

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

Article Text

1993 Honda Prelude

For Cadi Centre Nsk CA 95051

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ARTICLE BEGINNING

1993 WHEEL ALIGNMENT

Honda - Specifications & Procedures

Prelude

* PLEASE READ THIS FIRST *

NOTE: Prior to performing wheel alignment, perform preliminary visual and mechanical inspection of wheels, tires and suspension components.

ANTI-LOCK BRAKE SAFETY PRECAUTIONS

- * NEVER open a bleeder valve or loosen a hydraulic line while ABS is pressurized
- * NEVER disconnect or reconnect any electrical connectors while ignition is on. Damage to ABS control unit may result.
- * DO NOT attempt to bleed hydraulic system without first referring to the appropriate article.
- * Only use specially designed brake hoses/lines on ABS-equipped vehicles.
- * DO NOT tap on speed sensor components (sensor, sensor rings). Speed rings must be pressed, NOT hammered into hubs. Striking these components can cause demagnetization or a loss of polarization, affecting the accuracy of the speed signal returning to the ABS control unit.
- * DO NOT mix tire sizes. Increasing the width, as long as tires remain close to the original diameter, is acceptable. Rolling diameter must be identical for all 4 tires. Some manufacturers recommend tires of the same brand, style and type. Failure to follow this precaution may cause inaccurate wheel speed readings.
- * DO NOT contaminate speed sensor components with grease. Only use recommended anti-corrosion coating.
- * When speed sensor components have been removed, ALWAYS check sensor-to-ring air gaps when applicable. These specifications can be found in each appropriate article.
- * ONLY use recommended brake fluids. DO NOT use silicone brake fluids in an ABS-equipped vehicle.
- * When installing transmitting devices (CB's, telephones, etc.) on ABS-equipped vehicles, DO NOT locate the antenna near the ABS control unit (or any control unit).
- * Disconnect all on-board computers, when using electric welding equipment.
- * DO NOT expose the ABS control unit to prolonged periods of

high heat (185°F/85°C for 2 hours is generally considered a maximum limit).

WHEEL ALIGNMENT PROCEDURES

NOTE: Wheel alignment should be checked and adjusted in following order: caster, front camber, rear camber, rear toe-in, front toe-in and steering wheel alignment.

CAMBER ADJUSTMENT

NOTE: Manufacturer recommends using commercially available computerized 4-wheel alignment equipment. Follow equipment manufacturer instructions to obtain current vehicle alignment settings. Use following procedures for necessary adjustments.

(Front)

Compare camber settings with vehicle manufacturer recommendations. See WHEEL ALIGNMENT SPECIFICATIONS table. If camber is incorrect, check for bent or damaged front suspension components. Replace faulty components. Recheck camber.

(Rear)

1) On 4-wheel steering models, install Rear Steering Center Lock Pin (07NAJ-SS0020A) in rear steering gear assembly. See Fig. 1. On all models, compare camber settings with vehicle manufacturer recommendations. See WHEEL ALIGNMENT SPECIFICATIONS table. If camber is incorrect, adjust rear camber by loosening upper arm lock nuts and moving knuckle/hub assembly in or out.

2) On 4-wheel steering models, check static steering wheel alignment. If steering wheel alignment is off by more than 13/64" (5 mm) at steering wheel hub, remove steering wheel and reposition it on splines.

3) Remove rear steering center lock pin, and install rear steering gear assembly cap bolt. Turn steering wheel, centering it in straight-ahead position. Secure steering wheel in this position, and check toe-in.

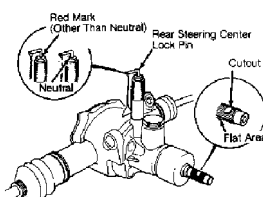


Fig. 1: Installing Rear Steering Center Lock Pin
Courtesy of American Honda Motor Co., Inc.

