PEUGEOT

ADJUSTMENT

TIRE INFLATION (COLD)

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

TOE-IN

Position wheels in straight-ahead position. If toe-in is not to specifications, loosen clamping bolts on the 2 steering links. To adjust, rotate 2 steering links simultaneously in either direction necessary to obtain specified toe-in. Tighten clamping bolt and recheck toe-in.

CAMBER & CASTER

Camber and caster are not adjustable. If alignment is not within specifications, inspect for damaged suspension parts and repair or replace as necessary.

PORSCHE

ADJUSTMENT

TIRE INFLATION (COLD)

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

RIDING HEIGHT

NOTE – *Riding height should be set with fuel tank full and spare tire included.*

911SC (Front) – 1) Checking or adjusting riding height can only be performed with vehicle on level surface. Mark center of front wheel hub cap (grease retainer cup). Bounce vehicle several times to settle suspension. Measure distance "A" shown in *Fig. 1*. Measure distance "B" shown in *Fig 1*. Difference between measurements (riding height) should be 3.7-4.1" (94-104 mm).

2) If necessary, loosen or tighten torsion bar adjusting bolt until correct height is obtained. Bounce vehicle several times and recheck height. Make sure difference between right and left side measurements does not exceed .20" (5 mm).

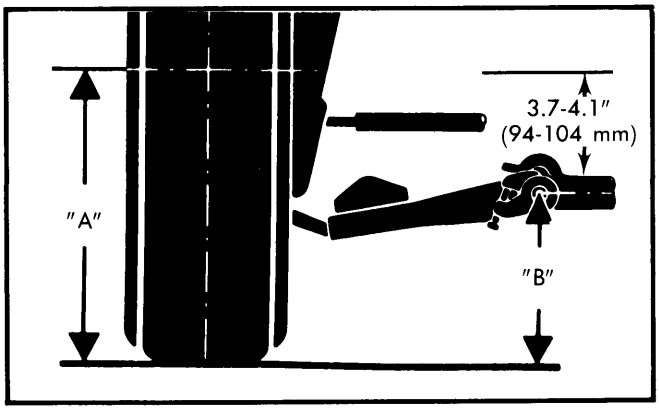

Fig. 1 Front Suspension Riding Height Measuring Points for 911SC

911SC (Rear) – Checking or adjusting riding height can only be performed with vehicle on level surface. Mark center of rear wheel. Bounce vehicle several times to settle suspension. Measure distance "a" shown in *Fig. 2*. Distance "a" plus 1.26-1.65" (32-42mm) equals "b"; however, distance "b" is difficult to measure because the torsion bar is mounted off center in its rubber bushing. Therefore it is necessary to measure distance "b1" and add .585" (14.8 mm), radius of bushing. This total should equal "b". After calculating "b", difference between "a" and "b" should be 1.26-1.65" (32-42 mm). Difference in height from left to right should not exceed .20" (5 mm). If values are not within specifications, check front height and rear torsion bar adjustment. Correct as required.

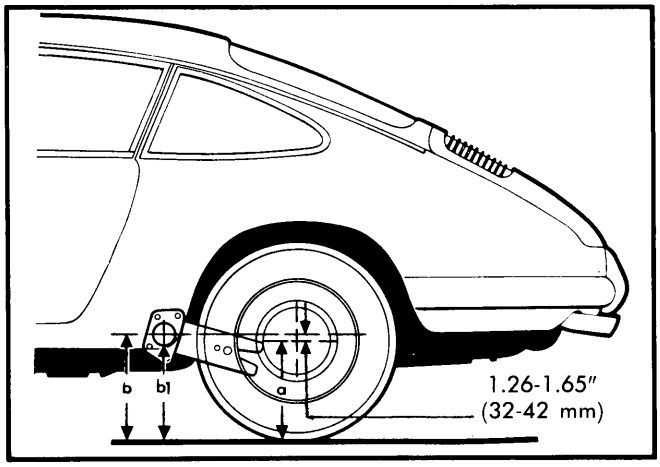

Fig. 2 Rear Suspension Riding Height Measuring Points for 911SC

924 (Rear) – Rear height is adjusted at 2-piece spring plate; spring plate removal is not required. Loosen mounting bolt and adjust vehicle height with eccentric bolt. See *Fig. 3*. Height should be .311-.319" (7.9-8.1 mm) when measured from torsion bar center to center of wheel.

