



**Technical Service  
BULLETIN**

~~September 16, 2002~~  
October 31, 2002

Title:  
**FRONT UPPER SUSPENSION NOISE**  
Models:  
**'03 Corolla & Matrix**



**SUSPENSION**  
**SU003-02**  
**REVISED**

**TSB REVISION NOTICE:**

The information contained in this TSB was revised on October 31, 2002.  
The previous TSB should be discarded.

**Introduction** Some 2003 model year Corolla and Matrix vehicles may exhibit a tapping noise from the front upper suspension area. Occasionally this noise may be interpreted as an instrument panel rattle noise. Use the following instructions to repair the noise.

- Applicable Vehicles**
- **2003** model year **Corolla** and **Matrix** vehicles produced before the VINs below.

**Production  
Change  
Information**

MODEL	STARTING VIN
Corolla – NUMMI	1NXBR3#E#3Z081540
Corolla – TMMC	2TIBR3#E#3C732936
<b>Corolla – TMC</b>	<b>JTDBR3#E#30019193</b>
Matrix	2TI##3#E#3C069930

**Parts  
Information**

PART NUMBER	PART NAME	QTY
08231-00810	Wind Noise Kit	1

**Warranty  
Information**

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
431151	Remove Front Shock Absorber Assembly to Apply EPT Sealer	1.1	48609-02120 (Corolla) 48609-01050 (Matrix)	91	41
Combo A	Opposite Side	0.5			
Combo B	Toe-In Adjustment	0.1			
Combo C	Camber Adjustment	0.5			

**Applicable Warranty\*:**

This repair is covered under the Toyota Comprehensive Warranty. This warranty is in effect for 36 months or 36,000 miles, whichever occurs first, from the vehicle's in-service date.

\* Warranty application is limited to correction of a problem based upon a customer's specific complaint.

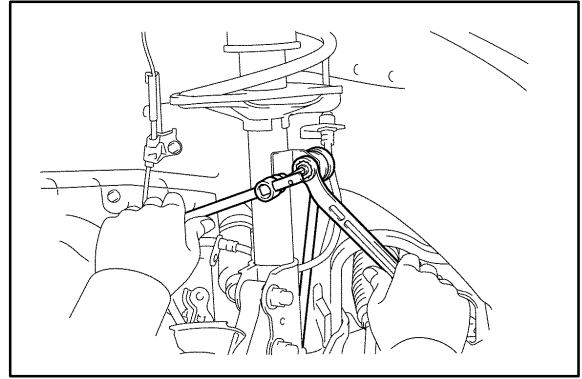


Repair  
Procedure

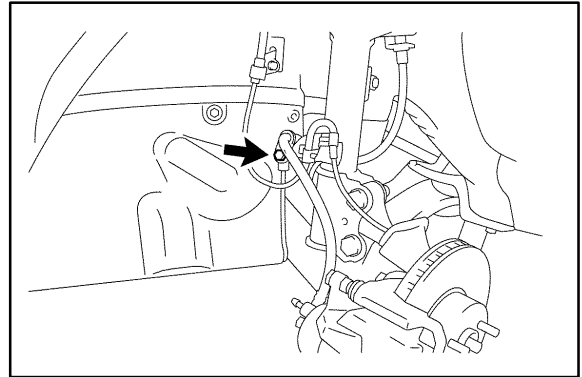
1. Remove Front Wheel
2. Disconnect Front Stabilizer Link Assembly  
Remove the nut and disconnect the front stabilizer link assembly from the front shock absorber assembly.

**HINT:**

If the ball joint turns together with the nut, use a hexagon (6 mm) wrench to hold the stud.



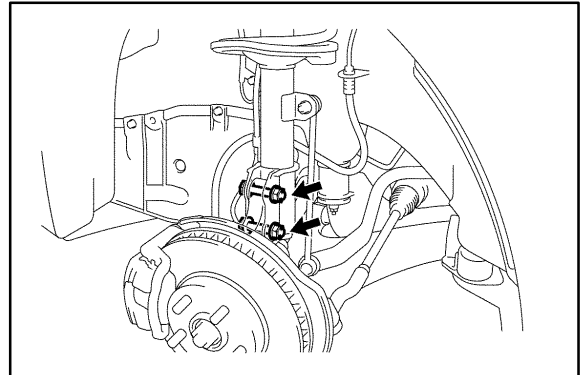
3. Disconnect Front Flexible Hose
  - A. W/ABS:  
Remove the bolt, disconnect the brake flexible hose and front speed sensor.
  - B. W/O ABS:  
Remove the bolt, disconnect the brake flexible hose.



