

### RSU

D

# **CONTENTS**

SYMPTOM DIAGNOSIS2	Disposal12 F
NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING	SUSPENSION ARM       13         Exploded View       13         Removal and Installation       14         Inspection       14
PRECAUTION3	RADIUS ROD16
PRECAUTIONS	Exploded View
PREPARATION4	
PREPARATION         4           Special Service Tool         4           Commercial Service Tool         4	FRONT LOWER LINK       18         Exploded View       18         Removal and Installation       19         Inspection       19
PERIODIC MAINTENANCE5	REAR STABILIZER20
REAR SUSPENSION ASSEMBLY5 Inspection5	Exploded View
WHEEL ALIGNMENT         6           Inspection         6           Adjustment         6	UNIT REMOVAL AND INSTALLATION22  REAR SUSPENSION MEMBER22
REMOVAL AND INSTALLATION8	Exploded View22  Removal and Installation23
REAR LOWER LINK & COIL SPRING	Inspection
REAR SHOCK ABSORBER	SERVICE DATA AND SPECIFICATIONS         25           (SDS)         25           Wheel Alignment         25           Ball Joint         25           Wheelarch Height         25

### NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SYMPTOM DIAGNOSIS >

# SYMPTOM DIAGNOSIS

# NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

### **NVH Troubleshooting Chart**

INFOID:0000000008295051

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

Reference				<u>RSU-11</u>	1	T	RSU-9	RSU-8, RSU-10, RSU-13, RSU-16, RSU-18, RSU-20	RSU-6	<u>RSU-21</u>	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.
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	DIFFERENTIAL	REAR AXLE AND REAR SUSPENSION	TIRE	ROAD WHEEL	DRIVE SHAFT	BRAKE	STEERING
		Noise	×	×	×	×	×	×			×	×	×	×	×	×	×	×
Shake Vibration		×	×	×	×		×			×		×	×	×	×	×	×	
		×	×	×	×	×				×		×	×		×		×	
Symptom	REAR SUSPENSION	Shimmy	×	×	×	×			×				×	×	×		×	×
		Judder	×	×	×								×	×	×		×	×
Poor quality ride or handling		×	×	×	×	×		×	×			×	×	×				

<sup>×:</sup> Applicable

### **PRECAUTIONS**

### < PRECAUTION >

# **PRECAUTION**

### **PRECAUTIONS**

### **Precautions for Suspension**

- 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.

RSU

Α

В

INFOID:0000000008295052

F

G

Н

1

K

L

M

Ν

0

### **PREPARATION**

### < PREPARATION >

# **PREPARATION**

### **PREPARATION**

## Special Service Tool

INFOID:0000000008295053

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

Tool number (Kent-Moore No.) Tool name	Description
ST3127S000 (J-25765-A) Preload gauge	Measuring rotating torque of ball joint

### **Commercial Service Tool**

INFOID:0000000008295054

Tool name		Description
Power tool		Loosening bolts and nuts
	PBIC0190E	

### REAR SUSPENSION ASSEMBLY

### < PERIODIC MAINTENANCE >

## PERIODIC MAINTENANCE

### REAR SUSPENSION ASSEMBLY

Inspection

### COMPONENT PART

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

### Ball Joint Axial End Play

Move axle side of suspension arm in the axial direction by hand. Check there is no end play.

### **Standard**

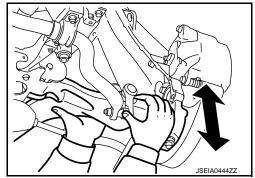
Axial end play : Refer to RSU-25, "Ball Joint".

### **CAUTION:**

- · Never depress brake pedal when measuring.
- Never perform with tires on level ground.
- Be careful not to damage ball joint boot. Never damage the installation position by applying excessive force.

### SHOCK ABSORBER

Check for oil leakage, damage and replace if malfunction is detected.



RSU

D

Α

В

F

G

Н

K

L

M

Ν

0

### WHEEL ALIGNMENT

Inspection INFOID:000000008295056

### 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-49, "Tire Air Pressure".
- · Road wheels for runout.
- Wheel bearing axial end play. Refer to <u>RAX-5, "Inspection"</u>.
- Ball joint axial end play of suspension arm. Refer to RSU-5, "Inspection".
- Shock absorber operation.
- Each mounting point of axle and suspension for looseness and deformation.
- Each of front lower link, rear lower link, radius rod, rear suspension member, suspension arm and shock absorber for cracks, deformation, and other damage.
- Vehicle height (posture).

### GENENRAL 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

### **CAMBER**

### WHEEL ALIGNMENT

### < PERIODIC MAINTENANCE >

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

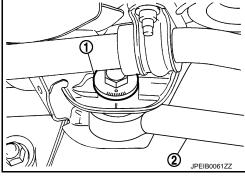
### **Standard**

Camber: Refer to FSU-45, "Wheel Alignment".

#### **CAUTION:**

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

- If camber is not still within the specification, inspect and replace any damaged or worn suspension parts.



