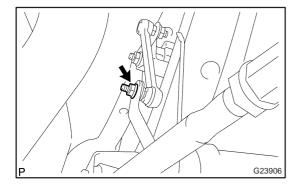
LOWER CONTROL ARM ASSY LH REPLACEMENT

270F4_01

HINT:

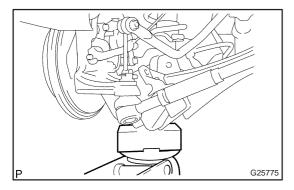
COMPONENTS: See page 27–2.

1. REMOVE REAR WHEEL

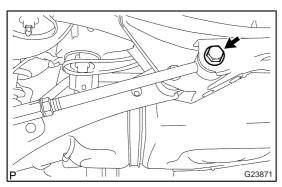


2. REMOVE LOWER CONTROL ARM ASSY LH

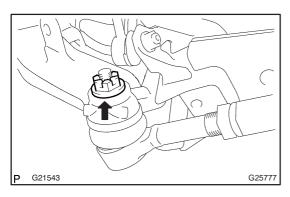
(a) RH side (w/ Height control sensor): Remove the nut, and separate the height control sensor sub–assy from the lower control arm assy RH.



(b) Support the rear suspension arm assy No.1 LH.

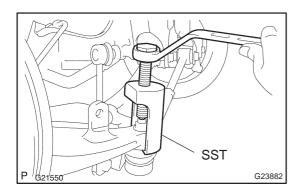


(c) Remove the bolt, and separate the member side lower control arm assy LH.



(d) Remove the clip and nut.

AVENSIS REPAIR MANUAL (RM1018E)

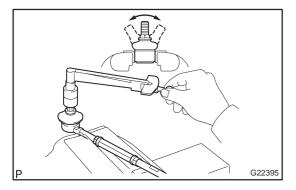


(e) Using SST, remove the lower control arm assy LH from the rear axle carrier sub-assy LH.

SST 09610-20012

NOTICE:

Do not damage the dust cover.



3. INSPECT LOWER CONTROL ARM ASSY LH

- (a) Before installing the nut, flip the ball joint stud back and forth 5 times as shown in the illustration.
- (b) Using a torque wrench, continuously turn the nut for 2 to 4 seconds per 1 turn, and take the torque reading at the 5th turn.

Turning torque:

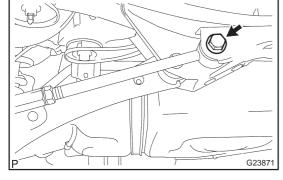
3.0 N·m (31 kgf·cm, 27 in.·lbf) or less

NOTICE:

- Neither unusual drag nor rattle occurs during the rotation.
- Neither crack nor grease leakage exists on the dust cover.
- Make sure that lower control arm assy LH is not deformed.



(a) Install the member side lower control arm assy LH, and temporarily tighten bolt.



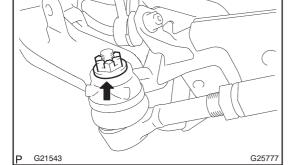
(b) Install the nut.

Torque: 60 N·m (612 kgf·cm, 44 ft·lbf)

(c) Install the clip.

NOTICE:

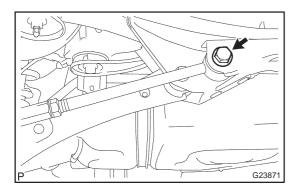
- When the holes for the clip are not aligned, adjust them by tightening the nut. The tightening angle for the adjustment must be less than 60°.
- Insert the clip from the rear side of a vehicle.



5. INSTALL REAR WHEEL

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

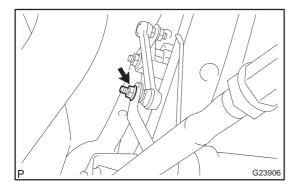
6. STABILIZE SUSPENSION (See page 27-8)



7. FULLY TIGHTEN LOWER CONTROL ARM ASSY LH

(a) Fully tighten the bolt.

Torque: 105 N·m (1,071 kgf·cm, 77 ft·lbf)



(b) RH side (w/ Height control sensor): Install the height control sensor sub–assy and nut to the lower control arm assy RH.

Torque: 5.8 N·m (59 kgf·cm, 51 in.·lbf)

(c) RH side (w/ Height control sensor): Headlight aim only (See page 65–19).

8. INSPECT AND ADJUST REAR WHEEL ALIGNMENT (See page 27-4)

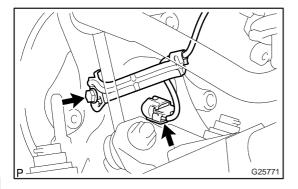
REAR SHOCK ABSORBER WITH COIL SPRING OVERHAUL

270F8-01

HINT:

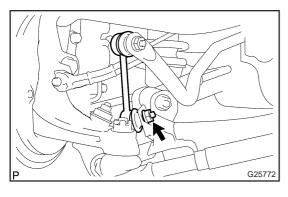
COMPONENTS: See page 27-2.

- 1. REMOVE REAR DOOR SCUFF PLATE LH
- 2. REMOVE REAR SEAT CUSHION ASSEMBLY
- (a) 40/60 FOLDING FLIP-UP CUSHION (See page 72-21)
- (b) 40/60 FOLDING (See page 72–27)
- (c) UNITED FIXED (See page 72–32)
- 3. REMOVE REAR SEATBACK ASSY
- (a) 40/60 FOLDING FLIP-UP CUSHION (See page 72-21)
- (b) 40/60 FOLDING (See page 72–27)
- (c) UNITED FIXED (See page 72–32)
- 4. REMOVE REAR FLOOR FINISH PLATE (SEDAN MODELS)
- 5. REMOVE LUGGAGE COMPARTMENT TRIM COVER INNER LH (SEDAN MODELS)
- 6. REMOVE REAR FLOOR FINISH PLATE (LIFTBACK MODELS)
- 7. REMOVE DECK TRIM SIDE BOARD LH (LIFTBACK MODELS) (See page 76-45)
- 8. REMOVE REAR FLOOR FINISH PLATE (WAGON MODELS)
- 9. REMOVE DECK TRIM SIDE PANEL ASSY LH (WAGON MODELS) (See page 76-54)
- 10. REMOVE REAR WHEEL



11. DISCONNECT SKID CONTROL SENSOR WIRE

- (a) Disconnect the skid control sensor connector.
- (b) Remove the bolt and wire bracket.



