SECTION RSU
REAR SUSPENSION

CONTENTS

SYMPTOM DIAGNOSIS

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:0000000007883400

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

Reference page			RSU-11, RSU-13, RSU-15, RSU-16, RSU-18, RSU-20, RSU-9	RSU-13	—	—	—	RSU-11, RSU-13, RSU-15, RSU-16, RSU-18, RSU-20, RSU-9	RSU-7, "Inspection and Adjustment"	RSU-7, "Inspection and Adjustment"	DLN-97, "NVH Troubleshooting Chart"	DLN-110, "NVH Troubleshooting Chart"	RAX-4, "NVH Troubleshooting Chart"	WT-50, "NVH Troubleshooting Chart"	WT-50, "NVH Troubleshooting Chart"	RAX-4, "NVH Troubleshooting Chart"	BR-3, "NVH Troubleshooting Chart"
Possible cause and SUSPECTED PARTS			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 (AWD)	DIFFERENTIAL (AWD)	REAR AXLE AND REAR SUSPENSION	TIRE	ROAD WHEEL	DRIVE SHAFT (AWD)	BRAKE
Symp-tom	REAR SUSPEN-SION	Noise	×	×	×	×	×	×			×	×	×	×	×	×	×
		Shake	×	×	×	×		×			×		×	×	×	×	×
		Vibration	×	×	×	×	×				×		×	×		×	
		Shimmy	×	×	×	×			×				×	×	×		×
		Shudder	×	×	×								×	×	×		×
		Poor quality ride or handling	×	×	×	×	×		×	×			×	×	×		

×: Applicable

PRECAUTION

PRECAUTIONS

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

INFOID:0000000008487427

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 dual stage front air bag modules. The SRS system may only deploy one front air bag, depending on the severity of a collision and whether the front passenger seat is occupied. 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, 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 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 Airbag Diagnosis Sensor Unit or other Airbag 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, and wait at least 3 minutes before performing any service.**

Precautions for Suspension

INFOID:0000000008233647

- 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 of oil/grease.
- When jacking up the vehicle with a floor jack, never hang the jack on the suspension beam.

Precaution Necessary for Steering Wheel Rotation After Battery Disconnect

INFOID:0000000008484758

NOTE:

- This Procedure is applied only to models with Intelligent Key system and NATS (NISSAN ANTI-THEFT SYSTEM).
- Remove and install all control units after disconnecting both battery cables with the ignition knob in the ″LOCK″ position.
- Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If DTC is detected, perform trouble diagnosis according to self-diagnostic results.

For models equipped with the Intelligent Key system and NATS, an electrically controlled steering lock mechanism is adopted on the key cylinder.

For this reason, if the battery is disconnected or if the battery is discharged, the steering wheel will lock and steering wheel rotation will become impossible.

If steering wheel rotation is required when battery power is interrupted, follow the procedure below before starting the repair operation.

OPERATION PROCEDURE

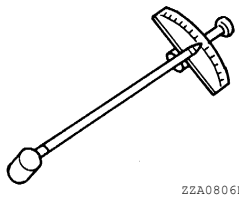
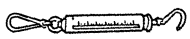
1. Connect both battery cables.
   NOTE:
   Supply power using jumper cables if battery is discharged.
2. Use the Intelligent Key or mechanical key to turn the ignition switch to the ″ACC″ position. At this time, the steering lock will be released.
3. Disconnect both battery cables. The steering lock will remain released and the steering wheel can be rotated.
4. Perform the necessary repair operation.
5. When the repair work is completed, return the ignition switch to the ″LOCK″ position before connecting the battery cables. (At this time, the steering lock mechanism will engage.)
6. Perform a self-diagnosis check of all control units using CONSULT.

PREPARATION

PREPARATION

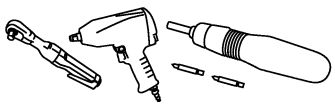
Special Service Tool

INFOID:0000000008197413

Tool number Tool name	Description
ST3127S000 (J-25765-A) Preload gauge  ZZA0806D	Measuring ball joint rotating torque
(—) (J-44372) Pull gauge  LST024	Measuring ball joint swinging force

Commercial Service Tool

INFOID:0000000008197414

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

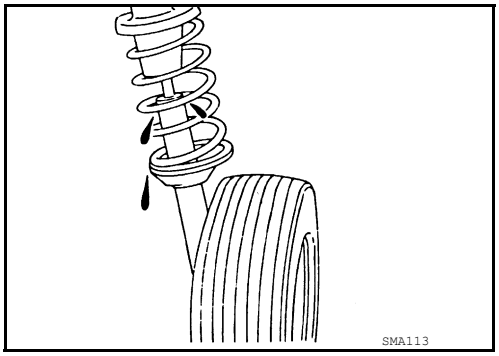
PERIODIC MAINTENANCE

REAR SUSPENSION ASSEMBLY

On-vehicle Service

INFOID:0000000008197415

- Check the suspension parts for excessive play, cracks, wear or damage. Shake each rear wheel to check for excessive play.
- Retighten all nuts and bolts to the specified torque.
- Make sure that each cotter pin is installed (if equipped).
- Check the shock absorber for oil leakage or other damage.
- Check the wheelarch height. Refer to RSU-23, "Wheelarch Height".
- Check the suspension ball joint for grease leakage and the ball joint dust cover for cracks or other damage.



Inspection

INFOID:0000000008197416

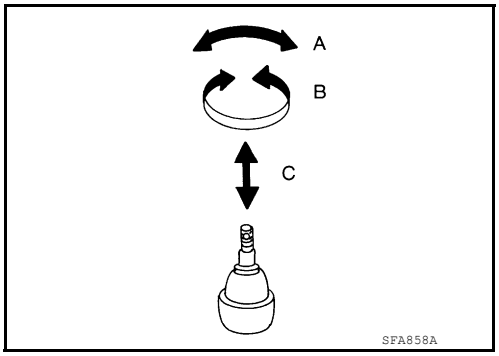
SHOCK ABSORBER ASSEMBLY

- Check for smooth operation through a full stroke for both compression and extension.
- Check for oil leakage on the welded or gland packing portions.
- Check the shock absorber piston rod for cracks, deformation or other damage and replace if necessary.

SUSPENSION ARM

- Check the suspension arm for damage, cracks, deformation and replace if necessary.
- Check the rubber bushings for damage, cracks and deformation. Replace suspension arm if necessary.
- Check the ball joint. Replace the suspension arm assembly if any of the following conditions exist:

- Ball stud is worn.
- Joint is hard to swing.
- Check if the swinging force (A), rotating torque (B), or vertical end play (C) is out of specification using Tools.



Tool number : ST3127S000 (J-25765-A)
: — (J-44372)

NOTE:
Before checking specifications, turn the ball joint at least 10 revolutions so the ball joint is properly broken in.

Swinging force (A) : Refer to RSU-23, "Ball Joint".
Rotating torque (B) : Refer to RSU-23, "Ball Joint".
Vertical end play (C) : Refer to RSU-23, "Ball Joint".