### TOE-IN

• If toe-in is not within the specification, adjust with adjusting bolt (1) in rear lower link (2).

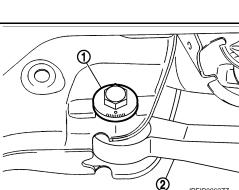
### **Standard**

Toe-In: Refer to FSU-45, "Wheel Alignment".

### **CAUTION:**

Be sure to adjust equally on RH and LH side with adjusting bolt.

- 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-9. "ADJUSTMENT OF STEERING ANGLE SENSOR NEUTRAL POSITION: Special Repair Requirement".



RSU

D

Α

В

F

G

Н

J

Κ

L

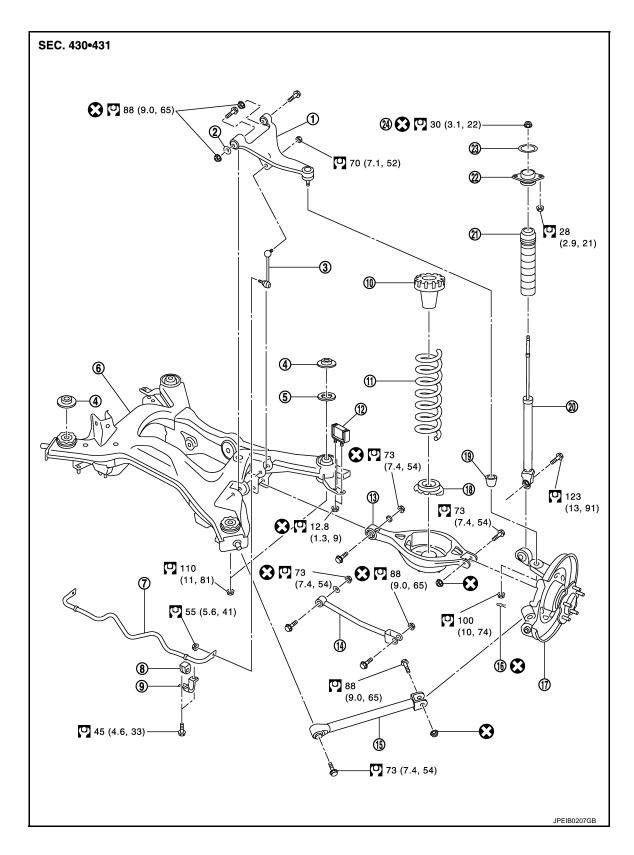
M

Ν

C

## REMOVAL AND INSTALLATION

### **REAR LOWER LINK & COIL SPRING**



### **REAR LOWER LINK & COIL SPRING**

### < REMOVAL AND INSTALLATION >

1.	Suspension arm	2.	Stopper rubber	3.	Stabilizer connecting rod	Α
4.	Upper stopper (AWD model)	5.	Mount stopper	6.	Suspension member	
7.	Stabilizer bar	8.	Stabilizer bushing	9.	Stabilizer clamp	
10.	Upper seat	11.	Coil spring	12.	Damper assembly (AWD model)	В
13.	Rear lower link	14.	Front lower link	15.	Radius rod	
16.	Cotter pin	17.	Axle assembly	18.	Rubber seat	
19.	Ball seat	20.	Shock absorber	21.	Bound bumper cover	С
22.	Shock absorber mounting bracket	23.	Mounting seal	24.	Piston rod lock nut	
Refe	er to GI-4, "Components" for symbols	in the	figure.			
						D

### Removal and Installation

INFOID:0000000008295059

### **REMOVAL**

- 1. Remove tires with power tool.
- Set suitable jack under rear lower link to relieve the coil spring tension.
- 3. Loosen rear lower link mounting bolts and nuts (rear suspension member side), and then remove rear lower link mounting bolts and nuts (axle housing side) with power tool.
- 4. Slowly lower jack, then remove upper seat, coil spring and rubber sheet from rear lower link.
- 5. Remove rear lower link mounting bolts and nuts (rear suspension member side) to remove rear lower link with power tool.

### INSTALLATION

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

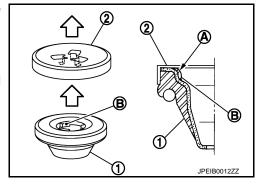
Make sure that upper seat is attached as shown in the figure.

#### **CAUTION:**

Make sure that the projecting parts (A) on upper seat (1) inside is securely fitted on the bracket (2) tabs (B).

Body

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

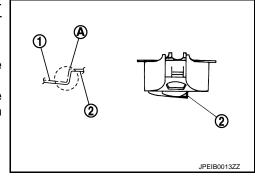


Install the coil spring by aligning the lower end of the large diameter side to the step (A) between the rubber seat (1) and the rear lower link (2).

#### **CAUTION:**

Make sure spring is not up side down. The top and bottom are indicated by paint color.

 Perform the final tightening of rear suspension member and axle installation position (rubber bushing) under unladen condition with tires on level ground.