12. SEPARATE REAR STABILIZER LINK ASSY LH

(a) Remove the nut, and separate the rear stabilizer link assy LH.

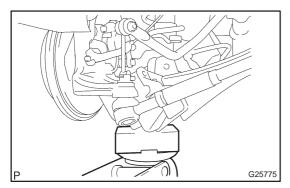
HINT:

If the ball joint turns together with the nut, use a hexagon (5 mm) wrench to hold the stud.

13. SEPARATE REAR STABILIZER LINK ASSY RH

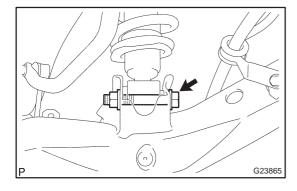
HINT:

Separate the RH side by the same procedures as the LH side.



14. REMOVE REAR SHOCK ABSORBER WITH COIL SPRING

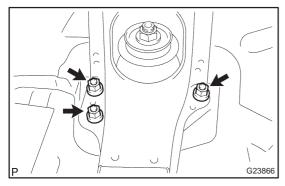
(a) Support the rear suspension arm assy No.1 LH.



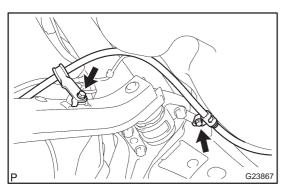
b) Remove the bolt and nut from the rear suspension arm assy No.1 LH.

NOTICE:

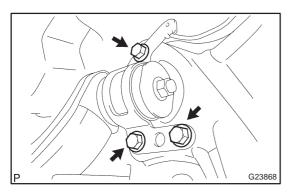
When removing the bolt, hold the nut not to rotate.



(c) Remove the 3 nuts.

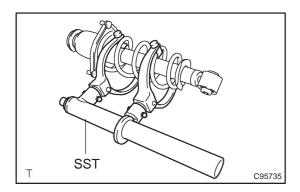


(d) Remove the 2 bolts, and separate the parking brake cable assy No.3.



- (e) Remove the 3 bolts from the rear suspension arm assy No.1 LH.
- (f) Press the rear suspension arm assy No.1 LH down to the outside of the vehicle and remove the rear shock absorber with coil spring.

AVENSIS REPAIR MANUAL (RM1018E)

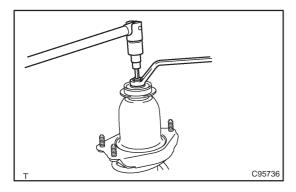


15. REMOVE SHOCK ABSORBER ASSY REAR LH

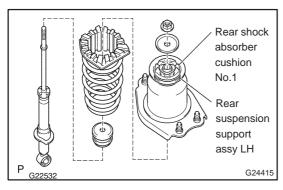
(a) Using SST, compress the coil rear spring. SST 09727-30021 (09727-00010, 09727-00021, 09727-00031)

NOTICE:

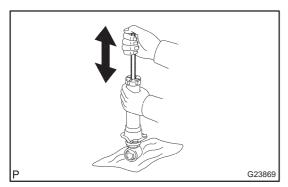
Do not use an impact wrench. It will damage the SST.



(b) Using a 6 mm hexagon wrench to hold the piston rod, remove the nut.



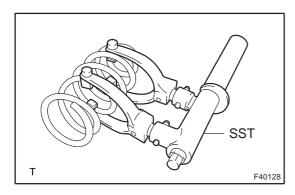
- (c) Remove the rear shock absorber cushion washer No.1.
- (d) Remove the rear suspension support assy LH.
- (e) Remove the rear spring front bracket sub-assy LH.
- (f) Remove the rear shock absorber cushion No.1.
- (g) Remove the rear spring bumper No.1 LH.
- (h) Remove the rear coil spring insulator upper LH.
- (i) Remove the coil rear spring.



16. INSPECT SHOCK ABSORBER ASSY REAR LH

(a) Compress and extend the shock absorber rod and check for unusual resistance or unusual sound during the operation.

If there is any malfunction, replace the shock absorber assy rear LH with a new one.

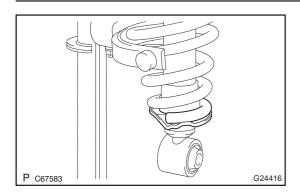


17. INSTALL SHOCK ABSORBER ASSY REAR LH

(a) Using SST, compress the coil rear spring. SST 09727-30021 (09727-00010, 09727-00021, 09727-00031)

NOTICE:

Do not use an impact wrench. It will damage the SST.



(b) Install the coil rear spring to the shock absorber assy rear LH.

NOTICE:

Fit the lower end of the coil rear spring into the gap of the spring lower seat.

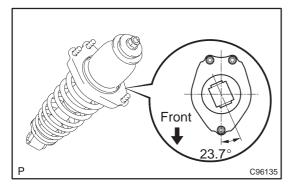
- (c) Install the rear spring bumper No.1 LH and rear suspension support assy LH.
- (d) Set the rear coil spring insulator upper LH to the rear spring front bracket sub-assy LH.
- (e) Position the rear spring front bracket sub–assy LH with rear coil spring insulator upper LH as shown in the illustration.

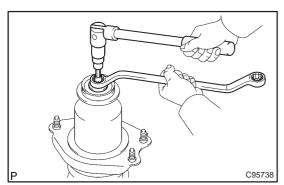


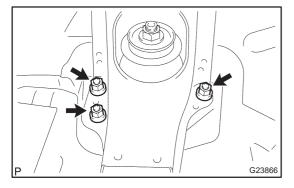
Place the RH side on the symmetric position to the illustration.

- (f) Install the rear suspension support assy LH and rear shock absorber cushion washer No.1.
- (g) Temporarily tighten a new center nut.
- (h) Remove the SST.
- (i) Recheck the direction of the spring bracket.
- (j) Using a 6 mm hexagon wrench to hold the piston rod, tighten a new nut.

Torque: 56 N·m (571 kgf·cm, 41 ft·lbf)



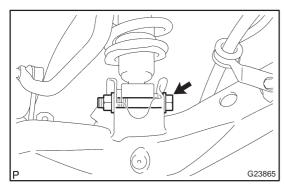




18. INSTALL REAR SHOCK ABSORBER WITH COIL SPRING

(a) Install the 3 nuts.

