

2013 SUSPENSION

Wheel Alignment (Service Information) - RX350

FRONT WHEEL ALIGNMENT

ADJUSTMENT [03/2012 - 07/2012]

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NOTE: If the wheel alignment has been adjusted, and if suspension or underbody components have been removed/installed or replaced, be sure to perform the following initialization procedure in order for the system to function normally:

- 1. Perform zero point calibration of the yaw rate and acceleration sensor and test mode inspection.**

1. INSPECT TIRES

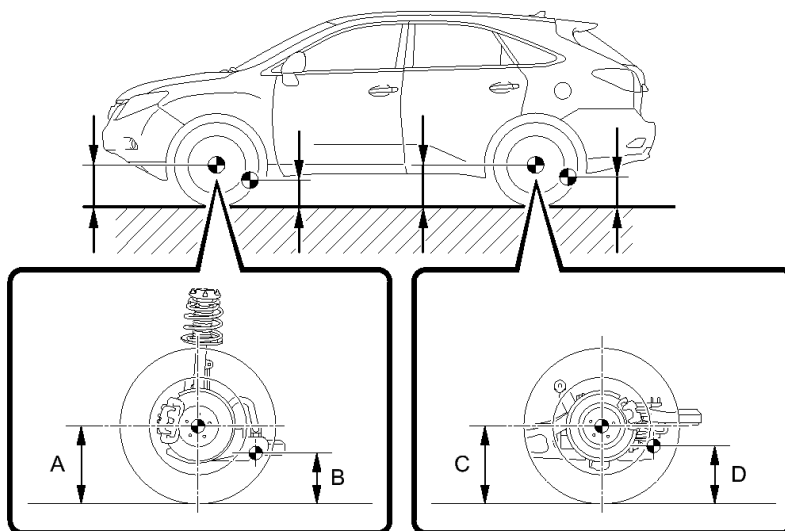
Refer to **INSPECTION [03/2012 -]**

2. MEASURE VEHICLE HEIGHT

NOTE:

- **Before inspecting the wheel alignment, adjust the vehicle height to the specified value.**
- **Be sure to perform measurement on a level surface.**
- **If it is necessary to go under the vehicle for measurement, confirm that the parking brake is applied and the vehicle is secured with chocks.**

- a. Bounce the vehicle up and down at the corners to stabilize the suspension.
- b. Measure the vehicle height.



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Fig. 1: Identifying Measurement Points

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

Measurement points

A

Ground clearance of front wheel center

B

Ground clearance of front lower suspension arm bushing set bolt center

C

Ground clearance of rear wheel center

D

Ground clearance of rear No. 2 lower suspension arm adjust bolt center

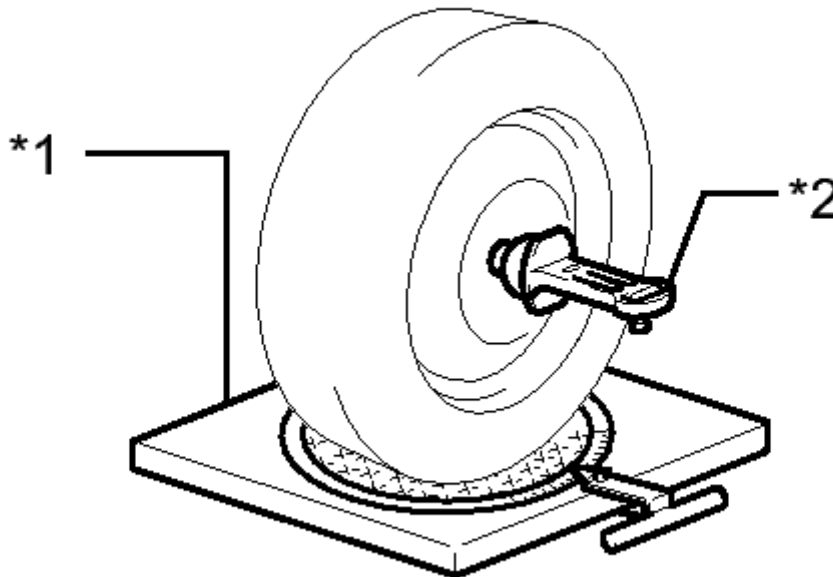
Vehicle Height (Unloaded Vehicle)

Model	Front A - B	Rear C - D
	123.6 mm	53.7 mm (2.11)

2WD	(4.87 in.)	in.)
AWD	124.6 mm (4.91 in.)	54.9 mm (2.16 in.)