Inspection

INFOID:0000000008295060

### INSPECTION AFTER REMOVAL

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

### INSPECTION AFTER INSTALLATION

Check wheel alignment. Refer to RSU-6, "Inspection".

Revision: 2012 August RSU-9 2013 G Sedan

RSU

.

Н

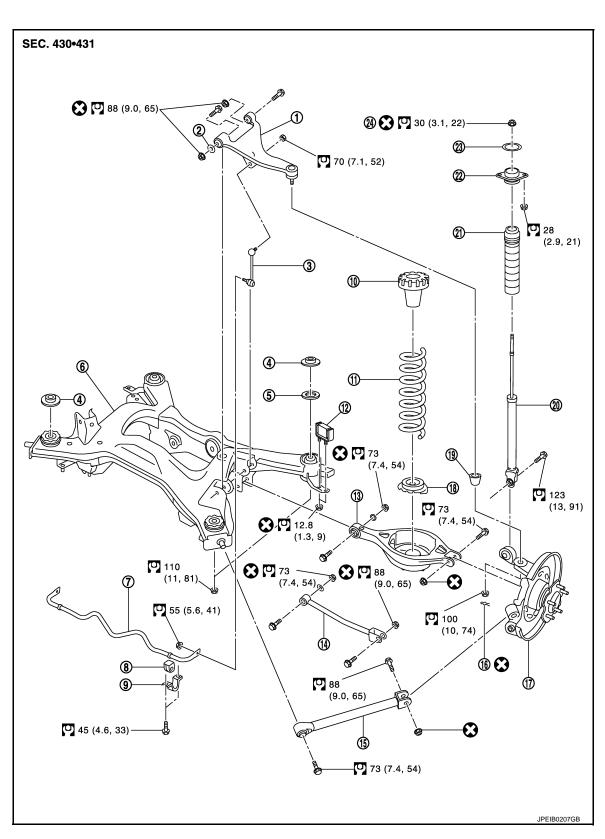
K

M

N

0

### **REAR SHOCK ABSORBER**



- 1. Suspension arm
- 4. Upper stopper (AWD model)
- 7. Stabilizer bar

- 2. Stopper rubber
- 5. Mount stopper
- 8. Stabilizer bushing
- 3. Stabilizer connecting rod
- 6. Suspension member
- 9. Stabilizer clamp

### REAR SHOCK ABSORBER

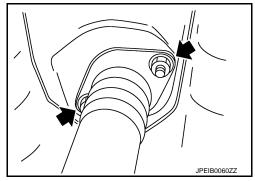
### < REMOVAL AND INSTALLATION >

		-				
10.	Upper seat	11.	Coil spring	12.	Damper assembly (AWD model)	
13.	Rear lower link	14.	Front lower link	15.	Radius rod	Α
16.	Cotter pin	17.	Axle assembly	18.	Rubber seat	
19.	Ball seat	20.	Shock absorber	21.	Bound bumper cover	
22.	Shock absorber mounting bracket	23.	Mounting seal	24.	Piston rod lock nut	В
Ref	er to GI-4, "Components" for symbols i	n the	figure.			

### Removal and Installation

**REMOVAL** 

- 1. Remove tires with power tool.
- Set suitable jack under axle assembly to relieve the coil spring tension.
- Remove shock absorber (lower side).
- 4. Gradually lower the jack to remove it from rear lower link.
- Remove shock absorber assembly mounting nuts (upper side) ( with power tool, and then remove shock absorber assembly.



### INSTALLATION

Note the following, and install 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.

### Disassembly and Assembly

### 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.

- Secure the piston rod tip so that piston rod does not turn, and remove piston rod lock nut.
- Remove mounting seal, mounting bracket and bound bumper cover from shock absorber.

### **ASSEMBLY**

Install in the reverse order of removal.

Inspection INFOID:0000000008295064

### INSPECTION AFTER REMOVAL

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

- Check shock absorber assembly for deformation, cracks, damage.
- Check welded and sealed areas for oil leakage.

### INSPECTION AFTER DISASSEMBLY

**Bound Bumper and Bushing** 

Check bound bumper cover and bushing for cracks and damage. Replace if necessary.

Shock Absorber

Check the following, and replace the part if necessary.

RSU

D

Н

INFOID:0000000008295063

INFOID:0000000008295062

N

### REAR SHOCK ABSORBER

### < REMOVAL AND INSTALLATION >

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

#### INSPECTION AFTER ASSEMBLY

Make sure piston rod on shock absorber is not damaged when attaching components to shock absorber.

### INSPECTION AFTER INSTALLATION

Check wheel alignment. Refer to RSU-6, "Inspection".

Disposal INFOID.000000008295065

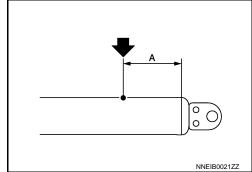
- 1. Set shock absorber horizontally with the piston rod fully extended.
- 2. Drill 2-3 mm (0.08-0.12 in) hole at the position ( ) from top as shown in the figure to release gas gradually.