NOTE – *If spring plate angle is 19° (with stabilizer bar) or 23° 40' (without stabilizer bar), vehicle height will be correct.*

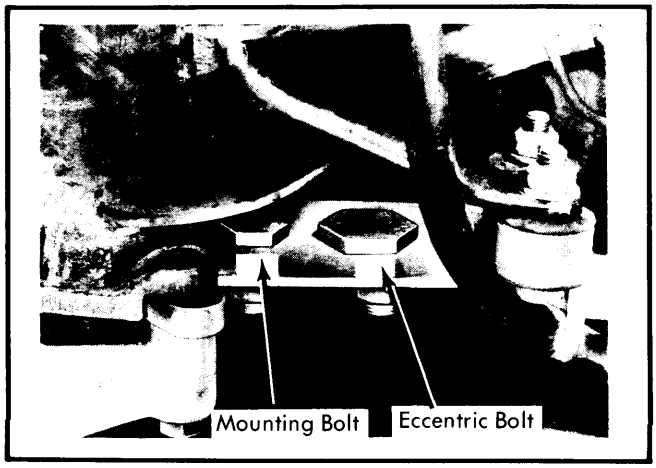

Fig. 3 Location of 924 Rear Riding Height Adjusting bolt

PORSCHE (Cont.)

928 (Front) – Park vehicle on level ground. Place wheels in straight-ahead position. Measure distance from boss (on forward underside of lower control arm) to ground. Distance should be about 7.48" (190 mm). Height is determined by coil spring and is not adjustable at front axle.

928 (Rear) – Place vehicle on level surface. Place front wheels in straight-ahead position. Measure distance from lower edge of crossmember (below camber adjusting cam) to ground. Distance should be 6.81-7.20" (173-183 mm).

- To adjust vehicle upward turn coil spring adjusting nut (located at under side of lower spring retainer) clockwise.
- Rear height must be adjusted to match front height. EXAMPLE: If front height is .394" (10 mm) too high, rear height must be raised .394" (10 mm).

CASTER

911SC – If caster angle is not within specifications, it will be necessary to remove adjuster plate which attaches to front shock absorber. Remove enough front compartment carpet to allow access to top of each shock absorber. Mark position of each movable plate, located below each Allen screw. Loosen each screw and upper shock absorber nut. Move assembly lengthwise to obtain correct caster angle. Tighten all 3 screws and shock absorber nut.

924 – Adjust caster by moving the rear control arm mount from side-to-side. See *Fig. 4*.

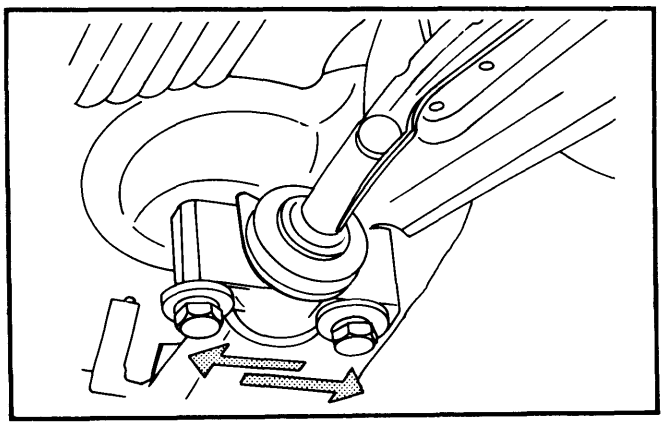

Fig. 4 924 Caster Adjustment Location

928 – Caster is adjusted at eccentric located on lower control arm. To adjust caster, use eccentric closest to brake disc.

CAMBER

911SC (Front) – If camber angle is not within specifications, it will be necessary to move adjuster plate which attaches to front shock absorber. Follow procedure outlined for adjusting caster and move assembly from side-to-side to obtain correct camber angle. Tighten all 3 screws and shock absorber nut.