RADIUS ROD

- Check the radius rod for any deformation, cracks, or damage and replace if necessary.
- After installing the radius rod, check the wheel alignment and adjust if necessary. Refer to RSU-23, "Wheel Alignment".

FRONT LOWER LINK

- Check the front lower link for any deformation, cracks, or damage and replace if necessary.

UPPER AND LOWER RUBBER SEATS

- Check the upper and lower rubber seats for deterioration or cracks and replace if necessary.

REAR LOWER LINK AND COIL SPRING

- Check the rear lower link and coil spring for any deformation, cracks, or other damage and replace if necessary.

STABILIZER BAR

- Check the stabilizer bar and clamps for any deformation, cracks or damage and replace if necessary.
- Check the rubber bushings for deterioration or cracks and replace if necessary.

Inspection and Adjustment

INFOID:0000000008197417

WARNING:
If the vehicle is equipped with the ICC cruise control system and the rear toe has been adjusted during a wheel alignment, the millimeter wave sensor must be adjusted. Refer to CCS-90, "Millimeter Wave Sensor Adjustment".

Before checking the rear wheel alignment, make a preliminary inspection.

- Measure the wheel alignment under unladen conditions.
  NOTE:
  Unladen conditions mean that fuel, engine coolant, and lubricants are full and that the spare tire, jack, hand tools and mats are in their designated positions.

PRELIMINARY INSPECTION

- Check the tires for wear and for improper inflation.
- Check the wheels for deformation, cracks, and other damage. Remove the wheel and check the wheel runout. Refer to WT-52, "Adjustment".
- Check the rear wheel bearings for looseness.
- Check the rear suspension for looseness.
- Check that the rear shock absorbers work properly.
- Check the wheelarch height in the unladen condition. Refer to RSU-23, "Wheelarch Height".

GENERAL INFORMATION AND RECOMMENDATIONS

1. 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 machine itself should be capable of accepting any NISSAN/INFINITI vehicle.
   - The alignment machine should be checked to ensure that it is level.
2. Make sure the alignment machine is properly calibrated.
   - Your alignment machine should be regularly calibrated in order to give correct information.
   - Check with the manufacturer of your specific alignment machine for their recommended Service/Calibration Schedule.

THE ALIGNMENT PROCESS

IMPORTANT: Use only the alignment specifications listed in this Service Manual. Refer to RSU-23, "Wheelarch Height".

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.
2. 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 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.

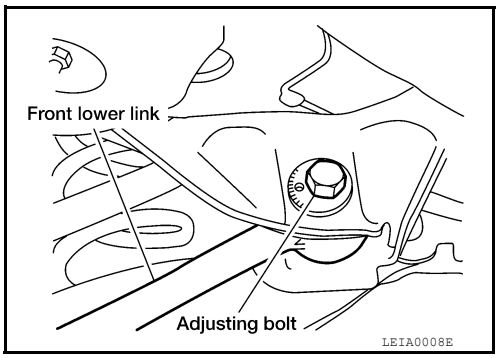
CAMBER

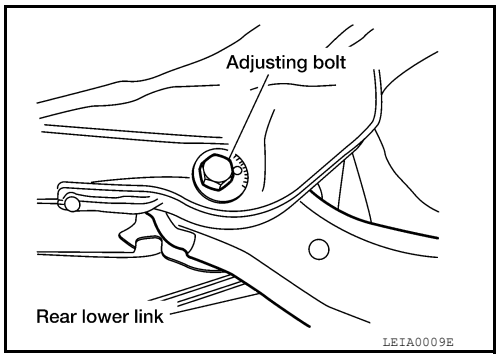
- Measure the camber of both the right and left wheels using a suitable alignment gauge and adjust using the following procedure.

Camber : Refer to RSU-23, "Wheel Alignment".

- If the camber is not within specification, adjust the camber by turning the adjusting bolts in the same direction.

1. Turn the adjusting bolts in the same direction to calibrate.
   NOTE:
   Camber changes about 0° 5’ (0.08°) with each graduation of the adjusting bolt.





2. Tighten the adjusting bolt nuts to the specified torque.

Adjusting bolt nuts : Refer to RSU-9, "Exploded View".

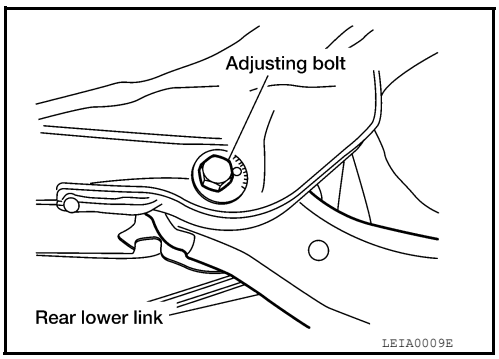
TOE-IN

- Measure the toe-in of the rear wheels. If out of specification, inspect and replace any damaged or worn rear suspension parts before adjusting.

Total toe-in : Refer to RSU-23, "Wheel Alignment".

- Adjust toe-in by turning adjusting bolt on rear lower link.
  NOTE:
  Toe changes about 1.5 mm (0.059 in) [one side] with each graduation of the adjusting bolt.
- After adjusting, tighten the adjusting bolt nut to the specified torque.

Adjusting bolt nut : Refer to RSU-9, "Exploded View".