### **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.



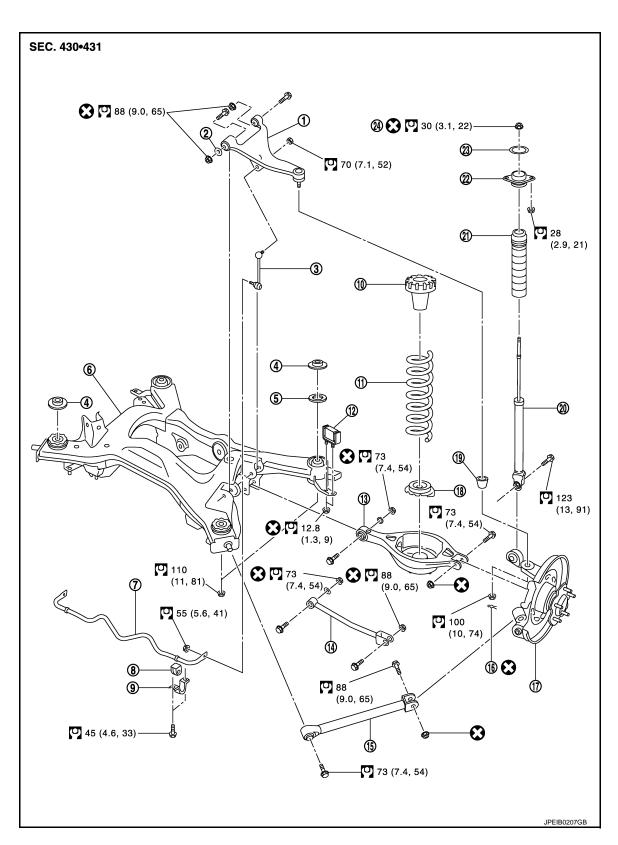
### A : 20 - 30 mm (0.79 - 1.18 in)

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.

### **SUSPENSION ARM**

Exploded View



- 1. Suspension arm
- 4. Upper stopper (AWD model)
- 7. Stabilizer bar

- 2. Stopper rubber
- 5. Mount stopper
- 8. Stabilizer bushing
- 3. Stabilizer connecting rod
- 6. Suspension member
- Stabilizer clamp

D

C

Α

В

RSU

F

0

Н

I

K

L

M

Ν

0

Р

Revision: 2012 August RSU-13 2013 G Sedan

### SUSPENSION ARM

### < REMOVAL AND INSTALLATION >

10.	Upper seat	11.	Coil spring	12.	Damper assembly (AWD model)
13.	Rear lower link	14.	Front lower link	15.	Radius rod
16.	Cotter pin	17.	Axle assembly	18.	Rubber seat
19.	Ball seat	20.	Shock absorber	21.	Bound bumper cover
22.	Shock absorber mounting bracket	23.	Mounting seal	24.	Piston rod lock nut
Refe	er to <u>GI-4, "Components"</u> for symbols in	n the	figure.		

### Removal and Installation

INFOID:0000000008295067

### **REMOVAL**

- Remove tire with power tool.
- Remove caliper assembly. Hang caliper assembly in a place where it will not interfere with work. Refer to BR-57. "BRAKE CALIPER ASSEMBLY (1 PISTON TYPE): Exploded View" (1 piston type), BR-61, "BRAKE CALIPER ASSEMBLY (2 PISTON TYPE): Exploded View" (2 piston type).
- Set suitable jack under axle assembly to relieve the coil spring tension.
- 4. Remove connecting rod mounting bracket from suspension arm with power tool.
- Remove drive shaft. Refer to <u>RAX-10, "Exploded View"</u>.
- 6. Remove cotter pin of suspension arm ball joint, and loosen nut.
- 7. Remove suspension mounting bolts and nuts (rear suspension member side).
- Use the ball joint remover to remove suspension arm from axle assembly. Be careful not to damage ball joint boot.

### **CAUTION:**

Tighten temporarily mounting nut to prevent damage to threads and to prevent ball joint remover from coming off.

9. Remove suspension arm.

### 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 cotter pin.

Inspection INFOID:000000008295068

### INSPECTION AFTER REMOVAL

### Appearance

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

- Check suspension arm and bushing for deformation, cracks or damage.
- Check boot of ball joint for cracks or damage, and also for grease leakage.

### **Ball Joint Inspection**

Manually move ball stud at least ten times by hand to check for smooth movement.

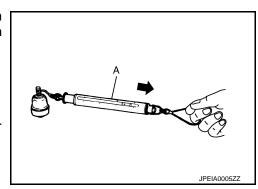
#### Swing Torque Inspection

 Hook spring balance (A) at cotter pin mounting hole. Confirm spring balance measurement value is within specifications when ball stud begins moving.

#### **Standard**

Swing torque : Refer to RSU-25, "Ball Joint".

If it is outside the specified range, replace suspension arm assembly.