911SC (Rear) – To obtain correct camber angle at rear wheels, it is necessary to adjust rear torsion bars first. See *Torsion Bar Adjustment*. Then, loosen nuts on retaining bolts and on eccentric bolt at rear axle flange. Turn camber eccentric until camber angle is within specifications. Tighten retaining nuts and eccentric bolt nuts.

924 (Front) – Adjust camber by turning eccentric bolt shown in *Fig. 6*.

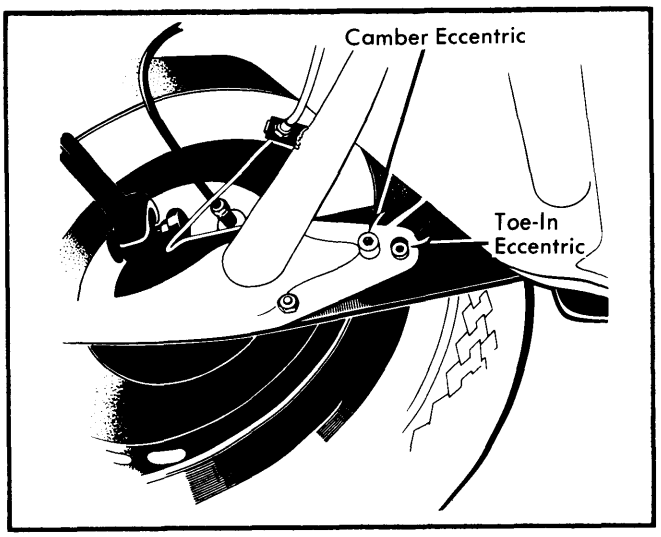

Fig. 5 911SC Rear Camber Adjustment Points

924 (Rear) – Loosen bolts between spring plate and diagonal arm flange. Bring camber to specification by turning eccentric.

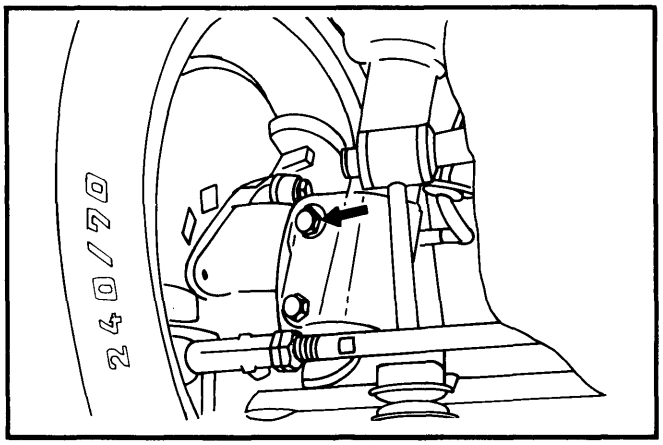

Fig. 6 924 Front Camber Eccentric Bolt Location

928 (Front) – Camber is adjusted at eccentric located on lower control arm. To adjust camber, use eccentric farthest away from brake disc.

928 (Rear) – Make camber adjustments at eccentric bolt located on inner control arm bushing.

TOE-IN

All Models (Front) – Place front wheels in straight-ahead position. Adjust left and right steering links (tie rods) equally to obtain specified setting. Coat each steering link with anti-corrosive compound after adjustment.

911SC (Rear) – To adjust rear wheel toe-in, loosen nuts on retaining bolts and adjusting eccentrics at rear axle flange. Turn toe-in eccentric until toe-in is set to specifications. Hold eccentric stationary and tighten all lock nuts.

924 (Rear) – Adjust toe-in by repositioning control arm flange in slots of spring plate. Use of special tool 1979 is suggested.

PORSCHE (Cont.)

928 (Rear) – Rear toe-in adjustments are made at eccentric bolt located on front control arm bushing.

TORSION BAR ADJUSTMENT

911SC (Rear) – Place torsion bar into transverse tube with inner end splines first. Slip radius arm onto outer end splines of torsion bar. Place leveling tool (VW 261) on lower edge of door opening and adjust level so bubble is in center of glass. Check adjustment (degrees) of free hanging radius arm with same leveling tool. If not to specifications, adjust by turning torsion bar and radius arm in opposite directions. Adjustment of both radius arms must each equal $36\frac{3}{4}° \pm \frac{1}{4}°$.

