- Adjust the neutral position of the steering angle sensor. Refer to BRC-77, "Description".

REAR SHOCK ABSORBER

Exploded View

INFOID:0000000014628150



1. Rear suspension member
2. Upper seat
3. Coil spring
4. Lower seat
5. Arm bushing stopper (LH/RH)
6. Rear suspension arm
7. Rear shock absorber
⇦ Front

Removal and Installation

INFOID:0000000014628151

REMOVAL

1. Support the rear suspension arm using a suitable jack.
   CAUTION:
   Do not damage the rear suspension arm with the suitable jack.
2. Remove the rear shock absorber lower bolt and nut. Separate the rear shock absorber from the rear suspension arm.
3. Remove the upper bolt, nut, and rear shock absorber.

INSPECTION AFTER REMOVAL

- Check rear shock absorber for deformation, cracks, damage. Replace it if necessary.
- Check welded and sealed areas for oil leaks. Replace it if necessary.

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:
Do not reuse the rear shock absorber nuts.
Perform the final tightening of nuts and bolts under unladen conditions with tires on level ground.

Disposal

INFOID:0000000014628152

1. Set rear shock absorber horizontally to the ground with the piston rod fully extracted.

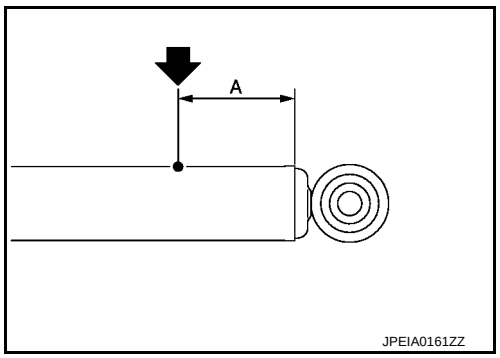
2. Drill 2 – 3 mm (0.08 – 0.12 in) hole at the position (●) from top as shown to release gas gradually.

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 into 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.

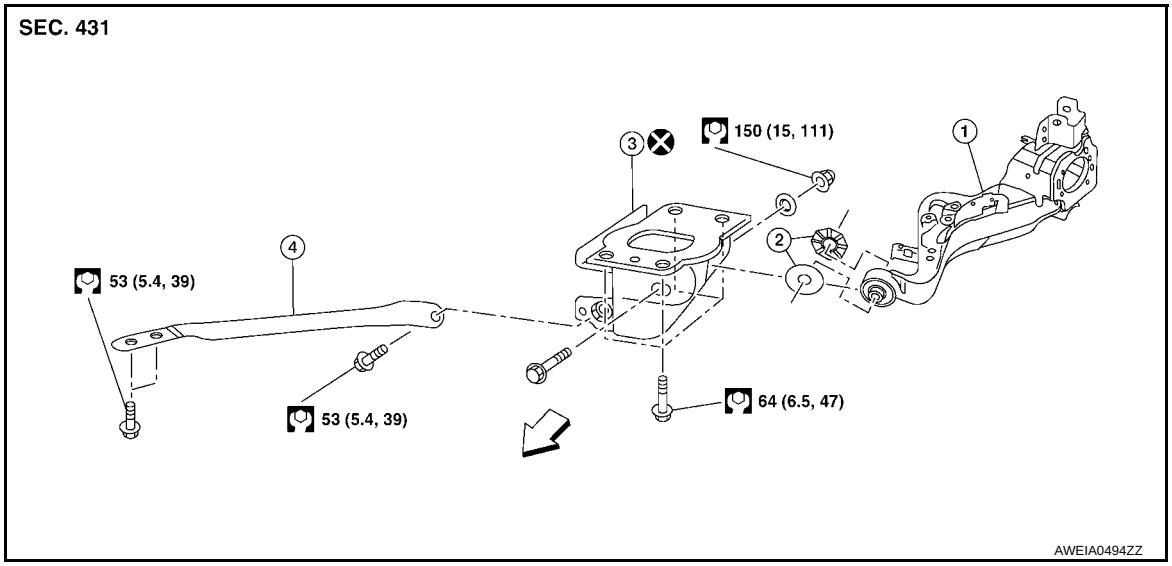
CAUTION:

