



SERVICE CAMPAIGN BULLETIN

Reference:

NTB05-114c

Date:

June 6, 2012

VOLUNTARY SERVICE CAMPAIGN REAR SUSPENSION MEMBER REPLACEMENT / BUSHING REPLACEMENT AND SEALING

This bulletin has been amended. The use of Genuine Nissan Parts Degreaser in this bulletin has been changed to an Automotive Aersol Degreaser (local source).
Please discard previous versions of this bulletin.

CAMPAIGN I.D. #: P5216

APPLIED VEHICLES: 2002-05 Altima (L31)
2004-05 Maxima (A34)

APPLIED VINS: 2002 Altima: 1N4*L11**2C100000 - 719021
2003 Altima: 1N4*L11**3C100000 - 355207
2004 Altima: 1N4*L11**4C100000 - 199931
2005 Altima: 1N4*L11**5C100000 - 322026
1N4*L11**5N400000 - 472765
2004 Maxima: 1N4*A41**4C800000 - 931667
2005 Maxima: 1N4*A41**5C800000 - 845620

INTRODUCTION

On some model year 2002-2005 Nissan Altima and 2004-2005 Nissan Maxima vehicles, there is a possibility that corrosion of the rear sub-frame may occur. Corrosion is most likely in cold climates where heavy salting of roads is common practice in freezing conditions. A mixture of road salt and water can promote corrosion in the rear sub-frame bushings of some vehicles. In severe cases, cracking of the rear sub-frame may occur, which may result in a knocking noise coming from the rear of the vehicle. The performance or handling characteristics of the vehicle are not affected and it is safe to drive the vehicle.

For vehicles believed by Nissan to be registered in one of the "salt" states (listed on the next page) where this condition is more likely to occur, Nissan is conducting a Service Campaign. On most vehicles, Nissan will replace the rear sub-frame assembly. On some 2005 Model Year vehicles, where sub-frame replacement is not necessary, Nissan will replace and seal the front bushings and seal the rear bushings.

Due to the number of vehicles affected by this action, the Service Campaign is being implemented in phases by model year. The implementation will begin with model year 2002 vehicles which have a higher likelihood of corrosion, and also with model year 2005 vehicles, which may require the less extensive repair.

It is important that you check Service Comm (P5216) prior to starting any repairs to determine if the vehicle is eligible for this repair. Because this campaign is being implemented in phases, some model years will not initially display in Service Comm as an “open” campaign but will be added at a later date.

SALT STATES

Connecticut	Kentucky	New Hampshire	Tennessee
Delaware	Maine	New Jersey	Vermont
District of Columbia	Maryland	New York	Virginia
Illinois	Massachusetts	Ohio	West Virginia
Indiana	Michigan	Pennsylvania	Wisconsin
Iowa	Minnesota	Rhode Island	

WARRANTY EXTENSION

To ensure the highest levels of customer satisfaction, Nissan is also extending the warranty for cracking of the rear sub-frame due to corrosion to a total of 13 years with unlimited mileage on all model year 2002-2005 Nissan Altima and 2004-2005 Nissan Maxima vehicles. Vehicles included in the Service Campaign (as described above) are also covered by the Warranty Extension.

Please refer to Warranty Bulletin WB/05-038 for appropriate claims coding when a repair is performed under the extended warranty.

IDENTIFICATION NUMBER

Nissan has assigned identification number P5216 to this campaign. This number must appear on all communications and documentation of any nature dealing with this campaign.

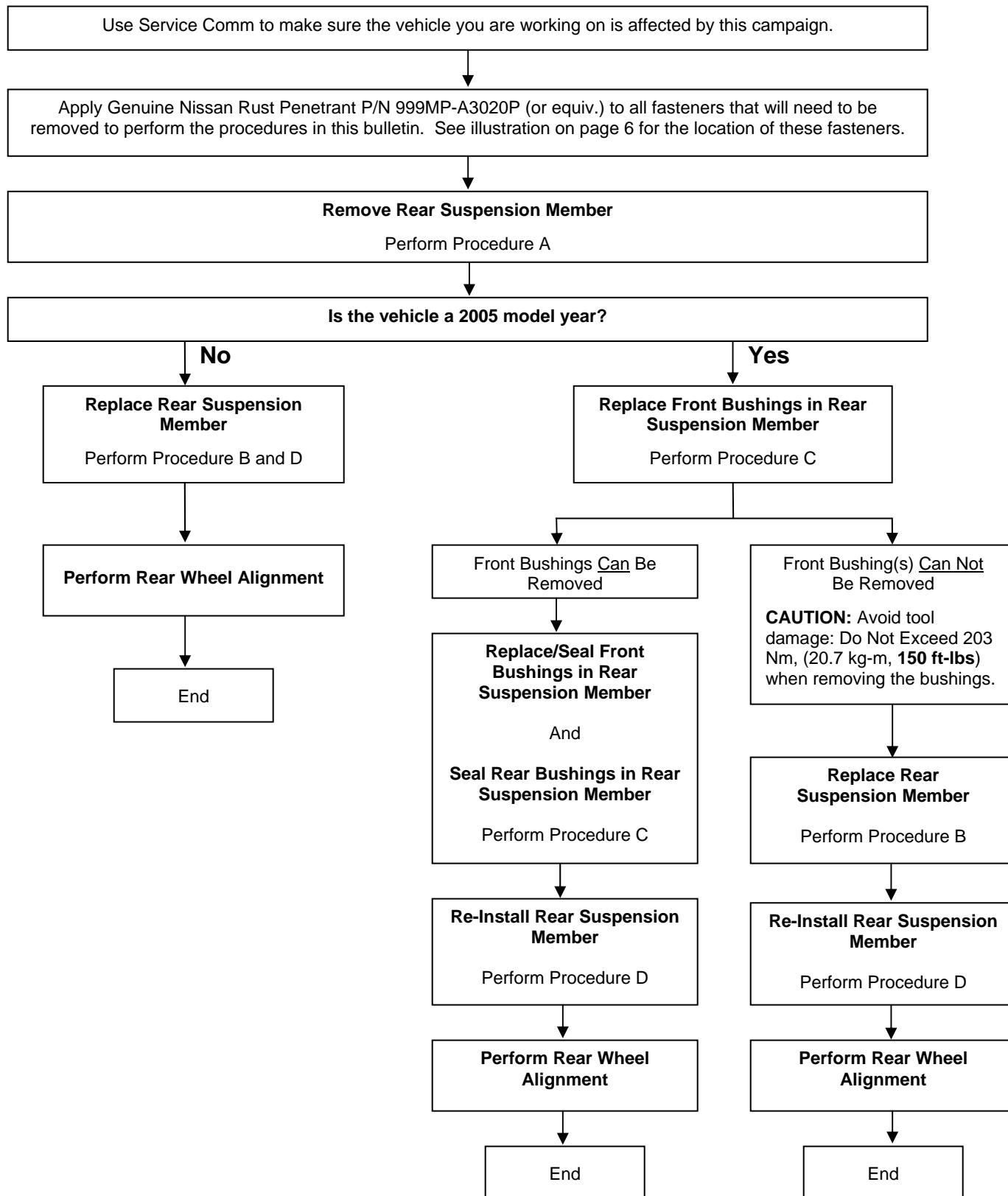
NUMBER OF VEHICLES POTENTIALLY AFFECTED

The number of vehicles potentially affected is approximately 411,000.

DEALER RESPONSIBILITY

It is the Nissan dealer’s responsibility to check Service Comm for the campaign status on each vehicle falling within the range of this Voluntary Service Campaign (P5216) that enters the service department. This includes vehicles purchased from private parties or presented by transient (tourist) owners and vehicles in a Nissan dealer’s inventory.

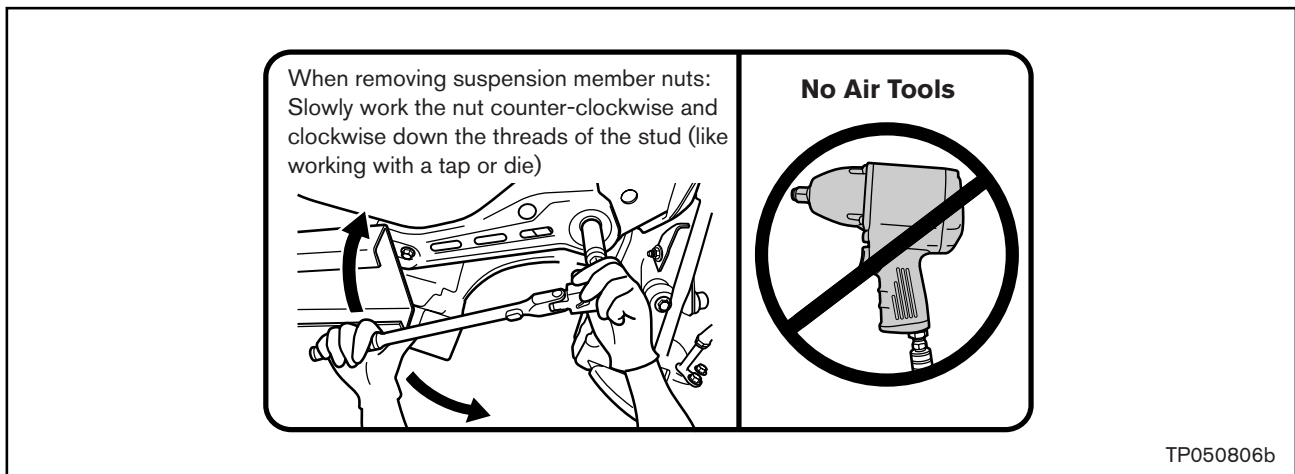
REPAIR FLOW CHART



Important Service Tips

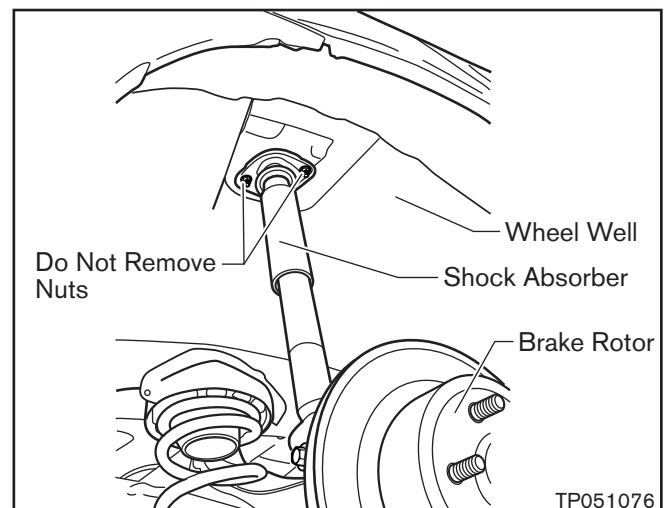
To ensure a quality repair, use the following service tips when performing the procedures in this bulletin.

- When removing the four nuts that secure the rear suspension member to the body, use caution to avoid breaking the studs. Clean the exposed threads with a wire brush and use plenty of Genuine Nissan Rust Penetrant P/N 999MP-A3020P (or equivalent). If necessary, slowly work the nut counter-clockwise and clockwise as the nut progresses down the threads of the stud (like working with a tap or die). Do NOT use an air tool to remove the nuts.



- **CAUTION:** When removing the rear suspension member mounting nuts **DO NOT** use any breaker bar or ratchet handle extensions, such as a long pipe, to loosen the nuts.

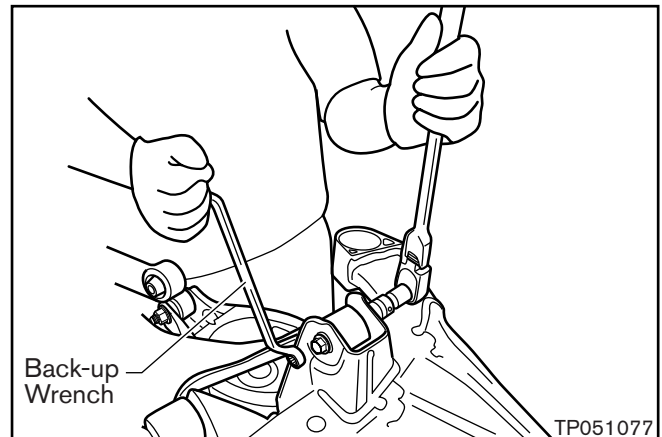
- Do NOT remove the shock absorbers from the two studs at the top of the wheel well because the studs may break. Instead, remove the single bolt at the bottom of the shock absorber.



Important Service Tips

- When replacing the front bushings in the 2005 sub-frame, start by removing the front right (passenger side) bushing first. It is likely that the right bushing will be more difficult to remove than the left.
- Included in the rear suspension member kit is a bag that contains an exhaust gasket and eight nuts. Make sure to find and retrieve this bag from the kit box.

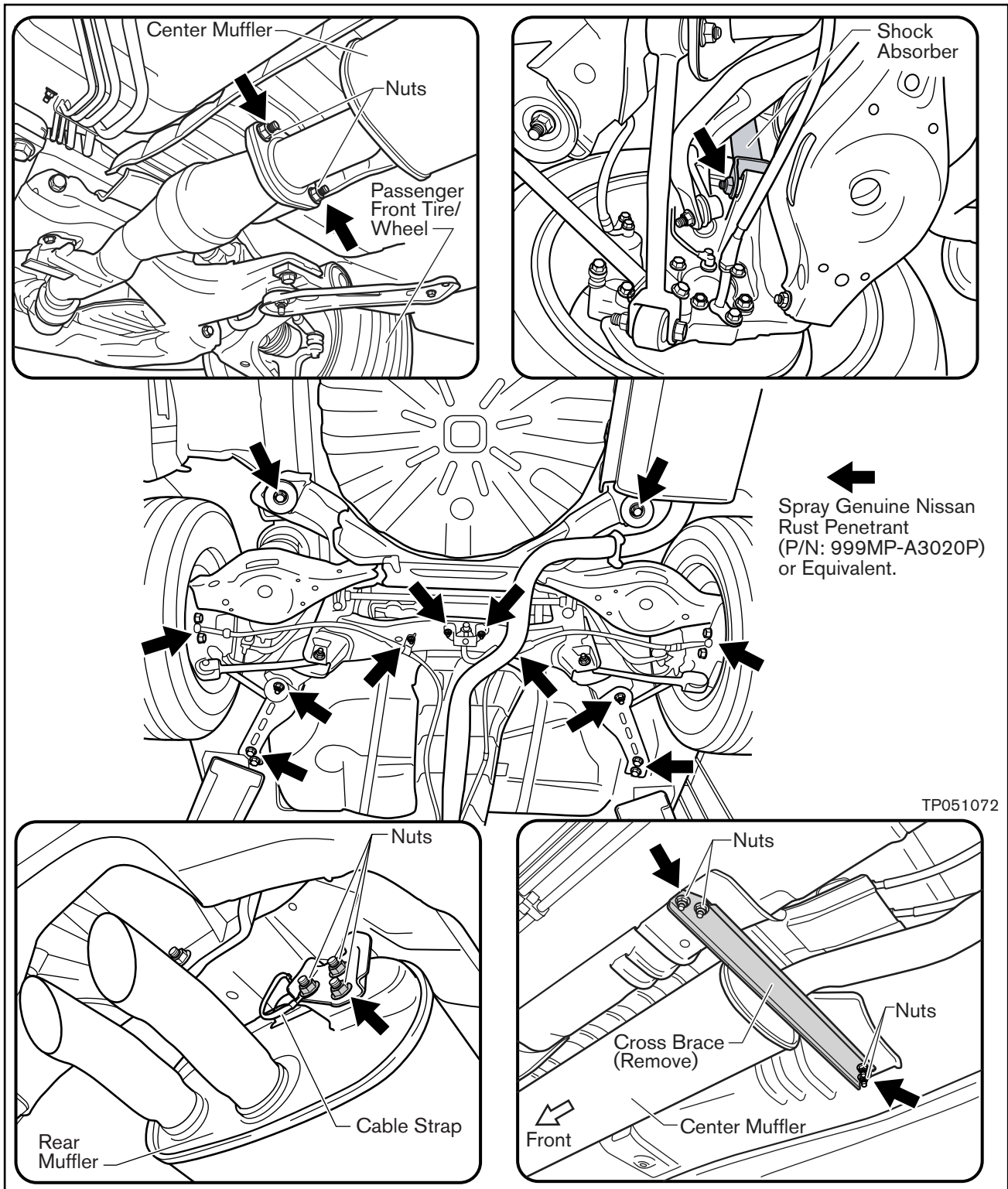
- Use a “back up” wrench at all times when removing or tightening fasteners that use a nut and a bolt. This is especially important when tightening the alignment eccentrics.



- Make sure all fasteners are tightened to the correct torque specification.
- **CAUTION: When tightening the rear suspension member mounting nuts, DO NOT EXCEED 100 N-m (10.3 Kg-m, 74 ft-lb).**

Important Service Tips

Preliminary Service Step: Before performing any procedures in this bulletin, apply Genuine Nissan Rust Penetrant P/N 999MP-A3020P (or equiv.) to all fasteners that will need to be removed to perform the procedures in this bulletin. Refer to the illustration (below) for the location of these fasteners.



Preliminary Service Step

PROCEDURE A: Remove Rear Suspension Member/Suspension Components

CAUTION: Use suitable covers to protect upholstery, carpet, trim, paint, etc. when performing this procedure.

Use this procedure to remove the original rear suspension member.

1. From inside the vehicle, release the parking brake cable tension as follows:

- a. Remove the console finisher by carefully prying UP with a plastic pry tool to release the securing clips.

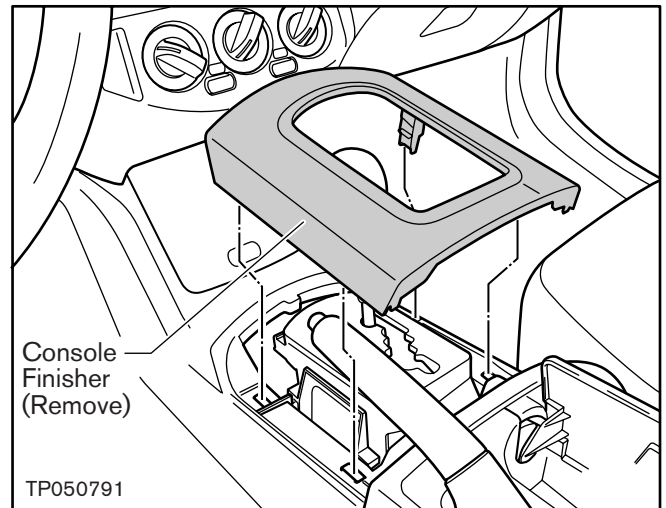


Figure A1

- b. Remove the center console finisher by carefully lifting UP to release the securing clips (see Figure A2).

 - Disconnect all harness connectors from the finisher.

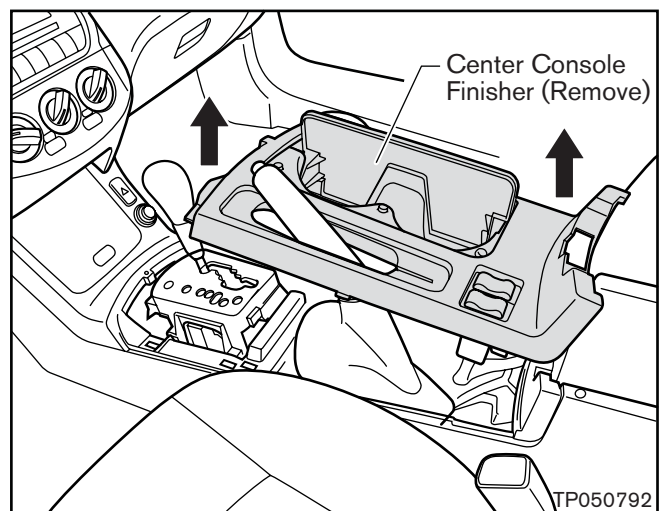


Figure A2

Procedure A

- c. Turn the cable tension adjustment nut counter-clockwise (left) to release the parking brake cable tension (see Figure A3a). Then disconnect the parking brake cables from the equalizer bar (see Figure A3b).