**Rotating Torque Inspection** 

### **SUSPENSION ARM**

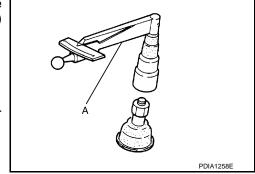
### < REMOVAL AND INSTALLATION >

 Attach the mounting nut to ball stud. Make sure that rotating torque is within the specifications with a preload gauge (A) [SST:ST3127S000 (J-25765-A)].

### **Standard**

Rotating torque : Refer to RSU-25, "Ball Joint".

- If it is outside the specified range, replace suspension arm assembly.



Axial End Play Inspection

• Move tip of ball stud in axial direction to check for looseness.

### **Standard**

Axial end play : Refer to RSU-25, "Ball Joint".

- If it is outside the specified range, replace suspension arm assembly.

### INSPECTION AFTER INSTALLATION

Check wheel alignment. Refer to RSU-6, "Inspection".

RSU

Α

В

C

D

F

G

Н

J

Κ

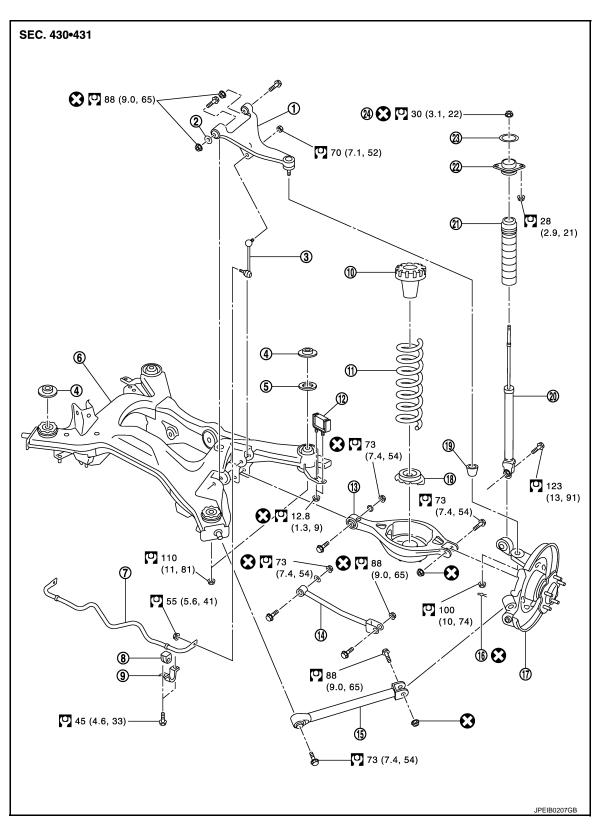
L

M

Ν

0

### **RADIUS ROD**



- 1. Suspension arm
- 4. Upper stopper (AWD model)
- 7. Stabilizer bar

- 2. Stopper rubber
- 5. Mount stopper
- 8. Stabilizer bushing
- 3. Stabilizer connecting rod
- 6. Suspension member
- 9. Stabilizer clamp

### **RADIUS ROD**

### < REMOVAL AND INSTALLATION >

***************************************			
10. Upper seat	11. Coil spring	12. Damper assembly (AWD model)	
13. Rear lower link	14. Front lower link	15. Radius rod	Α
16. Cotter pin	17. Axle assembly	18. Rubber seat	
19. Ball seat	20. Shock absorber	21. Bound bumper cover	
22. Shock absorber mounting bracket	23. Mounting seal	24. Piston rod lock nut	В
Refer to GI-4, "Components" for symbols	in the figure.		

### Removal and Installation

#### INFOID:0000000008295070

### **REMOVAL**

- 1. Remove tire with power tool.
- 2. Set suitable jack under axle assembly.
- 3. Remove radius rod mounting bolts and nuts (axle housing side).
- Remove radius rod mounting bolt (rear suspension member side), and then remove radius rod.

### **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.

Inspection INFOID:0000000008295071

### INSPECTION AFTER REMOVAL

Check radius rod and bushing for any deformation, cracks, or damage. Replace if necessary.

### INSPECTION AFTER INSTALLATION

Check wheel alignment. Refer to RSU-6, "Inspection".