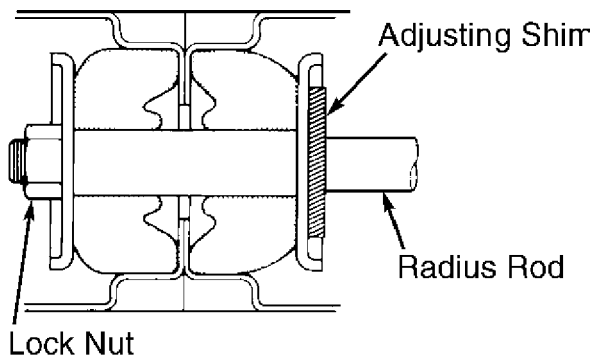
CASTER ADJUSTMENT

NOTE: Manufacturer recommends using commercially available computerized 4-wheel alignment equipment. Follow equipment manufacturer instructions to obtain current vehicle alignment settings. Use following procedures for necessary adjustments.

NOTE: DO NOT use more than 2 shims. If more than 2 shims are required to adjust caster angle, check for bent or damaged suspension components.

1) If caster needs adjustment, raise front of vehicle and support it using safety stands. Remove lock nut on end of radius (strut) rod. See Fig. 2. Remove radius rod bolts and radius rod from lower control arm.

2) Adjust caster angle by increasing or decreasing adjusting shims. A 1/8" (3.2 mm) thick shim changes caster angle by 0.41 degree (25 minutes). Caster angle can be adjusted a maximum of 0.83 degree (50 minutes). Tighten radius rod bolts and lock nut.



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Fig. 2: Adjusting Caster
Courtesy of American Honda Motor Co., Inc.

TOE-IN ADJUSTMENT

NOTE: Manufacturer recommends using commercially available computerized 4-wheel alignment equipment. Follow equipment manufacturer instructions to obtain current vehicle alignment settings. Use following procedures for necessary adjustments.

(2-Wheel Steering)

1) Check caster and camber. Adjust if necessary. See WHEEL ALIGNMENT SPECIFICATIONS table. Secure steering wheel in straight-ahead position. Check rear toe-in.

WHEEL ALIGNMENT SPECIFICATIONS & PF

2) If adjustment is needed, hold adjusting bolt on rear lower control arm and loosen lock nut. Adjust rear toe-in by turning adjusting bolt until toe-in is correct. Install NEW lock nut, and tighten it while holding adjusting bolt.

3) Check front toe-in. If adjustment is needed, loosen tie rod lock nuts and turn tie rods until toe-in is correct. Tighten tie rod lock nuts. Reposition tie rod boots if they are twisted.

(4-Wheel Steering)

1) Check caster and camber. Adjust if necessary. See WHEEL ALIGNMENT SPECIFICATIONS table. Set front main steering angle sensor in neutral position. Using jumper wire, jump service check connector to turn on 4WS indicator light in instrument cluster. See STEERING SYSTEM - 4-WHEEL article in STEERING section. Check front toe-in.

2) If adjustment is needed, loosen tie rod lock nuts and turn tie rods until toe-in is correct. After adjustment, tighten tie rod lock nuts. Reposition tie rod boots if they are twisted. Disconnect jumper wire.

3) Set rear main steering angle sensor in neutral position. Using jumper wire, jump service check connector to turn on 4WS indicator light in instrument cluster. See STEERING SYSTEM - 4-WHEEL article in STEERING section. Check rear toe-in. If adjustment is needed, loosen tie rod lock nuts and turn tie rods until toe-in is correct. After adjustment, tighten tie rod lock nuts. Reposition tie rod boots if they are twisted. Disconnect jumper wire.

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS TABLE

Application		Ft. Lbs (N.m)
Radius Rod Lock Nut	41 (55)
Spindle Nut	181 (250)
Tie Rod Lock Nut	33 (45)
Upper Control Arm Nuts	48 (65)
Wheel Lug Nuts	81 (110)
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WHEEL ALIGNMENT SPECIFICATIONS

WHEEL ALIGNMENT SPECIFICATIONS TABLE

Application			Preferred	Range
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(2WS)

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