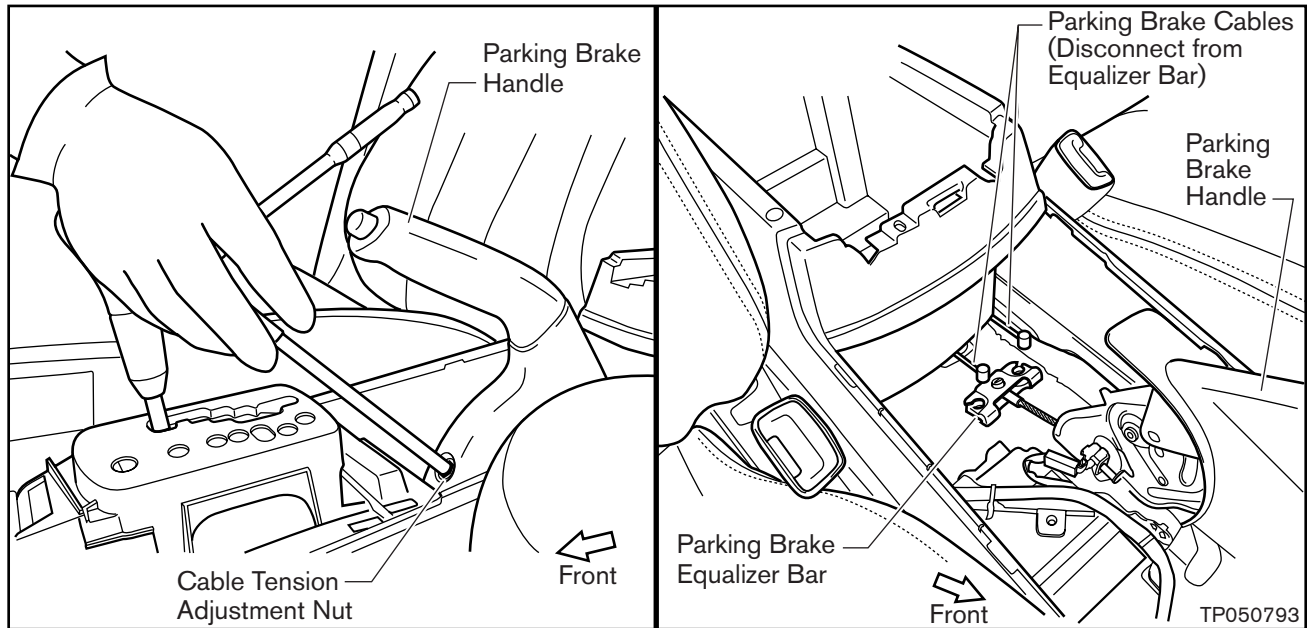


Figure A3a

Figure A3b

2. Raise vehicle on lift and remove both rear wheels/tires.
3. Confirm Genuine Nissan Rust Penetrant (P/N 999MP-A3020P) or equivalent, was applied to all fasteners that hold the:
 - Rear suspension member
 - Exhaust system (from catalytic converter back)

If rust penetrant was not applied previously, apply before continuing.

4. Remove the exhaust system as follows:

- a. Remove two nuts that hold the center exhaust pipe/muffler to the catalytic converter (see Figure A4).

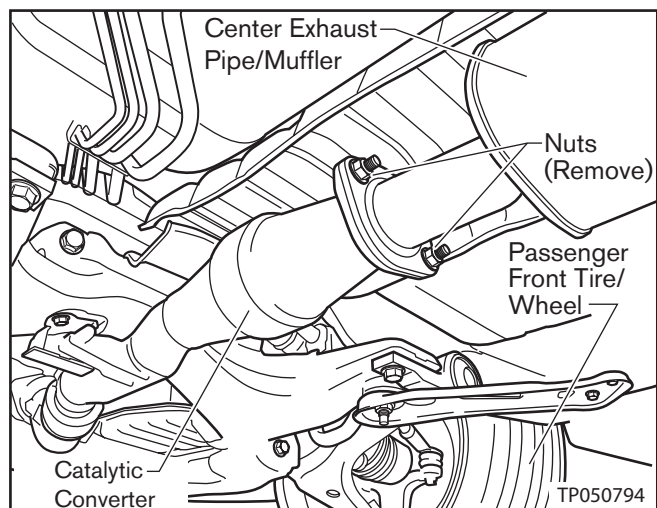


Figure A4

Procedure A

NOTE: If rust penetrant was not applied previously, make sure you apply Genuine Nissan Rust Penetrant P/N 999MP-A3020P (or equiv.), before removing the nuts in the following steps.

**Vehicles With QR25DE Engine
("single exhaust"):**

- b. Remove three nuts and disconnect the rear muffler from the mounting bracket (see Figure A5).
 - Note the location of the ground strap on the muffler. It needs to go back in the same place.

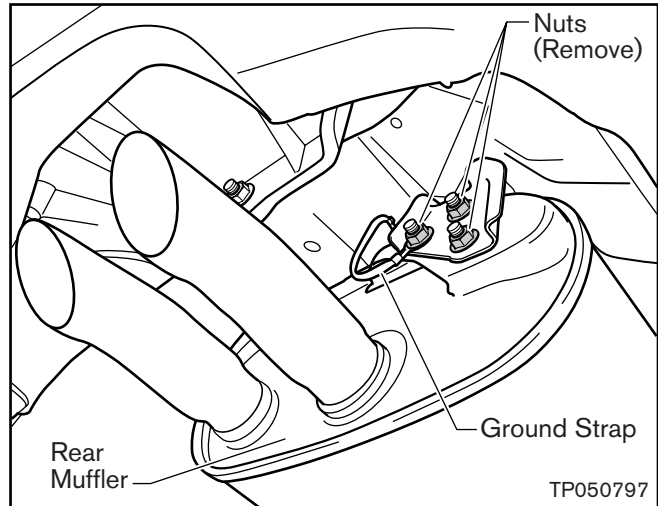


Figure A5

**Vehicles With VQ35DE Engine
("dual exhaust"):**

- c. Remove six nuts and disconnect the rear mufflers from the mounting brackets (see Figure A6).
 - Note the location of the ground strap on the passenger side (RH) muffler. It needs to go back in the same place.

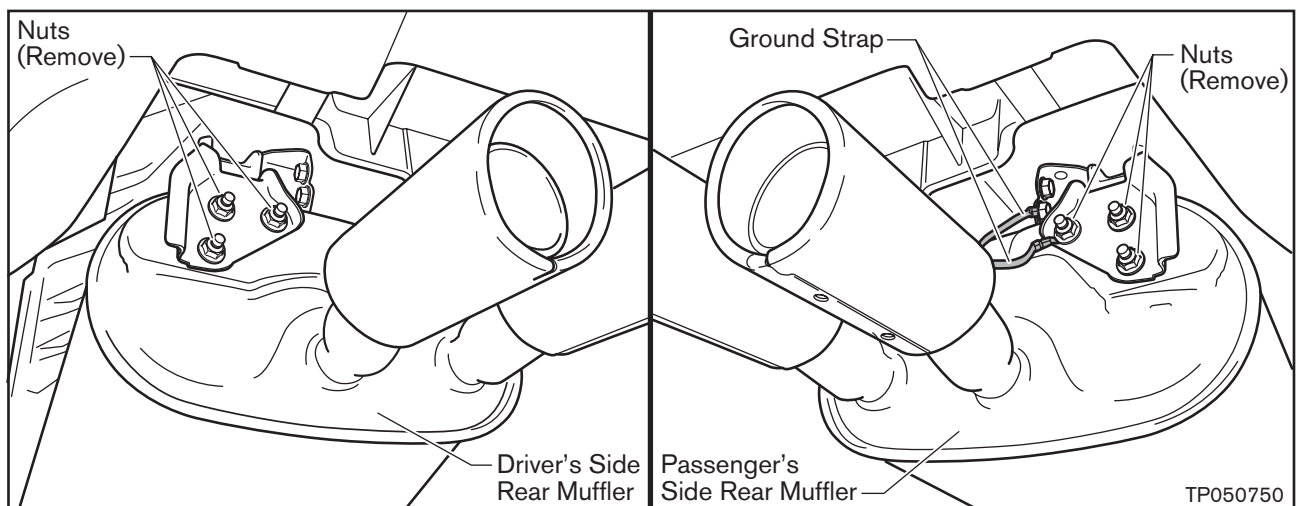


Figure A6

Procedure A

- d. Remove two nuts and take off the exhaust pipe hanger from the rear suspension member (see Figure A7).

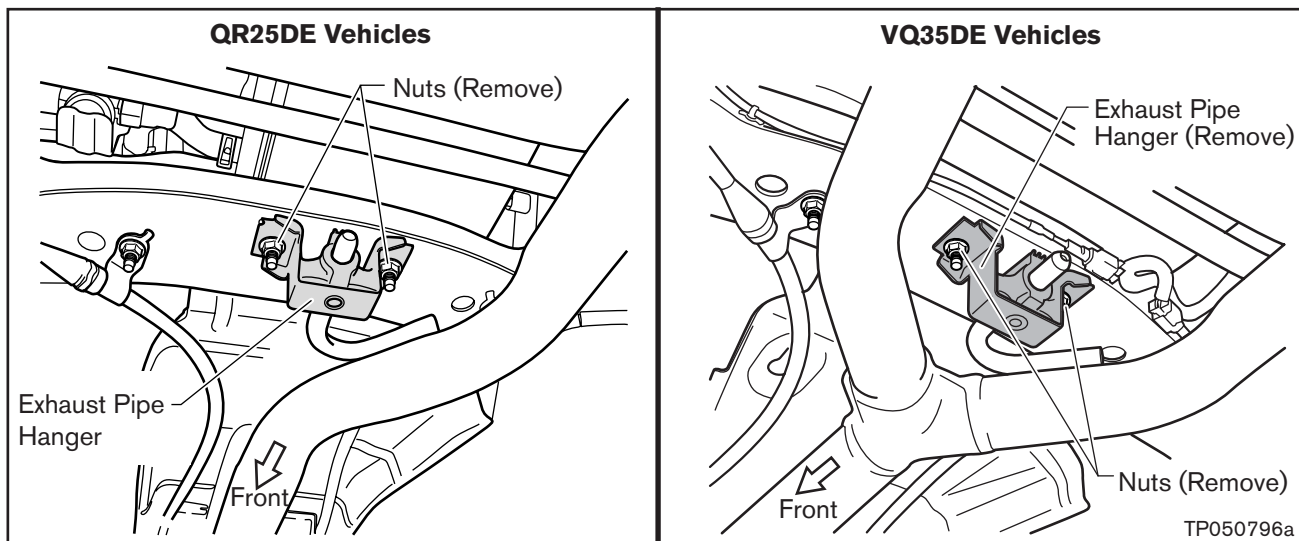


Figure A7

- e. Remove four nuts and take off the center cross brace (see Figure A8).

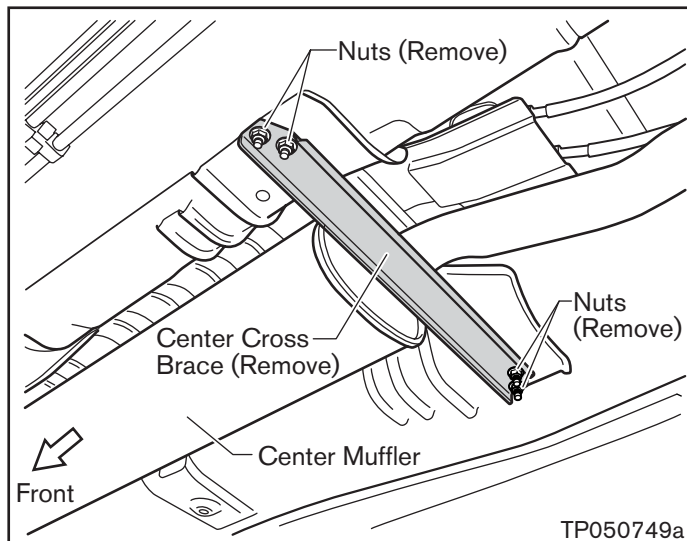


Figure A8

- f. Carefully lower the exhaust system from the vehicle and place it in a safe location.

Procedure A

5. Remove the rear brake calipers and rotors as follows:
 - a. Remove the two bolts that hold the rear caliper bracket (torque member).
 - b. Move the caliper and bracket assembly out of the way of the rotor. Then use a piece of "support" wire to hang it from the brake hose bracket.

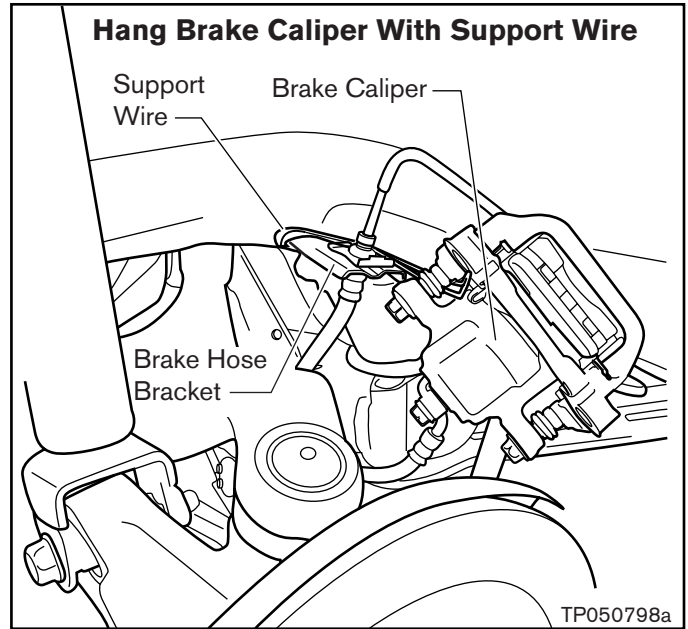


Figure A9

- c. Remove the rear brake rotor, making sure you:
 - Mark the rotor with "R" or "L".
 - Index the rotor to a stud.
- d. Use this procedure to also remove the driver's side (LH) rear rotor.

IMPORTANT: The rotors must be re-installed in exactly the same location/position.

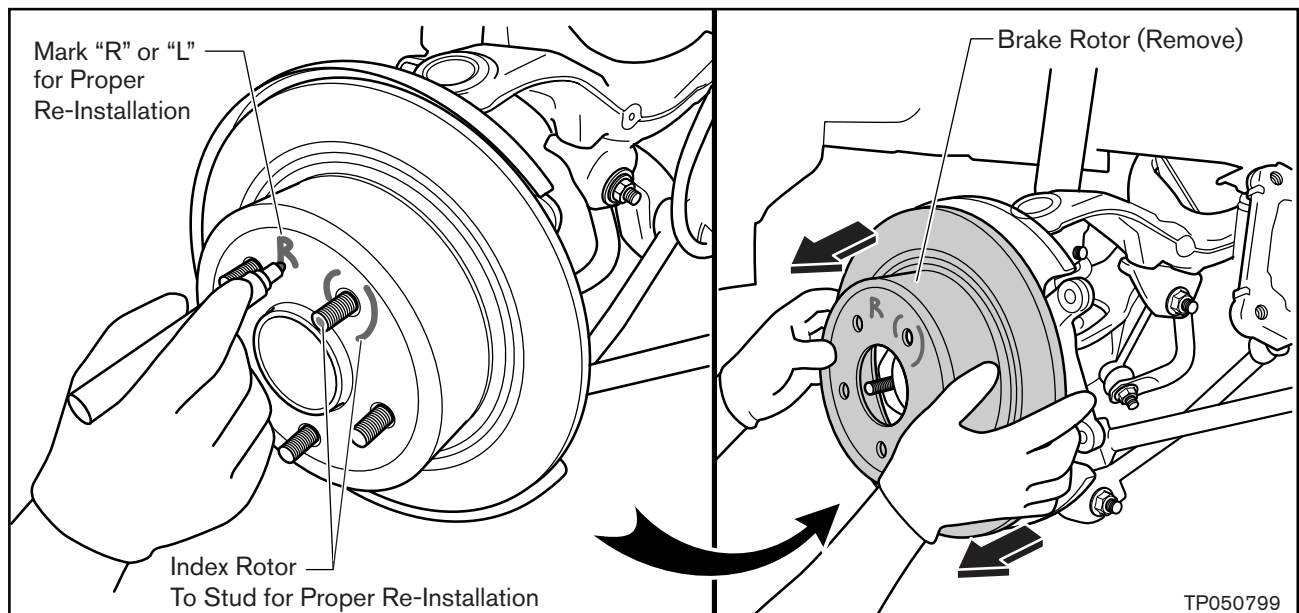


Figure A10

6. Disconnect the parking brake cables from the rear knuckles as follows:
 - a. Apply Genuine Nissan Rust Penetrant P/N 999MP-A3020P (or equiv.) to the parking brake cable pin and retainer, making sure you don't get the penetrant on the parking brake shoes.
 - b. Pull the parking brake cable pin retainer OUT towards the hub/wheel studs (see Figure A11).
 - c. Then, use a magnet or other suitable tool to remove the pin from the bottom side of the parking brake cable end (see Figure A11). Be careful not to drop/lose the pin.

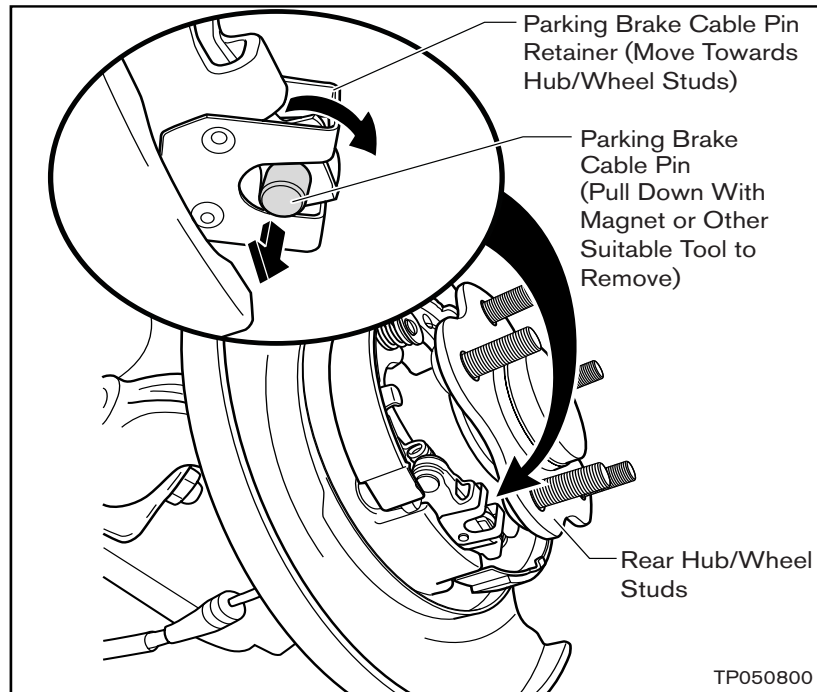


Figure A11

- d. Finally, remove the bolt and remove the parking brake cable from the back side of the knuckle (see Figure A12).
- e. Do the same procedure to remove the cable from the driver's (LH) side knuckle.