RENAULT

ADJUSTMENT

TIRE INFLATION (COLD)

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

RIDING HEIGHT

NOTE – *Riding height should be set with fuel tank full and without additional weight in vehicle.*

Front – Checking or adjusting riding height can only be performed with vehicle on level surface. To calculate front riding height, measure distance from ground to center of wheel ("H_1" in *Fig. 1*) and distance from ground to front side member ("H_2" in *Fig. 1*) in line with wheel centers. Then subtract the measurements. Difference should be $1\frac{7}{8}$-$2\frac{5}{8}$" (48-68 mm), with the variation between right and left sides not to exceed $\frac{3}{8}$" (10 mm). To adjust front riding height, mark position of torsion bar in bracket, then remove and rotate torsion bar until correct riding height is obtained.

Rear – Rear riding height is calculated by measuring from ground to center of wheel ("H_4" in *Fig. 1*) and to punched out hole in rear side member (H_5" in *Fig. 1*). The difference in the measurements should be $\frac{1}{16}$-$\frac{9}{16}$" (1.5-14 mm) with variation between right and left sides not to exceed $\frac{3}{8}$" (10 mm). Adjust rear riding height in same manner as front riding height.

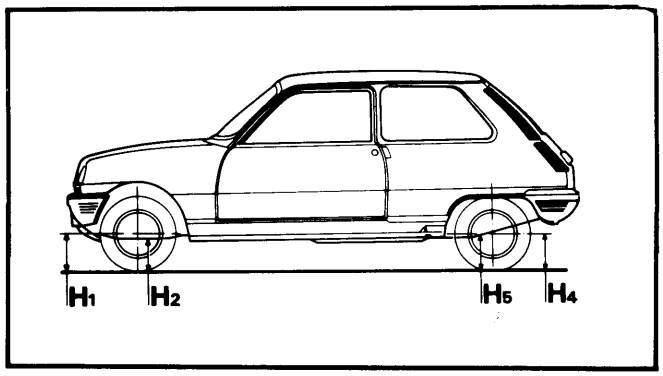

Fig. 1 Riding Height Measurement Points

CASTER

NOTE – *Caster is not adjustable on 18i models.*

Vehicle riding height must be calculated before adjusting caster. Caster angle corresponds to the difference in front and rear riding heights between "H_2" and "H_5" as shown in *Fig. 1*. After calculating the difference, refer to Caster Angle table for correct caster angle. To adjust caster angle, loosen both lower control arm mounting bolts and add or remove shims to adjust caster to specifications. The addition or removal of 1 shim equals about 1° change in caster angle.

NOTE – *Never use more than 2 shims between bushing and side member. Always check steering box height after caster adjustment.*

Le Car Caster Angle Specifications

Difference Between "H_2" & "H_5"	Caster Angle
$1\frac{9}{16}$" (40 mm)	$12\frac{1}{2}°$
$2\frac{3}{8}$" (60 mm)	12°
$3\frac{3}{16}$" (80 mm)	$11\frac{1}{2}°$
$3\frac{15}{16}$" (100 mm)	11°
$4\frac{3}{4}$" (120 mm)	$10\frac{1}{2}°$
$5\frac{1}{2}$" (140 mm)	10°

CAMBER

NOTE – *Camber is not adjustable on 18i models.*

Camber angle is not adjustable. If not within specifications, inspect front suspension for wear or damage and repair or replace components as necessary.

TOE-IN

If toe-in is not to specifications, disconnect steering arm at rack end. Loosen lock nut on steering end fitting. To increase toe-in, unscrew end fitting. To decrease, screw in fitting. Tighten lock nut and connect steering arm. Recheck toe-in.

SAAB

ADJUSTMENT

TIRE INFLATION (COLD)

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

CASTER

To adjust caster, add or remove shims under upper control arm bushing brackets. Changing shims from front to rear bracket increases caster angle. Moving shims from rear to front decreases caster angle.

NOTE – *Same shim thicknesses removed from front must be placed under rear and vice versa. Change in caster also affects camber.*

CAMBER

To adjust camber, add or remove shims under upper control arm bushing brackets. Increasing shims under both brackets