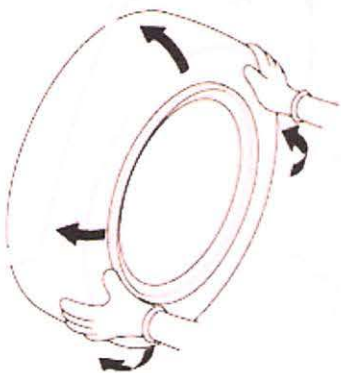


**Wheel Alignment****Check****1. Pre-Alignment - Check**

For proper inspection and adjustment of the wheel alignment, do these checks:

1. Release the parking brake to avoid an incorrect measurement.
2. Make sure the suspension is not modified.
3. Make sure the fuel tank is full and the spare tire or tire repair kit, jack, and tools are in place inside the vehicle.
4. Check the tire size and tire pressure according to the tire information.
5. Set the steering column to the middle tilt position and telescopic position (if equipped).
6. [Check the runout of the wheels and tires.](#)
7. Check the suspension ball joints ([Raise and support the vehicle](#). Hold a tire with your hands, and move it up and down and right and left to check for movement).
8. Before doing alignment inspections, be sure to remove all extra weight from the vehicle, and no one should be inside the vehicle (driver or passengers).
9. Lower the vehicle to the ground. Bounce the vehicle up and down several times to stabilize the suspension.

**Inspection**

Use a commercially available computerized four wheel alignment equipment to measure wheel alignment (caster, camber, toe, and turning angle). Follow the equipment manufacturer's instructions.

**1. Caster - Inspect**

1. Check the caster angle.

**Caster angle:**

<b>2/4-door (Except Si):</b>	<b>5 ° 17 '±36 '</b>
<b>5-door (Except Type-R):</b>	<b>5 ° 18 '±30 '</b>
<b>Si:</b>	<b>5 ° 24 '±30 '</b>
<b>Type-R:</b>	<b>8 ° 00 '±30 '</b>

- If the measurement is within specifications, measure the camber angle.
- If the measurement is not within specifications, check for bent or damaged suspension components.

**2. Camber - Inspect**

1. Check the camber angle.

**Camber angle:****Except Type-R and Si:**

<b>Front:</b>	<b>-0 ° 18 '±30 '</b>
<b>Rear:</b>	<b>-1 ° 12 '±45 '</b>

**Si:**

<b>Front:</b>	<b>-0 ° 20 '±30 '</b>
<b>Rear:</b>	<b>-1 ° 20 '±45 '</b>

**Type-R:**

<b>Front:</b>	<b>-1 ° 20 '±30 '</b>
<b>Rear:</b>	<b>-1 ° 30 '±45 '</b>

**(Maximum difference between the right and left side: 0 ° 45 ')**

- If the measurement is within specification, measure the toe-in.
- If the measurement for the front camber is not within specification, go to front camber adjustment.
- If the measurement for the rear camber is not within specification, check for bent or damaged suspension components.

**3. Rear Toe - Inspect**

**NOTE:** Do the rear toe inspection before the front toe inspection.

1. Release the parking brake to avoid an incorrect measurement.
2. Check the toe.

**Rear total toe-in:  $2^{+2}_{-1}$  mm ( $0.08^{+0.08}_{-0.04}$  in)**

- If adjustment is required, go to rear toe adjustment.
- If no adjustment is required, go to front toe inspection.

## 4. Front Toe - Inspect

NOTE: Do the rear toe inspection before the front toe inspection.

1. Set the steering column to the middle tilt position and telescopic position (if equipped).
2. Center the steering wheel spokes, and [install a steering wheel holder tool](#).
3. Check the toe with the wheels pointed straight ahead.

Front total toe-in:  $0 \pm 2 \text{ mm}$  ( $0.00 \pm 0.08 \text{ in}$ )

- If adjustment is required, go to front toe adjustment.
- If no adjustment is required, remove the alignment equipment.

## 5. Turning Angle - Inspect

1. Turn the wheel right and left while applying the brake, and measure the turning angle of both wheels.

Turning angle:

2/4-door (Except Si):

Inward:  $40^\circ 06' \pm 2^\circ$

Outward (reference):  $33^\circ 00' \pm 1^\circ$

5-door (Except Type-R):

Without 18 inch wheel

Inward:  $40^\circ 04' \pm 2^\circ$

Outward (reference):  $33^\circ 01' \pm 1^\circ$

With 18 inch wheel

Inward:  $37^\circ 02' \pm 2^\circ$

Outward (reference):  $31^\circ 16' \pm 1^\circ$

Si:

Inward:  $36^\circ 53' \pm 2^\circ$

Outward (reference):  $31^\circ 08' \pm 1^\circ$

Type-R:

Inward:  $34^\circ 59' \pm 2^\circ$

Outward (reference):  $29^\circ 51' \pm 1^\circ$

2. If the measurement is not within specifications, even up both sides of the tie-rod threaded section length while adjusting the front toe. If it is correct, but the turning angle is not within the specifications, check for bent or damaged suspension components.