Torque: 80 N·m (816 kgf·cm, 59 ft·lbf)

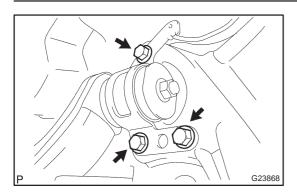


(b) Install the rear shock absorber with coil spring, and temporarily tighten the bolt and nut.

NOTICE:

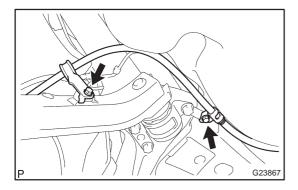
When installing the bolt, tighten the bolt temporarily with the nut fixed.

AVENSIS REPAIR MANUAL (RM1018E)



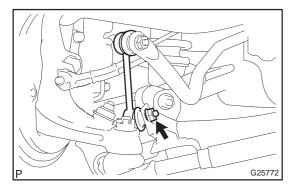
(c) Install the rear suspension arm assy No.1 LH with the 3 holts

Torque: 65 N·m (663 kgf·cm, 48 ft·lbf)



(d) Connect the parking brake cable assy No.3 with the 2 bolts.

Torque: 5.0 N·m (51 kgf·cm, 44 in.·lbf)



9. INSTALL REAR STABILIZER LINK ASSY LH

(a) Install the rear stabilizer link assy LH with the nut.

Torque: 44 N·m (449 kgf·cm, 32 ft·lbf)

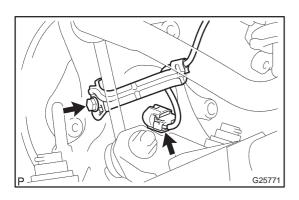
HINT:

If the ball joint turns together with the nut, use a hexagon (5 mm) wrench to hold the stud.

20. INSTALL REAR STABILIZER LINK ASSY RH

HINT:

Install the RH side by the same procedures as the LH side.



21. CONNECT SKID CONTROL SENSOR WIRE

(a) Install the wire bracket and bolt.

Torque: 5.0 N·m (51 kgf·cm, 44 in.·lbf)

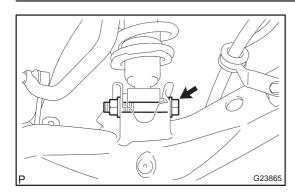
(b) Connect the skid control sensor connector.

22. INSTALL REAR WHEEL

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

23. STABILIZE SUSPENSION

(a) Bounce the vehicle up and down several times to stabilize the suspension.



24. FULLY TIGHTEN REAR SHOCK ABSORBER WITH COIL SPRING

(a) Fully tighten the bolt and nut.

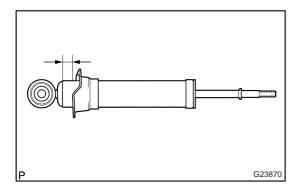
Torque: 160 N·m (1,632 kgf·cm, 118 ft·lbf)

NOTICE:

- When installing the bolt, hold the nut not to rotate.
- Be sure to empty the vehicle when fully tightening the bolt and nut.
- 25. INSPECT AND ADJUST REAR WHEEL ALIGNMENT (See page 27-4)
- 26. CHECK ABS SPEED SENSOR SIGNAL
- (a) ABD WITH EBD SYSTEM (See page 05–699)
- (b) ABD WITH EBD & BA & TRC & VSC SYSTEM (See page 05–756)

270E2-01

DISPOSAL



1. DISPOSE OF SHOCK ABSORBER ASSY REAR LH

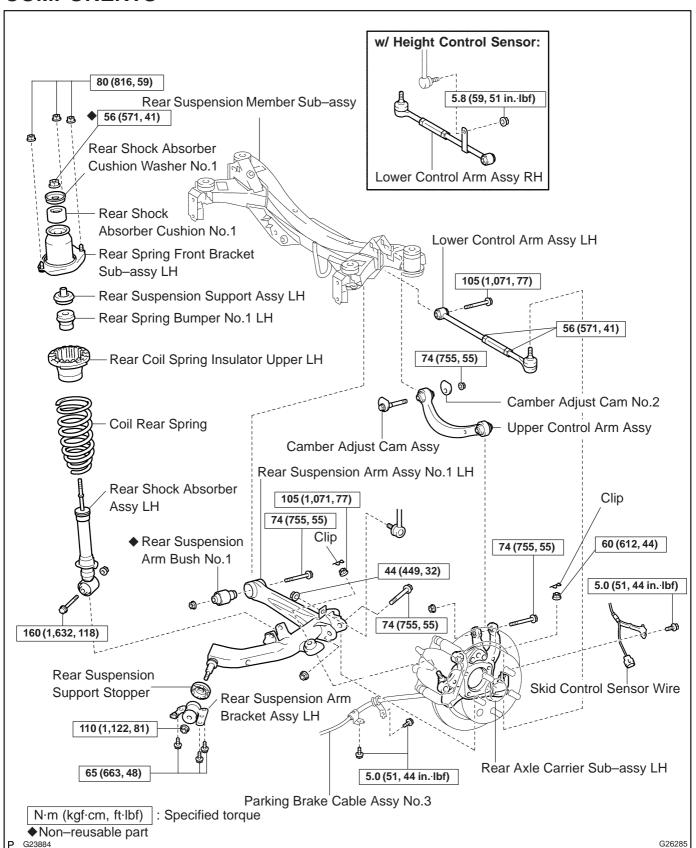
- (a) Fully extend the shock absorber rod.
- (b) Using a drill, make a hole in the cylinder as shown in the illustration to discharge the gas inside the cylinder.

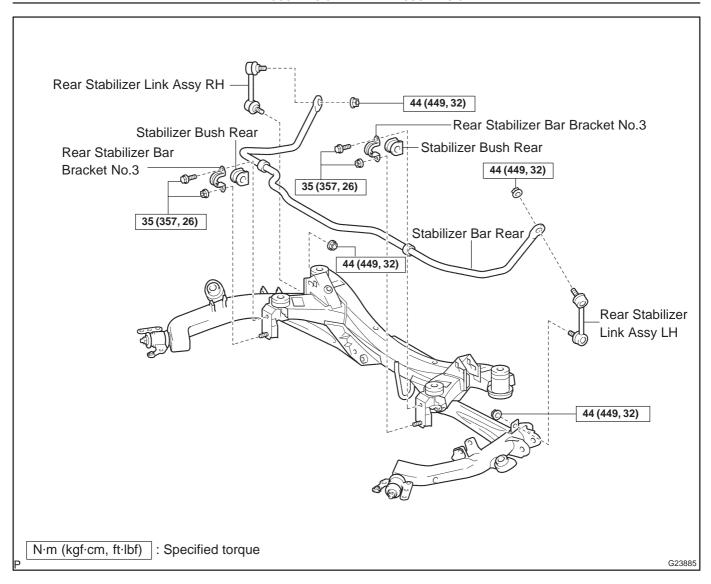
CAUTION:

- When drilling, since the fragments may fly out, work carefully.
- The discharged gas is colorless, odorless and nonpoisonous.