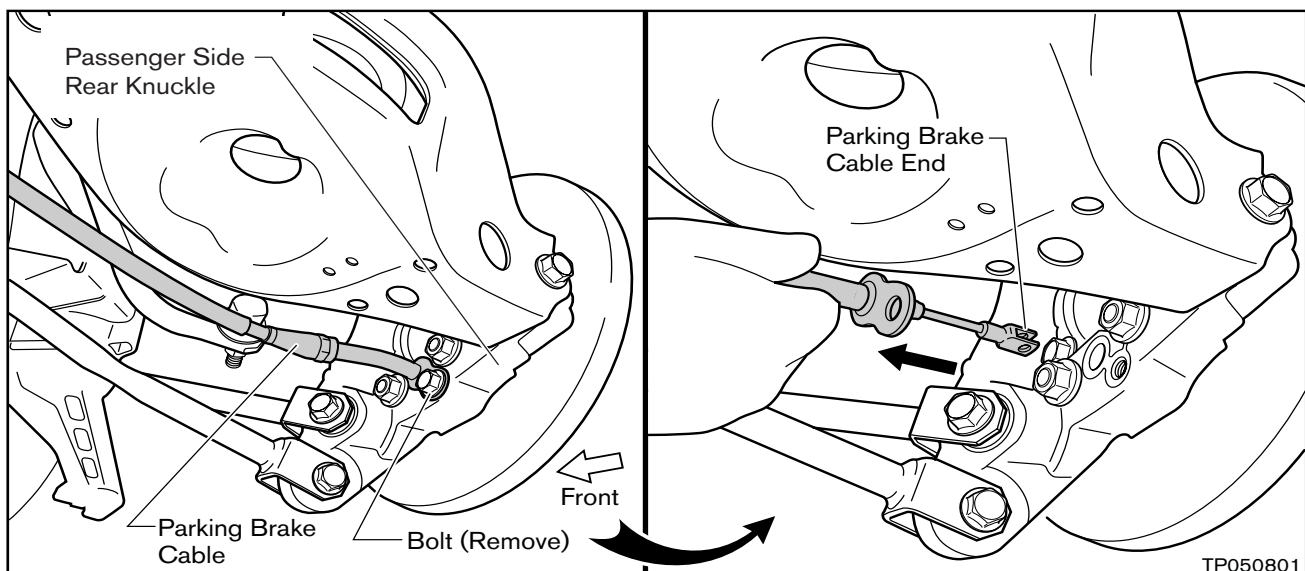


Figure A12

Procedure A

7. Remove the parking brake cables from the rear suspension member (see Figure A13). Let the cables hang down freely.

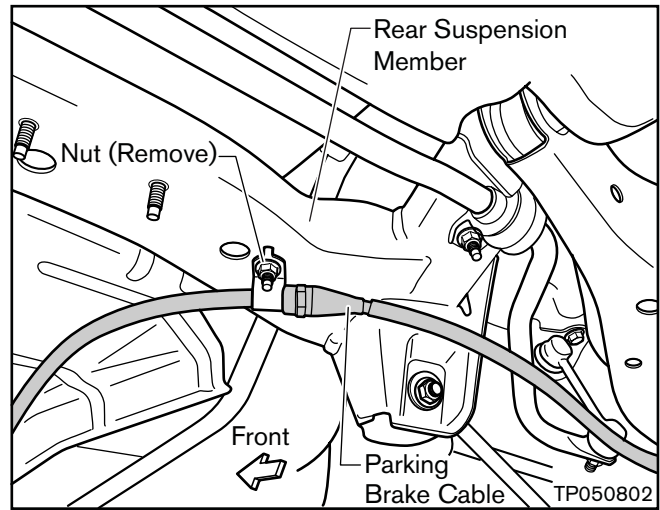


Figure A13

8. Support the lower rear control arm and remove the shock absorber lower mounting Bolt (see Figure A14). Do this procedure on both sides.

NOTE: Do not remove the shock absorbers from the two studs at the top of the wheel well as the studs may break. Instead, remove the single bolt at the bottom of the shock absorber.

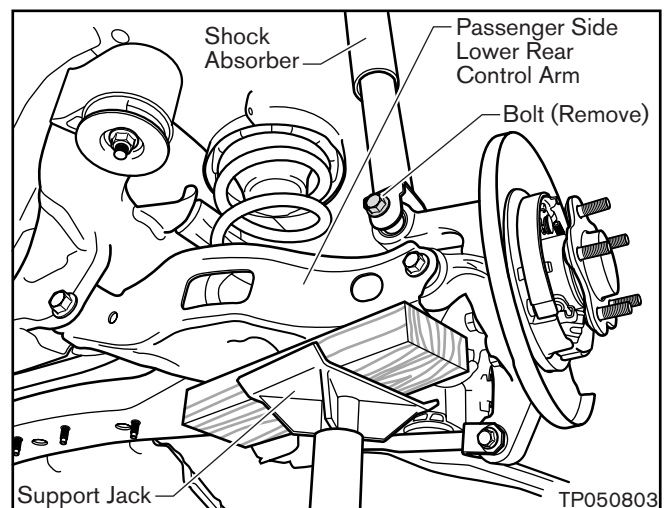


Figure A14

Procedure A

9. Remove the two front bolts from the right and left "stay" brackets (see Figure A15).

For all 2002 Altimas and 2003 Altimas built up to 1/24/03:

- Do NOT re-use the original stay brackets, install new ones. See the Parts Information section.
- Mark the original stay brackets as "NG" and discard them.

NOTE: The original stay brackets have a rubber washer attached to them. These rubber washers are not used on the new stay brackets.

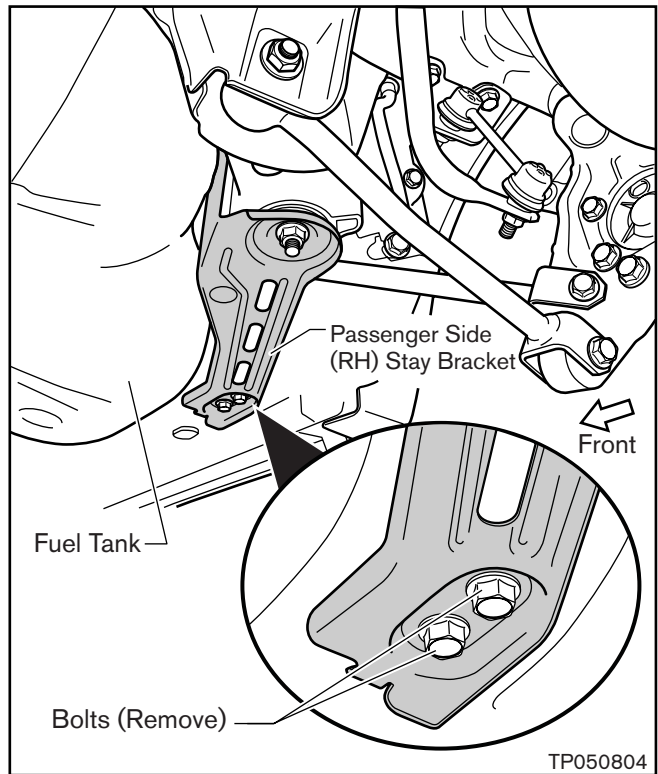


Figure A15

10. Disconnect the two ABS harness connectors from the back side of the rear suspension member (if equipped). See Figure A16.

- Remove the ABS body-side harness tie wrap from the rear suspension member.

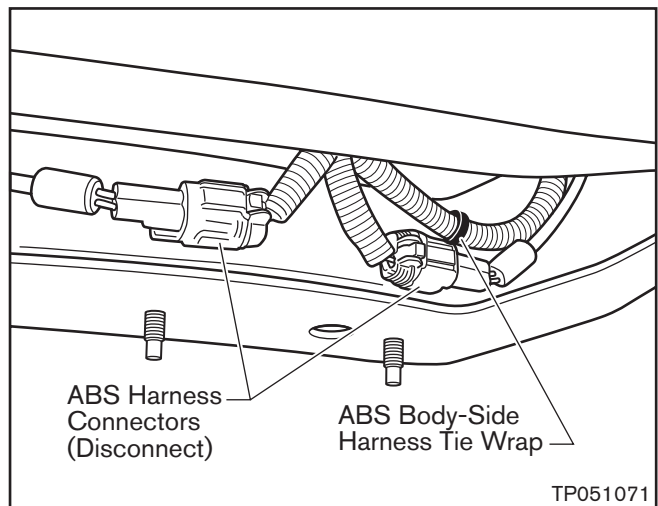


Figure A16

Procedure A

11. Support the rear suspension member with the special tool transmission jack adapter J-47326 and transmission jack (see Detail View A). Then, place a support jack under the front frame member (see Detail View B). The support jack will help balance the vehicle on the lift once the rear suspension member is removed.

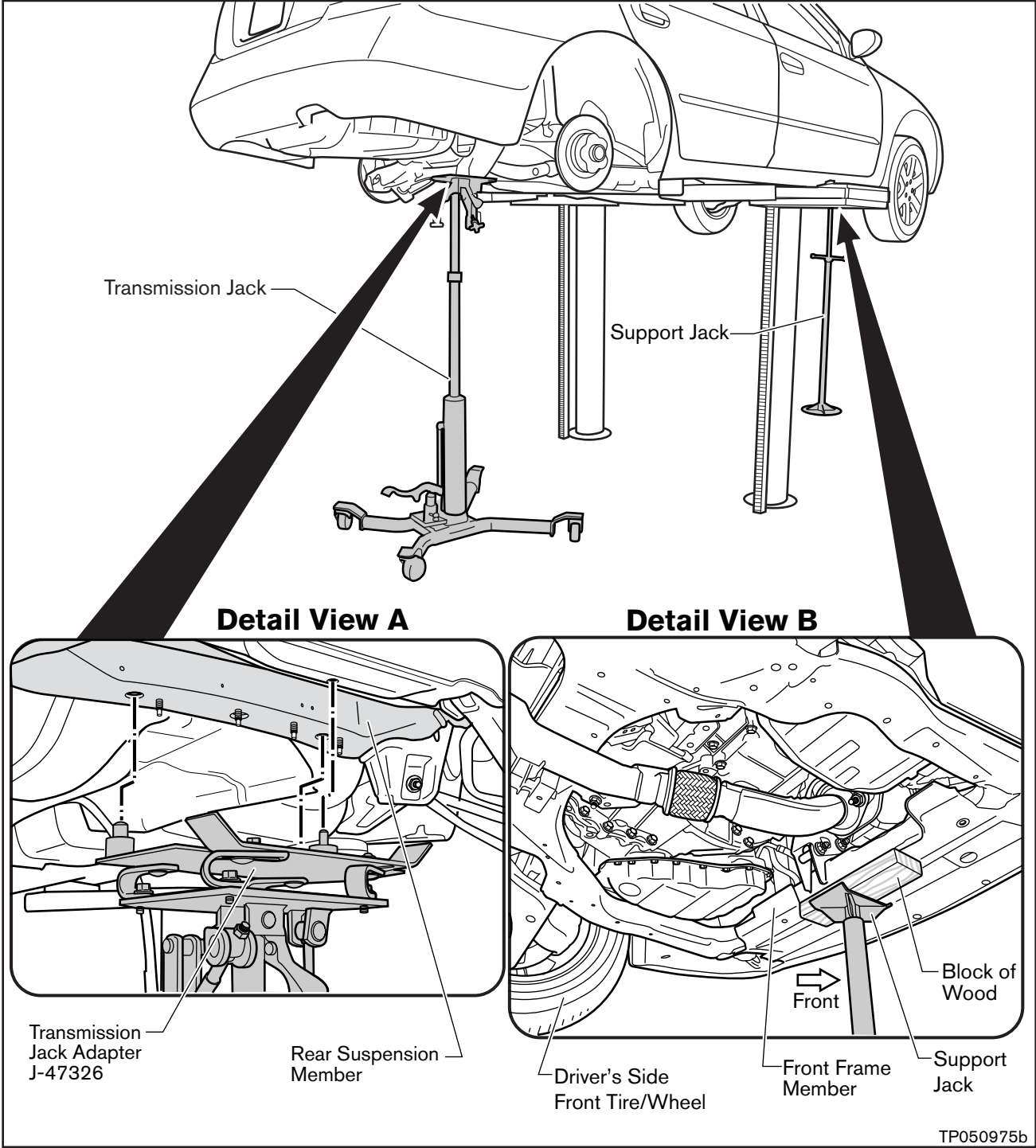
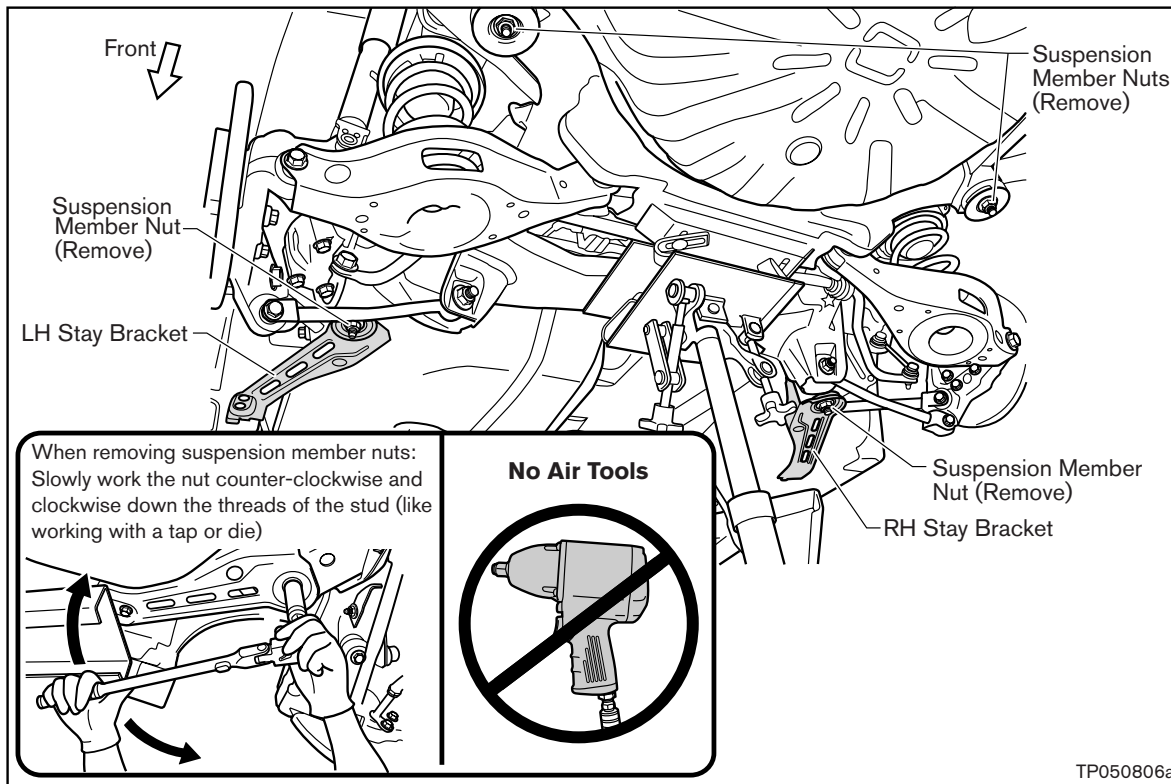


Figure A17

12. Remove the four main suspension member mounting nuts and the LH/RH stay brackets (see Figure A18 below).



- For all 2002 Altimas and 2003 Altimas built up to 1/24/03: Do NOT re-use the original stay brackets. Install new ones. See the Parts Information section.

CAUTION: Do not damage the studs/threads when removing the four main suspension member mounting nuts. Take note of the following when removing these nuts.

To avoid breaking stud(s) / damaging threads:

- Before removing, **clean the exposed threads** with a wire brush or other suitable tool and apply Genuine Nissan Rust Penetrant P/N 999MP-A3020P (or equivalent).
- Use **plenty of penetrant** and **slowly** work the nut counter-clockwise and clockwise as the nut progresses down the threads of the stud (like working with a tap or die).
- **CAUTION:** When removing the rear suspension member mounting nuts DO NOT use any breaker bar or ratchet handle extensions, such as a long pipe, to loosen the nuts.
- If the suspension member mounting nuts cannot be loosened do steps A through D below.

For this procedure, you'll need 1) A die grinder with a small diameter, burr-type cutting attachment 2) A small cold chisel 3) A ball peen hammer.

NOTE: Perform the following operation only on the mounting nuts that are stuck.

- A. Use the grinder to make a slit and groove on both sides of the nut, top to bottom. **CAUTION:** Do not damage the mounting stud threads. You don't need to cut all the way through the nut.

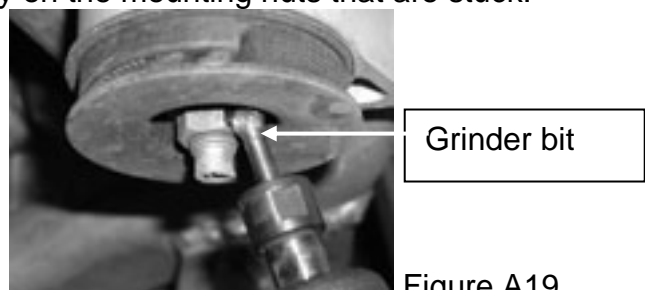


Figure A19

- B. Now use the cold chisel and hammer to split both sides of the nut. Again, be careful not to damage the threads.

NOTE: Replacement nut part number is 55269-2Y000. A maximum of four can be billed as part of this campaign.



Groove cut by grinder.

Figure A20

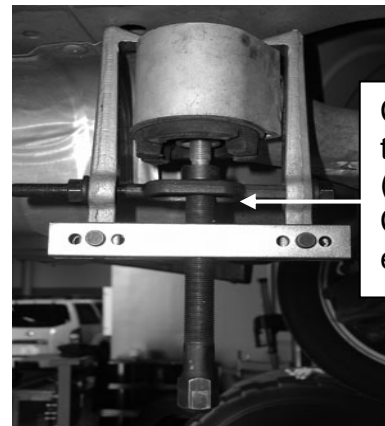
IMPORTANT: If the stud breaks, refer to NTB06-018 for further directions.

13. Carefully lower the rear suspension member out of the vehicle.

- If needed, carefully use a pry bar to “work” the suspension member loose from the four main suspension member mounting studs.
- If this does not work, do steps A through D below:

For this procedure, you’ll need: 1) One large crossbar-jaw-type puller 2) An air chisel (zip gun). 3) An impact wrench. You’ll be using these tools to pry the suspension member away from the body frame rails.

- A. Attach the puller securely to a suspension member upper mount (see Figure A21).
 - B. Use an impact wrench on the puller and apply downward tension to the mount.
 - C. Now use the air chisel above the mount to pry the member slightly away from the body frame rails. (about ¼ inch, or 6 mm). (See Figure A22)
- CAUTION:** Make sure the chisel tip is placed directly at the point of contact between the suspension member and the body frame rail.
- D. Then move the puller to the other suspension member mounts in turn. Continue alternating steps B and C above on the other three mounts until the suspension member is fully separated from the body frame rails.



Crossbar-jaw-type puller (Snap-On P/N CJ2002 or equivalent).

Figure A21



Air chisel placement

Figure A22

14. If the vehicle you’re working on is a:

2002 through 2004 MY, continue with Procedure B

2005 MY, skip to Procedure C

Procedure A

PROCEDURE B: Replace Rear Suspension Member

1. Remove the rear suspension member from the transmission jack and place it on a sturdy work surface.
 - Use two people to perform the above step.

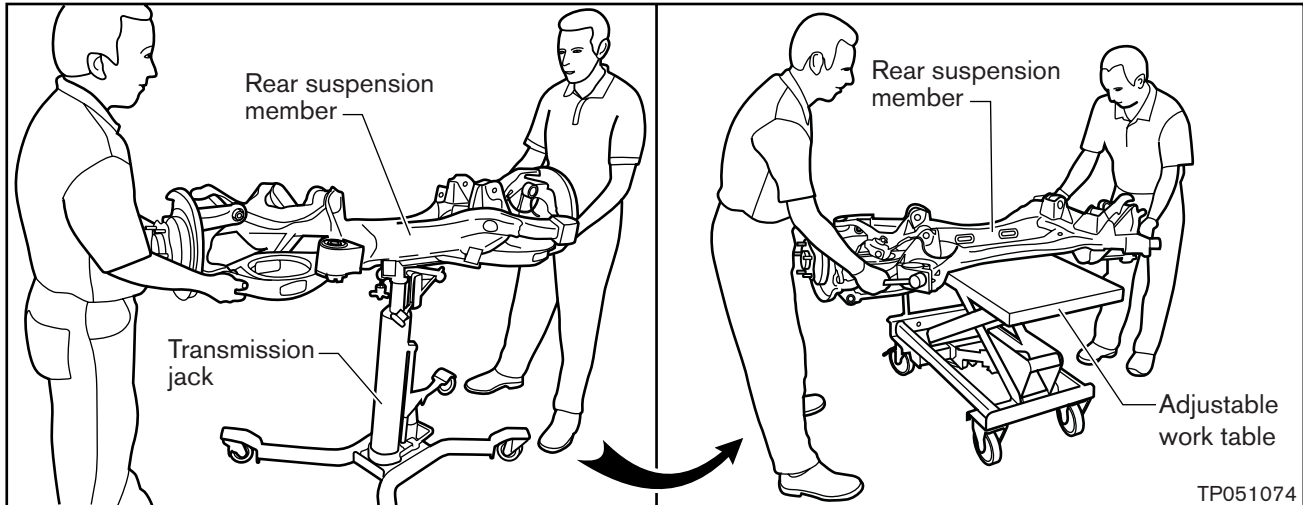


Figure B1

2. Remove the ABS wire harnesses (if equipped) from the rear suspension member as follows:
 - a. Remove the harness securing clips and connectors/mounting clips from the suspension member (see Figure B2).
 - b. Remove the bolt that secures the harness support bracket (see Figure B2).
 - c. Remove the ABS wire harness from the suspension member (do this for both the right and left side).