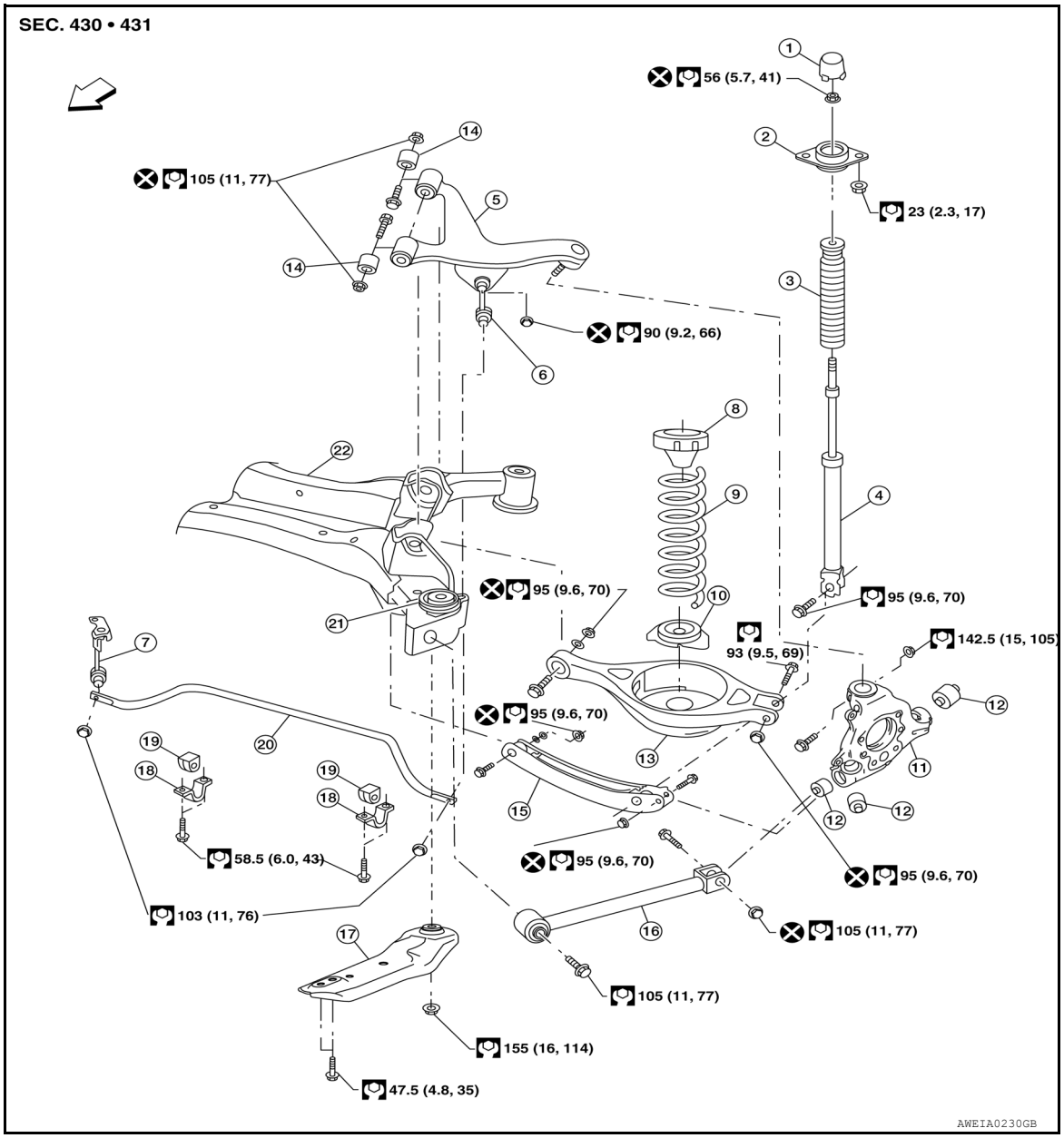


UNIT REMOVAL AND INSTALLATION

REAR SUSPENSION MEMBER

Exploded View

INFOID:0000000007883426



1. Cap
2. Shock absorber insulator
3. Bound bumper
4. Shock absorber
5. Upper suspension arm
6. LH connecting rod
7. RH Connecting rod
8. Upper rubber seat
9. Coil spring
10. Lower rubber seat
11. Knuckle
12. Knuckle bushing
13. Rear lower link
14. Suspension arm bushings
15. Front lower link
16. Radius rod
17. Front member stay (LH)
18. Stabilizer bar clamp
19. Stabilizer bar bushing
20. Stabilizer bar
21. Member stopper
22. Rear suspension member

⇦ Front

Removal and Installation

INFOID:0000000007883427

REMOVAL

1. Remove rear wheels and tires using power tool. Refer to WT-52, "Adjustment".
2. Remove brake caliper torque member bolts, leaving brake hose attached, reposition the caliper aside with wire. Refer to BR-40, "BRAKE CALIPER ASSEMBLY : Removal and Installation".
   CAUTION:
   Do not depress brake pedal while caliper assembly is removed.
3. Put alignment marks on disc rotor and rear wheel hub and bearing assembly, then remove disc brake rotor.
4. Remove wheel sensor and sensor harness. Refer to BRC-123, "Exploded View - Rear Wheel Sensor".
5. Remove tail pipe. Refer to EX-5, "Exploded View".
6. Remove stabilizer bar. Refer to RSU-18, "Exploded View".
7. Remove drive shaft (AWD models). Refer to DLN-99, "Removal and Installation".
8. Remove propeller shaft (AWD models). Refer to DLN-99, "Removal and Installation".
9. Remove harness from rear final drive and rear suspension member (AWD models).
10. Remove rear final drive (AWD models). Refer to DLN-117, "Exploded View".
11. Separate the parking brake cable from vehicle and rear suspension member. Refer to PB-7, "Exploded View".
    - Disconnect cables from the knuckles, rear suspension member and vehicle chassis.
12. Remove coil spring. Refer to RSU-11, "Exploded View".
13. Remove shock absorber lower bolts. Refer to RSU-13, "Exploded View".
14. Set suitable jack under rear suspension member.
    WARNING:
    - **Place the jack under the center of the suspension member.**
    - **Do not damage the suspension member with the jack.**
15. Remove the front member stay LH and front member stay RH from vehicle chassis.
16. Slowly lower jack, then remove rear suspension member, suspension arm, radius rod, front lower link and axle from vehicle as a unit.
17. Remove suspension arm. Refer to RSU-20, "Exploded View".
18. Remove radius rod. Refer to RSU-15, "Exploded View".
19. Remove front lower link. Refer to RSU-16, "Exploded View".

INSTALLATION

Installation is in the reverse order of the removal.

- Perform the final tightening of each of the parts under unladen conditions, which were removed when removing rear suspension assembly.
- Check wheel sensor harness for proper connection. Refer to BRC-123, "Exploded View - Rear Wheel Sensor".
- Never reuse cotter pin.
- Adjust parking brake operation (stroke). Refer to PB-4, "Inspection and Adjustment".
- Check wheel alignment. Refer to RSU-7, "Inspection and Adjustment".
- Adjust neutral position of steering angle sensor. Refer to BRC-59, "Work Procedure".

REMOVAL AND INSTALLATION

REAR LOWER LINK & COIL SPRING

Exploded View

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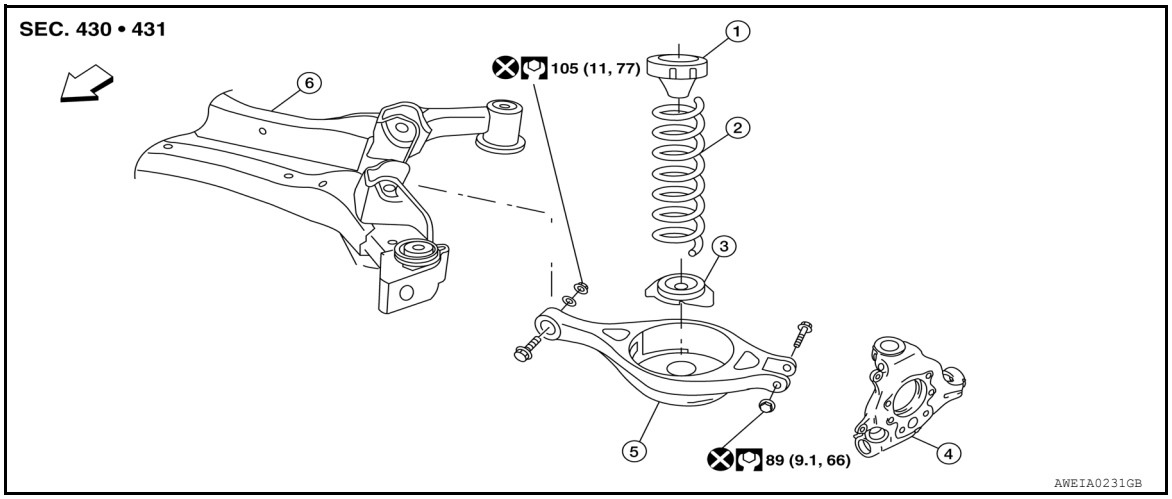


1. Upper seat
2. Coil spring
3. Rubber seat
4. Knuckle
5. Rear lower link
6. Rear suspension member

⇦ Front

.