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

REAR SUSPENSION ARM

Exploded View

INFOID:0000000014628153



1. Rear suspension arm
2. Arm bushing stopper (LH/RH)
3. Rear suspension arm bracket
4. Rear suspension arm stay
⇦ Front

Removal and Installation

INFOID:0000000014628154

REMOVAL

1. Remove the wheel hub and bearing (FWD). Refer to RAX-7, "Removal and Installation" (FWD). Remove the axle housing (AWD). Refer to RAX-16, "Removal and Installation" (AWD).
2. Remove the coil spring. Refer to RSU-8, "Removal and Installation - FWD" (FWD), or RSU-10, "Removal and Installation - AWD" (AWD).
3. Separate the brake tube and hose from the rear suspension arm. BR-62, "REAR : Exploded View".
4. Remove the nut, bolt, rubber washer (LH/RH), and rear suspension arm.

INSPECTION AFTER REMOVAL

Visual Inspection

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

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **Do not reuse rear suspension arm nut.**
- **Verify that arm bushing stoppers are installed correctly with proper orientation.**
- Align the matching marks made during removal when reusing the disc brake rotor.
- After installation, perform the air bleeding. Refer to BR-52, "Bleeding Brake System".
- Perform the final tightening of the nuts and bolts under unladen conditions with the tires on level ground.