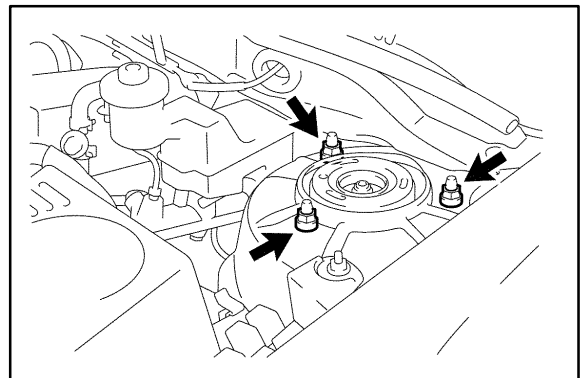
4. Remove Front Shock Absorber With Coil Spring
  - A. Remove the 2 bolts and nuts on the lower side of the front shock absorber assembly.

**NOTE:**

When removing the bolt, stop the bolt from rotating and loosen the nut.



- B. Remove the 3 nuts on the upper side of the front shock absorber assembly.
  - C. Remove the front shock absorber with the coil spring.

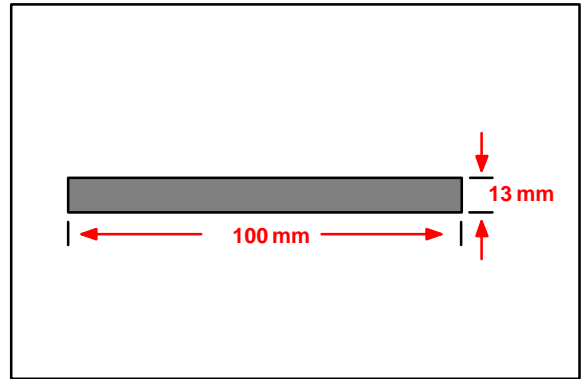


**Repair Procedure**  
(Continued)

**5. Prepare Insulating Material**

- A. Locate the 2 mm EPT Sealer in the Wind Noise Kit (P/N 08231-00810)
- B. Cut 3 pieces of EPT Sealer per side of vehicle (6 pieces total) to the following dimensions:

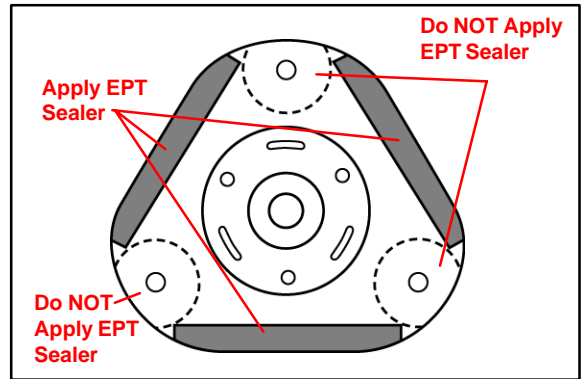
**EPT Dimensions:**  
 L: 100 mm (4 in.)  
 W: 13 mm (0.5 in.)  
 T: 2 mm (0.08 in.)



**6. Apply EPT Sealer To Upper Suspension Mount**

**NOTE:**

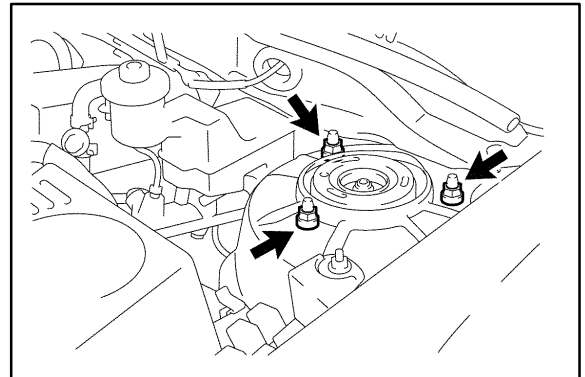
Avoid applying the EPT sealer within 15 mm (0.6 in.) from the edge of the upper suspension mount bolts.