Removal and Installation

INFOID:0000000007883407

REMOVAL

1. Remove rear wheel and tire using power tool. Refer to WT-52, "Adjustment".
2. Put alignment marks on adjusting nut and rear lower link.
3. Loosen the rear lower link adjusting bolt on the suspension member.
4. Support the rear lower link with a suitable jack.
5. Support the knuckle with a suitable jack.
6. Remove the rear lower link from the knuckle using power tool.
7. Slowly lower suitable jack supporting the rear lower link, then remove upper seat, coil spring and rubber seat from rear lower link.
8. Remove the rear lower link adjusting bolt on suspension member using power tool.
9. Remove rear lower link.

INSTALLATION

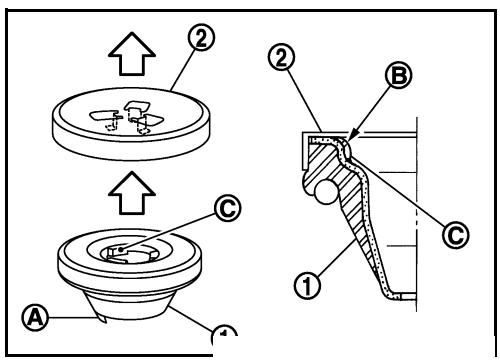
Installation is in the reverse order of removal.

- Make sure that upper seat is attached as shown in the figure.

CAUTION:

- **Keep upper seat (1) in place during coil spring installation. Protrusion (A) on upper seat faces outside of vehicle.**
- **Align tabs (C) to upper seat openings and securely fit on the bracket (2) to tabs (B).**

⇦ : Body

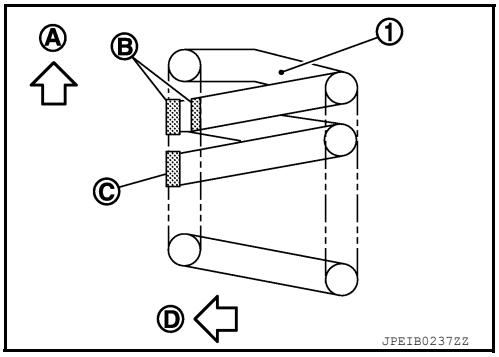


- Match up rubber seat indentions and rear lower link grooves and attach.

- When installing the coil spring (1), check coil spring is attached as shown.
  A: Vehicle upper side
  B: 2 paint marks
  C: 1 paint mark
  D: Vehicle inside

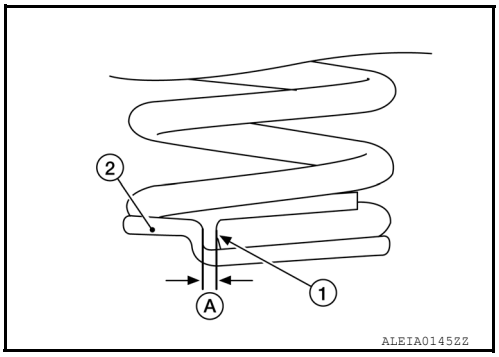
  CAUTION:

  Position the coil spring with paint marks aligned, spring should be 1 place from the bottom.



- Install coil spring by aligning lower end of the coil spring (1) to bump of lower spring seat (2).

  A : Maximum gap 5 mm (0.20 in)

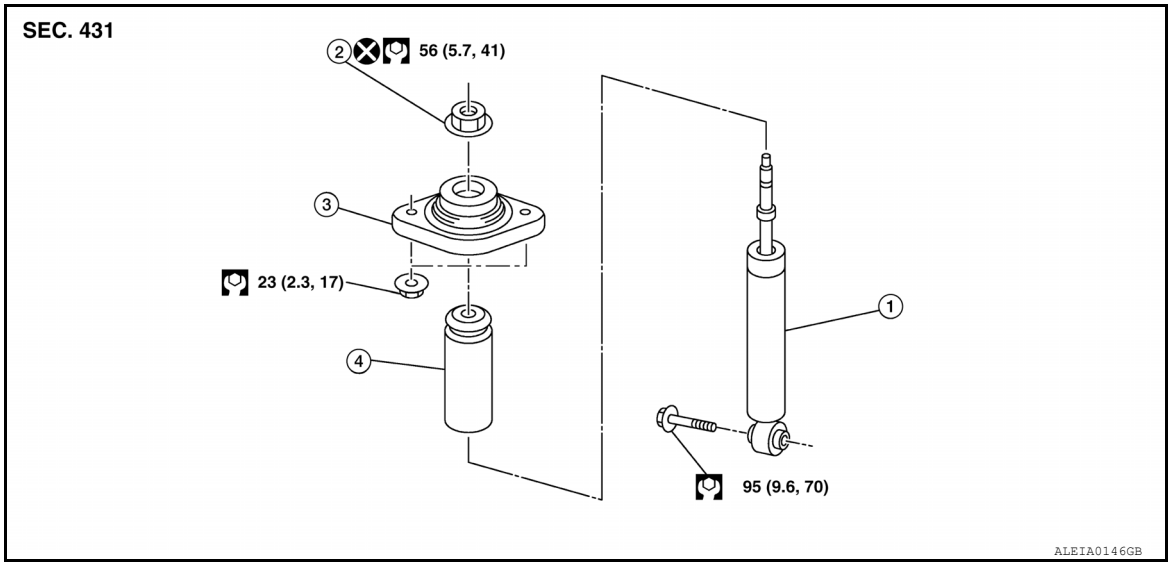


- Perform the final tightening of rear suspension member and axle installation position (rubber bushing) under unladen condition with tires on level ground.
- Check wheel alignment. Refer to RSU-7, "Inspection and Adjustment".
- Adjust neutral position of steering angle sensor. Refer to BRC-59, "Work Procedure".

