# **CHILTON**LIBRARY

Your Current Vehicle: 2015 Honda Fit

# Wheel **Align**ment

**NOTE** 

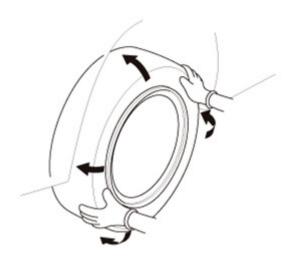
Applicable vehicles:

• 2015-16 Honda FIT

# Wheel **Align**ment

#### Check

1. Pre-Alignment - Check



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

- 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 that the spare tire, the jack, and the tools are in place

on the vehicle.

- 4. Check the tire size and tire pressure according to tire information.
- 5. Set the steering column to the middle tilt position and telescopic position.
- 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 **align**ment 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 commercially available computerized four wheel **align**ment equipment to measure wheel **align**ment (caster, camber, toe, and turning angle). Follow the equipment manufacturer's instructions.

- 1. Caster Inspect
  - 1. Check the caster angle.

Caster angle:						
USA and Canada models	4	0	58	,	±1	O
Mexico models:	4	0	49	,	±1	O

- If the measurement is within specifications, measure the front 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:						
	Front:	0 ° 00 ' ±1 °				
	Rear:	-1 °30 ' ±1 °				
(Maximum difference between the right and left side: ±1 °)						

- 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 toe-in:  $2.5^{+3.5}_{-2.5}$  mm ( $0.098^{+0.138}_{-0.098}$  in)

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

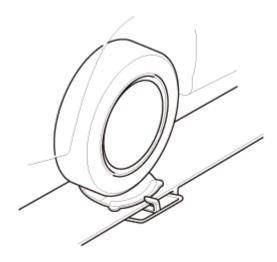
#### 4. Front Toe - Inspect

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

- 1. Set the steering column to the middle tilt position and telescopic position.
- 2. Center the steering wheel spokes, and install a steering wheel holder tool.
- Check the toe with the wheels pointed straight ahead.

Front toe-in: 
$$0 \pm 3 \text{ mm} (0.00 \pm 0.12 \text{ in})$$

- 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.

Tu	Turning angle:							
l	USA and Canada models:							
	Inward:	37	° 01	' ±2 °				
	Outward (reference):	32	° 11	,				
N	Mexico models:							
	Inward:	38	° 41	' <b>±2</b> '				
	Outward (reference):	32	° 34	,				

2. If the measurement is not within specifications, even up both sides of the tierod threaded section length while adjusting the front toe. If it is correct, but the turning

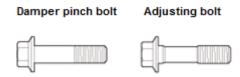
angle is not within the specifications, check for bent or damaged suspension components.

### Adjustment

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

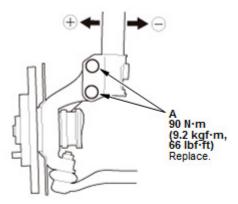
NOTE: After adjusting the wheel **align**ment, do the VSA sensor neutral position memorization (with VSA).

- 1. Vehicle Lift
- 2. Front Camber Adjust



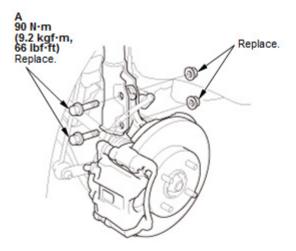
The front camber can be adjusted by exchanging one or both of the damper pinch bolts with a smaller diameter adjusting bolt. The difference between the adjusting bolt diameter and the pinch bolt hole diameter allows for a small range of adjustment.

NOTE: Refer to the Parts Catalog for the camber adjusting bolts.



- 1. Remove both front wheels.
- 2. Loosen the damper pinch bolts (A), and adjust the camber angle by moving the bottom of the damper within the range of the damper pinch bolt free play.
- 3. Tighten the damper pinch bolts to the specified torque.
- 4. Clean the mating surfaces between the brake disc and the inside of the wheel, then install both front wheels.
- 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 measurement is within the specification, measure the toe-in.
  - If the measurement is not within the specification, go to step 7.

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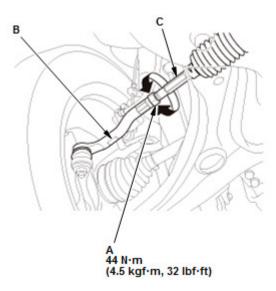
- 7. Remove both front wheels.
- 8. Replace the damper pinch bolts with the adjusting bolts (A), and adjust the camber angle.

#### NOTE:

- The camber angle can be adjusted up to ±20 ' (center of tolerance) by replacing one damper pinch bolt with the adjusting bolt.
- The camber angle can be adjusted up to ±40 ' by replacing both damper pinch bolts with the adjusting bolts.
- 9. Tighten the bolts to the specified torque.
- 10. Clean the mating surfaces between the brake disc and the inside of the wheel, then install the front wheels.
- 11. Lower the vehicle to the ground, and bounce the front of the vehicle up and down several times to stabilize the suspension.
- 12. Measure the camber angle. If the camber angle is not within specification, repeat step7 through 11 to readjust the camber angle. If the camber measurement is correct, measure

toe-in, and adjust it if necessary.

# 3. Front Toe - Adjust



- 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 tierods (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.
- VSA Sensor Neutral Position Memorize (With VSA)

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