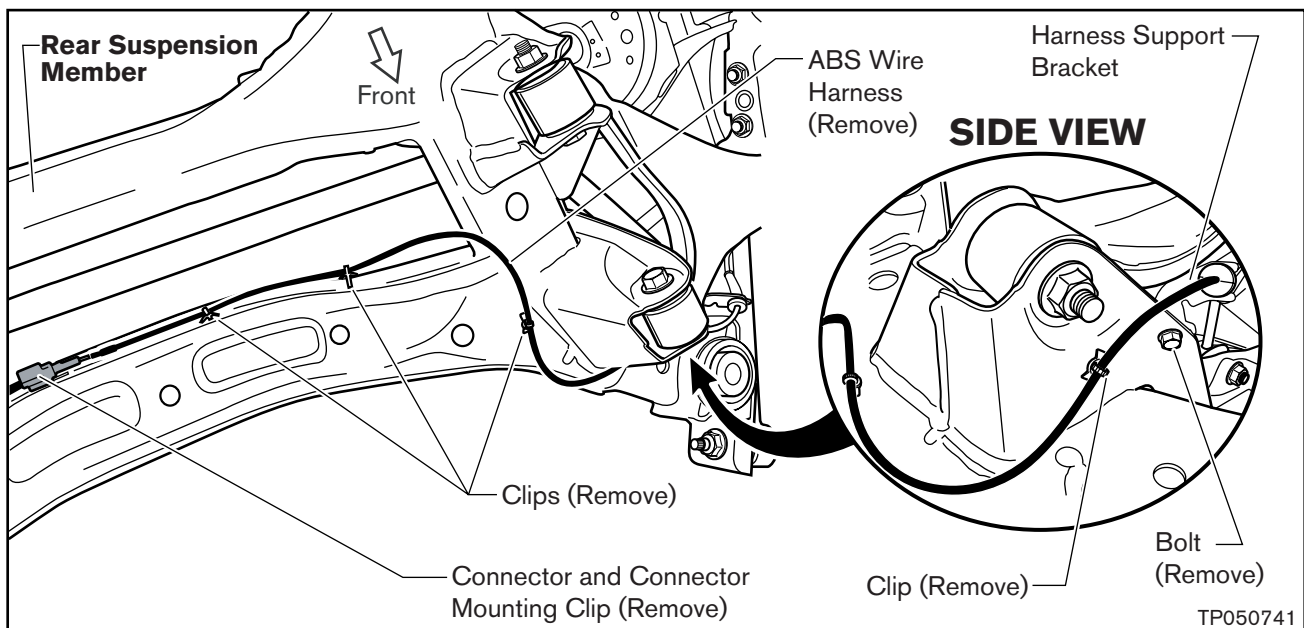


Figure B2

Procedure B

3. Remove the suspension component assemblies listed below from the rear suspension member. Refer to Figure B3.

NOTE:

- If rust penetrant was not applied previously, apply Genuine Nissan Rust Penetrant P/N 999MP-A3020P (or equivalent) to all fasteners.
- For steps b, c, and e: discard the nuts as they are not re-useable. New nuts are provided in the kit.

- a. Disconnect the “forward end” of the radius rods.
- b. Disconnect the “inner end” of the front lower links. *
- c. Disconnect the “inner end” of the rear lower links. *
- d. Disconnect the stabilizer bar strut rod brackets from the upper suspension arms (keep these bolts, you’ll re-use them).
- e. Disconnect the inner end of the upper suspension arms. *

* Discard nuts only. Bolts are to be re-used.

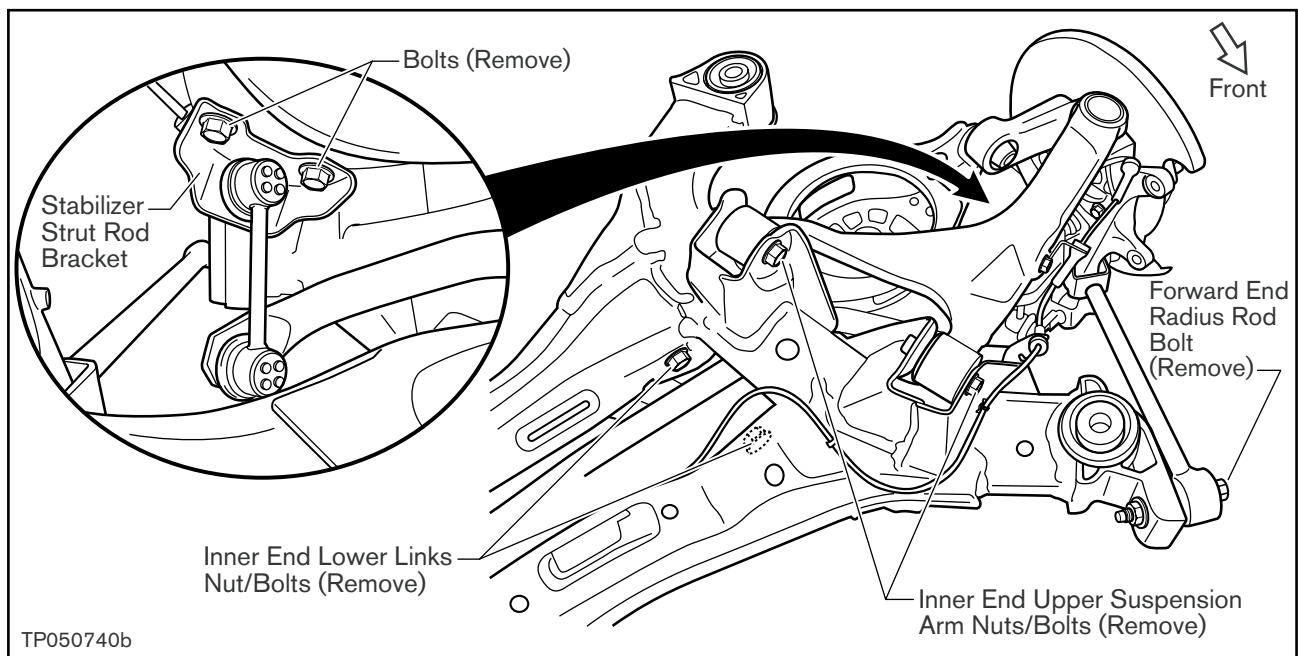


Figure B3

- f. Pull the suspension component assemblies away from the suspension member as shown in Figure B4. Then remove the radius rod mounting pin as shown in Figure B4.

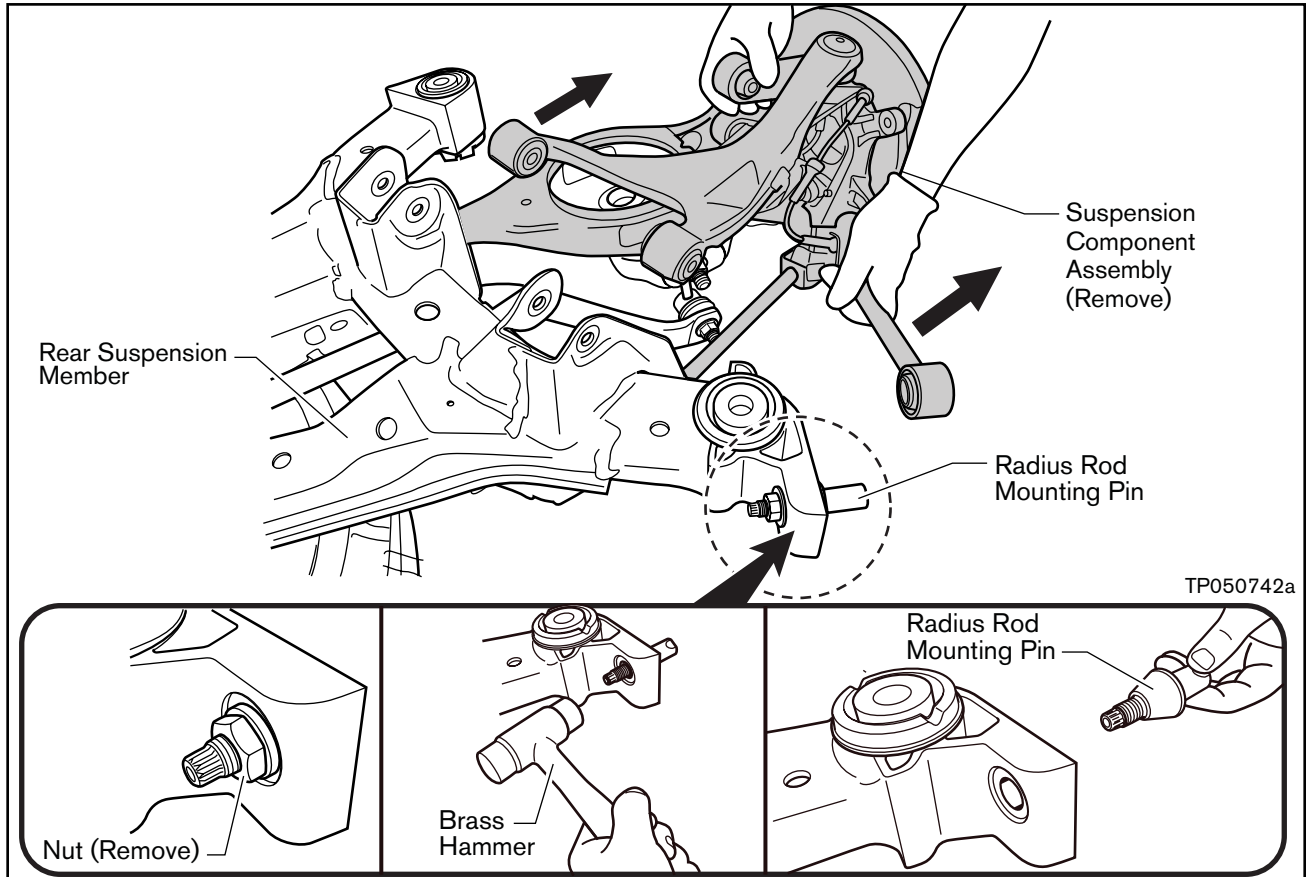


Figure B4

4. Turn the suspension member over and remove the stabilizer bar from the suspension member (see Figure B5).

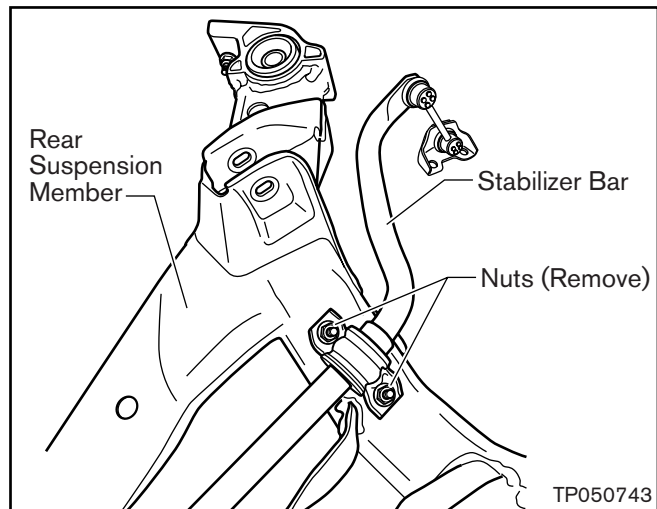


Figure B5

5. Now, set the original suspension member aside.

Procedure B

6. Re-install the original assemblies onto the new suspension member.
 - a. Place the new suspension member upside down on the sturdy work surface.
 - b. Install the original radius rod mounting pins to the new suspension member and tighten the nuts to: 120 - 140 Nm (12.2 – 14.3 kg-m, **88.5 – 103.3 ft-lb**). See Figure B6.

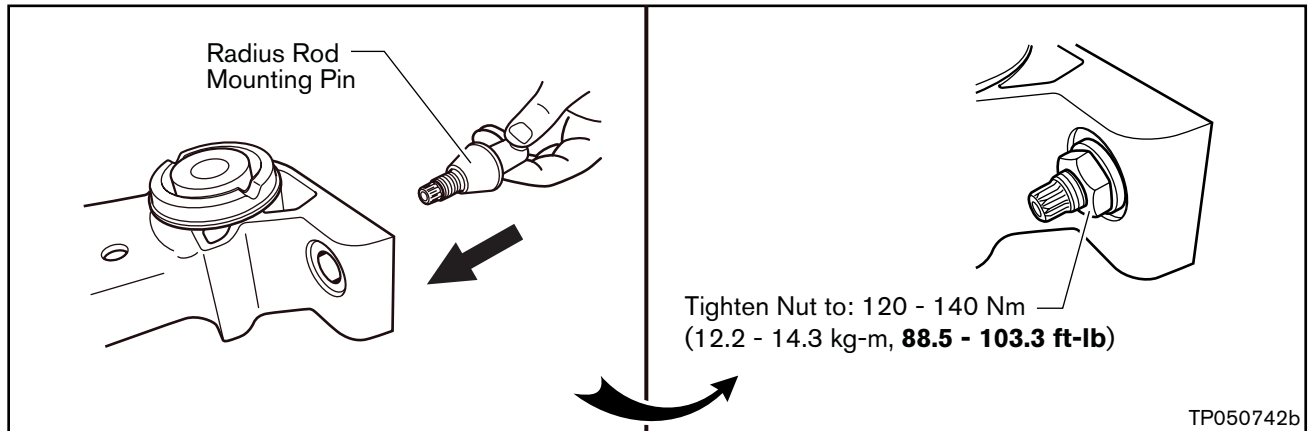


Figure B6

- c. Re-install the original suspension component assemblies onto the new suspension member in the reverse order of removal. Make note of the following:

NOTE: Do NOT torque any of the nuts/bolts yet. You'll do this later using a special A-arm adjustment tool #J-47438.

- The upper control arm bolts are installed from inboard to outboard as shown in Figure B7.

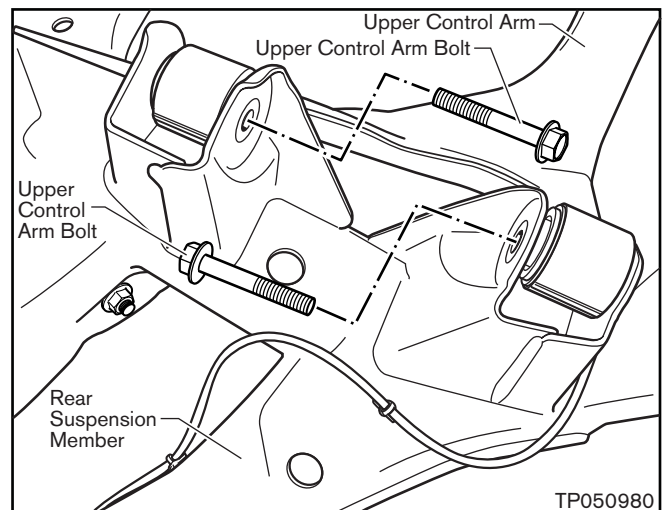


Figure B7

- There are two eccentric Bolts for the inner end of the front lower links and the inner end of the rear lower links. They are installed as shown in Figure B8. Use new nuts from the kit when installing these bolts. **During installation, use a backup wrench to keep the eccentric bolts correctly positioned.**

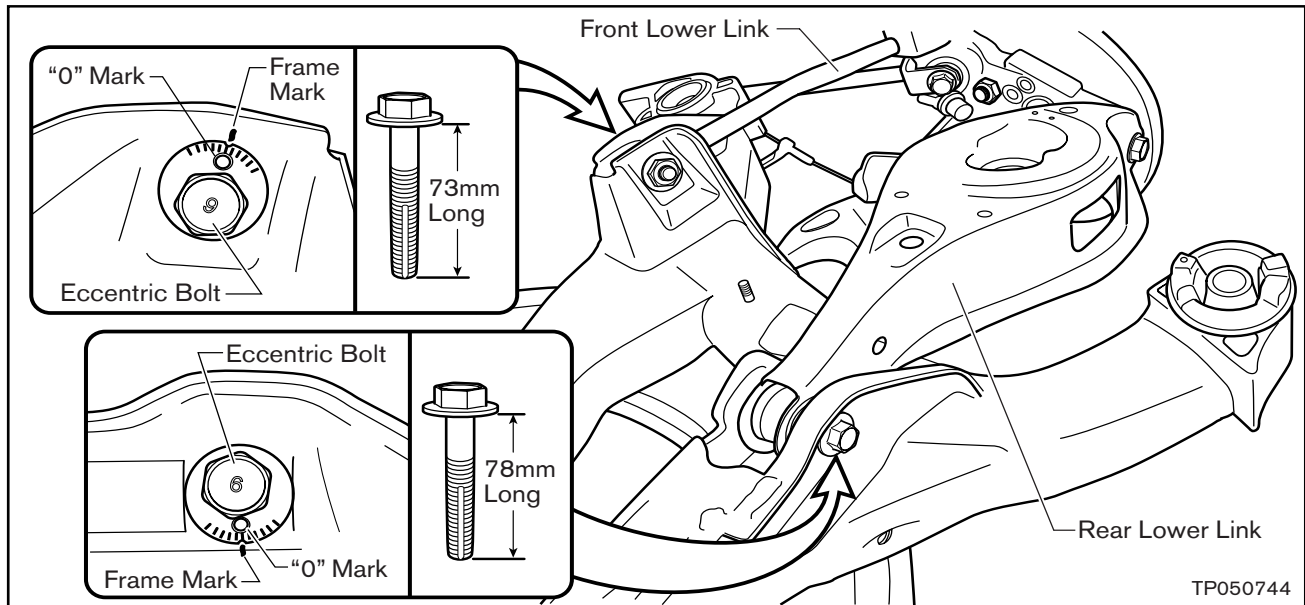


Figure B8

- Make sure the ABS wire harness is correctly routed, secured, and connected (if equipped).

NOTE: If the harness cable ties or connector mounts are broken during removal, replacements are available:

ABS harness cable ties (Cable Clip): P/N 24225-79903, qty 6

ABS harness connector mount (vehicles built before 8/04): P/N 24346-10V02, qty 2

ABS harness connector mount (vehicles built after 8/04): P/N 24225-ZB00A, qty 2

Procedure B

NOTE: The following step is being performed on the driver's (LH) side of the rear suspension member. You will need to perform this procedure on the passenger (RH) side of the rear suspension member also.

7. Temporarily install the special A-arm adjustment tool and tighten the suspension component nuts/bolts as follows:

NOTE: The purpose of this tool is to make sure the suspension is in the "loaded" position while tightening the suspension components nuts/bolts.

- a. Install the special A-arm adjustment tool #J-47438-L over the stabilizer bar mounting studs as shown in Figure B9a. Do not install the nuts onto the studs yet.
- b. Lift UP on the suspension component assembly and place the "foot" of the A-arm adjustment tool under the upper control arm as shown in Figure B9b.
- c. Use the stabilizer bar mounting nuts as shown in Figure B9b to hold the tool in place.