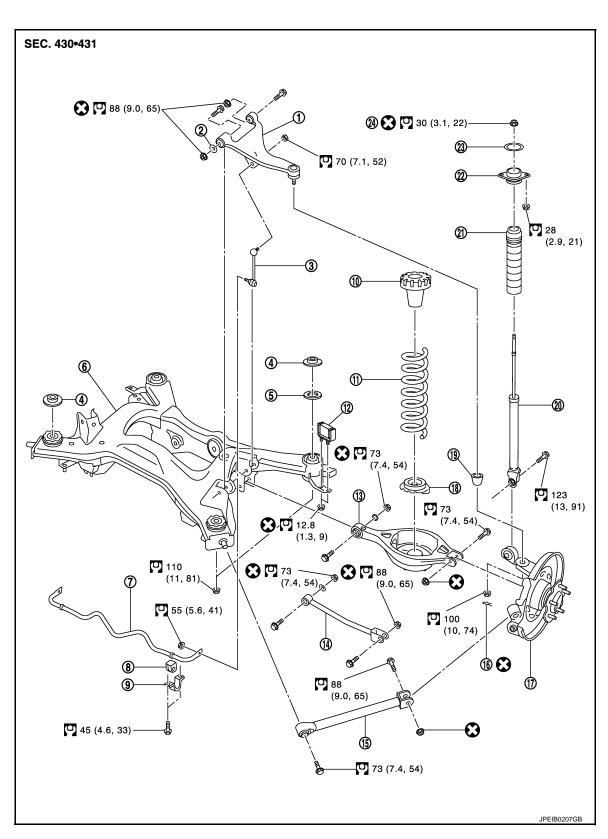
Н

D

RSU

Ν

### **FRONT LOWER LINK**



- 1. Suspension arm
- 4. Upper stopper (AWD model)
- 7. Stabilizer bar

- 2. Stopper rubber
- 5. Mount stopper
- 8. Stabilizer bushing
- 3. Stabilizer connecting rod
- 6. Suspension member
- 9. Stabilizer clamp

### FRONT LOWER LINK

### < REMOVAL AND INSTALLATION >

10.	Upper seat	11.	Coil spring	12.	Damper assembly (AWD model)	
13.	Rear lower link	14.	Front lower link	15.	Radius rod	Α
16.	Cotter pin	17.	Axle assembly	18.	Rubber seat	
19.	Ball seat	20.	Shock absorber	21.	Bound bumper cover	
22.	Shock absorber mounting bracket	23.	Mounting seal	24.	Piston rod lock nut	В
Refe	er to GI-4, "Components" for symbols i	n the	figure.			

### Removal and Installation

### **REMOVAL**

- 1. Remove tire with power tool.
- 2. Set suitable jack under axle assembly to relieve the coil spring tension.
- 3. Remove front lower link mounting bolts and nuts (rear suspension member side).
- 4. Remove front lower link mounting bolts and nuts (axle housing side).
- 5. Remove front lower link.

### **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.

Inspection INFOID:0000000008295074

### INSPECTION AFTER REMOVAL

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

### INSPECTION AFTER INSTALLATION

Check wheel alignment. Refer to RSU-6, "Inspection".

RSU

D

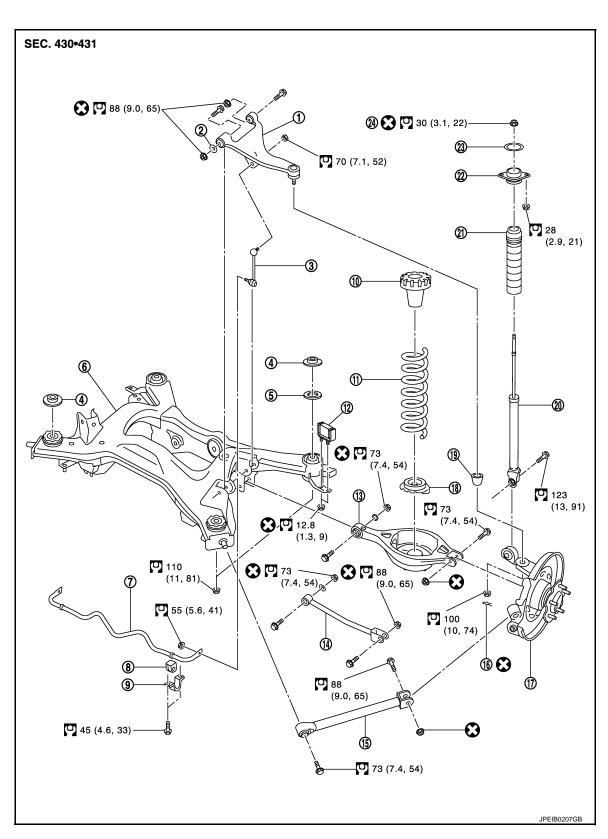
INFOID:0000000008295073

Н

L

Ν

### **REAR STABILIZER**



- 1. Suspension arm
- 4. Upper stopper (AWD model)
- 7. Stabilizer bar

- 2. Stopper rubber
- Mount stopper
- 8. Stabilizer bushing
- 3. Stabilizer connecting rod
- 6. Suspension member
- 9. Stabilizer clamp

### **REAR STABILIZER**

### < REMOVAL AND INSTALLATION >

10.	Upper seat	11.	Coil spring	12.	Damper assembly (AWD model)	
13.	Rear lower link	14.	Front lower link	15.	Radius rod	Α
16.	Cotter pin	17.	Axle assembly	18.	Rubber seat	
19.	Ball seat	20.	Shock absorber	21.	Bound bumper cover	
22.	Shock absorber mounting bracket	23.	Mounting seal	24.	Piston rod lock nut	В
Refe	er to GI-4, "Components" for symbols i	n the	figure.			