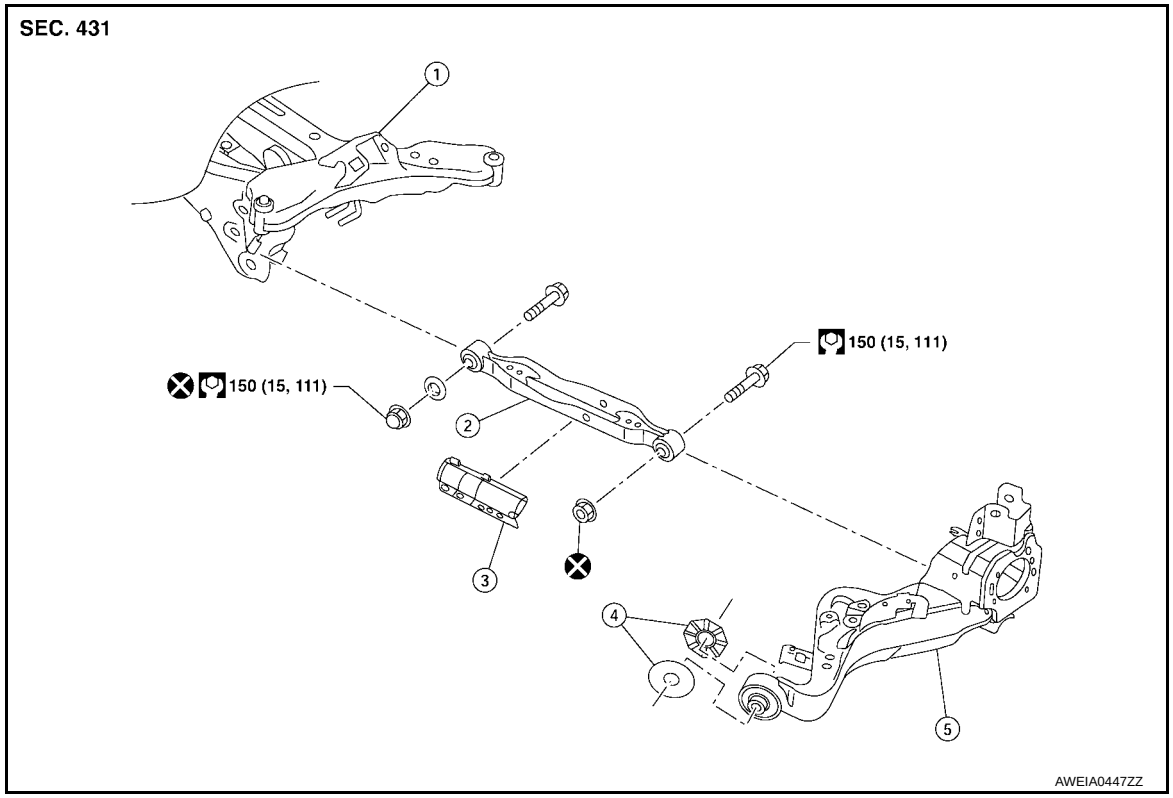
INSPECTION AFTER INSTALLATION

1. Adjust parking brake operation (stroke). Refer to PB-4, "Inspection and Adjustment".
2. Check wheel alignment. Refer to RSU-6, "Inspection".
3. Adjust the neutral position of the steering angle sensor. Refer to BRC-77, "Description".

LOWER LINK

Exploded View

INFOID:0000000014628155



1. Rear suspension member
2. Lower link
3. Lower link deflector
4. Arm bushing stopper (LH/RH)
5. Rear suspension arm

Removal and Installation

INFOID:0000000014628156

REMOVAL

1. Remove wheel and tire using power tool. Refer to WT-67, "Removal and Installation".
2. Remove rear stabilizer link. Refer to RSU-20, "Exploded View".
3. Set suitable jack under rear suspension arm to relieve the coil spring tension.
4. Remove lower link, nut, and bolt from rear suspension arm with power tool.
5. Remove lower link, nut, washer, and bolt from rear suspension member with power tool.
6. Remove lower link deflector (if necessary).

INSPECTION AFTER REMOVAL

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

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Do not reuse lower link nuts.

Perform final tightening of the nuts and bolts under unladen conditions with the tires on level ground.