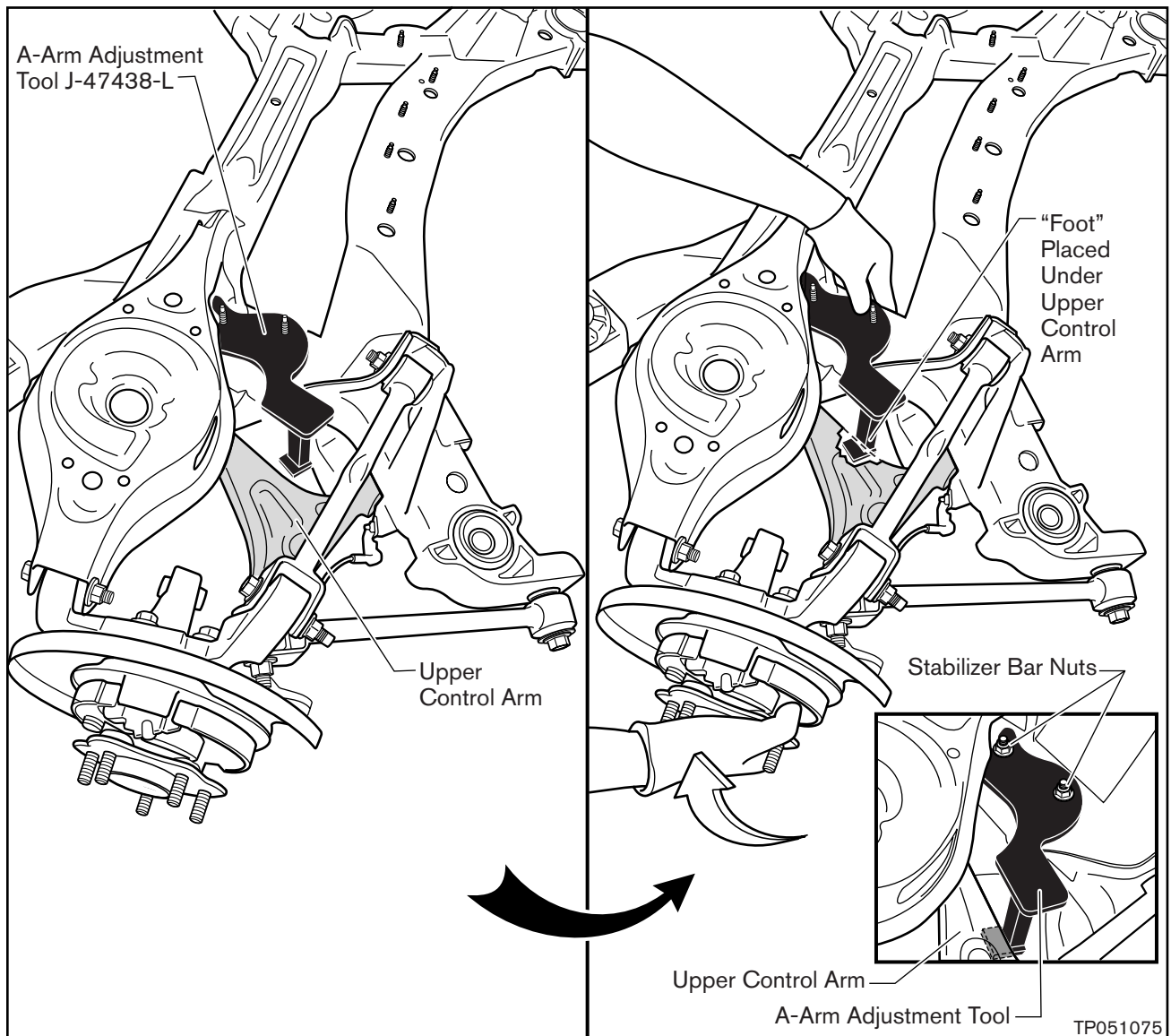


Figure B9a

Figure B9b

Procedure B

d. Tighten the suspension components nuts/bolts to the highlighted (shaded) torque specifications at this time (see Figure B10). You'll tighten the remaining bolts/nuts later.

- Use a backup wrench when tightening fasteners that use a nut and a bolt.

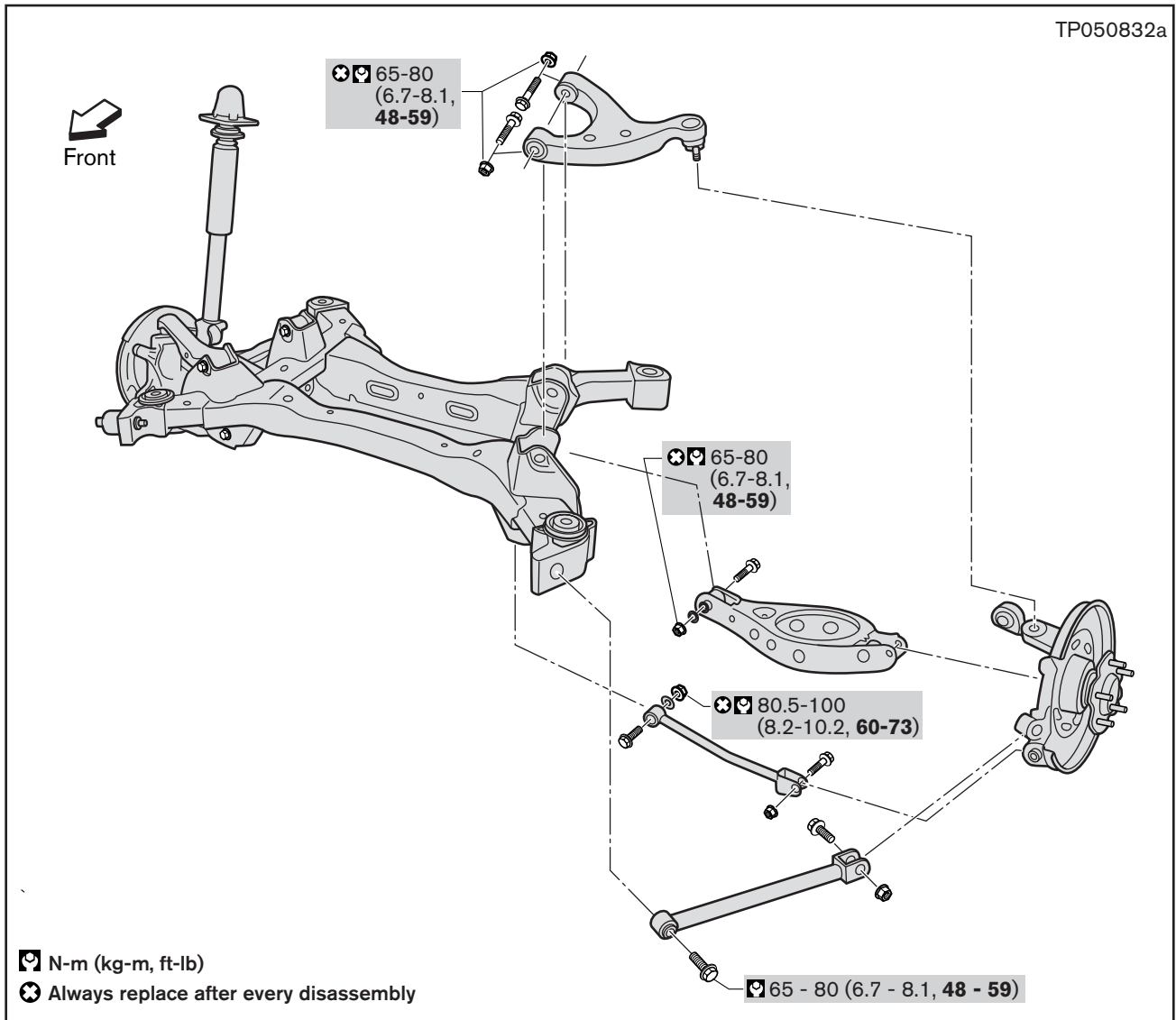


Figure B10

8. Be sure to remove the A-arm adjustment tool after the nuts/bolts are torqued.
9. Perform the above procedure on the passenger (RH) side of the rear suspension member.
10. Install the rear suspension member assembly by performing Procedure D.

Procedure B

PROCEDURE C: Replace / Seal Front Bushings in Rear Suspension Member and Seal **ONLY** Rear Bushings in Suspension Member

To perform this procedure, you will need:

- Automotive Aerosol Degreaser (local source)
- 1217H Genuine Nissan Liquid Gasket (P/N 11121-C9910)
- Bushing Removal / Install Tool #J-47325

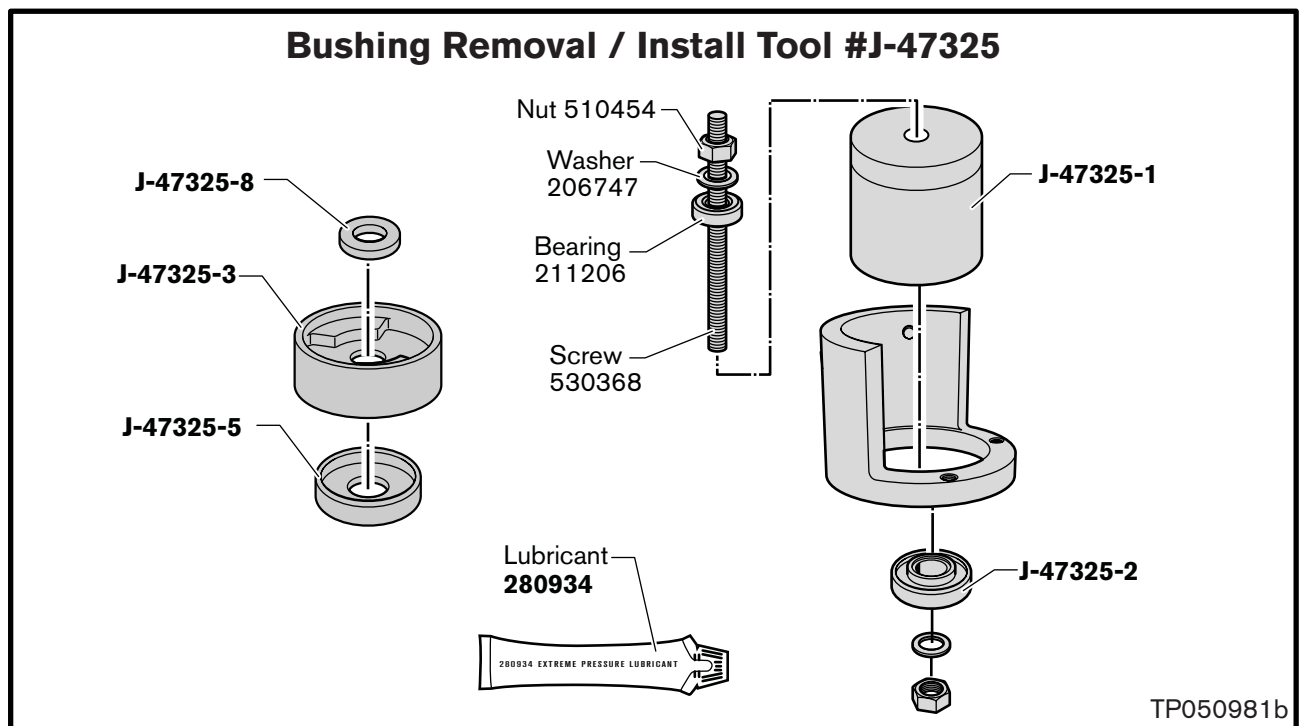


Figure C2

Procedure C

1. Inspect the rear suspension member at the locations shown in Figure C3 for corrosion damage.
 - a. If there is no corrosion damage, continue with step 2 of this procedure.
 - b. If there is corrosion damage, go to Procedure B: Replace Rear Suspension Member.

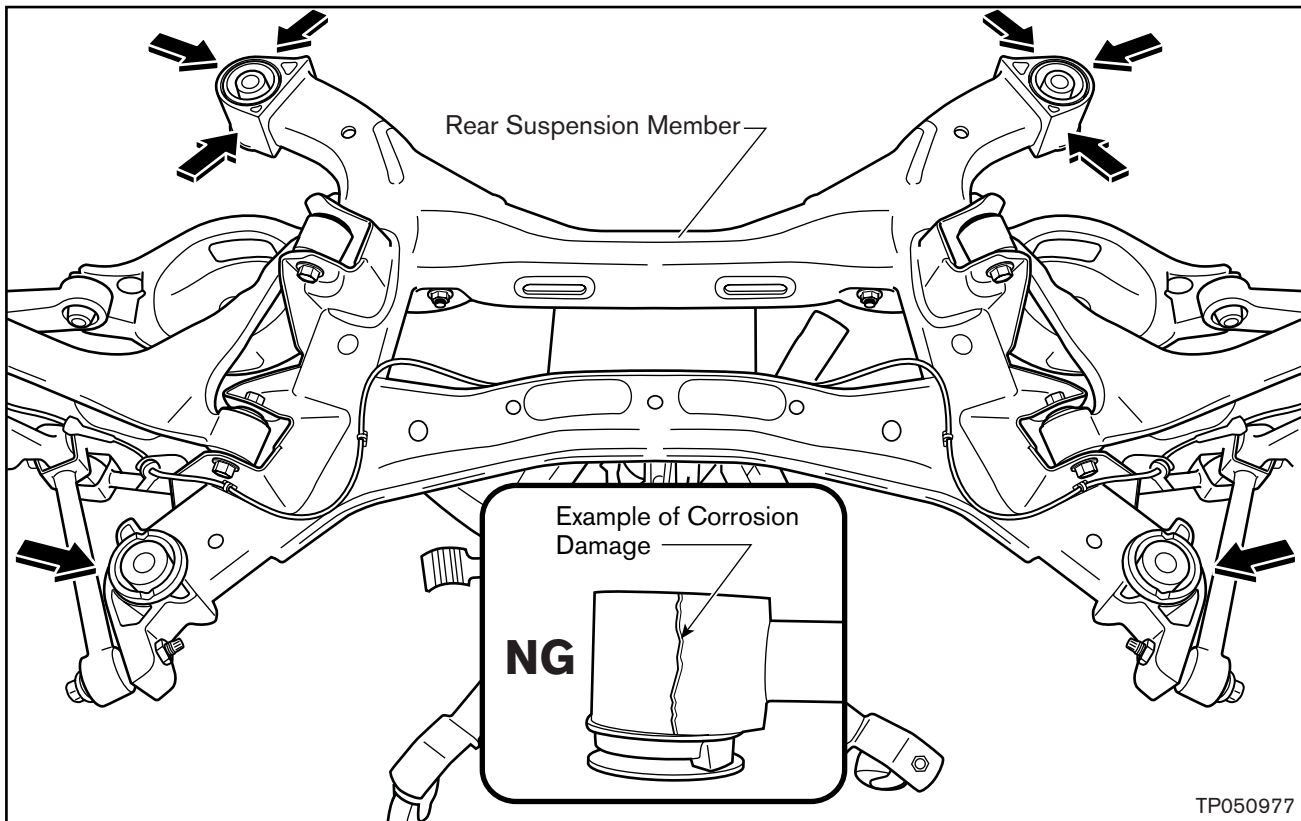


Figure C3

2. Secure the rear suspension member to the transmission jack with a suitable device, such as a tie-down strap. (See Figure C4).

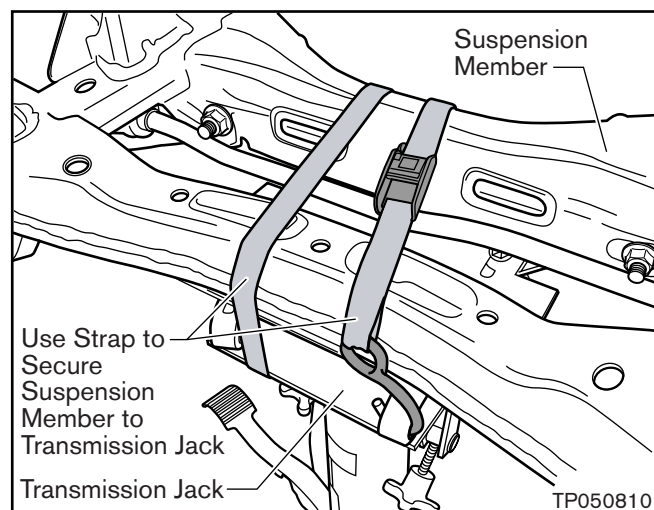


Figure C4

Procedure C

3. Roll the transmission jack over to a work bench. Place one end of the suspension member on the bench top. This will help stabilize the assembly when performing the following steps.

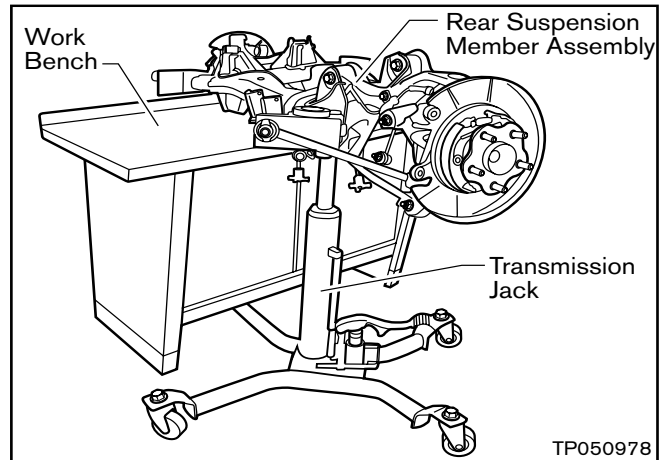


Figure C5

Replace / Seal Front Bushings

1. Replace both **front** bushings in the rear suspension member as follows:
 - a. Install the bushing remover/installer Tool #J-47325 to the **right front** (passenger side) bushing in the rear suspension member as shown in Figure C6.
 - When replacing the front bushings in the 2005 suspension member, start by removing the right front bushing first, then the left front. It is more likely the right bushing will be more difficult to remove than the left.
 - Keep the Screw (#530368) threads well lubed with the extreme pressure lubricant (#280934) from the kit.

Bushing Remover/Installer Tool #J-47325

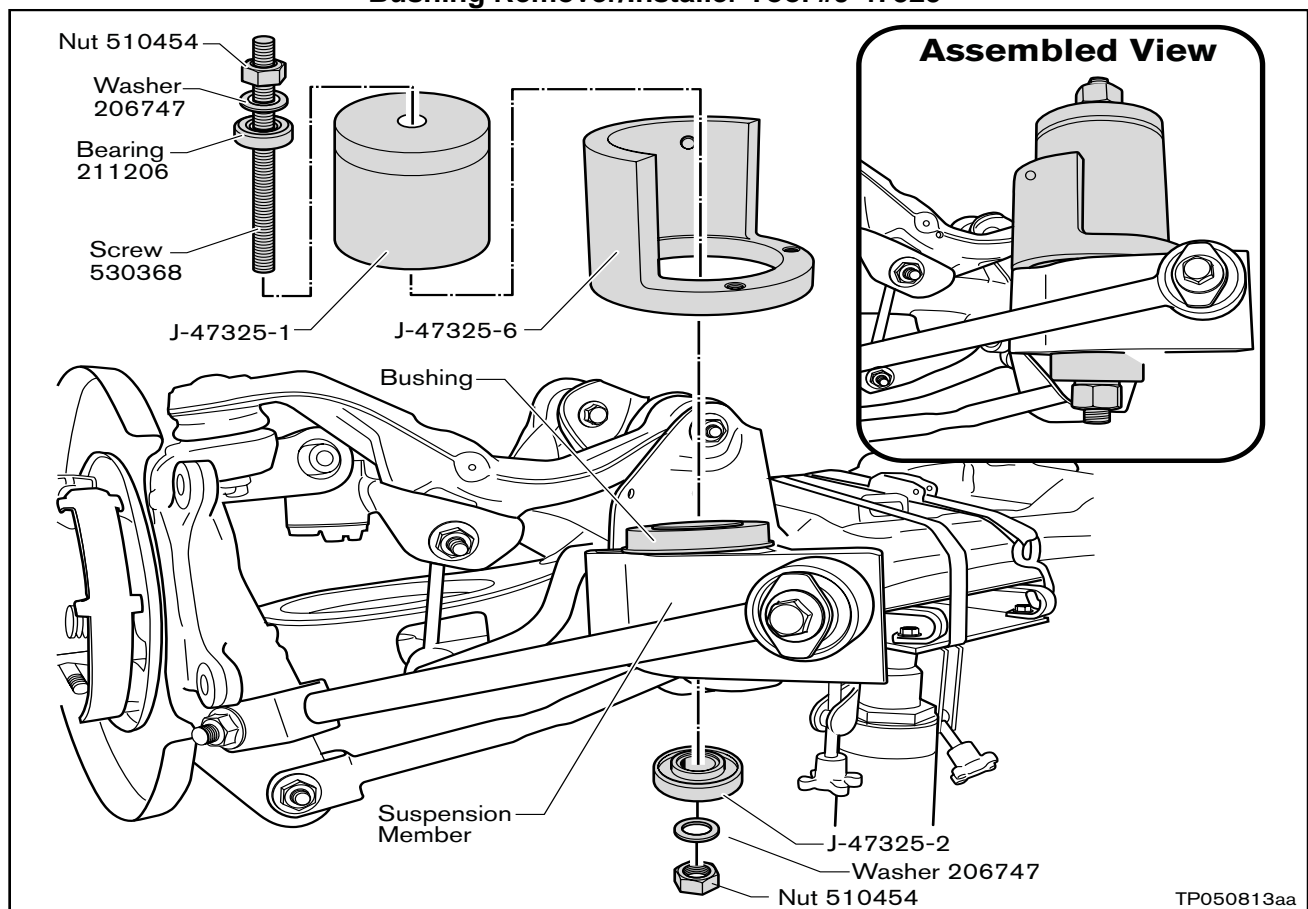


Figure C6

Procedure C

2. Using a torque wrench with the bushing remover/installer tool, remove both front bushings (see Figure C7).
 - a. If you can not remove both bushings, replace the rear suspension member. Perform Procedure B.

CAUTION: Avoid tool damage: Do not exceed 203 Nm (20.7 kg-m, **150 ft-lbs**) when removing the bushings.

 - b. If you can remove both bushings, do not replace the rear suspension member. Complete this procedure, and then install the suspension member assembly by performing Procedure D.