REAR SUSPENSION COMPONENTS

270E0-01





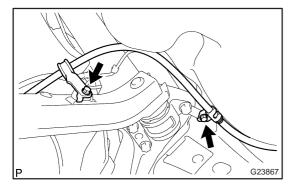
REAR SUSPENSION ARM ASSY NO.1 LH OVERHAUL

270E3_01

HINT:

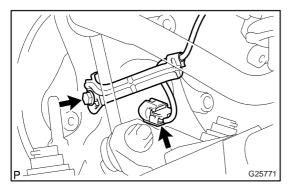
COMPONENTS: See page 27–2.

1. REMOVE REAR WHEEL



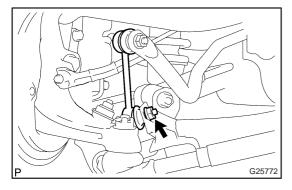
2. SEPARATE PARKING BRAKE CABLE ASSY NO.3

(a) Remove the 2 bolts, and separate the parking brake cable assy No.3.



3. DISCONNECT SKID CONTROL SENSOR WIRE

- (a) Disconnect the skid control sensor connector.
- (b) Remove the bolt and wire bracket.

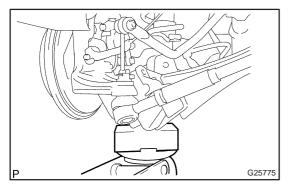


4. SEPARATE REAR STABILIZER LINK ASSY LH

(a) Remove the nut, and separate the rear stabilizer link assy LH.

HINT:

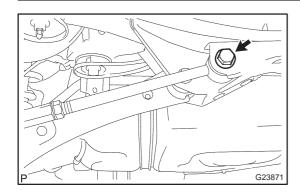
If the ball joint turns together with the nut, use a hexagon (5 mm) wrench to hold the stud.



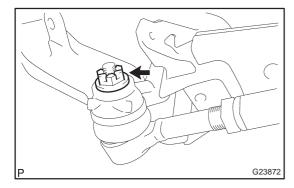
5. REMOVE LOWER CONTROL ARM ASSY LH

(a) Support the rear suspension arm assy No.1 LH.

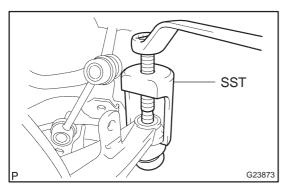
AVENSIS REPAIR MANUAL (RM1018E)



(b) Remove the bolt, and remove the member side lower control arm assy LH.



(c) Remove the clip and nut.

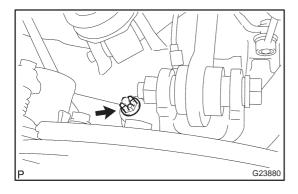


(d) Using SST, remove the lower control arm assy LH from the rear axle carrier sub–assy LH.

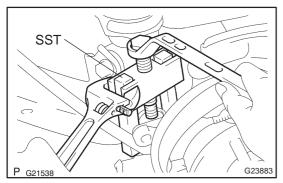
SST 09610-20012

NOTICE:

Do not damage the dust cover.



- 6. REMOVE REAR SUSPENSION ARM ASSY NO.1 LH
- (a) Remove the clip and nut.

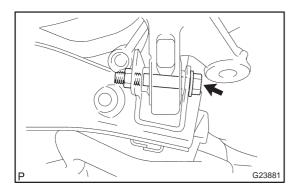


(b) Using SST, separate the rear axle carrier sub–assy LH front side from the rear suspension arm assy No.1 LH. SST 09628–62011

NOTICE:

- Do not damage the dust cover.
- Hang the upper control arm assy on the rear axle carrier sub-assy LH side with a wire substitute thing.

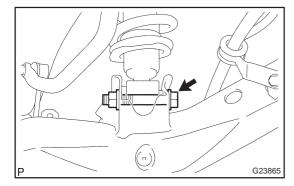
AVENSIS REPAIR MANUAL (RM1018E)



(c) Remove the bolt and nut, and separate the rear axle carrier sub–assy LH rear side from rear suspension arm assy No.1 LH.

NOTICE:

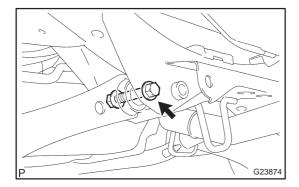
When removing the bolt, hold the nut not to rotate.



(d) Remove the bolt and nut, and remove the rear shock absorber with coil spring.

NOTICE:

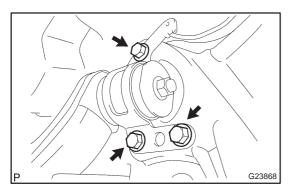
When removing the bolt, hold the nut not to rotate.



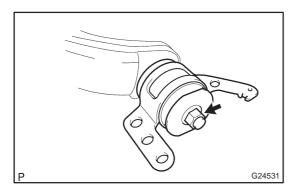
(e) Remove the bolt and nut, and separate the rear side rear suspension arm assy No.1 LH.

NOTICE:

When removing the bolt, hold the nut not to rotate.

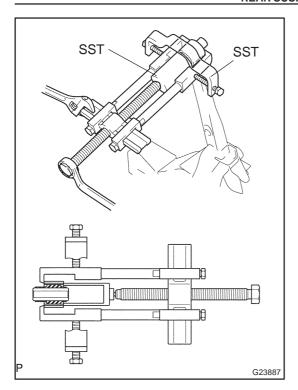


(f) Remove the 3 bolts on the front side and rear suspension arm assy No.1 LH.



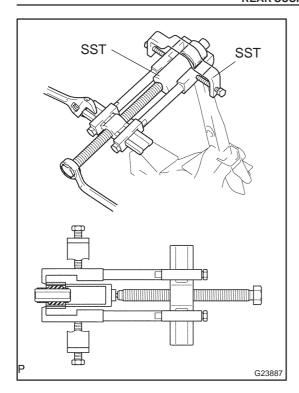
(g) Remove the nut, rear suspension arm bracket assy LH and rear suspension support stopper.