REAR SHOCK ABSORBER

Exploded View

INFOID:0000000007883409



1. Rear shock absorber
2. Piston rod lock nut
3. Rear shock absorber bracket
4. Bound bumper

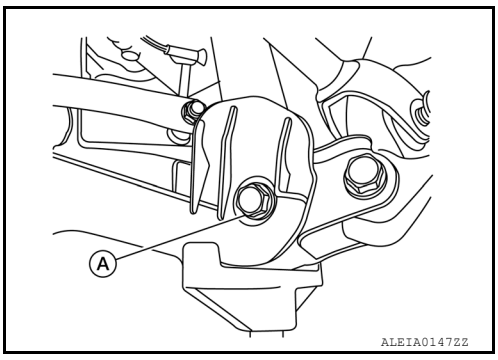
Removal and Installation

INFOID:0000000007883410

REMOVAL

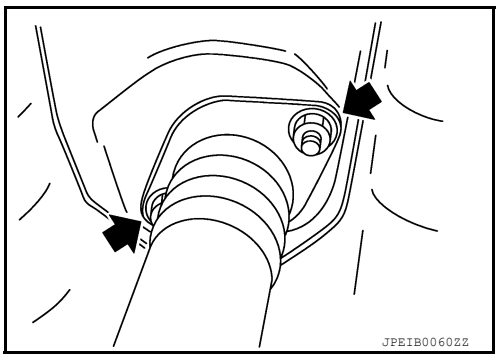
1. Remove rear wheel and tire using power tool. Refer to WT-52, "Adjustment".
2. Set suitable jack under rear lower link to relieve the coil spring tension.

   WARNING:
   - **Place the jack under the outer end of the rear lower link.**
   - **Do not damage the rear lower link with the jack.**
3. Remove lower rear shock absorber bolt (A) with power tool.



4. Gradually lower the jack to separate rear shock absorber from rear lower link.

5. Remove rear shock absorber nuts.



6. Remove rear shock absorber.

INSTALLATION

Installation is in the reverse order of removal.

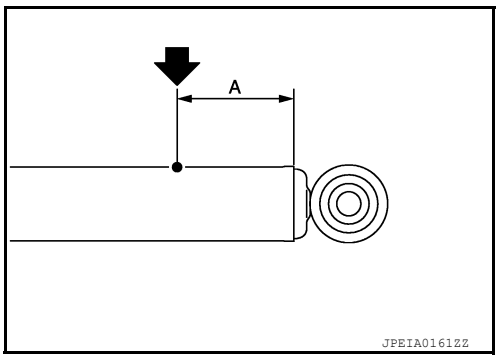
- Perform final tightening of bolts and nuts at the shock absorber lower side (rubber bushing), under unladen conditions with tires on level ground.

Disposal

INFOID:0000000007883413

1. Set shock absorber horizontally with the piston rod fully extended.
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.



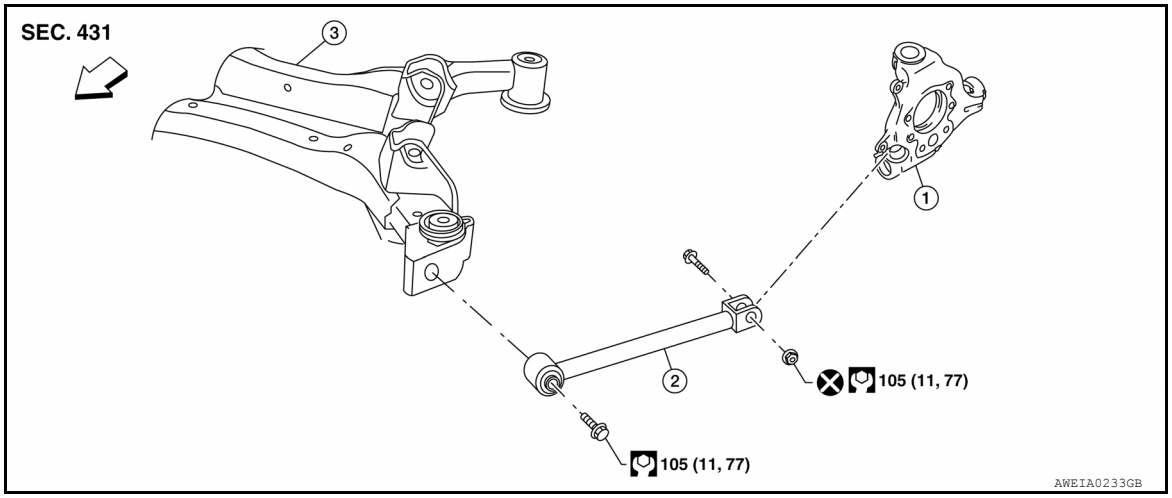
A : 20 – 30 mm (0.79 – 1.18 in)

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.

RADIUS ROD

Exploded View

INFOID:0000000007883414



1. Knuckle
2. Radius rod
3. Rear suspension member

⇦ Front

Removal and Installation

INFOID:0000000007883415

REMOVAL

1. Remove the rear wheel and tire using power tool. Refer to WT-52, "Adjustment".
2. Remove radius rod bolt and nut from the knuckle using power tool.
3. Remove radius rod bolt from the rear suspension member using power tool.
4. Remove the radius rod.

