

'87-'95 Porsche 928 Strut & Spring R/R

(Earl Gillstrom and Gary Knox 12/04)

This replacement procedure has been adapted from write-ups of several who have done the R/R before. It includes our learnings from four replacements that the two of us have done together. We think it is pretty thorough, and hope you agree.

IF the replacement strut/spring sets are fully assembled, removal of the “old” units and replacement with the “new” assembled units by 2 people should require ~1 hour for both rears, and ~2-3 hours for both fronts. Another 2-4 hours may be required to R/R all 4 units if each strut/spring is being disassembled and re-assembled with a new shock or spring. Be sure your adjusting perches are operable and well lubricated before you reassemble a unit. **Note that spring compression and disassembly is a dangerous job. Use proper tools and techniques. Paying a shop to do this could prevent SERIOUS injury if you do not have proper tools, or are inexperienced.**

Note: (xx mm) indicates wrench size, and {xx ft lbs} is torque spec.

REAR - Removal:

Loosen rear lug nuts {re-torque these {96 ft lbs} when re-installing}

Jack car up and put jack stands under car for safety

Remove rear wheel(s)

Put Penephte (or a good liquid wrench type lubricant) on threads of all bolts with nuts to be removed and let set for ~10 minutes

From inside rear hatch, remove 3 nuts on each side behind rear seats that hold the top of the rear struts (17 mm). {Re-torque {34 ft lbs} when re-installing}.

Remove FRONT nut (NOT the rear one) on the long bolt that supports bottom of strut/spring. Nut is just behind front side of rear brake rotor (22mm).

Remove sway bar drop link from attachment near rear of the bolt holding rear lower arm in place (19 mm).

Use a Vise-Grip wrench to grip the REAR nut on the large long bolt that holds bottom of strut to the lower suspension arm. Pull this bolt out the back. {Re-torque this bolt {103 ft lbs} when re-installing}.

Pull bottom of the strut toward outside of car and lower suspension arm down.

Pull strut/spring down and out. (Watch where the three washers come from that are used in this connection!!). ----- **Fini!!!**

- Replacement: Reverse above procedure. EXCEPT - sway bar links are installed LAST. You may need to jack up each side of the car independently to align these bolts. You may also want to put some RTV around the top of the 3 bolt upper ring to re-seal the suspension from the body.

BE SURE to properly position the two conical washers on either side of the “middle” part of the suspension arm, and the flat washer between the rear of the strut and the rear part of suspension arm before inserting the large long bolt holding bottom of strut.

Front – Removal:

Loosen lug nuts, jack up car and put jack stands under it for safety. Remove front wheels, and apply Penephte (per line 4 in “Rear-Removal” section). Remove the two rear and two front vertical bolts holding the lower A arm in place (**19 mm**). Set aluminum piece holding rear of A arm aside. Remove rear bolt & loosen front bolt on bracket holding front mounting portion of A arm to the car (**17 mm**). Pivot bracket down & toward front of car. Remove 3 strut nuts & washers from upper fender section in engine bay (**17 mm**). Remove nut from rear of the lower strut holding sway bar drop link (**17 mm**). Drive bolt holding lower strut/drop link toward front of car (hammer & punch), withdrawing it, along with the aluminum shield, to the front. With one person holding the front brake rotor/assembly **AS HIGH AS POSSIBLE** and the A- arm pivoted outside the wheel well, 2nd person pulls the the strut assembly down through the opening in the upper A arm. ----- **Fini!!**

- Replacement:

Insert strut/spring through lower A arm opening, reversing the way it was removed. Second person holds the brake rotor, A arm, etc. until spring is passed completely through the opening in upper A arm. Then, one person guides upper spring mount bolts into position and other person installs one nut on an upper mounting bolt in the engine bay to hold strut in place. Insert bolt that holds bottom of the strut to A arm until the threads are just through the rear of the mounting bracket. Using a floor jack, position a short piece of 2 X 4 under lower A arm at approximately the middle of the A arm bolts. Lift & guide the A arm up until it is in correct position. Install aluminum piece and two bolts holding rear of lower A arm in position (**19 mm**). Note that the aluminum piece has an ‘ear’. Orient it toward center of car. Reposition the bracket that holds front of A arm, and install two large bolts (**19 mm**) holding it to frame. Install the one bolt you removed and tighten both bolts at the front of this bracket (**17 mm**). Torque the four large vertical bolts holding A arm to the frame (fronts **{63 ft lbs}**, rears **{88 ft lbs}**). Tighten and torque all three bolts (**17 mm**) holding top of strut to fender well in engine bay **{34 ft lbs}**. Re-position floor jack and 2 X 4 under lower A arm, locating it vertically at approximately the position of the camber/caster adjustment bolts. Raise jack to push A arm up until the bolt coming through from the front of the strut is aligned with the sway bar link and can be pushed into place. Push (or tap) the bolt through until link is attached and rear nut/washers can be installed. Torque nut (**17 mm**) onto the bolt **{ 62 ft lbs}**. Remove jack used for A arm positioning and re-install wheels. Remove stand And lower the car. Torque lug nuts **{96 ft lb}**, and you are ----- **Ready to go Drivin’** (And enjoy your improved handling?)