AVENSIS REPAIR MANUAL (RM1018E)



7. REMOVE REAR SUSPENSION ARM BUSH NO.1

(a) Using SST, remove the rear suspension arm bush No.1. SST 09632-36010, 09950-40011 (09951-04010, 09952-04010, 09953-04030, 09954-04020, 09955-04051, 09957-04010, 09958-04011)

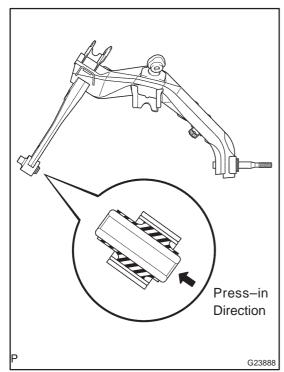


8. INSTALL REAR SUSPENSION ARM BUSH NO.1

(a) Using SST, install a new rear suspension arm bush No.1. SST 09632–36010, 09950–40011 (09951–04010, 09952–04010, 09953–04030, 09954–04020, 09955–04051, 09957–04010, 09958–04011)

NOTICE:

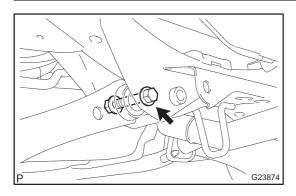
- Install the rear suspension arm bush No.1 in the correct direction.
- Place the rear suspension arm bush No.1 at the position in the illustration.



P G24531

9. INSTALL REAR SUSPENSION ARM ASSY NO.1 LH

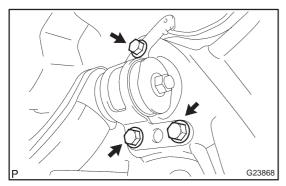
(a) Install the rear suspension support stopper and rear suspension arm bracket assy LH, and temporarily tighten the nut.



(b) Install the rear side rear suspension arm assy No.1 LH, and temporarily tighten bolt and nut.

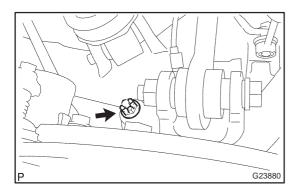
NOTICE:

When installing the bolt, hold the nut not to rotate.

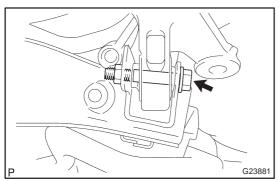


(c) Install the 3 bolts.

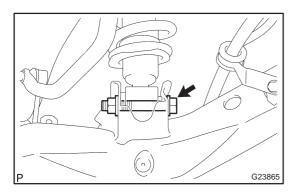
Torque: 65 N·m (663 kgf·cm, 48 ft·lbf)



(d) Install the front side rear axle carrier sub–assy LH to the rear suspension arm assy No.1 LH, and temporarily tighten the nut.

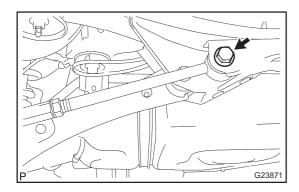


(e) Install the axle carrier sub–assy LH to the rear suspension arm assy No.1 LH, and temporarily tighten the bolt and nut.



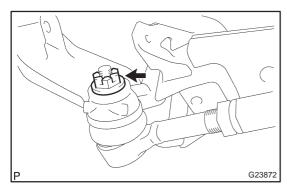
(f) Install the rear shock absorber with coil spring to the rear suspension arm assy No.1 LH, and temporarily tighten the bolt and nut.

AVENSIS REPAIR MANUAL (RM1018E)

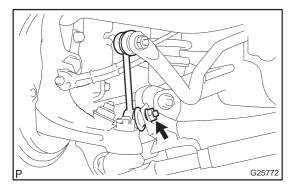


10. INSTALL LOWER CONTROL ARM ASSY LH

(a) Install the lower control arm assy LH, and temporarily tighten the bolt.



(b) Install the lower control arm assy LH to the rear axle carrier LH, and temporarily tighten the nut.



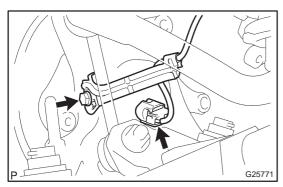
11. INSTALL REAR STABILIZER LINK ASSY LH

(a) Install the rear stabilizer link assy LH with the nut.

Torque: 44 N·m (449 kgf·cm, 32 ft·lbf)

HINT:

If the ball joint turns together with the nut, use a hexagon (5 mm) wrench to hold the stud.

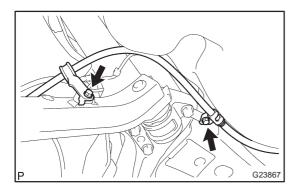


12. CONNECT SKID CONTROL SENSOR WIRE

(a) Install the wire bracket and bolt.

Torque: 5.0 N·m (51 kgf·cm, 44 in.·lbf)

(b) Connect the skid control sensor connector.



13. INSTALL PARKING BRAKE CABLE ASSY NO.3

(a) Connect the parking brake cable assy No.3 with the 2 bolts.

Torque: 5.0 N·m (51 kgf·cm, 44 in.·lbf)

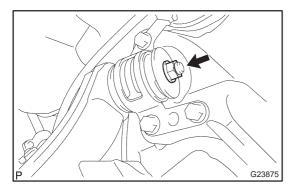
AVENSIS REPAIR MANUAL (RM1018E)

14. INSTALL REAR WHEEL

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

15. STABILIZE SUSPENSION

(a) Bounce the vehicle up and down several times to stabilize the suspension.



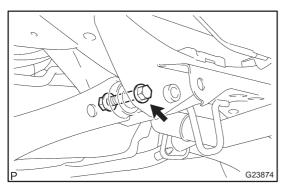
16. FULLY TIGHTEN REAR SUSPENSION ARM ASSY NO.1 LH

NOTICE:

Be sure to empty the vehicle when fully tightening the bolt and nut.

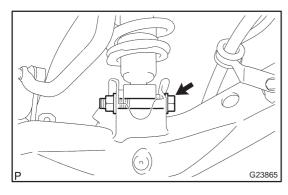
(a) Fully tighten the nut.

Torque: 110 N·m (1,122 kgf·cm, 81 ft·lbf)



(b) Fully tighten the bolt.