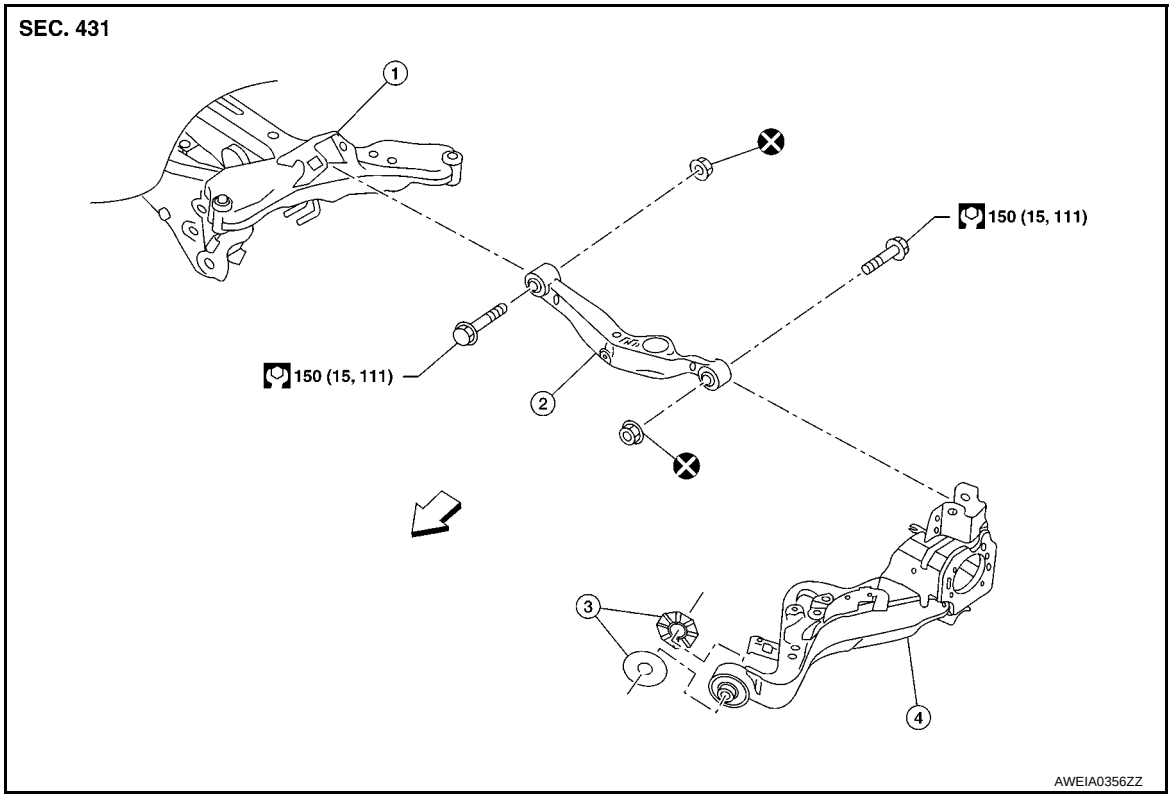
INSPECTION AFTER INSTALLATION

- Check wheel alignment. Refer to RSU-6, "Inspection".
- Adjust the neutral position of the steering angle sensor. Refer to BRC-77, "Description".

UPPER LINK

Exploded View

INFOID:0000000014628157



1. Rear suspension member
2. Upper link
3. Arm bushing stopper (LH/RH)
4. Rear suspension arm
⇦ Front

Removal and Installation

INFOID:0000000014628158

REMOVAL

1. Remove wheel and tire using power tool. Refer to WT-67, "Removal and Installation"
2. Remove rear wheel sensor and harness. Refer to BRC-201, "REAR WHEEL SENSOR : Exploded View".
   CAUTION:
   - **When removing upper link, first remove the rear wheel sensor from the rear wheel hub and bearing (FWD) or the rear axle housing (AWD). Failure to do so may result in damage to the rear wheel sensor making the rear wheel sensor inoperative.**
   - **Pull out the rear wheel sensor, being careful to turn it as little as possible. Do not pull on the rear wheel sensor harness.**
3. Set suitable jack under rear suspension arm to relieve the coil spring tension.
4. Remove upper link, nut, and bolt from suspension arm with power tool.
5. Remove upper link, nut, and bolt from suspension member with power tool.

INSPECTION AFTER REMOVAL

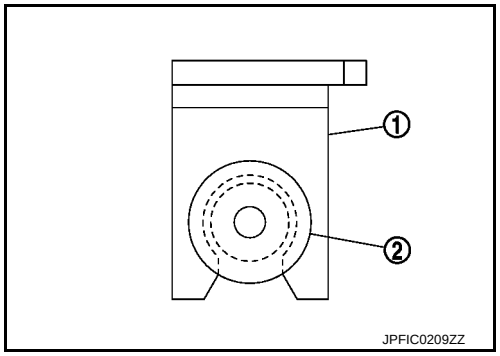
Check upper link and bushing for any deformation, cracks, or damage. Replace it if necessary.

INSTALLATION

Installation is in the reverse order of removal.
Perform the final tightening of the nuts and bolts under unladen conditions with the tires on level ground.
CAUTION:
- **Do not reuse the upper link nuts.**
- **Before installation, check if foreign objects such as iron fragments are adhered to the pick-up part of the rear wheel sensor or to the inside of the hole in the rear wheel hub and bearing (FWD) or the rear**

axle housing (AWD) for the rear wheel sensor, or if a foreign object is caught in the surface of the sensor rotor. Fix as necessary and then install the rear wheel sensor.

- **When installing, make sure there is no foreign material, such as iron chips on and in the hole in the rear wheel hub and bearing (FWD) or the rear axle housing (AWD) for the rear wheel sensor. Make sure no foreign material has been caught in the sensor rotor. Remove any foreign material and clean the mount.**
- **Do not twist the rear wheel sensor harness when installing the rear wheel sensor. Check that the grommet (2) is fully inserted to the bracket (1). Check that the rear wheel sensor harness is not twisted after installation.**