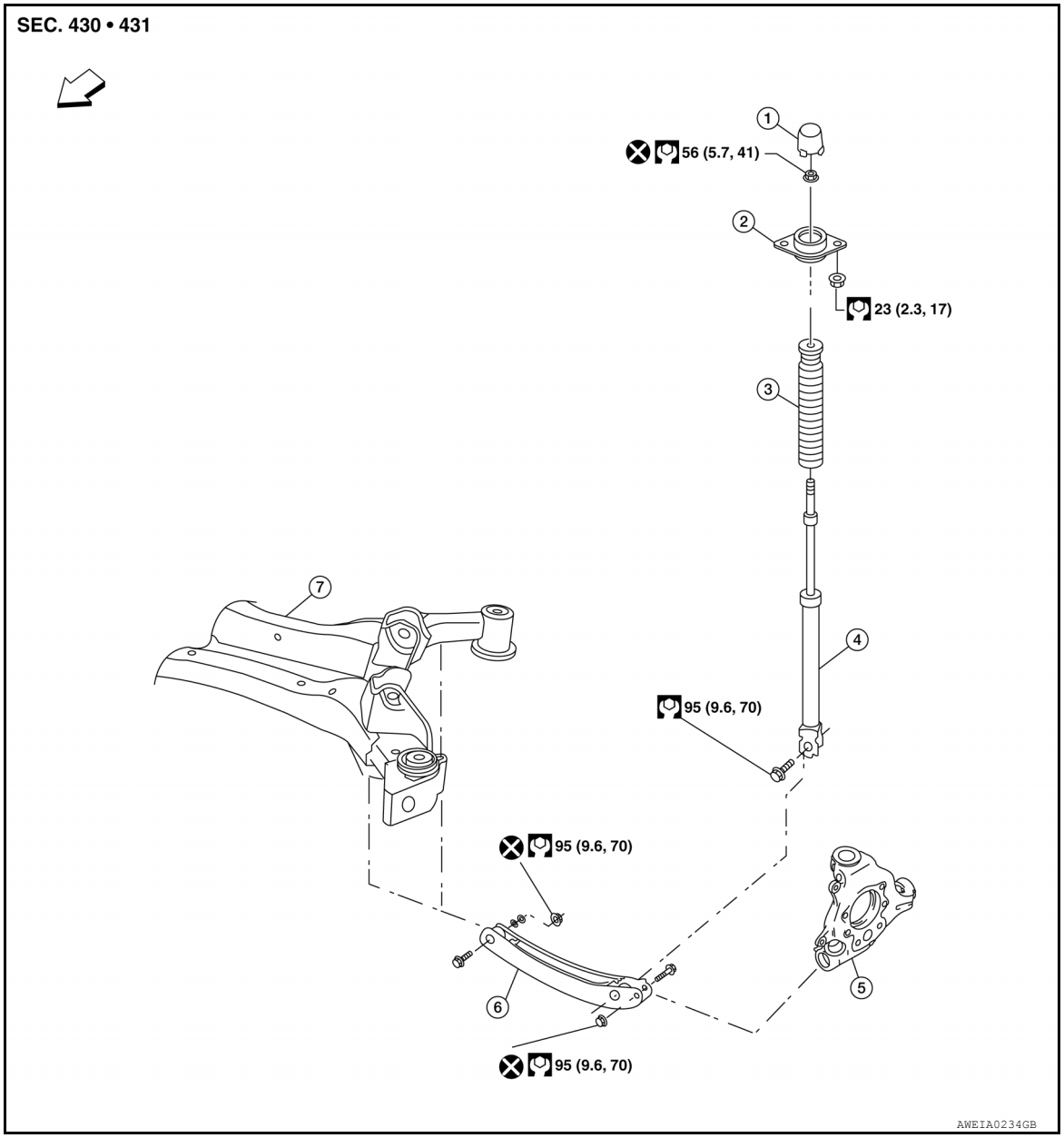
INSTALLATION

Installation is in the reverse order of removal.

FRONT LOWER LINK

Exploded View

INFOID:0000000007883417



1. Cap
2. Rear shock absorber bracket
3. Bound bumper
4. Rear shock absorber
5. Knuckle
6. Front lower link
7. Rear suspension member

⇦ Front

Removal and Installation

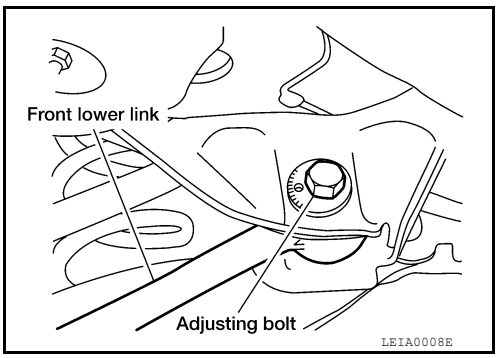
INFOID:0000000007883418

REMOVAL

1. Remove rear wheel and tire using power tool. Refer to WT-58, "Road Wheel".
2. Support rear lower link and knuckle by placing suitable jacks under both.

WARNING:
Place a jack under the outer end of the rear lower link and under the center of the knuckle.
CAUTION:
Do not damage the rear lower link or knuckle with the jacks.

3. Index mark the adjusting bolt to the rear suspension member.



4. Remove lower shock absorber bolt using power tool. Refer to RSU-9, "Exploded View".
5. Remove the coil spring. Refer to RSU-11, "Exploded View".
6. Remove front lower link bolt and nut from rear suspension member using power tool.
7. Remove front lower link bolts and nuts from knuckle using power tool.
8. Remove front lower link cover.
9. Remove front lower link.

INSTALLATION

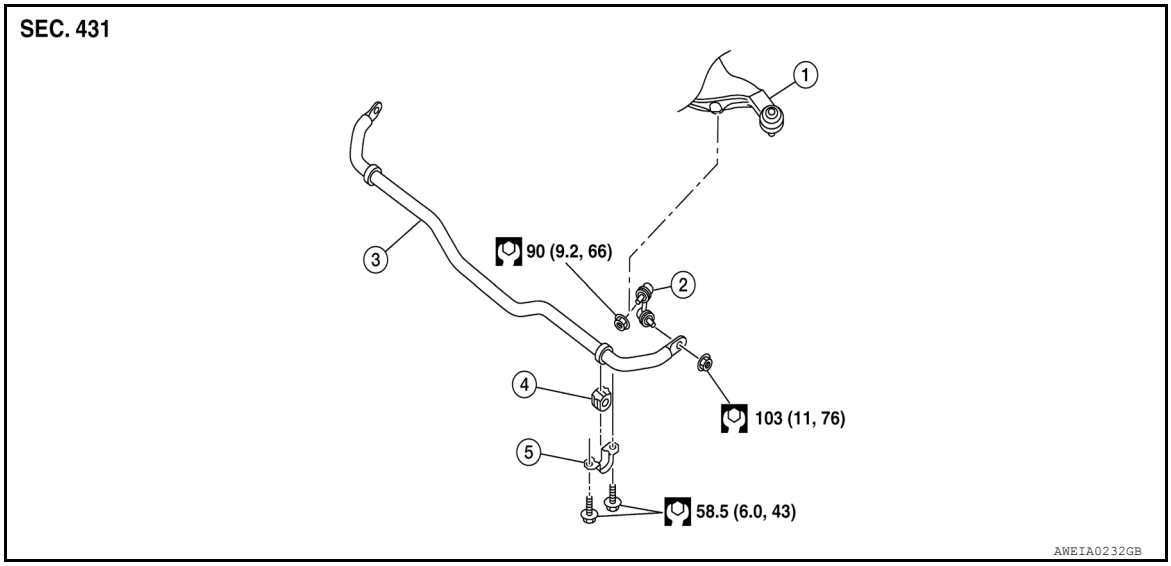
Installation is in the reverse order of removal.

- Perform final tightening of front lower link, under unladen conditions with tires on level ground.
- Check wheel alignment and adjust as necessary. Refer to RSU-7, "Inspection and Adjustment".
- Adjust neutral position of steering angle sensor. Refer to BRC-59, "Work Procedure".

REAR STABILIZER

Exploded View

INFOID:0000000007883420



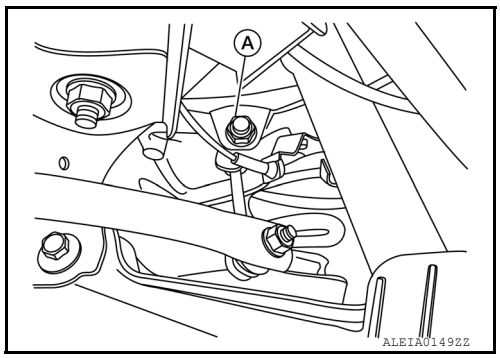
1. Suspension arm
2. Connecting rod
3. Stabilizer bar
4. Stabilizer bar bushing
5. Stabilizer bar clamp

Removal and Installation

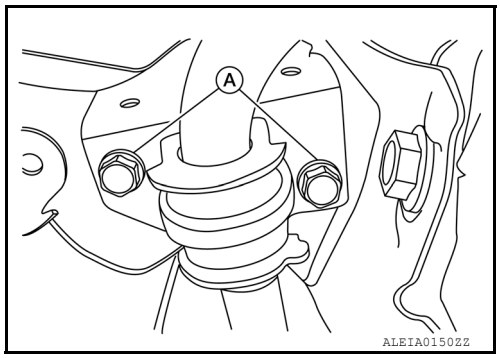
INFOID:0000000007883421

REMOVAL

1. Remove stabilizer connecting rod to suspension arm nuts (A).
   CAUTION:
   Apply a matching mark to identify the installation position.