3. INSPECT CAMBER, CASTER AND STEERING AXIS INCLINATION

- a. Install a camber-caster-kingpin gauge and place the front wheels on the center of a wheel alignment tester.



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Fig. 2: Inspecting Camber, Caster & Steering Axis Inclination
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

TEXT IN ILLUSTRATION

*1	Wheel Alignment Tester
*2	Gauge

- b. Inspect the camber, caster and steering axis inclination.

Camber (Unloaded Vehicle)

Model	Camber Inclination	Right-left Difference
2WD	-0°40' +/- 45' (-0.67° +/-	45' (0.75°) or less

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AWD	0.75°	
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Caster (Unloaded Vehicle)

Model	Caster Inclination	Right-left Difference
2WD	2°50' +/- 45' (2.83° +/- 0.75°)	45' (0.75°) or less
AWD	2°55' +/- 45' (2.92° +/- 0.75°)	

Steering Axis Inclination (Unloaded Vehicle)

Model	Steering Axis Inclination	Right-left Difference
2WD	10°55' +/- 45' (10.92° +/- 0.75°)	45' (0.75°) or less
AWD	11°00' +/- 45' (11.00° +/- 0.75°)	

4. ADJUST CAMBER

NOTE: Inspect toe-in after the camber has been adjusted.

- a. Remove the front wheel.
- b. Remove the 2 nuts on the lower side of the front shock absorber.

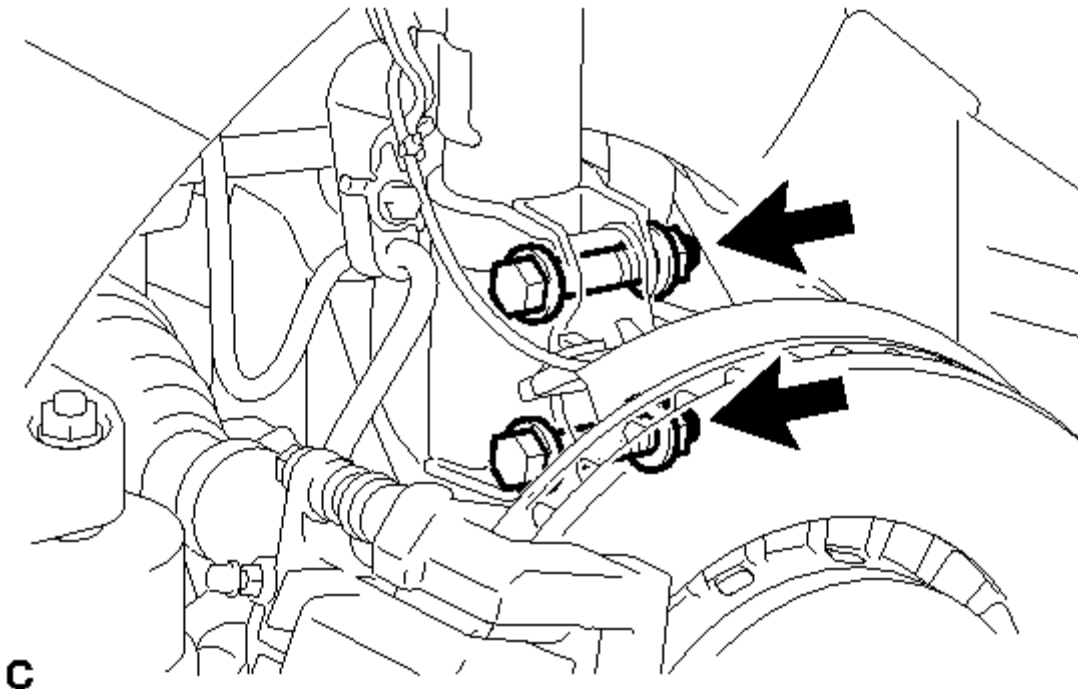
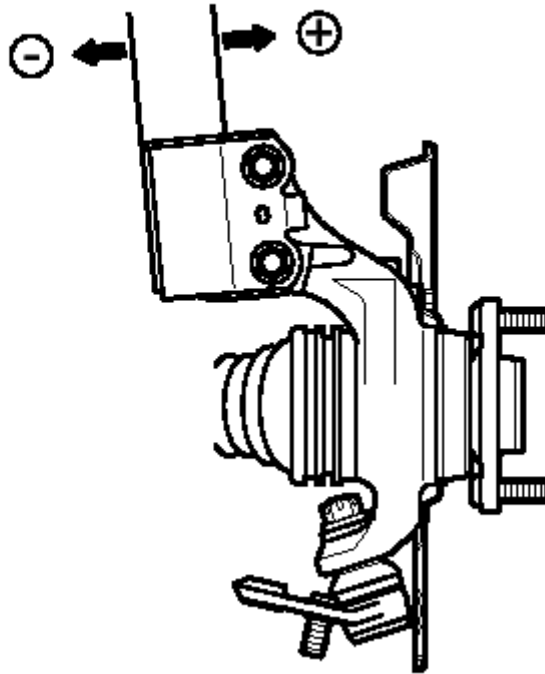