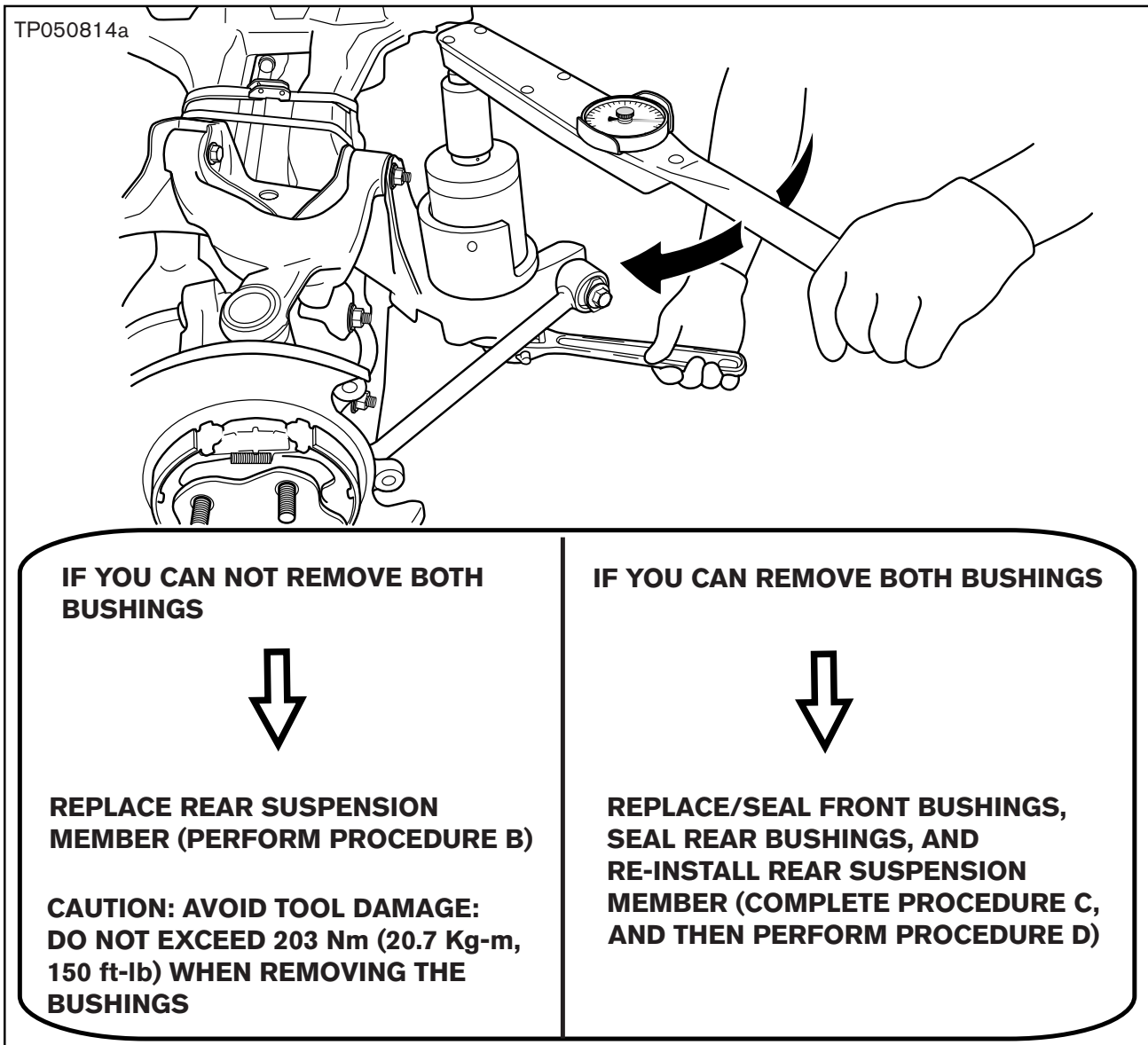


Figure C7

3. Once the bushings are removed, clean and “prep” the front bushing bores in the suspension member as follows:

NOTE: Make sure you clean around the top edge of the bore too.

Clean

- a. Use a wire brush to remove all dirt, debris, etc. Then blow off with clean shop air.
- b. Spray Genuine Nissan Brake Cleaner P/N 999MP-AH001P (or equivalent) into the bore, and then wipe the bore with a clean, dry, lint-free rag.

“Prep”

- c. Spray Automotive Aerosol Degreaser into the bore.
- d. Blow off with clean, dry shop air.

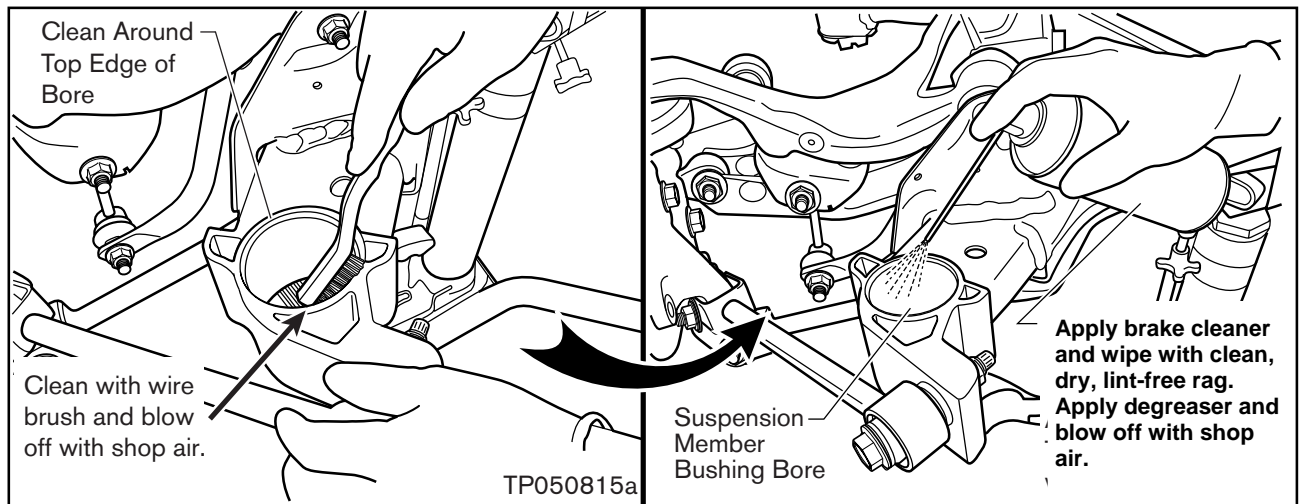


Figure C8

4. Install new bushings as follows:

- a. Clean the new bushing with automotive aerosol degreaser.
- b. Position the new bushing in the bore.
- c. To ensure a good seal, apply a 7mm (9/32”) bead of 1217H Genuine Nissan Liquid Gasket (P/N 11121-C9910) around the bushing as shown in Figure C9.
 - Overlap the beginning and ending point of the liquid gasket by 9.5mm (3/8 of an inch). Make sure there are no gaps in the bead of liquid gasket.
 - It is okay if the liquid gasket squeezes out around the bushing as the bushing is being pressed into place.

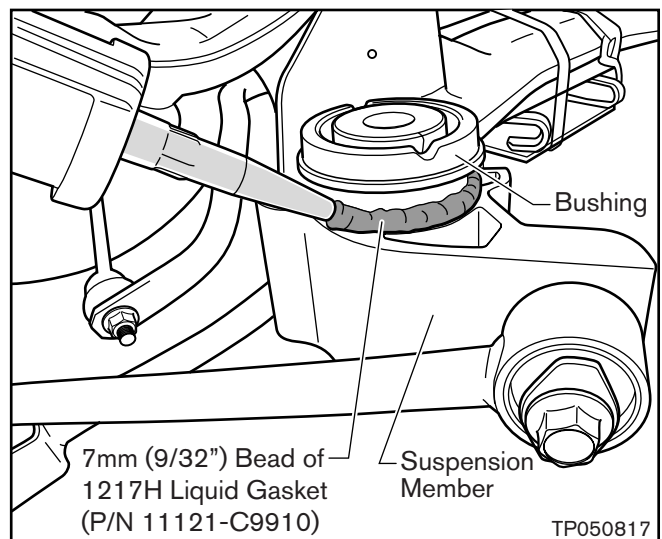


Figure C9

Procedure C

d. Install the bushing remover/installer Tool #J-47325 as shown in Figure C10.

NOTE: Keep the Screw (#530368) threads well lubed with the extreme pressure lubricant (#280934) contained in the kit.

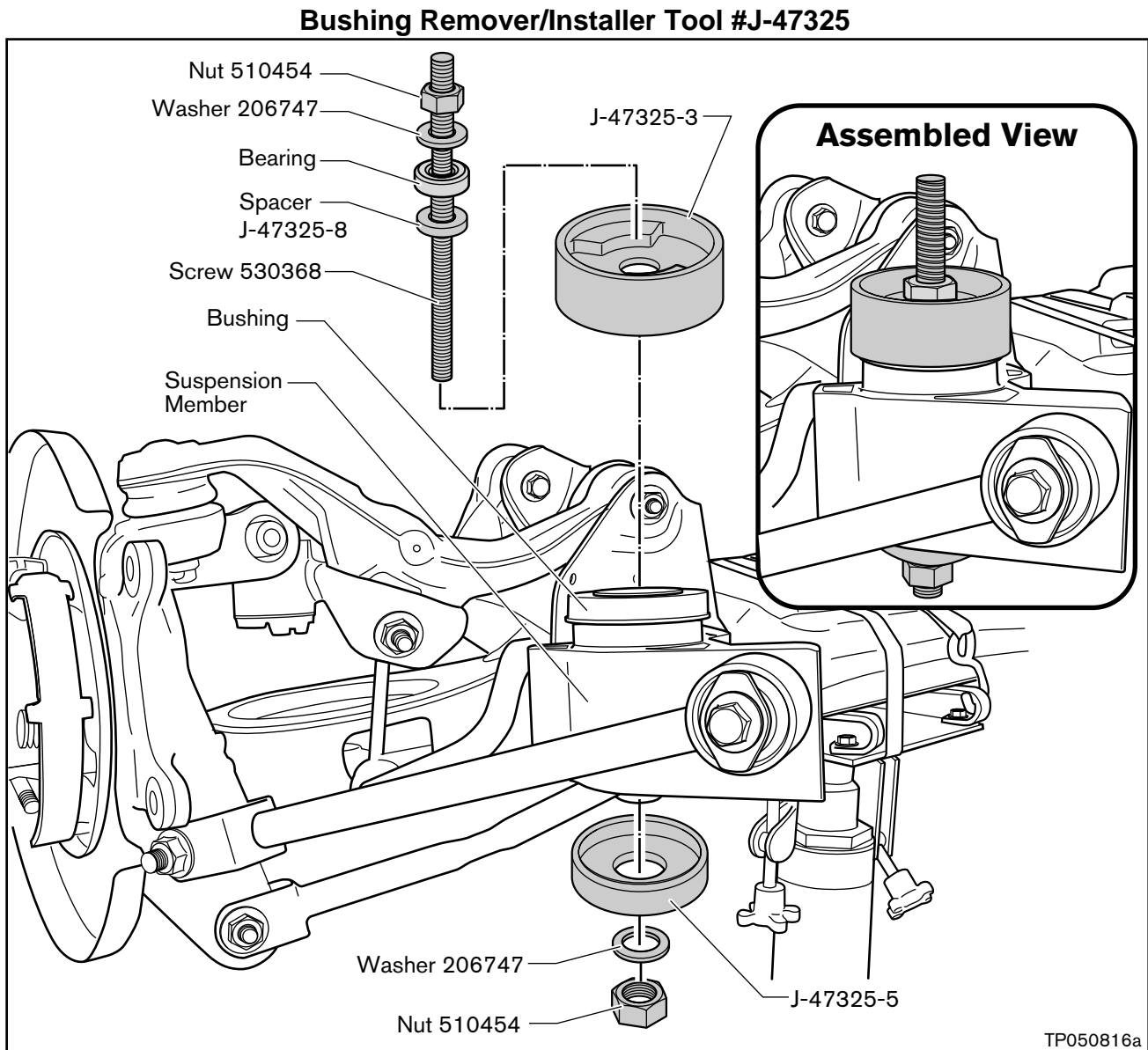


Figure C10

Procedure C

- e. Carefully tighten the nut and press the new bushing in until it's fully seated (see Figure C11).
 - Use a torque wrench and turn clockwise until the bushing is fully seated. Torque to 135.6 Nm (13.8 kg-m, **100 ft-lbs**).
 - Do NOT use an impact wrench.
- f. Repeat these steps for the other front bushing.

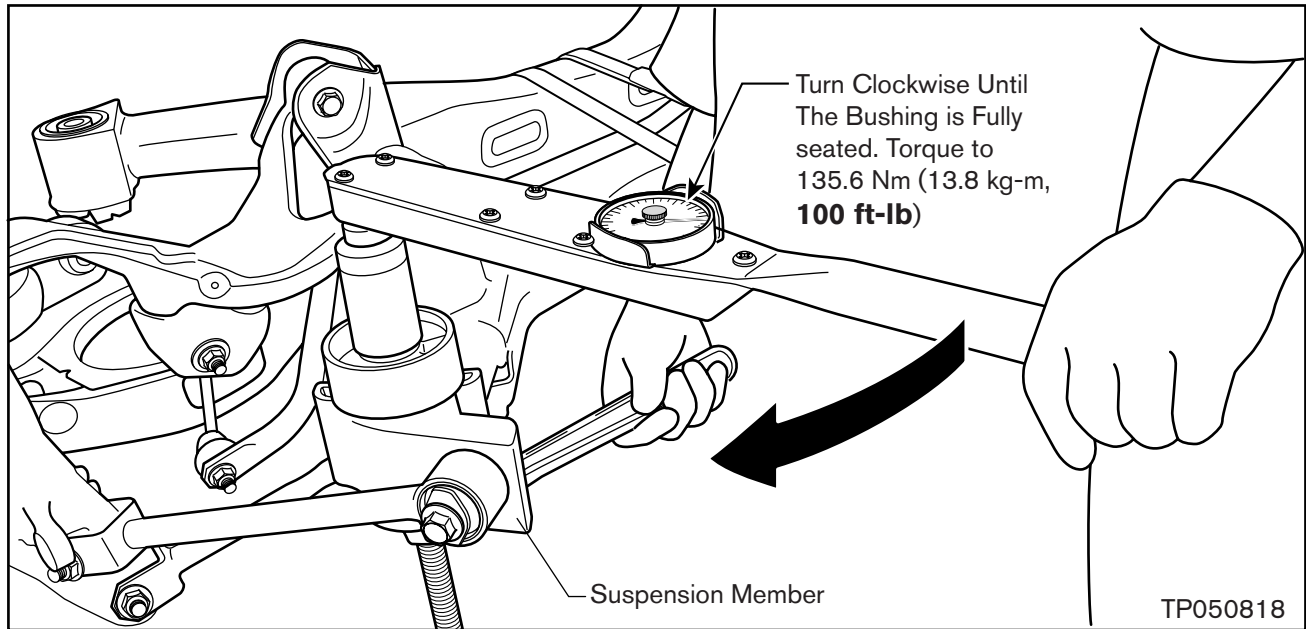


Figure C11

Rear Bushings - Seal ONLY

1. Clean and “prep” around the top edge of the rear bushings as follows:

Clean

- a. Use a wire brush to remove all dirt, debris, etc. Then blow off with clean shop air.
- b. Spray Genuine Nissan Brake Cleaner P/N 999MP-AH001P (or equivalent) onto the bushing and wipe with a clean, dry, lint-free rag.

“Prep”

- c. Spray automotive aerosol degreaser around the top edge of the bushing.
- d. Blow off with clean, dry shop air.

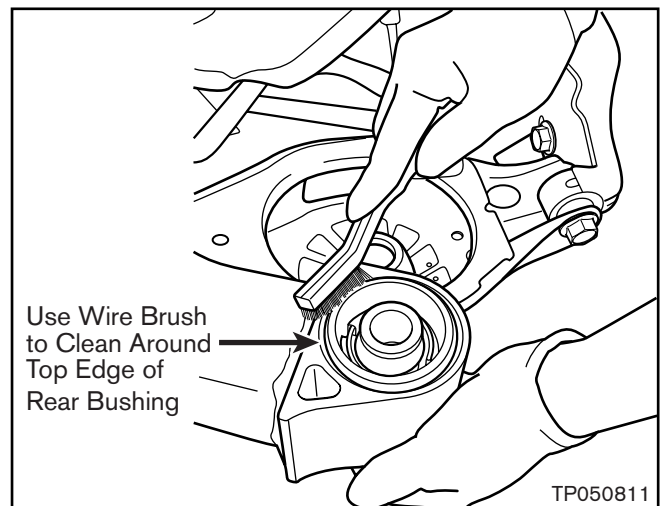


Figure C12

Procedure C

2. Apply a 7mm (9/32") bead of 1217H Genuine Nissan Liquid Gasket (P/N 11121-C9910) around the Bushing as shown in Figure C13a.
 - Overlap the beginning and ending point of the liquid gasket by 9.5mm (3/8 of an inch). Make sure there are no gaps in the bead of liquid gasket.
3. Use your finger or a suitable spreader to press/smooth the liquid gasket down into the crevice (small gap) between the bushing and suspension member (see Figure C13b), making sure not to remove any material.

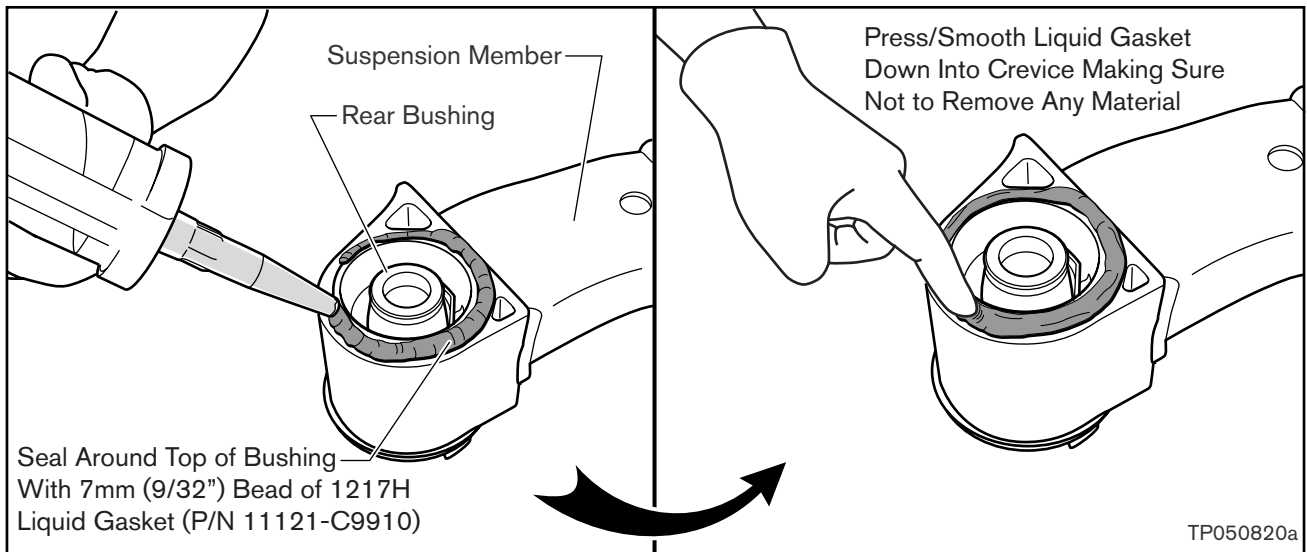


Figure C13a

Figure C13b

4. Repeat these steps for the other rear bushing.
5. Re-install the rear suspension member. Refer to Procedure D.

Procedure C

PROCEDURE D: Install Rear Suspension Member Assembly

1. Place the rear suspension member assembly on the transmission jack.

NOTE: You can insert a screwdriver through the front suspension member hole to help align the transmission jack adapter with the suspension member.

2. Clean and “prep” the four suspension member mounting studs (welded to the vehicle body) as follows (see Figure D1).

Clean

- a. Use a wire brush to remove all dirt, debris, etc. Then blow off with clean shop air.
- b. Spray Genuine Nissan Brake Cleaner P/N 999MP-AH001P (or equivalent) onto the stud, and then wipe off with a clean, dry, lint-free rag.

“Prep”

- c. Spray automotive aerosol degreaser onto the stud.
- d. Blow off with clean, dry shop air.

NOTE: The stud threads must be clean and dry.