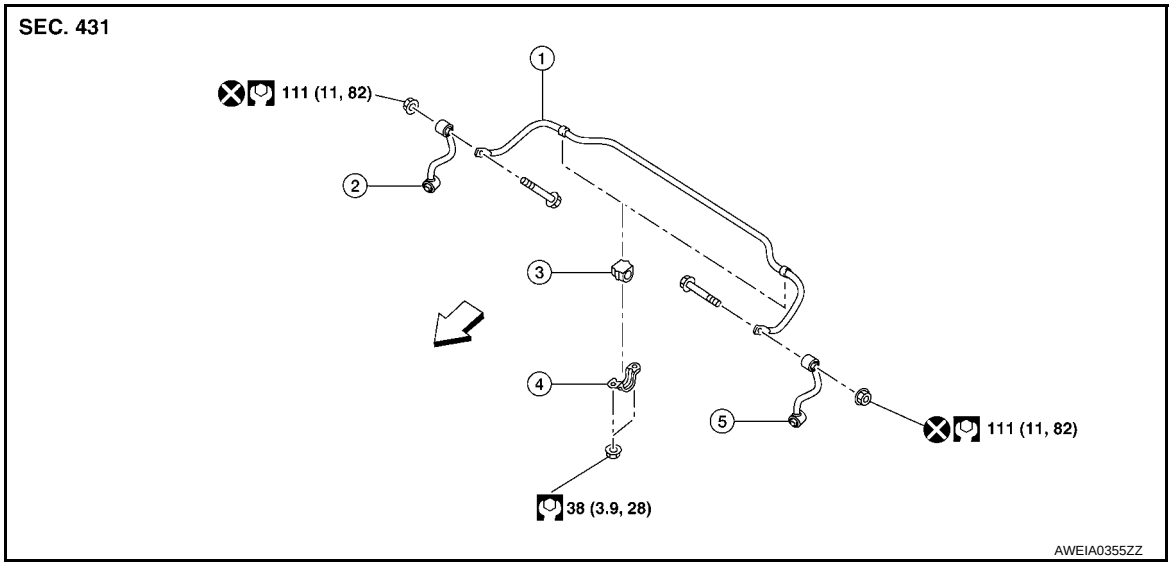
INSPECTION AFTER INSTALLATION

- Check wheel alignment. Refer to RSU-6, "Inspection".
- Adjust the neutral position of the steering angle sensor. Refer to BRC-77, "Description".

REAR STABILIZER

Exploded View

INFOID:0000000014628159



1. Rear stabilizer
2. Rear stabilizer link (RH)
3. Rear stabilizer bushing
4. Rear stabilizer clamp
5. Rear stabilizer link (LH)
⇦ Front

Removal and Installation

INFOID:0000000014628160

REMOVAL

1. Remove nuts and separate rear stabilizer links from rear stabilizer.
2. Remove nuts on rear stabilizer clamp.
3. Remove rear stabilizer from rear suspension member.
4. Remove rear stabilizer bushings from rear stabilizer (if necessary).

INSPECTION AFTER REMOVAL

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

INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

- **Do not reuse rear stabilizer link nuts.**
- **Verify that rear stabilizer links are installed on the correct side of vehicle and with proper orientation.**