Fig. 3: Identifying Front Shock Absorber Nuts And Bolts
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

NOTE: Keep the bolts inserted.

- c. Clean the installation surfaces of the front shock absorber and the steering knuckle.
- d. Temporarily install the 2 nuts.
- e. Fully push or pull the front axle hub in the direction of the required adjustment.



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Fig. 4: Adjusting Front Axle Hub

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

- f. Tighten the nuts.

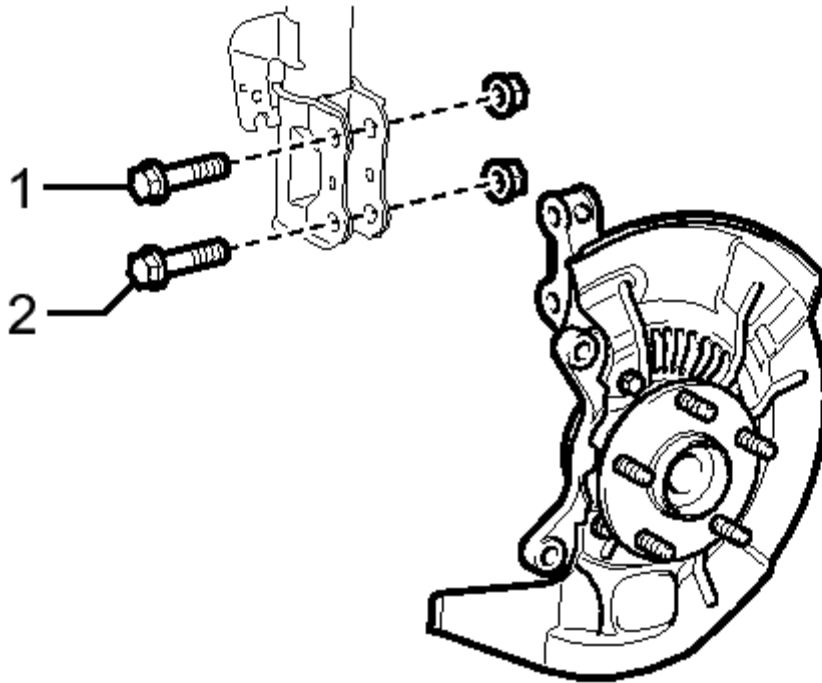
Torque: 290 N*m (2957 kgf*cm, 214 ft.*lbf)

NOTE: Keep the bolts from rotating when tightening the nuts.

- g. Install the front wheel.

Torque: 103 N*m (1050 kgf*cm, 76 ft.*lbf)

- h. Check the camber.



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Fig. 5: Identifying Wheel Hub With Bolts

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

If the measured value is not within the specification, calculate the required adjustment amount using the formula below.

Camber adjustment amount = center value of the specified range - measured value

Check the combination of installed bolts. Select appropriate bolts from the table below to adjust the camber to the specified values.

HINT:

Try to adjust the camber to the center of the specified values.

Move the axle toward (+) in step (e)	Move the axle toward (-) in step (e)
Refer to table (1) (Move the axle toward positive side)	Refer to table (2) (Move the axle toward negative side)

The body and suspension may be damaged if the camber is not correctly adjusted according to the above table.