2. Remove the 4 stabilizer clamp bolts using power tool (A).



3. Remove the stabilizer bar.
4. Remove stabilizer connecting rod from the stabilizer bar.

INSTALLATION

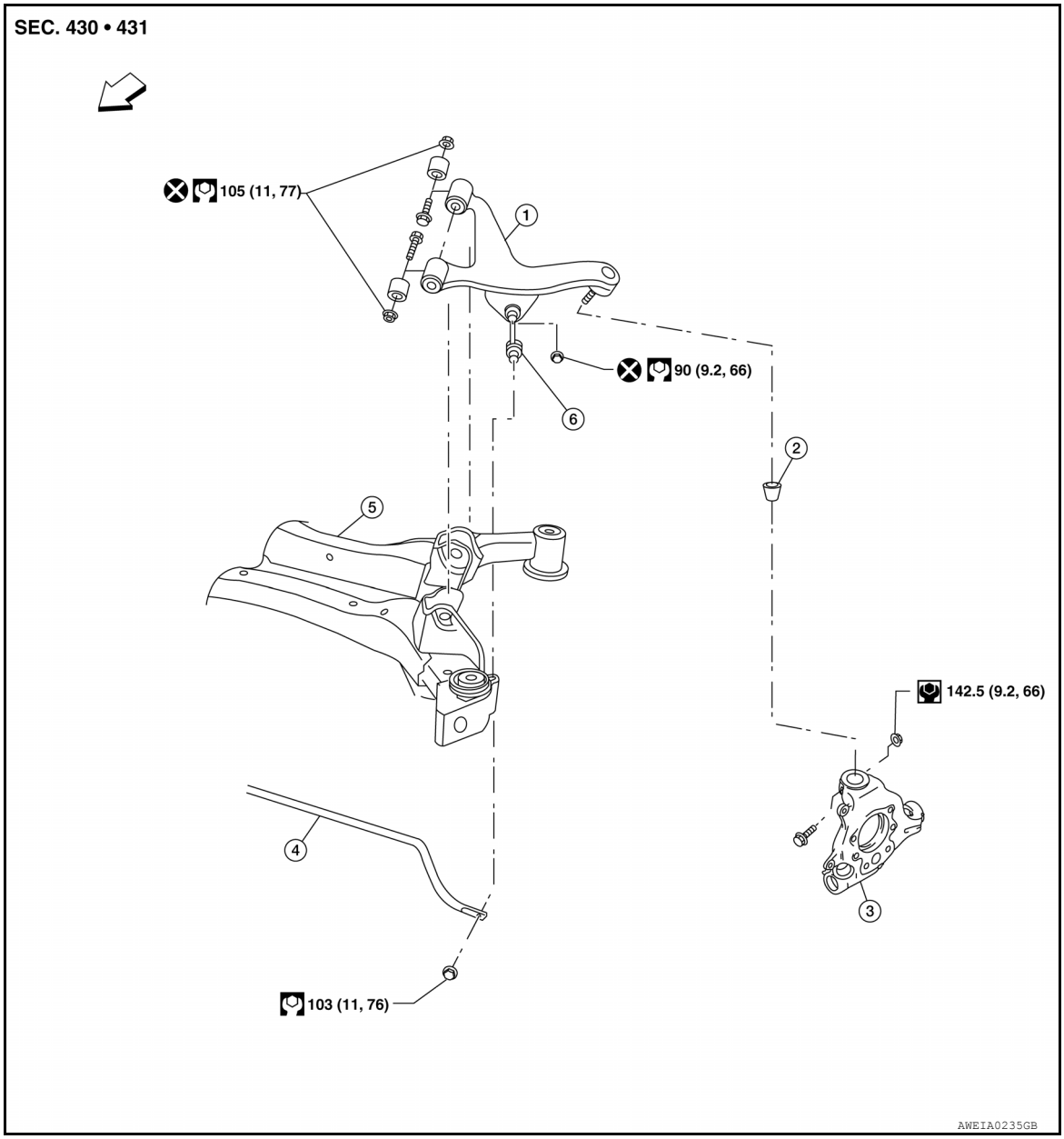
Installation is in the reverse order of removal.

- Align matching mark when installing.
- Tighten the mounting nut to the specified torque while holding a hexagonal part of stabilizer connecting rod side.

REAR SUSPENSION ARM

Exploded View

INFOID:0000000007883423



1. Rear suspension arm
2. Stopper rubber
3. Knuckle
4. Stabilizer bar
5. Rear suspension member
6. Connecting rod

⇦ Front

Removal and Installation

INFOID:0000000007883424

REMOVAL

1. Remove rear wheel and tire using power tool. Refer to WT-52, "Adjustment".
2. Remove brake caliper torque member bolts, leaving brake hose attached, reposition the caliper aside with wire. Refer to BR-36, "BRAKE CALIPER ASSEMBLY : Removal and Installation".
   CAUTION:
   Do not depress brake pedal while brake caliper is removed.
3. Put alignment marks on disc rotor and rear wheel hub and bearing assembly, then remove disc rotor

CAUTION:
- **Put alignment marks on the wheel hub and bearing assembly and the disc rotor before removing the disc rotor.**
- **Do not drop the disc rotor.**

4. Remove the coil spring. Refer to RSU-11, "Exploded View".
5. Remove stabilizer connecting rod from the rear suspension arm. Refer to RSU-18, "Exploded View".
6. Remove wheel sensor and sensor harness. Refer to BRC-123, "Exploded View - Rear Wheel Sensor".
7. Remove the wheel speed sensor harness from rear suspension arm.
8. Remove the stabilizer bar. Refer to RSU-18, "Exploded View".
9. Remove suspension arm bolt from knuckle using power tools. Separate suspension arm from the knuckle.
10. Remove the suspension arm bolts from the rear suspension member using power tools.
11. Remove suspension arm.