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

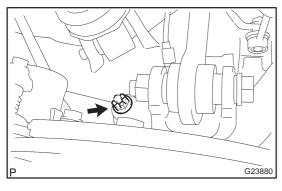


(c) Fully tighten the bolt and nut.

Torque: 160 N·m (1,632 kgf·cm, 118 ft·lbf)

NOTICE:

When installing the bolt, hold the nut not to rotate.



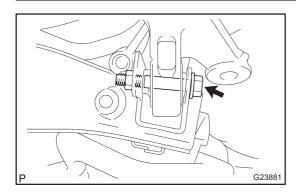
(d) Fully tighten the nut.

Torque: 105 N·m (1,071 kgf·cm, 77 ft·lbf)

(e) Install the clip.

NOTICE:

- When the holes for the clip are not aligned, adjust them by tightening the nut. The tightening angle for the adjustment must be less than 60°.
- Insert the clip from the front side of a vehicle.

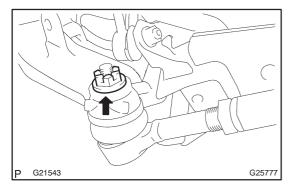


(f) Fully tighten the bolt and nut.

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

NOTICE:

When installing the bolt, hold the nut not to rotate.



17. FULLY TIGHTEN LOWER CONTROL ARM ASSY LH NOTICE:

Be sure to empty the vehicle when fully tightening the bolt and nut.

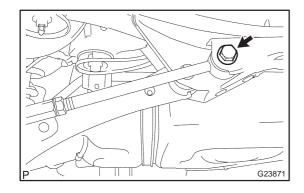
(a) Fully tighten the nut.

Torque: 60 N·m (612 kgf·cm, 44 ft·lbf)

(b) Install the clip.

NOTICE:

- When the holes for the clip are not aligned, adjust them by tightening the nut. The tightening angle for the adjustment must be less than 60°.
- Insert the clip from the rear side of a vehicle.



(c) Fully tighten the bolt.

Torque: 105 N·m (1,071 kgf·cm, 77 ft·lbf)

- 18. INSPECT AND ADJUST REAR WHEEL ALIGNMENT (See page 27-4)
- 19. CHECK ABS SPEED SENSOR SIGNAL
- (a) ABD WITH EBD SYSTEM (See page 05–699)
- (b) ABD WITH EBD & BA & TRC & VSC SYSTEM (See page 05-756)

REAR SUSPENSION SYSTEM PROBLEM SYMPTOMS TABLE

270E7-01

Use the table below to help you find the cause of the problem. The numbers indicate the probability of the likely cause of the problem. Check each part in order. If necessary, replace these parts.

Symptom	Suspect Area	See page
	Tire (Worn or improperly inflated)	28–1
Wander/pulls	2. Wheel alignment (Incorrect)	27–4
	3. Steering linkage (Loose or worn)	_
	4. Hub bearing (Worn)	30–2
	5. Suspension parts (Worn)	_
Bottoming	Vehicle (Overloaded)	_
	2. Spring (Weak)	27–8
	3. Shock absorber (Worn)	27–8
Sways/pitches	Tire (Worn or improperly inflated)	28–1
	2. Stabilizer bar (Bent or broken)	27–29
	3. Shock absorber (Worn)	27–8
	Tire (Worn or improperly inflated)	28–1
	2. Wheel (Out of balance)	28–1
Rear wheel shimmy	3. Shock absorber (Worn)	27–8
	4. Wheel alignment (Incorrect)	27–4
	5. Hub bearing (Worn)	30–2
	Tire (Worn or improperly inflated)	28–1
Abnormal tire wear	Wheel alignment (Incorrect)	27–4
	3. Shock absorber (Worn)	27–8
	4. Suspension parts (Worn)	_

REAR WHEEL ALIGNMENT

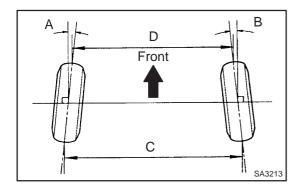
ADJUSTMENT

1. INSPECT TIRE (See page 28–1)

2. MEASURE VEHICLE HEIGHT (See page 26-6)

NOTICE:

Before inspecting the wheel alignment, adjust the vehicle height to the specified value.



3. INSPECT TOE-IN

Toe-in:

(Normal package)

Toe-in	A + B: $0^{\circ}18' \pm 12' (0.3^{\circ} \pm 0.2^{\circ})$
(total)	$C - D: 3.0 \pm 2.0 \text{ mm} (0.12 \pm 0.08 \text{ in.})$

(Rough road package)

Toe-in	A + B: $0^{\circ}18' \pm 12' (0.3^{\circ} \pm 0.2^{\circ})$
(total)	$C - D: 3.0 \pm 2.0 \text{ mm} (0.12 \pm 0.08 \text{ in.})$

If the toe-in is not within the specified value, inspect the suspension parts and replace them if necessary.

4. INSPECT CAMBER

- (a) Install the camber–caster–kingpin gauge or position the vehicle on the wheel alignment tester.
- (b) Inspect the camber.

Camber:

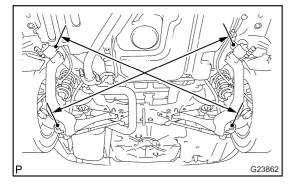
(Normal package)

Camber		$-0^{\circ}54' \pm 30' (-0.9^{\circ} \pm 0.5^{\circ})$
	Right-left error	30' (0.5°) or less
(D	-	

(Rough road package)

Camber	$-0^{\circ}30' \pm 30' (-0.5^{\circ} \pm 0.5^{\circ})$
Right-left error	30' (0.5°) or less

If the measured value is not within the specified value, inspect the suspension parts for damage and/or wear and replace them if necessary because camber is not adjustable.

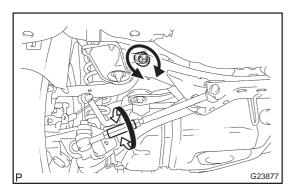


5. ADJUST CAMBER AND TOE-IN

- (a) Measure the distance from the LH rear suspension arm bracket assy set bolt to the RH rear axle carrier rear side set bolt as shown in the illustration.
- (b) Measure the distance from the RH rear suspension arm bracket assy set bolt to the LH rear axle carrier rear side set bolt as shown in the illustration.
- (c) Employ the same manner to the LH-RH.

Length difference: 6.0 mm (0.236 in.) or less

If the difference exceeds the specified value, adjust it by turning the camber adjusting cam assy and tie rod adjusting tube.