### Removal and Installation

### **REMOVAL**

- 1. Remove mounting bracket of center muffler and remove mounting rubber of main muffler. Refer to <u>EX-5</u>. "Exploded View".
- 2. Remove stabilizer connecting rod mounting nuts (lower side), and remove stabilizer connecting rod from stabilizer bar.
- Remove mounting nuts on stabilizer clamp and remove stabilizer bar.

### **INSTALLATION**

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

 Tighten the mounting nut to the specified torque while holding a hexagonal part of stabilizer connecting rod side.

Inspection INFOID:000000008295077

### INSPECTION AFTER REMOVAL

Check stabilizer bar, stabilizer connecting rod, stabilizer bushing and stabilizer clamp for deformation, cracks or damage. Replace it if a malfunction is detected.

RSU

D

INFOID:0000000008295076

**73**0

Н

Κ

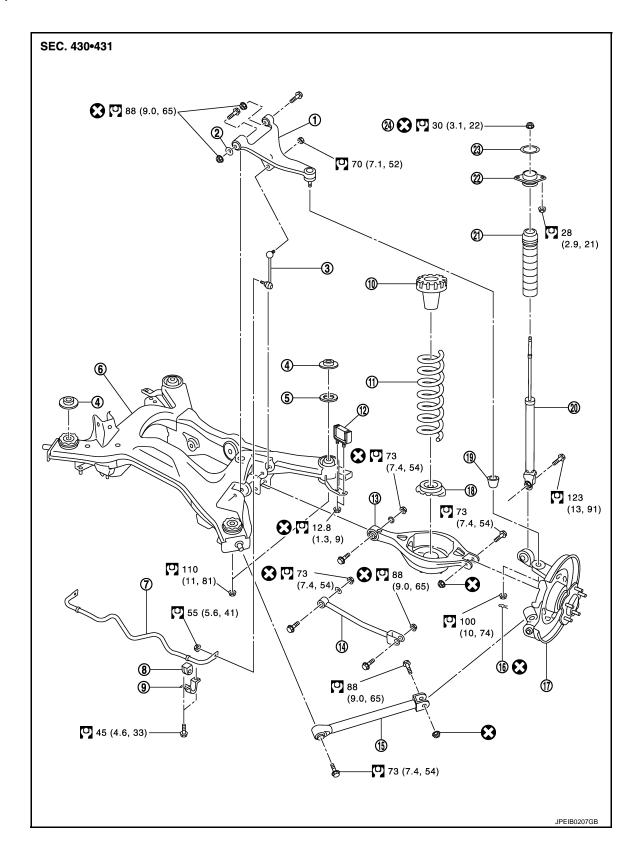
L

M

Ν

# **UNIT REMOVAL AND INSTALLATION**

### **REAR SUSPENSION MEMBER**



### REAR SUSPENSION MEMBER

### < UNIT REMOVAL AND INSTALLATION >

1.	Suspension arm	2.	Stopper rubber	3.	Stabilizer connecting rod	Α
4.	Upper stopper (AWD model)	5.	Mount stopper	6.	Suspension member	
7.	Stabilizer bar	8.	Stabilizer bushing	9.	Stabilizer clamp	
10.	Upper seat	11.	Coil spring	12.	Damper assembly (AWD model)	В
13.	Rear lower link	14.	Front lower link	15.	Radius rod	
16.	Cotter pin	17.	Axle assembly	18.	Rubber seat	
19.	Ball seat	20.	Shock absorber	21.	Bound bumper cover	С
22.	Shock absorber mounting bracket	23.	Mounting seal	24.	Piston rod lock nut	
Ref	er to GI-4, "Components" for symbols	in the	figure.			
_						D

### Removal and Installation

INFOID:0000000008295079

### REMOVAL

- 1. Remove tires from vehicle with power tool.
- Remove caliper assembly. Hang caliper assembly in a place where it will not interfere with work. Refer to BR-57, "BRAKE CALIPER ASSEMBLY (1 PISTON TYPE): Exploded View" (1 piston type), BR-61, "BRAKE CALIPER ASSEMBLY (2 PISTON TYPE): Exploded View" (2 piston type). **CAUTION:**