**7. Install Front Shock Absorber With Coil Spring**

- A. Install the shock absorber with the two bolts.
- B. Install the 3 nuts to the upper side of the front shock absorber with coil spring.

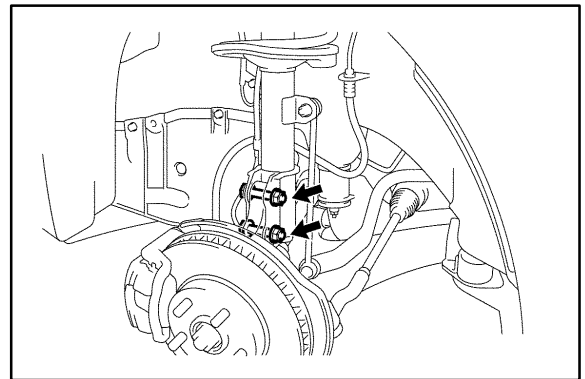
**Torque: 39 N•m (398 kgf•cm, 29 ft•lbf)**



- C. Install the 2 bolts and nuts to the lower side of the front shock absorber with coil spring.

**Corolla Torque: 153 N•m (1,560 kgf•cm, 113 ft•lbf)**

**Matrix Torque: 220 N•m (2,243 kgf•cm, 162 ft•lbf)**



**NOTE:**

When installing the bolt, stop the bolt from rotating and torque the nut.

**Repair  
Procedure**  
(Continued)

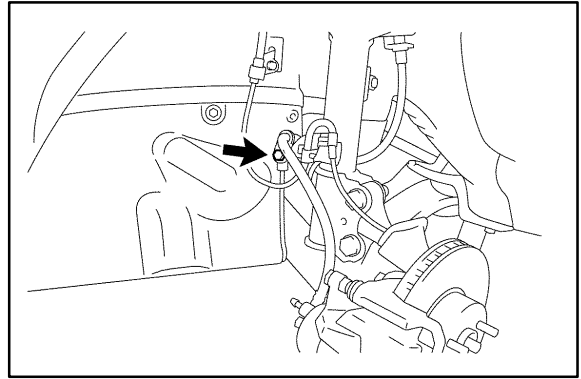
**8. Install Front Flexible Hose**

- A. W/ABS:  
Install the brake flexible hose and  
front speed sensor with the bolt.

**Torque: 29 N•m (296 kgf•cm, 21 ft•lbf)**

- B. W/O ABS:  
Install the brake hose with the  
bolt.

**Torque: 29 N•m (296 kgf•cm, 21 ft•lbf)**



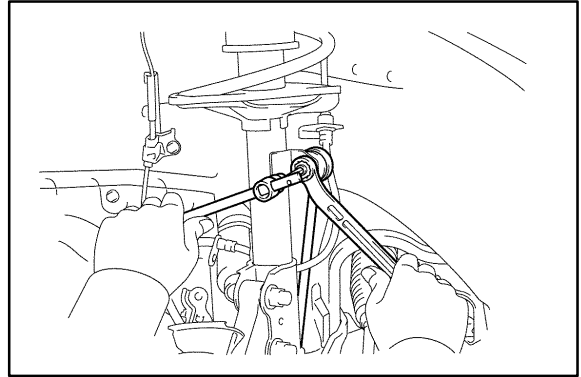
**9. Install Front Stabilizer Link  
Assembly**

Install the front stabilizer link  
assembly with the nut.

**Torque: 74 N•m ( 755 kgf•cm, 55 ft•lbf)**

**NOTE:**

If the ball joint turns together with the  
nut, use a hexagon wrench (6 mm) to  
hold the stud.



**10. Install Front Wheel**

**Torque: 103 N•m (1,050 kgf•cm, 76 ft•lbf)**

**11. Inspect and Adjust Front Wheel  
Alignment**