INSTALLATION

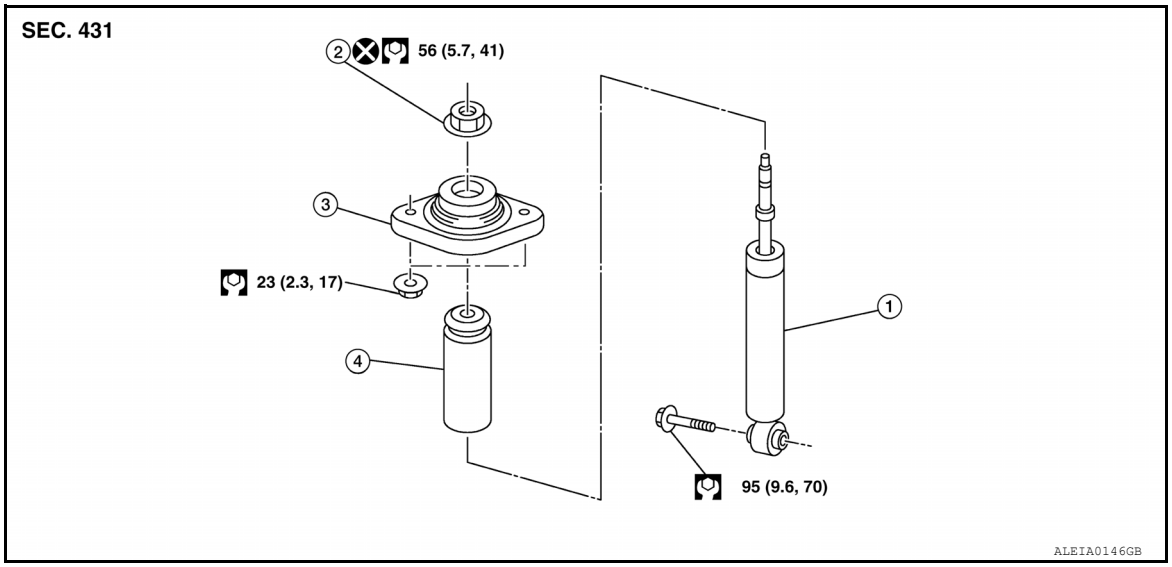
Installation is in the reverse order of removal.
- Perform final tightening of rear suspension arm, under unladen conditions with tires on level ground.
- Check wheel sensor harness for proper connection. Refer to BRC-123, "Exploded View - Rear Wheel Sensor".
- Check wheel alignment. Refer to RSU-7, "Inspection and Adjustment".
- Adjust neutral position of steering angle sensor. Refer to BRC-59, "Work Procedure".

UNIT DISASSEMBLY AND ASSEMBLY

REAR SHOCK ABSORBER

Disassembly and Assembly

INFOID:0000000008484757



1. Rear shock absorber
2. Piston rod lock nut
3. Rear shock absorber bracket
4. Bound bumper

DISASSEMBLY

CAUTION:

Never damage shock absorber piston rod when removing components from shock absorber.

1. Wrap a shop cloth around lower side of shock absorber and fix it with a vise.
   CAUTION:
   Never set the cylindrical part of shock absorber with a vise.
2. Secure the piston rod tip so that piston rod does not turn.
3. Remove piston rod lock nut.
4. Remove mounting bracket and bound bumper from shock absorber.

ASSEMBLY

Install in the reverse order of disassembly.

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

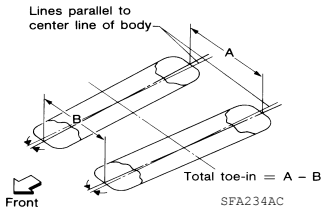
Wheel Alignment (Unladen*)

INFOID:0000000007883429

WARNING:
If the vehicle is equipped with the ICC cruise control system and the rear toe has been adjusted during a wheel alignment, the millimeter wave sensor must be adjusted. Refer to CCS-90, "Millimeter Wave-Sensor Adjustment".

UNITED STATES and CANADA

Item		Standard
Camber Degree minute (Decimal degree)	Minimum	–1° 05′ (–1.08°)
	Nominal	–0° 35′ (–0.58°)
	Maximum	–0° 05′ (–0.08°)



Total toe-in	Distance (A - B)	Minimum	Out 0.8 mm (Out 0.031 in)
		Nominal	In 2.2 mm (In 0.087 in)
		Maximum	In 5.2 mm (In 0.205 in)
	Angle (LH and RH) Degree minute (Decimal degree)	Minimum	Out 0° 2′ 24″ (Out 0.04°)
		Nominal	In 0° 9′ 36″ (In 0.16°)
		Maximum	In 0° 21′ 36″ (In 0.36°)

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

Ball Joint

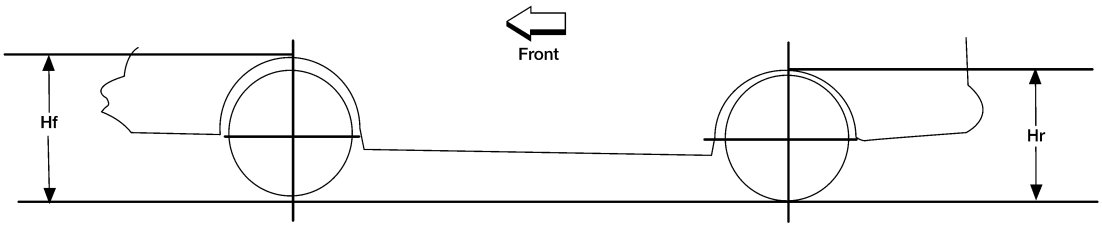
INFOID:0000000007883430

Item	Standard
Swinging force (cotter pinhole position)	0.5 – 3.4 N·m (0.06 – 0.34 kg-m, 5 – 30 in-lb)
Rotating torque	8.1 – 54.8 N (0.83 – 5.6 kg, 1.82 – 12.32 lb)
Vertical end play	0 mm (0 in)

Wheelarch Height

INFOID:0000000007883431

UNITED STATES

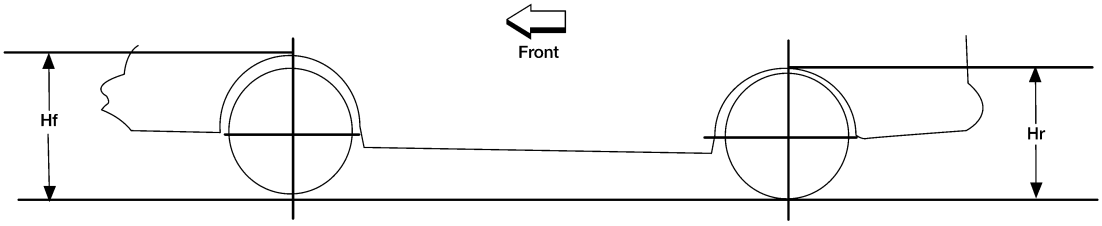


LEIA0085E

Item	Standard				
Axle	2WD			AWD	
Tire size	235/65R18		235/55R20	235/65R18	235/55R20
Grade	Base	Premium		Base and Premium	Premium
Front (Hf)	823 mm (32.40 in)	822 mm (32.36 in)	821 mm (32.32 in)	822 mm (32.36 in)	821mm (32.32 in)
Rear (Hr)	828 mm (32.60 in)	827 mm (32.56 in)	826 mm (32.52 in)	827 mm (32.56 in)	826 mm (32.52 in)

Measure value under unladen conditions. (Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions).

CANADA



LEIA0085E

Item	Standard		
Axle	AWD		
Tire size	235/65R18		235/55R20
Grade	Base	Premium	Premium
Front (Hf)	823 mm (32.40 in)	822 mm (32.36 in)	821 mm (32.32 in)
Rear (Hr)	828 mm (32.60 in)	827 mm (32.56 in)	826 mm (32.52 in)

Measure value under unladen conditions. (Fuel, engine coolant and lubricant are full. Spare tire, jack, hand tools and mats are in designated positions).