

Wheel Alignment

AUDI

ADJUSTMENT

TIRE INFLATION (COLD)

Before attempting to check and adjust wheel alignment, ensure tires are properly inflated. Tire sizes and pressures can be found on a sticker located on side panel of left door on all models.

NOTE: Vehicles must not be loaded down with passengers or any weight that would cause vehicle to lean or sag, which will affect riding height.

CASTER

Caster angle is not adjustable. If caster is not within specification, check suspension components for excessive wear or damage. Replace components as necessary to bring caster into specifications.

CAMBER

4000

1) With vehicle properly positioned on alignment rack, measure camber angle. If not within specifications, loosen ball joint mounting nuts on control arm and install Wedge Tool (US 4490).

2) Tighten adjusting nut to break ball joint loose from control arm. See Fig. 1. When tool nut is loosened, weight of vehicle will move wheel to negative camber. After adjustment, retorque ball joint nuts to 47 ft. lbs. (64 N.m).

5000

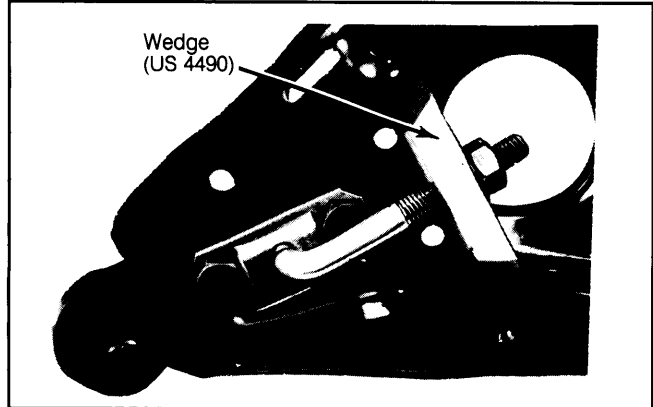
Work under hood and loosen the upper strut mounting nuts. Place a socket over suspension strut nut.

Move strut around in slots until camber is correct. Tighten nuts to 14 ft. lbs. (19 N.m).

Quattro

Loose mounting nuts on control arm and move ball joint in elongated holes as necessary. Tighten mounting nuts to 47 ft. lbs. (64 N.m). Recheck camber and correct if necessary. Check toe and adjust if necessary.

Fig. 1: Camber Adjusting Tool for Audi 4000



TOE-IN

1) Loosen adjustable tie rod jam nuts (5000 and Quattro) or clamp and lock nut (4000). Rotate threaded collar (5000 and Quattro) or rod (4000) until toe-in is within specifications.

2) Tighten locking components. If necessary, remove steering wheel and reposition so wheel spokes are horizontal when front wheels point straight-ahead.

BMW

ADJUSTMENT

TIRE INFLATION (COLD)

Before attempting to check and adjust wheel alignment, ensure tires are properly inflated. Tire sizes and pressures can be found in owner's manual.

CASTER & CAMBER

Caster & Camber is not adjustable. Before checking caster and camber, vehicle must be in loaded condition, see Vehicle Loading Table. If caster or camber are not within specifications, check suspension components for damage.

VEHICLE LOADING TABLE

Application	¹ Lbs. (kg)
Each Front Seat	150 (68)
Rear Seat	150 (68)
Luggage Compartment	46 (21)
¹ — Fuel tank full.	

TOE-IN

Before checking toe-in, vehicle must be in loaded condition, see Vehicle Loading Table. Check toe-in with front wheels in straight ahead position. If not within specifications, loosen tie rod clamps and turn tubes until correct toe-in is obtained. Tighten clamping bolts.

CHRYSLER CORP. IMPORTS

ADJUSTMENT

TIRE INFLATION (COLD)

Before attempting to check and adjust wheel alignment, ensure tires are properly inflated. Tire sizes and pressures can be found in owner's manual.

CASTER

Pickups (2-WD & 4-WD)

To adjust caster, tighten upper arm shaft. A half turn of upper arm shaft will cause .049" (1.25 mm) front or rear movement of upper arm shaft, resulting in 1/4° change in caster adjustment

CHRYSLER CORP. IMPORTS (Cont.)

All Others

Caster, as a general rule, requires no adjustment. However, slight adjustment can be made by moving strut bar nut until specified caster angle is obtained.

CAMBER

Pickups (2-WD & 4-WD)

To adjust camber, hold upper arm shaft-to-crossmember bolt in position and remove nut (on 2-WD use tool wrench MB990805) from engine compartment side. Adjust number of shims between upper arm shaft and crossmember until correct camber specification is obtained.

All Others

Camber requires no adjustment. Steering knuckle is integral with strut assembly and camber is

preset at the factory. If camber is not within specifications, check suspension components for damage.

TOE-IN

All Models

1) Position wheels in straight ahead position. If toe-in is not to specifications, loosen locking nut on left tie rod turnbuckle. Rotate buckle until toe-in is within specifications. Tighten lock nut.

2) After adjusting toe-in, check difference in lengths of left and right tie rods. If difference exceeds .20" (5 mm), remove right tie rod and adjust length until difference is .20" (5 mm) or less. Readjust toe-in to specifications.

COURIER

ADJUSTMENT

TIRE INFLATION (COLD)

Before attempting caster or camber adjustments, ensure tires are correctly inflated. Specifications are located on glove box door. Vehicle must be unloaded, except fuel, water, and oil should be at their proper levels.

CASTER

To adjust caster, adjust shims between upper control arm and frame or turn control arm shaft until correct specifications are obtained.

CAMBER

To adjust camber, adjust shims between upper control arm and frame until correct specifications are obtained. Shims are available in the following sizes: .039" (1 mm), .063" (1.6 mm), .079" (2 mm) and .126" (3.2 mm).

TOE-IN

1) Raise vehicle until front wheels clear floor. Turn wheel by hand and scribe a line in center of each tire tread.

2) Measure distance between marked lines in front of front wheel and at rear of front wheel. Both measurements must be taken at equal distances from ground.

3) If distance between wheels at rear is greater than that at front, but within specifications, adjustment is correct. If adjustment is wrong, loosen clamp bolts and adjust tie rod to specifications.

4) Tighten clamping bolts with bolts horizontal and below tie rod to prevent interference with center tie rod.

DATSUN/NISSAN

ADJUSTMENT

TIRE INFLATION (COLD)

Before attempting to check or adjust wheel alignment, make sure that tires are properly inflated. Refer to manufacturer's specifications given in owner's manual.

CASTER & CAMBER

Pickup (2-WD & 4-WD)

1) Adjust caster and camber by increasing or decreasing thickness of shims, inserted between upper link spindle and upper link mounting bracket.

2) Caster adjustment affects camber adjustment, if you change caster specification, camber specification is also changed.

3) Total thickness of shims must be within .236" (6.0 mm) and must not collectively total more than 3

individual shims. Difference of total thickness between front and rear must be within .079" (2.0 mm).

All Other Models

Caster and camber is preset at factory and cannot be adjusted. If not to specifications, check suspension for wear or damage and repair or replace components as necessary.

TOE-IN

All Models

Place wheels in straight-ahead position, then make sure steering wheel and steering gear are also in straight-ahead position. Adjust toe-in by varying the length of steering tie rods. Loosen lock nuts and rotate rods evenly until toe-in is within specifications.