Adjustment

The suspension can be adjusted for front camber, front toe, and rear toe. However, each of these adjustments are related to each other. For example, when you adjust camber, the toe will change.

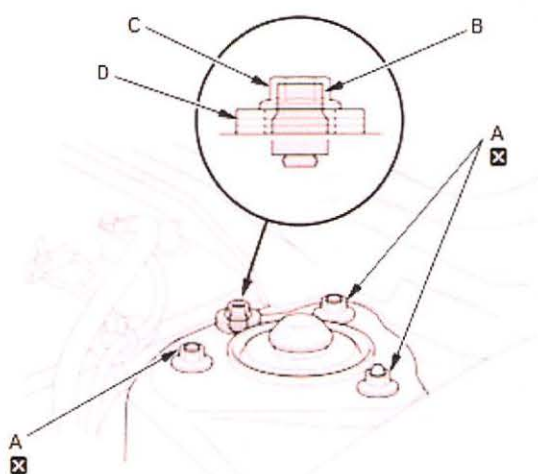
**NOTE:**

- [How to read the torque specifications.](#)
- After adjusting the wheel alignment, do the VSA sensor neutral position memorization.

**1. Vehicle - Lift**

**2. Front Camber - Adjust (2/4-Door)**

**Screw guide pin type**



1. Replace the flange nuts (A) with new ones, and lightly tighten them.
2. If the guide pin (B) is equipped, remove it by doing the following.

**NOTE:** The guide pin is for factory assembly use only and can be discarded after removal.

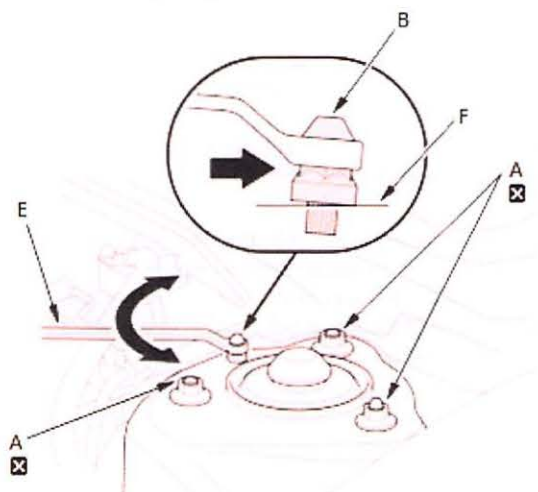
- **Screw guide pin type**

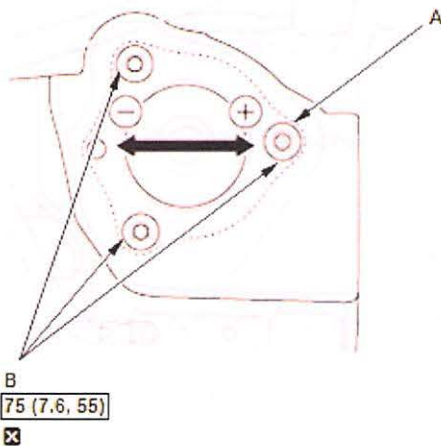
Install a suitable nut (C) with 2-3 suitable washers (D) to the guide pin, then tighten the nut until the guide pin comes off.

- **Hex guide pin type**

Use a wrench (E) to rock the guide pin left and right while pulling it out from the damper mounting base (F).

**Hex guide pin type**

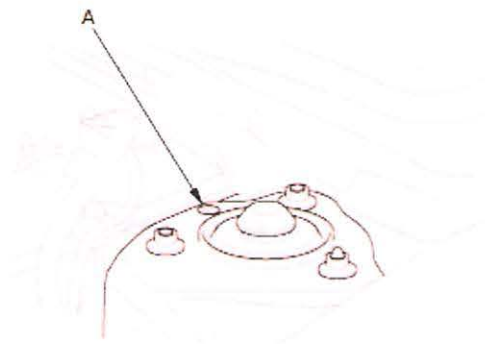




3. Adjust the camber angle by moving the upper part of the damper (A).

NOTE: The camber angle can be adjusted  $\pm 19'$ .

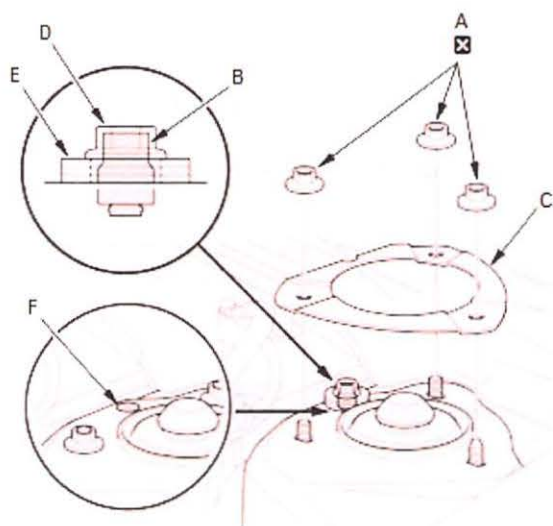
4. Tighten the flange nuts (B) to the specified torque.
5. Lower the vehicle to the ground, and bounce the front of the vehicle up and down several times to stabilize the suspension.
6. Measure the camber angle. If the camber angle is not within specification, readjust the camber angle. If the camber measurement is correct, measure toe-in, and adjust it if necessary.