### Avoid depressing brake pedal while brake caliper is removed.

- 3. Remove disc rotor. Refer to BR-58, "BRAKE CALIPER ASSEMBLY (1 PISTON TYPE): Removal and Installation" (1 piston type), BR-62, "BRAKE CALIPER ASSEMBLY (2 PISTON TYPE): Removal and <u>Installation</u>" (2 piston type).
- 4. Remove wheel sensor and sensor harness from axle assembly and suspension arm. Refer to BRC-111, "REAR WHEEL SENSOR: Exploded View".
- Remove center muffler and main muffler. Refer to EX-5, "Exploded View".
- Remove stabilizer bar. Refer to <u>RSU-20</u>, "Exploded View".
- Remove drive shaft. Refer to <u>RAX-10</u>, "<u>Exploded View</u>".
- Remove propeller shaft. Refer to <u>DLN-87</u>, "Exploded View" (3S80A), <u>DLN-95</u>, "Exploded View" (3S80A-R), <u>DLN-104</u>, "Exploded View" (3S80A-1VL107).
- Remove harness from rear final drive and suspension member.
- 10. Remove final drive. Refer to <a href="DLN-274">DLN-274</a>, "M/T : Exploded View" [R200V (M/T)], <a href="DLN-276">DLN-276</a>, "A/T : Exploded View" [R200V (A/T)], DLN-183, "2WD (VQ37VHR): Exploded View" [R200 (2WD)], DLN-184, "AWD: Exploded View [R200 (AWD)].
- 11. Remove parking brake cable mounting bolt and separate parking brake cable from vehicle and suspension member. Refer to PB-6, "PEDAL TYPE: Exploded View" (pedal type), PB-7, "LEVER TYPE: Exploded View" (lever type).
- 12. Remove mounting bolts in lower side of shock absorber.
- 13. Remove rear lower link and coil spring. Refer to RSU-8. "Exploded View".
- 14. Set suitable jack under suspension member.
- Remove mounting nuts suspension member.
- 16. Slowly lower jack, then remove suspension member, suspension arm, radius rod, front lower link and axle from vehicle as a unit.
- 17. Remove upper stopper and damper assembly from suspension member. (AWD models)
- 18. Remove mounting bolts and nuts, then remove mount stopper, suspension arm, front lower link, and radius rod from suspension member.

### INSTALLATION

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

- Perform the final tightening of each of parts under unladen conditions, which were removed when removing rear suspension assembly.
- Check wheel sensor harness for proper connection. Refer to BRC-111, "REAR WHEEL SENSOR: Exploded View".

### **CAUTION:**

Never reuse cotter pin.

**RSU-23** 2013 G Sedan Revision: 2012 August

RSU

M

Ν

### **REAR SUSPENSION MEMBER**

### < UNIT REMOVAL AND INSTALLATION >

Inspection INFOID-0000000008295080

### INSPECTION AFTER REMOVAL

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

### INSPECTION AFTER INSTALLATION

- Adjust parking brake operation (stroke). <u>PB-3</u>, "<u>PEDAL TYPE</u>: <u>Inspection and Adjustment"</u> (pedal type), <u>PB-4</u>, "<u>LEVER TYPE</u>: <u>Inspection and Adjustment"</u> (lever type).
- Check wheel alignment. Refer to RSU-6, "Inspection".

### **SERVICE DATA AND SPECIFICATIONS (SDS)**

< SERVICE DATA AND SPECIFICATIONS (SDS)

# SERVICE DATA AND SPECIFICATIONS (SDS)

# SERVICE DATA AND SPECIFICATIONS (SDS)

Wheel Alignment

INFOID:0000000008295081 B

Α

D

RSU

Н

K

Ν

Ρ

	Item			Standard						
Applied model			2WD AWD							
			Except for sports models	AVVD						
		Minimum	-1° 20′ (-1.33°)	–1° 25′ (-	-1.42°)					
Camber Degree r	minute (Decimal degree)	Nominal	-0° 50′ (-0.83°)	−0° 55′ (−	-0.92°)					
Dogroot	Timato (Boomar dogree)	Maximum	-0° 20′ (-0.33°)							
		Minimum		0 mm (0 in)						
	Total toe-in Distance	Nominal		In 2.8 mm (0.110 in)						
Too in	Diotario	Maximum		In 5.6 mm (0.220 in)						
Toe-in		Minimum		In 0° 00′ 00″ (In 0.00°)						
	Total toe-angle Degree minute (Decimal degree)	Nominal		In 0° 14′ 24″ (In 0.24°)						
	Dogroo minato (Doomia dogroo)	Maximum		In 0° 28′ 12″ (In 0.47°)	<del></del> -					

Measure value under unladen\* conditions.

Ball Joint

Item	Standard		
Swing torque	0.5 – 3.4 N·m (0.06 – 0.34 kg-m, 5 – 30 in-lb)		
Measurement on spring balance (cotter pinhole position)	8.1 – 54.8 N (0.83 – 5.6 kg, 1.82 – 12.32 lb)		
Rotating torque	0.5 – 3.4 N·m (0.06 – 0.34 kg-m, 5 – 30 in-lb)		
Axial end play	0 mm (0 in)		

# Wheelarch Height

INFOID:0000000008295083

Item	Standard					
Applied model	2WD			AWD		
	Except for s	orts models For sports models		AVVD		
Wheel size	17 inch	18 inch		17 inch	18 inch	
Front (Hf)	714 mm (28.11 in)	716 mm (28.19 in)	715 mm (28.15 in)	725 mm (28.54 in)	730 mm (28.74 in)	
Rear (Hr)	707 mm (27.83 in)	709 mm (27.91 in)	705 mm (27.76 in)	720 mm (28.35 in)	724 mm (28.50 in)	



SFA818A

Measure value under unladen\* conditions.

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

# **SERVICE DATA AND SPECIFICATIONS (SDS)**

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