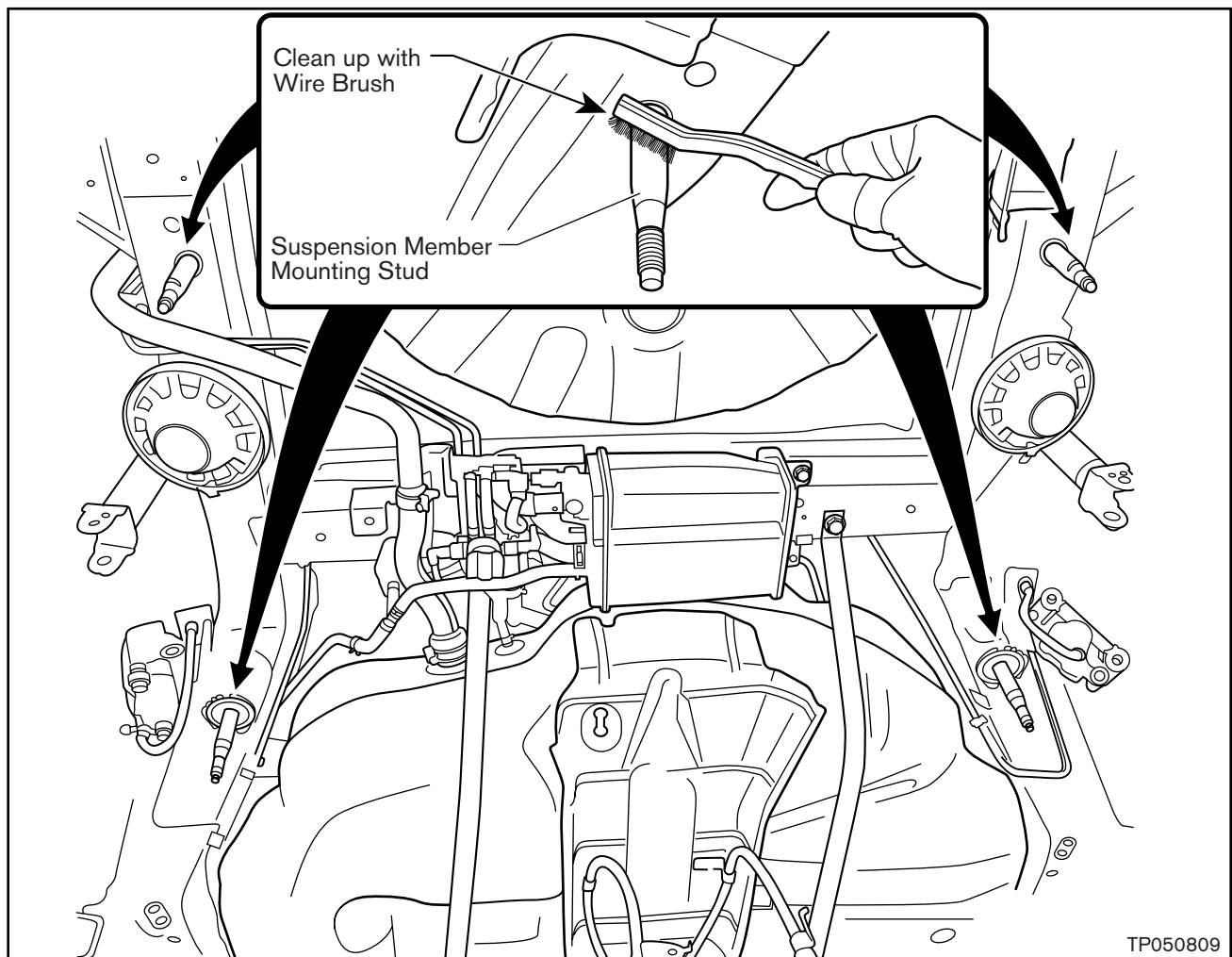


Figure D1

Procedure D

3. Clean and “prep” the four nuts that screw onto the suspension member mounting studs as follows (see Figure D2).

Clean

- a. Use a wire brush to remove all dirt, debris, etc from the nut threads. Then blow off with clean shop air.
- b. Spray Genuine Nissan Brake Cleaner P/N 999MP-AH001P (or equivalent) on the nut threads, and then wipe off with a clean, dry, lint-free rag.

“Prep”

- c. Spray automotive aerosol degreaser on the nut threads.
- d. Blow off with clean, dry shop air.

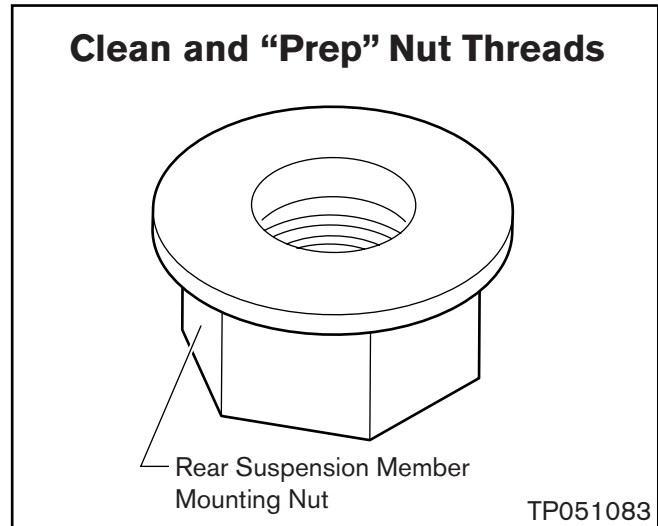


Figure D2

NOTE: The nut threads must be clean and dry.

CAUTION: When tightening the rear suspension member mounting nuts in the next step, **DO NOT EXCEED 100 N-m (10.3 Kg-m, 74 ft-lb).**

4. Install the suspension member/suspension member components in the reverse order of removal, making sure of the following:

- For all 2002 Altimas and 2003 Altimas built up to 1/24/03 ONLY: Install new LH and RH stay brackets. See Parts Information. The original rubber washers are not used on the new stay brackets.

- Re-torque all fasteners to specification (see Figure D3).

CAUTION: When tightening the rear suspension member mounting nuts, DO NOT EXCEED 100 N-m (10.3 Kg-m, 74 ft-lb).

- Use a “backup” wrench when tightening fasteners that use a nut and a bolt.
- Re-connect the ABS wire harnesses (if equipped) making sure they are “snapped” in place.
- Use a new gasket between the catalytic converter and center exhaust tube.
- Connect and adjust the parking brake cables.
- When re-installing the rear rotors to the hubs, make sure the mating surfaces are clean. If necessary, use a wire brush to remove any rust or debris. This will help prevent rotor run-out / brake judder. Also, make sure you correctly “index” the rotor to the hub.

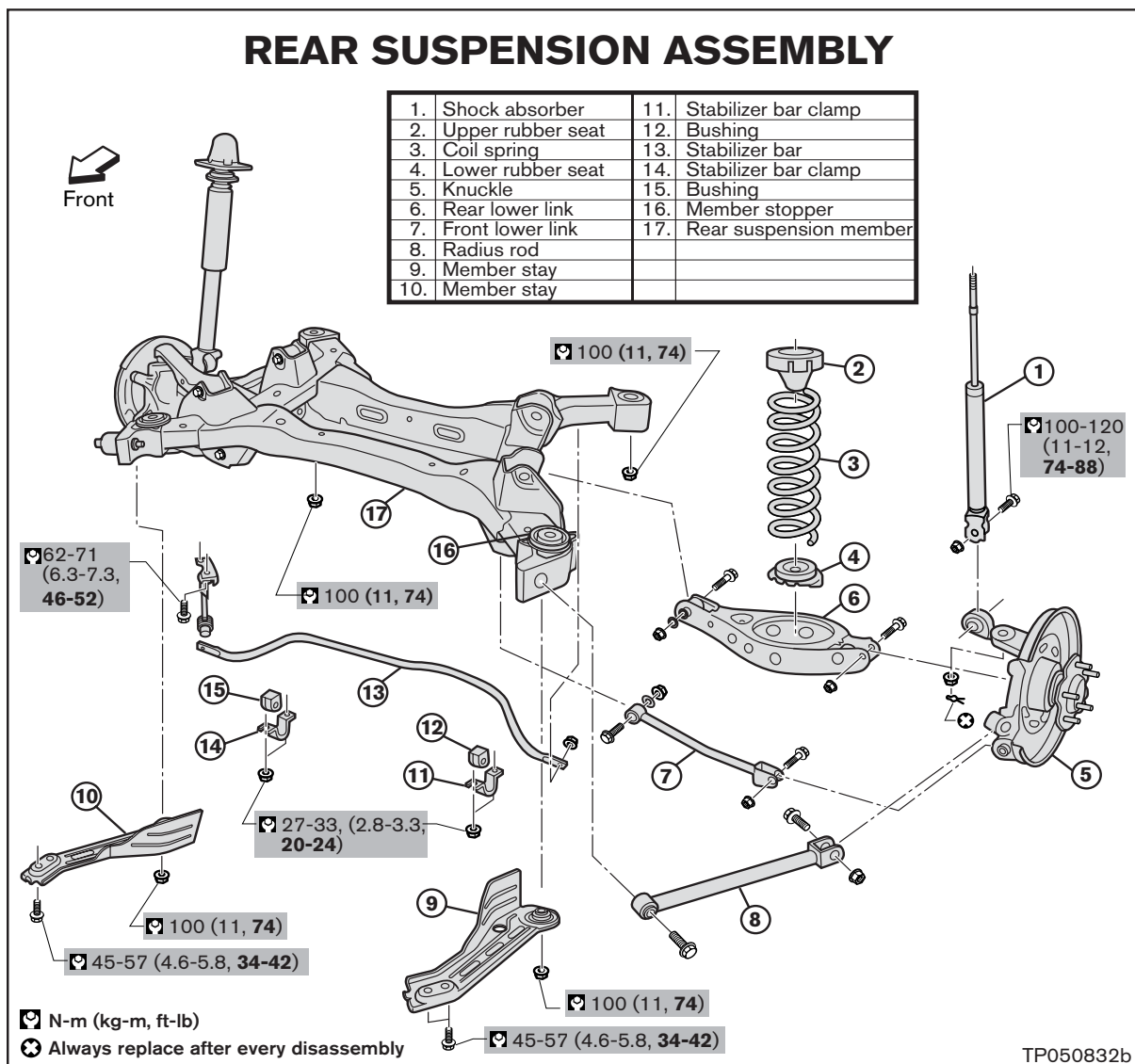


Figure D3

5. Perform a rear wheel alignment.

Procedure D

Required Special Tools (sent to each dealer)

Special Tools		
Description	View	Est.
<p>A-Arm Adjustment Tool J-47438</p>		<p>Drawer 8</p>
<p>Transmission Jack Adapter J-47326</p>		<p>N/A</p>
<p>Bushing Removal/Install Tool J-47325</p>		<p>Drawer 8</p>

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NOTE: Replacement tools can be ordered from Nissan TECH-MATE at 1-800-662-2001.

Required Special Tools

PARTS INFORMATION

DESCRIPTION	PART NUMBER	QTY
Rear Suspension Member Kit - Non-SER (see "NOTE A")	55400-ZB00J (see "NOTE C")	1
Front Bushing – Non-SER (for bushing replacement operation)	55440-ZD81A (see "NOTE D")	2
Rear Suspension Member Kit – SER (see "NOTE B")	55400-ZB60J	1
Front Bushing – SER (for bushing replacement operation)	55440-ZD82A	2
RH Stay Bracket – for all 2002 Altimas and 2003 Altimas built up to 1/24/03 Only	55451-8J001	1
LH Stay Bracket – for all 2002 Altimas and 2003 Altimas built up to 1/24/03 Only	55452-8J001	1
Exhaust Gasket (order separately ONLY for bushing replacement operation)	20692-65J00	1
Genuine Nissan Liquid Gasket TB1217H (see "NOTE E")	11121-C9910	As Needed
Automotive Aerosol Degreaser (see "NOTE E")	Local Source	As Needed
Genuine Nissan Rust Penetrant (see "NOTE F")	999MP-A3020P	As Needed
Genuine Nissan Brake Cleaner (see "NOTE F")	999MP-AH001P	As Needed

NOTE A: Kit includes:

- 55400-ZB00A – Rear Member (Qty 1)
- 20692-65J00 – Gasket, Exhaust (Qty. 1)
- 01225-00072 – Nut, Link Arm (Qty 4) (This is the inner nut for the front and rear lower links)
- 55269-AG005 – Nut Special (Qty 4) (This is the nut for the upper arm assembly)

NOTE B: Kit includes:

- 55400-ZB60A – Rear Member (Qty 1)
- 20692-65J00 – Gasket, Exhaust (Qty. 1)
- 01225-00072 – Nut, Link Arm (Qty 4) (This is the inner nut for the front and rear lower links)
- 55269-AG005 – Nut Special (Qty 4) (This is the nut for the upper arm assembly)

NOTE C: This part number may supersede to 55400-ZB00K.

NOTE D: This part number may supersede to 55440-ZD80A.

NOTE E: Obtain from local retailer.

NOTE F: Order through the Chemical Care Direct Ship Product Program which can be reached by:

Phone; 1 (800) 811-0502
Fax; 1 (770) 218-0148
Internet; www.nissanchemicals.com

Do NOT submit a claim for the Genuine Nissan Rust Penetrant (P/N 999MP-A3020P) and the Genuine Nissan Brake Cleaner (P/N 999MP-AH001P) as they are considered shop supplies. For the Genuine Nissan Liquid Gasket (P/N 11121-C9910) and the Genuine Nissan Parts Degreaser (P/N KA204-99900), refer to the "EXP. CODE" under the Claims Information section (next page).

PARTS INFORMATION

CLAIMS INFORMATION

Submit a Campaign (CM) line claim using the following claims coding:

“CM” I.D.: P5216

For 2002 – 2004 Models only:

DESCRIPTION	OP CODE	FRT
RPL Rear Suspension Member Assy (<u>with</u> ABS)	P52160	2.7 hrs

OR:

DESCRIPTION	OP CODE	FRT
RPL Rear Suspension Member Assy (<u>w/o</u> ABS)	P52161	2.6 hrs

For 2005 Models only:

DESCRIPTION	OP CODE	FRT
RPL & Seal Rear Suspension Member Bushings	P52162	2.5 hrs

OR (if bushings cannot be removed):

DESCRIPTION	OP CODE	FRT
RPL Rear Suspension Member Assy (<u>with</u> ABS)	P52163	2.9 hrs

OR:

DESCRIPTION	OP CODE	FRT
RPL Rear Suspension Member Assy (<u>w/o</u> ABS)	P52164	2.8 hrs

AND, IF Necessary:

DESCRIPTION	OP CODE	FRT
Additional allowance for excessive corrosion (1)	P52165	0.1 hrs
Seized nut removal, <u>each nut</u> (2)	P52166	0.3 hrs
Seized suspension member removal (1)	P52167	0.5 hrs

(1) This additional allowance permitted only **once** per claim.

(2) Enter total time - 0.3 hrs for each seized nut removed, maximum 4 nuts or 1.2 hrs.

EXP. CODE	DESCRIPTION	MAX. AMOUNT
052	Genuine Nissan Liquid Gasket	\$14.34
	Automotive Aerosol Degreaser	



Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Common Name	TB1217H	Code	1205-12-03
Supplier	Three Bond International, Inc. 6184 Schumacher Park Drive West Chester, OH 45069	MSDS#	3-TB-20-0481
Synonym	Not available.	Validation Date	12/8/2003
Trade name	TB1217H	Print Date	12/8/2003
Material Uses	Industrial applications: One component silicone rubber compound.	Responsible Name	Company
Manufacturer	Three Bond International, Inc. 6184 Schumacher Park Drive West Chester, OH 45069	In Case of Emergency	Monday-Friday, 830-500pm, 513-779-7300 EST. CHEMTREC - 1-800-424-9300 - 24 hours.

Section 2. Composition, Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits
1) Silicones, Siloxanes and other nonhazardous material.		50-55	Not available.
2) Carbon Black	1333-86-4	<0.2	TWA: 3.5 (mg/m ³) from ACGIH (TLV) [United States] TWA: 3.5 (mg/m ³) from OSHA (PEL) [United States]
3) Calcium Carbonate	1317-65-3	40-45	TWA: 10 (mg/m ³) from ACGIH (TLV) [United States] TWA: 15 (mg/m ³) from OSHA (PEL) [United States] TWA: 10 (ppm) from NIOSH
4) Fumed silica	68611-44-9	<2	TWA: 15 (mg/m ³) from OSHA (PEL) [United States] TWA: 10 (mg/m ³) from ACGIH (TLV) [United States]
5) Methyl Ethyl Ketoxime (MEKO)*, a by-product	96-29-7		TWA: 3 (ppm) from Vendor Guide [United States] TWA: 10 ppm STEL: 10 ppm from AIHA (Workplace Environmental Exposure Level) AIHA (Workplace Environmental Exposure Level) [United States]

Section 3. Hazards Identification

Physical State and Appearance	Solid. (Gray paste.)
Emergency Overview	EMERGENCY OVERVIEW. May cause eye, nose and throat irritation. Repeated or prolonged contact with skin may cause irritation leading to dermatitis. Product contains oximes which are possible skin sensitizers. Avoid breathing vapor or mist. Avoid contact with skin and eyes. Keep container tightly closed. Wash thoroughly after handling. Use only with adequate ventilation. Exposure to water or air moisture will gradually generates Methyl Ethyl Ketoxime (MEKO), a by-product from curing. See MEKO's exposure limits in Section 2.
Routes of Entry	Eye contact. Inhalation. Dermal.
Potential Acute Health Effects	<p>Eyes Direct contact may cause slight irritation with redness and swelling. MEKO, a by-product is severe eye irritant.</p> <p>Skin Repeated or prolonged contact with skin may cause irritation leading to dermatitis. Product contains oximes which are possible skin sensitizers.</p> <p>Inhalation Vapors or mists are irritating to the eyes, mucous membranes and upper respiratory tract. Overexposure to the vapor of the reaction by-product, MEKO vapors, can cause drowsiness, and may irritate nose and throat.</p> <p>Ingestion Not available.</p>

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Potential Chronic Health Effects	Carbon black is classified 2B (Possible for human) by IARC, classified A4 (Not classifiable for human or animal) by ACGIH, and not classified by OSHA. Contains material which may cause damage to the following: blood, kidneys, liver, bladder, eyes, and central nervous system.
Medical Conditions Aggravated by Overexposure:	Repeated or prolonged exposure to this product may aggravate existing skin, eye, and/or respiratory condition.
Overexposure /Signs/Symptoms	Overexposure to vapors will cause drowsiness, nose and throat irritation.
See Toxicological Information (section 11)	

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin Contact	Remove product from skin with dry cloth or towel, and wash exposed area with soap and water.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Ingestion	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
Notes to Physician	Not available.

Section 5. Fire Fighting Measures

Flammability of the Product	May be combustible at high temperature.
Auto-Ignition Temperature	Not available.
Flash Points	Not available.
Flammable Limits	Not available.
Products of Combustion	These products are carbon oxides (CO, CO ₂). Some metallic oxides. Silicone dioxide. Nitrogen oxides. Formaldehyde.
Fire Hazards in Presence of Various Substances	Slightly flammable to flammable in presence of open flames and sparks.
Explosion Hazards in Presence of Various Substances	None known.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Protective Clothing (Fire)	Be sure to use an approved/certified respirator or equivalent.
Special Remarks on Fire Hazards	No additional remark.
Special Remarks on Explosion Hazards	Container explosion may occur under fire conditions.

Section 6. Accidental Release Measures

Small Spill and Leak	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill and Leak	Disposal of collected material, residues, and cleanup materials may be governmentally regulated. Observe all applicable local, state, and federal waste management regulations. Wear appropriate protective equipment. Shovel spilled material into an appropriate waste disposal container. Dispose of collected material, residues, and cleanup materials by observing all applicable federal, state and local waste management regulations.

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Material Safety Data Sheets

Section 7. Handling and Storage

Handling	Avoid contact with eyes. Wash thoroughly after handling. Manipulate in a well-ventilated area or under an adequate fume hood.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls, Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
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Personal Protection

Eyes Safety glasses.

Body Long sleeves work apparel must be worn. Depending on conditions of use, chemically resistant plastic or rubber apron should be worn.

Respiratory Wear appropriate respirator when ventilation is inadequate.

Hands Gloves, Latex

Feet Chemical resistant shoes.

Protective Clothing (Pictograms)

Personal Protection in Case of a Large Spill Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product. Be sure to use a MSHA/NIOSH approved respirator or equivalent.