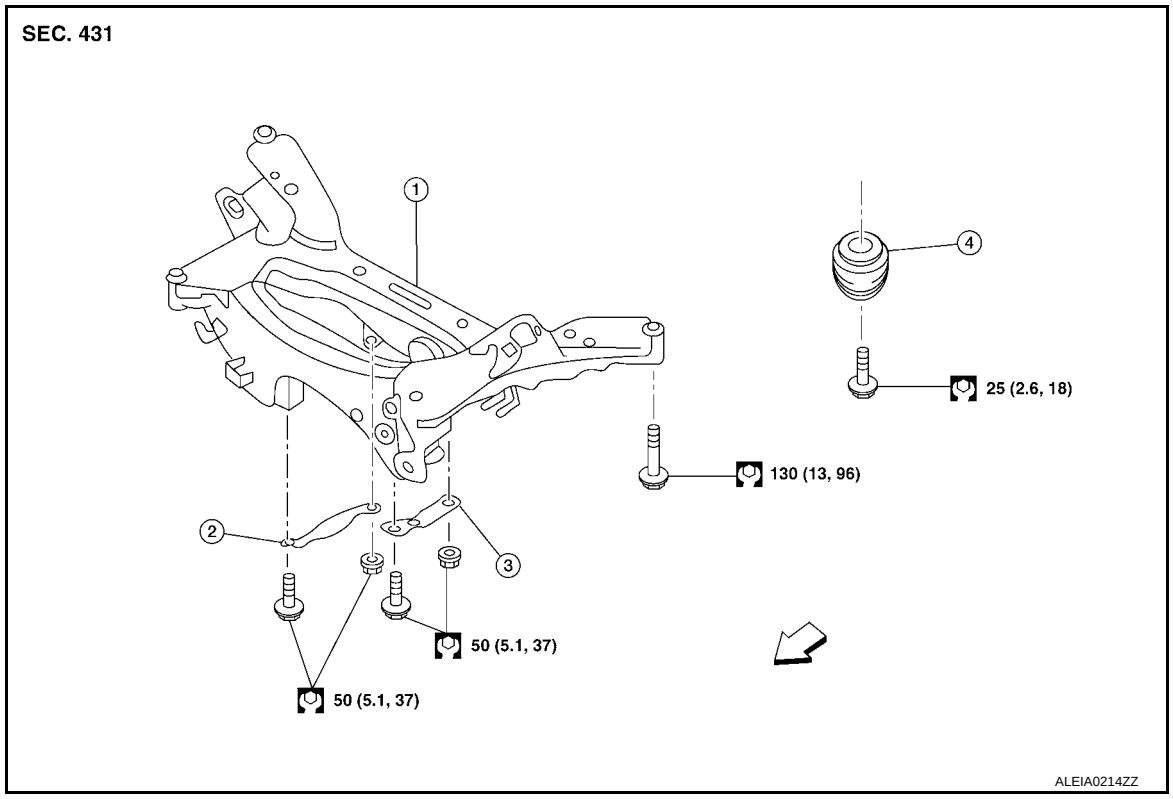
Perform the final tightening of the nuts and bolts under unladen conditions with the tires on level ground.

UNIT REMOVAL AND INSTALLATION

REAR SUSPENSION MEMBER

Exploded View

INFOID:0000000014628161



1. Rear suspension member
2. Suspension member stay (RH)
3. Suspension member stay (LH)
4. Bound bumper
⇦ Front

Removal and Installation - FWD

INFOID:0000000014628162

REMOVAL

1. Remove wheel and tires using power tool. Refer to WT-67, "Removal and Installation".
2. Remove muffler assembly. Refer to EX-7, "Exploded View".
3. Remove coil spring. Refer to RSU-8, "Removal and Installation - FWD".
4. Remove lower link. Refer to RSU-17, "Removal and Installation".
5. Remove upper link. Refer to RSU-18, "Removal and Installation".
6. Remove rear stabilizer.Refer to RSU-20, "Removal and Installation".
7. Remove rear shock absorber. Refer to RSU-14, "Removal and Installation".
8. Set suitable jack under rear suspension member.
9. Remove bolts from rear suspension member.
10. Slowly lower suitable jack and remove rear suspension member.
    CAUTION:
    Secure suspension assembly to a suitable jack while removing it.

INSPECTION AFTER REMOVAL

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

INSTALLATION

Installation is in the reverse order of the removal.

- When installing suspension member stay, face each arrow on the part toward the inside of the vehicle.
- Align the matching marks made during removal when reusing the disc brake rotor.
- Perform the final tightening of the nuts and bolts under unladen conditions with the tires on level ground.

INSPECTION AFTER INSTALLATION

1. Adjust parking brake operation. Refer to PB-4, "Inspection and Adjustment".
2. Check wheel alignment. Refer to RSU-6, "Inspection".
3. Adjust the neutral position of the steering angle sensor. Refer to BRC-77, "Description".
4. Check wheel sensor harness for proper connection. Refer to BRC-201, "REAR WHEEL SENSOR : Exploded View".

Removal and Installation - AWD

INFOID:0000000014628163

REMOVAL

1. Remove wheel and tires using power tool. Refer to WT-67, "Removal and Installation".
2. Remove coil spring. Refer to RSU-10, "Removal and Installation - AWD".
3. Remove lower link. Refer to RSU-17, "Removal and Installation".
4. Remove upper link. Refer to RSU-18, "Removal and Installation".
5. Remove rear stabilizer.Refer to RSU-20, "Removal and Installation".
6. Remove rear final drive. Refer to DLN-129, "Removal and Installation".
7. Remove rear shock absorber. Refer to RSU-14, "Removal and Installation".
8. Set suitable jack under rear suspension member.
9. Remove bolts from rear suspension member.
10. Slowly lower suitable jack and remove rear suspension member.
    CAUTION:
    Secure suspension assembly to a suitable jack while removing it.