- (d) Loosen the camber adjusting cam assy set nut.
- (e) Loosen the tie rod adjusting tube set nut.
- (f) Adjust the camber and toe-in by turning the adjusting cam and adjusting tube.

HINT:

Adjust the camber and toe—in to the center of the specified values as much as possible.

Toe-in:

Camber

(Normal package)

Toe-in		A + B: 0°18' ± 6' (0.3° ± 0.1°)	
	(total)	$C - D: 3.0 \pm 1.0 \text{ mm } (0.12 \pm 0.04 \text{ in.})$	
(Rough road package)			
Toe-in		A + B: $0^{\circ}18' \pm 6' (0.3^{\circ} \pm 0.1^{\circ})$	
	(total)	$C - D: 3.0 \pm 1.0 \text{ mm } (0.12 \pm 0.04 \text{ in.})$	
Camber:			
(Normal package)			

(Rough road package)

Camber	$-0^{\circ}30' \pm 20' (-0.5^{\circ} \pm 0.3^{\circ})$
Right-left error	30' (0.5°) or less

Right-left error

(g) Tighten the camber adjusting cam assy set nut.

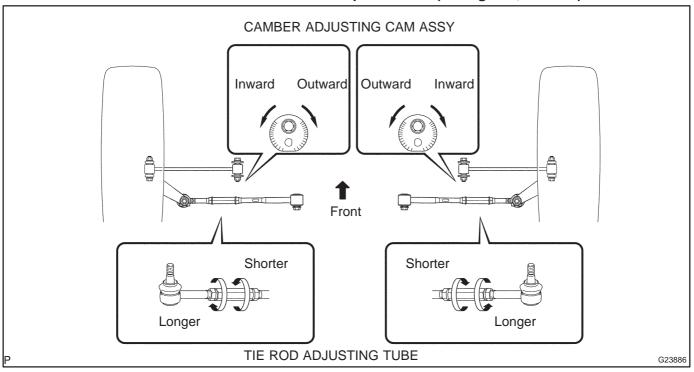
 $-0^{\circ}54' \pm 20' (-0.9^{\circ} \pm 0.3^{\circ})$

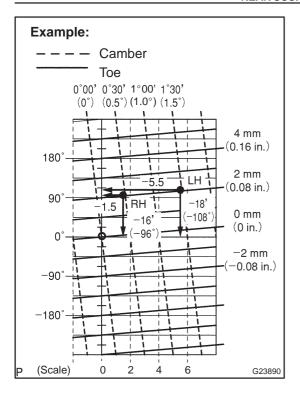
30' (0.5°) or less

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

(h) Tighten the tie rod adjusting tube set nut.

Torque: 56 N·m (571 kgf·cm, 41 ft·lbf)





(i) How to read an adjustment chart (using examples).

(1) Measure the present alignment.

Example:

Camber (RH) : $-1^{\circ}24'$ (-1.4°) Camber (LH) : $-2^{\circ}24'$ (-2.4°)

Toe-in (total): IN 7.0 mm (0.276 in.)

(2) Mark the difference between the standard value (A) and the measured value (B) on the adjustment chart.

Standard value:

Camber: -0°54' (-0.9°)

Toe-in (total): IN 3.0 mm (0.12 in.)

Formula: A - B = C

Camber: (RH) : $-0^{\circ}54' - (-1^{\circ}24') = 0^{\circ}30'$ Camber: (LH) : $-0^{\circ}54' - (-2^{\circ}24') = 1^{\circ}30'$ Toe-in (total) : IN 3.0 - IN 7.0 = OUT 4.0

Toe-in (each side): OUT 2.0

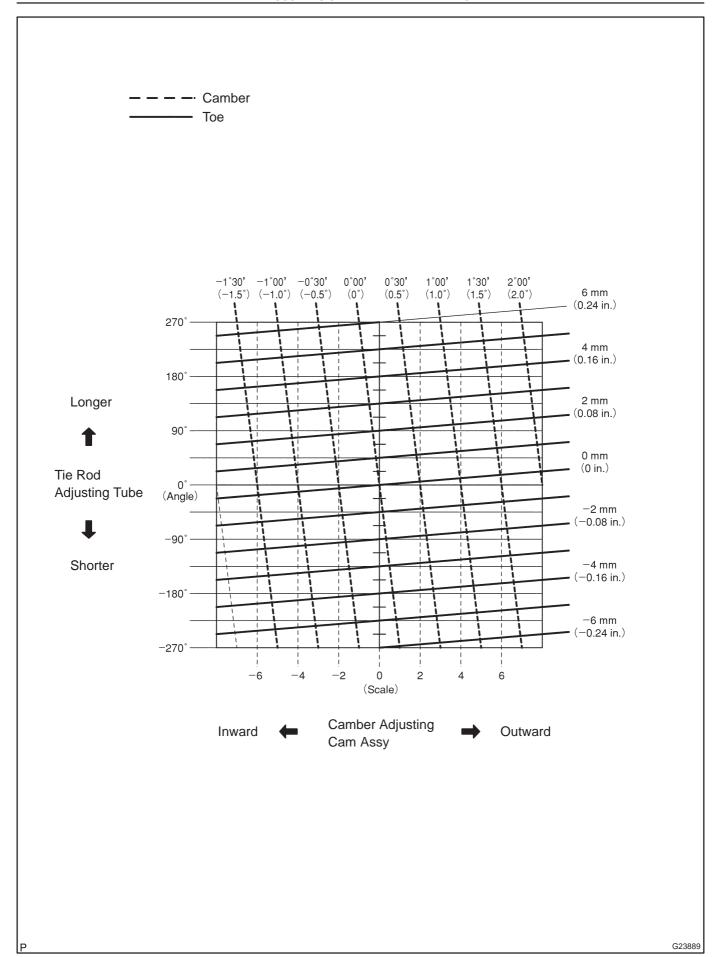
(3) As shown in the example chart, read the distance from the marked point to the center of the chart, and adjust the upper and/or lower arm adjusting cams accordingly.

Amount to turn camber adjusting cam assy (by graduation):

Scale (RH): - (Inward) 1.5 Scale (LH): - (Inward) 5.5

Amount to turn tie rod adjusting tube (by graduation):

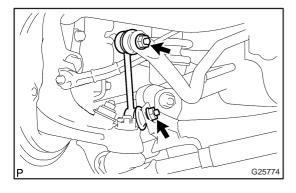
Angle (RH) : - (Shorter) 96° Angle (LH) : - (Shorter) 108°



STABILIZER BAR REAR REPLACEMENT

HINT:

COMPONENTS: See page 27-2.