Product Name	Exposure Limits
1) Silicones, Siloxanes and other nonhazardous material.	Not available.
2) Carbon Black	TWA: 3.5 (mg/m ³) from ACGIH (TLV) [United States] TWA: 3.5 (mg/m ³) from OSHA (PEL) [United States]
3) Calcium Carbonate.	TWA: 10 (mg/m ³) from ACGIH (TLV) [United States] TWA: 15 (mg/m ³) from OSHA (PEL) [United States] TWA: 10 (ppm) from NIOSH
4) Fumed silica.	TWA: 15 (mg/m ³) from OSHA (PEL) [United States] TWA: 10 (mg/m ³) from ACGIH (TLV) [United States]
5) Methyl Ethyl Ketoxime	TWA: 3 (ppm) from Vendor Guide [United States] TWA: 10 ppm STEL: 10 ppm from AIHA (Workplace Environmental Exposure Level) AIHA (Workplace Environmental Exposure Level) [United States]

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Solid. (Gray paste.)	Odor	Slight.
Molecular Weight	Not applicable.	Taste	Not available.
Molecular Formula	Not applicable.	Color	Gray.
pH (1% Soln/Water)	Not applicable.		
Boiling/Condensation Point	Not available.		
Melting/Freezing Point	Not available.		
Critical Temperature	Not available.		
Specific Gravity	1.48 (Water = 1)		

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Vapor Pressure	>1
Vapor Density	Not available.
Volatility	Not available.
Odor Threshold	Not available.
Evaporation Rate	<1(butyl acetate = 1)
VOC	Not available.
Viscosity	Not available.
LogK _{ow}	Not available.
Ionicity (in Water)	Not available.
Dispersion Properties	Is not dispersed in cold water, hot water.
Solubility	Not soluble in water.
Physical Chemical Comments	Not available.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions of Instability	Avoid exposure to air and moisture until ready to use because they cause curing and MEKO vapors form gradually.
Incompatibility with Various Substances	Reactive with oxidizing agents, acids. Water or moisture.
Hazardous Decomposition Products	MEKO forms from moisture or water exposure. See Section 5 for thermal decomposition.
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

Toxicity to Animals	Acute oral toxicity (LD50): >5000 mg/kg [Rat]. (Siloxanes and Silicones, di-Me, hydroxy terminated.). Acute Inhalation Effects: Rat, inhalation, TC50: >4.8mg/l (MEKO, by-product)
Chronic Effects on Humans	CARCINOGENIC EFFECTS: Carbon black is classified 2B (Possible for human) by IARC, classified none by OSHA and classified A4 (Not classifiable for human or animal) by ACGIH. Studies of workers by the IARC has found that exposure to carbon black in industrial uses such as rubber, printing ink, paint manufacturing is negligible (Summary Of Data Reported and Evaluation, IARC VOL 65 (1996) p.149.) Also, this product contains fumed silica, titanium dioxide, calcium carbonate, and carbon black which are considered to be hazardous by inhalation as respirable dust. This product does not generate dust under normal handling conditions.
Other Toxic Effects on Humans	Contains material which may cause damage to the following organs: lungs, skin, eye, lens or cornea, nose/sinuses, throat.
Special Remarks on Toxicity to Animals	The following subchronic and chronic effects are known for curing by-product methylethylketoxime (MEKO) from animal testing: In a subchronic oral toxicity animal study, MEKO produced an adverse effect upon red blood cells (anemia). In an acute dermal animal study, 200 mg/kg cause mild hematologic (blood) effects. In chronic inhalation studies damage to the olfactory epithelium in nasal passage ways was observed at 15, 75 and 375 ppm concentration levels in both male and female rats and mice. The effect was minimal at 15 ppm. Evidence of recovery was found after cessation of exposure. The no observed effect level (NOEL) was determined to be 3 ppm. Carcinogenicity: Chronic lifetime inhalation studies at high concentrations of MEKO observed liver carcinomas in male rats and mice late in life. These carcinomas were noted to be statistically increased for males at a MEKO concentration of 375 ppm. The No Observed Adverse Effect Level (NOAEL) was determined to be 75 ppm. Teratogenicity: MEKO was not determined to be reproductive toxin (Rats 200 mg/kg). Mutagenicity: MEKO was determined to be non-mutagenic in Drosophila Genetic Study. MEKO in

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	in-vivo chromosome aberration study was found not to induce chromosomal aberration. (Rats 1200 mg/kg).
Special Remarks on Chronic Effects on Humans	The relevance of MEKO studies of animals to humans is uncertain as of now. Until more data is available, exposure levels should be maintained as low as achievable.
Special Remarks on Other Toxic Effects on Humans	Not available.


Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Biodegradable/OECD	Not available.
Mobility	Not available.
Products of Degradation	These products are carbon oxides (CO, CO ₂) and water. Some metallic oxides.
Toxicity of the Products of Biodegradation	The product itself and its products of degradation are not toxic.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Information:	Follow applicable Federal, state, and local regulations.
Waste Stream:	Non-categorized by EPA or RCRA.
Consult your local or regional authorities.	

Section 14. Transport Information

DOT Classification	Not a DOT controlled material (United States).	
	Not regulated.	
Marine Pollutant	Not available.	
Special Provisions for Transport	Not applicable.	
ADR/RID Classification	Not controlled under ADR (Europe).	
IMO/IMDG Classification	Not controlled under IMDG.	
ICAO/IATA Classification	Not controlled under IATA.	

Section 15. Regulatory Information

HCS Classification	HCS Class: Irritating substance.
U.S. Federal Regulations	TSCA 8(b) inventory: All ingredients of this product are in compliance with TSCA requirements. SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: No products were found. SARA 311/312 MSDS distribution - chemical inventory - hazard: No products were found. Clean Water Act (CWA) 307: No products were found.

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Clean Water Act (CWA) 311: No products were found.
 Clean air act (CAA) 112 accidental release prevention: No products were found.
 Clean air act (CAA) 112 regulated flammable substances: not listed
 Clean air act (CAA) 112 regulated toxic substances: No products were found.

International Regulations

EINECS Not available.

DSCL (EEC) R41- Risk of serious damage to eyes.

International Lists Australia: Carbon Black
 Korea (TCCL): Carbon Black

State Regulations

New Jersey: Carbon Black
 Louisiana RTK reporting list: Carbon Black
 California prop. 65: This regulation requires a warning for California Proposition 65 Chemicals under the statute. The California Proposition 65 Chemical contained in this product are: Toluene/108-88-3: <0.1%

Section 16. Other Information

Label Requirements

May cause eye, nose and throat irritation. Repeated or prolonged contact with skin may cause irritation leading to dermatitis. Product contains oximes which are possible skin sensitizers. Avoid breathing vapor or mist. Avoid contact with skin and eyes. Keep container tightly closed. Wash thoroughly after handling. Use only with adequate ventilation.

Hazardous Material Information System (U.S.A.)

Health	*	2
Fire Hazard		1
Reactivity		1
Personal Protection		j

National Fire Protection Association (U.S.A.)



References

-Manufacturer's Material Safety Data Sheet.

Other Special Considerations

Not available.

Validated by Company on 12/8/2003.

Verified by Company.

Printed 12/8/2003.

Monday-Friday, 830-500pm, 513-779-7300 EST.
 CHEMTREC - 1-800-424-9300 - 24 hours.

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product name	Never-Seez Regular Grade Cmpd.
Product name(s) covered	V047740 - NEV-SZ REG NS40 1/4LB CAN V048740 - NEV-SZ REG NS160 1LB CAN V048741 - NEV-SZ NSKBK-160 REG 1LB CAN V052240 - NEV-SZ REG NS164 4LB CAN V052440 - NEV-SZ REG NS168 8LB CAN V054350 - NEV-SZ REG NS42B 42LB PL V056440 - NEV-SZ REG NSB16 1LB BT CAN V057640 - NEV-SZ REG NSBT8 8OZ BT CAN V057740 - NEV-SZ REG NSBT16 1LB BT CAN V057840 - NEV-SZ REG NSC1 1LB CTG V057940 - NEV-SZ REG NS10 1OZ TUBE V058240 - NEV-SZ REG NSB4 1/4LB TUBE V058650 - NEV-SZ REG NS130B 130LB DR V059052 - NEV-SZ REG NS425B 425LB DR V166252 - NEV-SZ REG NS425B W/LINER V332731 - NEV-SZ REG 7.5GR PP V435703 - NEV-SZ REG NSBT4 STD LBL
MSDS name	Never-Seez Regular Grade Compound
CAS number	Mixture
Generic description	Miscellaneous
Manufacturer	Bostik, Inc. 211 Boston Street Middleton , MA 01949 USA
24 hour emergency assistance	Telephone: 1-800-227-0332
General assistance	Telephone: 1-978-777-0100
MSDS assistance	Telephone: 1-414-607-1407

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component(s)	CAS #	Percent
Copper Powder	7440-50-8	7 - 13
Zinc oxide	1314-13-2	3 - 7
Graphite	7782-42-5	10 - 30
Aluminum	7429-90-5	1 - 5

3. HAZARDS IDENTIFICATION

Emergency overview	Extended contact with this material may cause irritation to the skin, eyes, and mucous membranes. Primary Routes of Exposure: eyes, skin, and inhalation. Irritating fumes and gases may be released upon thermal processing or during combustion.
Potential health effects	
Skin	SKIN CONTACT: This product may cause irritation to the skin. Prolonged and/or repeated skin contact with this product may cause irritation/dermatitis.
Eyes	EYE CONTACT: This product may cause irritation to the eyes.
Inhalation	INHALATION: Fumes released during thermal processing may irritate respiratory system, skin and eyes.
Ingestion	INGESTION: Ingestion may cause gastrointestinal tract discomfort or damage.
Target organs	Skin.

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4. FIRST AID MEASURES

First aid

Skin	For minor exposures, wash thoroughly with soap and clean water. In situations involving considerable skin contact, place the contaminated person in a deluge shower for at least 15 minutes. Remove contaminated clothing to prevent further skin exposure and dispose of properly. Get medical attention if irritation persists.
Eye	Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention at once.
Inhalation	Move person to non-contaminated air. If the affected person is not breathing, apply artificial respiration. Seek medical attention.
Ingestion	Do not induce vomiting. If person is conscious and can swallow, immediately give two glasses of water. Seek immediate medical attention. Do not give anything by mouth to an unconscious or convulsing person.
Notes to physician	Treat symptomatically and supportively. Contact Bostik to determine whether any additional information is available.

Medical conditions aggravated by exposure

Dermatitis.

5. FIRE FIGHTING MEASURES

Extinguishing media	Use dry chemical, carbon dioxide, or foam. Water spray (fog).
Dust explosion hazard	None Known
Sensitivity to mechanical impact	None Known
Sensitivity to static discharge	None Known
Unusual fire & explosion hazards	Product may burn and produce toxic gases in a fire.
Fire fighting equipment/instructions	Firefighters should wear full protective clothing including self contained breathing apparatus.
Flash point	> 482 °F (> 250 °C)

6. ACCIDENTAL RELEASE MEASURES

Emergency action	Appropriate safety measures and protective equipment should be used. See Section 8. Do not discharge to lakes, streams, ponds, or sewers. Dispose of in compliance with local, state, and federal regulations.
Spill or leak procedure	Scrape up grease and deposit into appropriate containers for disposal.

7. HANDLING & STORAGE

Storage	Store in a clean, dry area. Keep containers closed.
Empty container precaution	Attention! Follow label warnings even after container is emptied since empty containers may retain product residues. Do not reuse empty container without professional cleaning for food, clothing, or products for human or animal consumption, or where skin contact can occur.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls	Ventilation is not normally required.
Eye protection	Wear safety glasses with side shields.
Skin and body protection	Wear protective impervious gloves to minimize skin exposure. Work clothing sufficient to prevent all skin contact should be worn, such as coveralls and long sleeves.
Respiratory protection	Not normally needed.

Exposure limits

ACGIH - Threshold Limits Values - Time Weighted Averages (TLV-TWA)

Aluminum	7429-90-5	10 mg/m ³ TWA (metal dust)
Copper Powder	7440-50-8	0.2 mg/m ³ TWA (fume); 1 mg/m ³ TWA (dusts and mists, as Cu)
Graphite	7782-42-5	2 mg/m ³ TWA (respirable fraction, all forms except graphite fibers)
Zinc oxide	1314-13-2	2 mg/m ³ TWA (respirable fraction)

OSHA - Vacated PELs - TWAs

Aluminum	7429-90-5	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)
Copper Powder	7440-50-8	0.1 mg/m ³ TWA (fume, dusts, mists as Cu)
Graphite	7782-42-5	2.5 mg/m ³ TWA (respirable dust)
Zinc oxide	1314-13-2	5 mg/m ³ TWA (fume); 10 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction)

Hand protection

We recommend the use of neoprene gloves (5.9 mils or greater) during the application of this product.

9. PHYSICAL & CHEMICAL PROPERTIES

Target solids	100 %
Density	1.21 g/cc
Odor threshold	NA
Octanol/H ₂ O coeff	NA
Odor	Greaselike
Color	Silvery Gray
Physical state	Paste
Freeze protect	No
VOC (Volatile Organic Compounds)	0 g/l

10. STABILITY & REACTIVITY

Hazardous reactions/decomposition products	If product is burned hazardous gases such as oxides of carbon and nitrogen and various hydrocarbons may be produced.
Hazardous polymerization	Will not occur.
Conditions to avoid	Avoid contact with Strong Oxidizers and Strong Acids.
Stability	Stable under normal conditions.

11. TOXICOLOGICAL INFORMATION

LD50

Toxicology Data - Selected LD50s and LD50s

Zinc oxide	1314-13-2	Oral LD50 Mouse: 7950 mg/kg
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Chronic effects	Chronic overexposure to the hazardous materials in this product has been associated with dermatitis.
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12. ECOLOGICAL INFORMATION

VOC (Volatile Organic Compounds)	0 g/l
Ecotoxicological information	No data available for this product.

13. DISPOSAL CONSIDERATIONS

We make no guarantee or warranty of any kind that the use or disposal of this product complies with all local, state, or federal laws. It is also the obligation of each user of the product mentioned herein to determine and comply with the requirements of all applicable statutes.

Waste disposal	Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.
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14. TRANSPORT INFORMATION

DOT

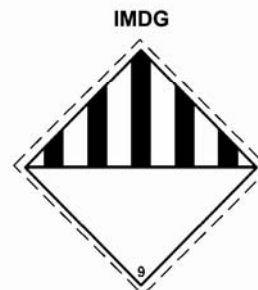
This product is not regulated for transport.

IATA

This product is not regulated for transport.

IMDG

Proper shipping name	Environmentally Hazardous Substance, Liquid, N.O.S. (Contains copper metal powder)
Hazard class	9
UN number	UN3082
Packaging group	III



15. REGULATORY INFORMATION

This MSDS is prepared and distributed pursuant to the Federal Hazard Communication Standard, 29 CFR 1910.1200.

Federal regulations All components are on the U.S. EPA TSCA Inventory List.

CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Copper Powder	7440-50-8	<u>5000 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is equal to or exceeds 0.004 inches); 2270 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is equal to or exceeds 0.004 inches)</u>
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CERCLA/SARA - Section 313 - Emission Reporting

Aluminum	7429-90-5	<u>1.0 % de minimis concentration (dust or fume only)</u>
Copper Powder	7440-50-8	<u>1.0 % de minimis concentration</u>

State regulations If this product contains any ingredients listed under California Proposition 65, they will be noted below:

California - Proposition 65 - Developmental Toxicity

Lithium carbonate	554-13-2	<u>developmental toxicity, initial date 1/1/91</u>
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International regulations All components are included on the Canadian Domestic Substances List (DSL).

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and contains all the information required by the Controlled Products Regulations.

HMIS Ratings

Health: 1
Flammability: 1
Physical hazard: 0
Personal protection: X

SARA 311/312 HAZARD CATEGORIES

Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

WHMIS status

Non-controlled

16. OTHER INFORMATION

Disclaimer

The data in this MSDS has been compiled from publicly available sources. This data relates only to the designated product and not to the use of said product in combination with other materials. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Responsibility for proper precautions and safe use of the product lies with the user. All data in this MSDS is typical of the product as a whole, and does not represent any individual lot or batch, therefore, Bostik, Inc. makes no warranty about the accuracy of the data herein and assumes no liability for the use of such data. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.

Issue date

07/19/2005

Material name: Never-Seez Regular Grade Cmpd.

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Prepared by
Supercedes
MSDS sections updated

Michael Simon
05/16/2005
Exposure Controls / Personal Protection: Hand Protection

Material name: Never-Seez Regular Grade Cmpd.
Material ID: 32092 Version #: 03 Revision date: 19-JUL-2005 Print date: 19-JUL-2005

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OWNER'S LETTER – (warranty extension notification)

Dear Nissan Owner:

Nissan is committed to providing the highest levels of product quality and customer satisfaction. On some model year 2002-2005 Nissan Altima and 2004-2005 Nissan Maxima vehicles, there is a possibility that corrosion of the rear sub-frame may occur. Corrosion is most likely in cold climates where heavy salting of roads is common practice in freezing conditions. A mixture of road salt and water can promote corrosion in the rear sub-frame bushings of some vehicles. In severe cases, cracking of the rear sub-frame may occur, which may result in a knocking noise coming from the rear of the vehicle. The performance or handling characteristics of your vehicle are not affected and it is safe to drive your vehicle.

What Nissan Will Do

To ensure the highest levels of customer satisfaction, Nissan is extending the warranty for cracking of the rear sub-frame due to corrosion to a total of 13 years from the original in-service date with unlimited mileage on all model year 2002-2005 Nissan Altima and 2004-2005 Nissan Maxima vehicles.

Our records indicate your vehicle is registered in one of the "salt" states where road salt is common and corrosion may therefore occur. To prevent corrosion before it happens, Nissan is also offering to repair or, if necessary, replace the rear sub-frame on vehicles currently registered in these states.

What You Should Do

Remove the sticker located on the bottom of this letter and place it on the cover of your Nissan Warranty Information Booklet to remind you of the warranty extension, should you ever need to use it. No additional action is required on your part at this time.

Over the next 8 months, based on the model year of your vehicle, you can expect to be notified by Nissan to bring your vehicle to a Nissan dealer for repair at no cost to you. Because this condition is more likely to occur on vehicles with increased exposure to heavy salt usage, Nissan will begin to notify owners of the earliest model year vehicles first.

Rest assured that it is safe to continue to drive your vehicle. However, if you should experience a "knocking" noise coming from the rear of your vehicle or, if during routine maintenance, a service technician (Nissan or non-Nissan) should observe any cracking of the rear sub-frame during the extended warranty period, please contact your Nissan dealer. Your Nissan dealer will inspect and repair your vehicle, as needed, at no cost to you.

Thank you for your cooperation. We are indeed sorry for any inconvenience this may cause you.

Nissan Division
Nissan North America, Inc.

NOTICE: The coverage period of the Nissan New Vehicle Limited Warranty applicable to all model year 2002-2005 Nissan Altima and 2004-2005 Maxima vehicles is extended to 13 years from the original in-service date/ unlimited mileage for cracking of the rear sub-frame due to corrosion only. The warranty, including all terms, limitations and conditions, otherwise remains unchanged.

Nissan North America WB05-038 December, 2005

OWNER'S LETTER – (vehicle repair notification)

Dear Nissan owner:

Previously, Nissan notified you, as an owner of a model year 2002-2005 Nissan Altima or 2004-2005 Nissan Maxima, of the possibility that corrosion of the rear sub-frame might occur. At that time, the warranty on your vehicle was extended to a total of 13 years from the original in-service date with unlimited mileage for cracking of the rear sub-frame due to corrosion.

Our records indicate that your vehicle is (or was) previously registered in one of the "salt" states where corrosion is most likely to occur. To prevent corrosion before it happens, Nissan is now also offering to repair or, if necessary, replace the rear sub-frame on vehicles such as yours which are currently, or have in the past been registered in one of these states.

What You Should Do

Contact your Nissan dealer at your earliest convenience and arrange an appointment to have this repair completed. This service should take approximately 4 hours to complete, but you should plan to leave your vehicle at the dealership for a full day. Please bring this notice with you when you keep your service appointment.

Corrosion of the rear sub-frame does not affect the performance or handling characteristics of your vehicle, but may cause a knocking noise in the rear of the vehicle. While waiting for your appointment date, please be assured that it is safe to drive your vehicle.

Thank you for your cooperation. We are indeed sorry for any inconvenience this may cause you.

Nissan Division
Nissan North America, Inc.