7. Install the hole seal (A) after the guide pin is removed.

NOTE: Refer to the Parts Catalog for the hole seal.

### 3. Front Camber - Adjust (5-Door)



1. Replace the flange nuts (A) with new ones, and lightly tighten them.
2. If the guide pin (B) is equipped, remove it by doing the following.

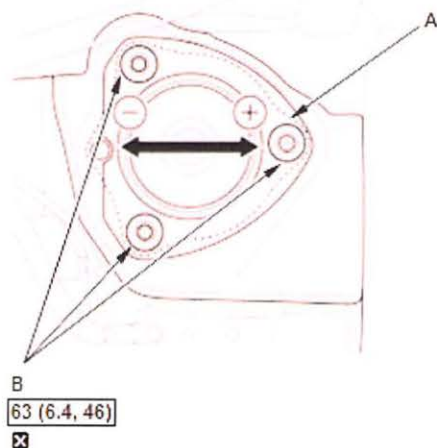
- 1. Remove the damper plate (C).
- 2. Install a suitable nut (D) with 2-3 suitable washers (E) to the guide pin, then tighten the nut until the guide pin comes off.

NOTE: The guide pin is for factory assembly use only and can be discarded after removal.

- 3. Install the hole seal (F) after the guide pin is removed.

NOTE: Refer to the Parts Catalog for the hole seal.

- 4. Install the damper plate.

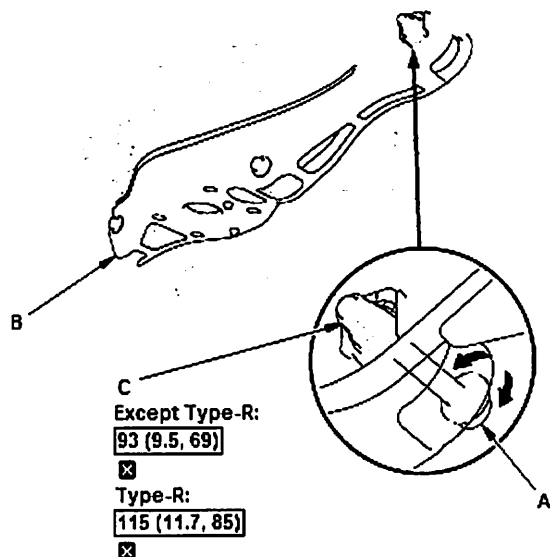


3. Adjust the camber angle by moving the upper part of the damper (A).

NOTE: The camber angle can be adjusted  $\pm 19'$ .

4. Tighten the flange nuts (B) to the specified torque.
5. Lower the vehicle to the ground, and bounce the front of the vehicle up and down several times to stabilize the suspension.
6. Measure the camber angle. If the camber angle is not within specification, readjust the camber angle. If the camber measurement is correct, measure toe-in, and adjust it if necessary.

#### 4. Rear Toe - Adjust



**NOTE:** Do the rear toe adjustment before the front toe adjustment.

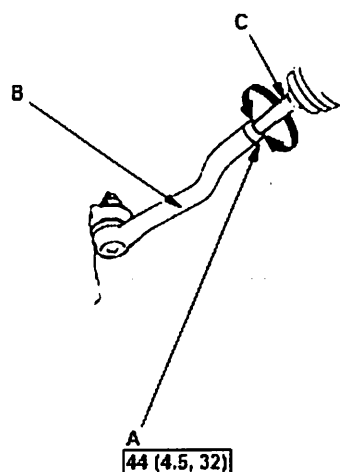
1. Hold the adjusting bolt (A) on lower arm B, and remove the self-locking nut (C).
2. Replace the self-locking nut with a new one, and lightly tighten it.

**NOTE:**

- Always use a new self-locking nut whenever it has been loosened.
- Reassemble the adjusting bolt and the adjusting cam plate with the eccentric facing up.

3. Adjust the rear toe by turning the adjusting bolt until the toe is correct.
4. Tighten the self-locking nut to the specified torque while holding the adjusting bolt.

#### 5. Front Toe - Adjust



**NOTE:** Do the rear toe adjustment before the front toe adjustment.

1. Loosen the tie-rod end locknuts (A) while holding the flat surface sections (B) of the tie-rod end with a wrench, and turn both tie-rods (C) until the front toe is within specifications.
2. After adjusting, tighten the tie-rod end locknuts to the specified torque. Reposition the rack-end boot if it is twisted or displaced.

#### 6. VSA Sensor Neutral Position - Memorize