1. REMOVE REAR STABILIZER LINK ASSY LH

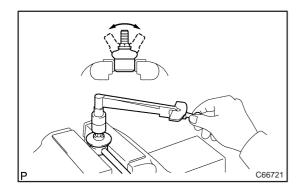
(a) Remove the 2 nuts and rear stabilizer link assy LH. HINT:

If the ball joint turns together with the nut, use a hexagon (5 mm) wrench to hold the stud.

2. REMOVE REAR STABILIZER LINK ASSY RH

HINT:

Remove the RH side by the same procedures as the LH side.



3. INSPECT REAR STABILIZER LINK ASSY LH

- (a) Before installing the nut, flip the ball joint stud back and forth 5 times as shown in the illustration.
- (b) Using a torque wrench, continuously turn the nut for 2 to 4 seconds per 1 turn, and take the torque reading on the 5th turn.

Turning torque:

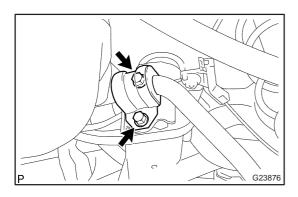
1.0 N·m (10 kgf·cm, 8.7 in.·lbf) or less

NOTICE:

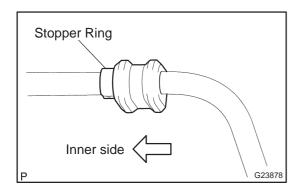
- Neither unusual drag nor rattle occurs during the rotation.
- Neither crack nor grease leakage exists on the dust
 cover.
- Make sure that rear stabilizer link assy LH is not deformed.

4. REMOVE STABILIZER BAR REAR

- (a) Remove the 2 bolts, 2 nuts and 2 rear stabilizer bar bracket No.3 from the rear suspension member sub–assy.
- (b) Remove the 2 stabilizer bush rear from each stabilizer bar rear.



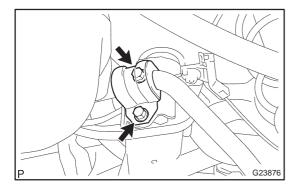
AVENSIS REPAIR MANUAL (RM1018E)



5. INSTALL STABILIZER BAR REAR

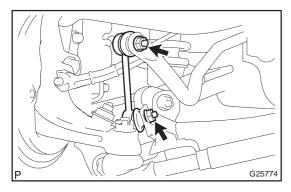
(a) Install the 2 stabilizer bush rear to each stabilizer bar rear. HINT:

Install the stabilizer bush rear to the outer side of the stopper ring on the stabilizer bar.



b) Install the stabilizer bar rear and 2 rear stabilizer bar bracket No.3 with 2 bolts and 2 nuts.

Torque: 35 N·m (357 kgf·cm, 26 ft·lbf)



6. INSTALL REAR STABILIZER LINK ASSY LH

(a) Install the rear stabilizer link assy LH with the 2 nuts.

Torque: 44 N·m (449 kgf·cm, 32 ft·lbf)

HINT:

If the ball joint turns together with the nut, use a hexagon (5 mm) wrench to hold the stud.

7. INSTALL REAR STABILIZER LINK ASSY RH

HINT:

Install the RH side by the same procedures as the LH side.

8. INSPECT AND ADJUST REAR WHEEL ALIGNMENT (See page 27-4)

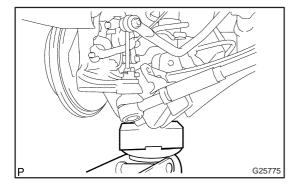
UPPER CONTROL ARM ASSY REPLACEMENT

270E5-01

HINT:

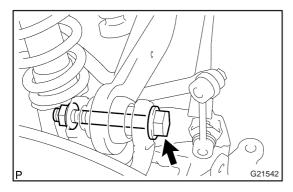
COMPONENTS: See page 27–2.

1. REMOVE REAR WHEEL



2. REMOVE UPPER CONTROL ARM ASSY

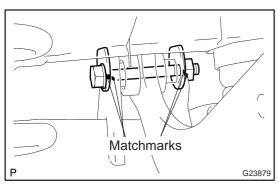
(a) Support the rear suspension arm assy No.1 LH.



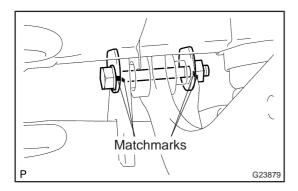
(b) Remove the bolt and nut, separate the upper control arm assy.

NOTICE:

When removing the bolt, hold the nut not to rotate.



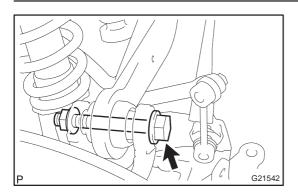
- (c) Place matchmarks on the camber adjust cam assy, camber adjust cam No.2 and rear suspension member subassy.
- (d) Remove the nut, camber adjust cam assy and camber adjust cam No.2.



3. INSTALL UPPER CONTROL ARM ASSY

(a) Install the camber adjust cam assy from the front side of the vehicle, and temporarily fix it with the nut and the camber adjust cam No.2.

AVENSIS REPAIR MANUAL (RM1018E)

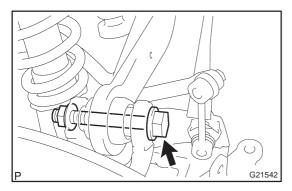


(b) Install the upper control arm assy, and temporarily tighten the bolt and nut.

4. INSTALL REAR WHEEL

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

5. STABILIZE SUSPENSION (See page 27-8)



6. FULLY TIGHTEN UPPER CONTROL ARM ASSY NOTICE:

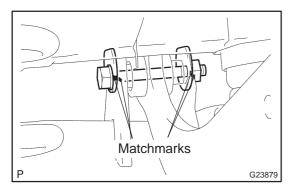
Be sure to empty the vehicle when fully tightening the bolt and nut.

(a) Fully tighten the bolt and nut.

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

NOTICE:

When instaling the bolt, hold the nut not to rotate.



(b) Align the matchmarks, and fully tighten the nut. Torque: 74 N·m (755 kgf·cm, 55 ft·lbf)

7. INSPECT AND ADJUST REAR WHEEL ALIGNMENT (See page 27-4)