INSPECTION AFTER REMOVAL

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

INSTALLATION

Installation is in the reverse order of the removal.

- When installing suspension member stay, face each arrow on the part toward the inside of the vehicle.
- Align the matching marks made during removal when reusing the disc brake rotor.
- Perform the final tightening of the nuts and bolts under unladen conditions with the tires on level ground.

INSPECTION AFTER INSTALLATION

1. Adjust parking brake operation. Refer to PB-4, "Inspection and Adjustment".
2. Check wheel alignment. Refer to RSU-6, "Inspection".
3. Adjust the neutral position of the steering angle sensor. Refer to BRC-77, "Description".
4. Check wheel sensor harness for proper connection. Refer to BRC-201, "REAR WHEEL SENSOR : Exploded View".
5. When rear differential gear oil leaks while removing, check oil level after the installation. Refer to DLN-121, "Inspection".

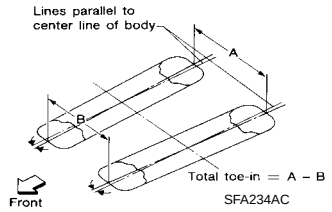
SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Wheel Alignment (Unladen*1)

INFOID:0000000014628164

Drive Type		FWD	AWD
Camber Degree minute (Decimal degree)	Minimum	–1°′49′ 12″ (–1.82°)	–1° 34′ 12″ (–1.57°)
	Nominal	–0° 55′ 12″ (–0.92°)	–0° 40′ 12″ (–0.67°)
	Maximum	–0° 01′ 12″ (–0.02°)	0° 13′ 48″ (0.23°)



Total toe-in	Distance (A - B)	Minimum	In 0.2 mm (In 0.008 in)	
		Nominal	In 4.2 mm (In 0.165 in)	
		Maximum	In 8.2 mm (In 0.323 in)	
	Angle (LH and RH)*2 Degree minute (Decimal degree)	Minimum	In 0° 07′ 12″ (In 0.12°)	In 0° 01′ 48″ (In 0.03°)
		Nominal	In 0° 25′ 12″ (In 0.42°)	In 0° 19′ 48″ (In 0.33°)
		Maximum	In 0° 43′ 12″ (In 0.72°)	In 0° 37′ 48″ (In 0.63°)

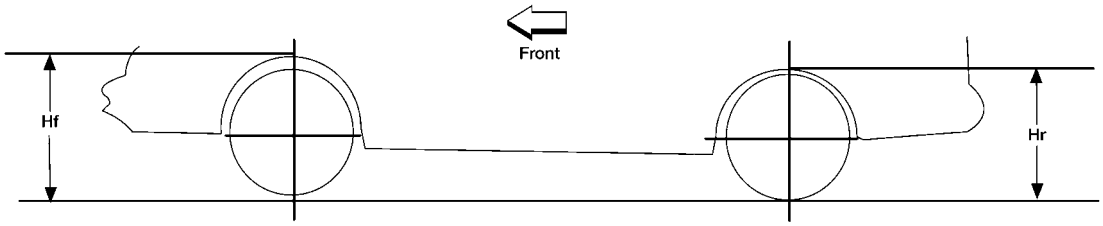
*1: Fuel, engine coolant, and lubricants are full. Spare tire, jack, hand tools, and mats are in designated positions.

*2: Since an adjustment mechanism is not included, the value of the left and right wheels must be used as the standard value.

Wheelarch Height (Unladen*)

INFOID:0000000014628165

Unit: mm (in)



LEIA0085E

Axle type	FWD		AWD	
Tire size	225/65R17	225/60R18	225/65R17	225/60R18
Front (Hf)	777 (30.59)	778 (30.63)	796 (31.34)	798 (31.42)
Rear (Hr)	772 (30.39)	774 (30.47)	792 (31.18)	793 (31.22)

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