

**DESIGN 911**  
Centre for Porsche

# POWER STEERING CONVERSION KIT

– RHD –

FOR PORSCHE 911 74-89



*This installation manual must be read very carefully to avoid mistakes. Check if all parts are present in the kit using the picture in the manual.*

*Compare the Power Steering Column with the original column. Examine if the sizes are similar. If you do not have the skills or tools to carry out the installation, then have a professional fit the kit for you.*

*We cannot be held accountable for a faulty installation or damages to the kit or vehicle.*





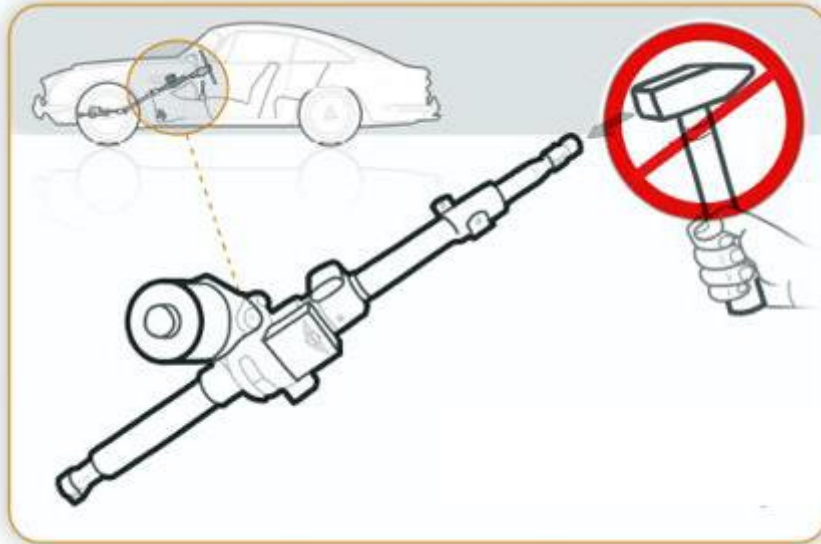
**Before and after assembly:**



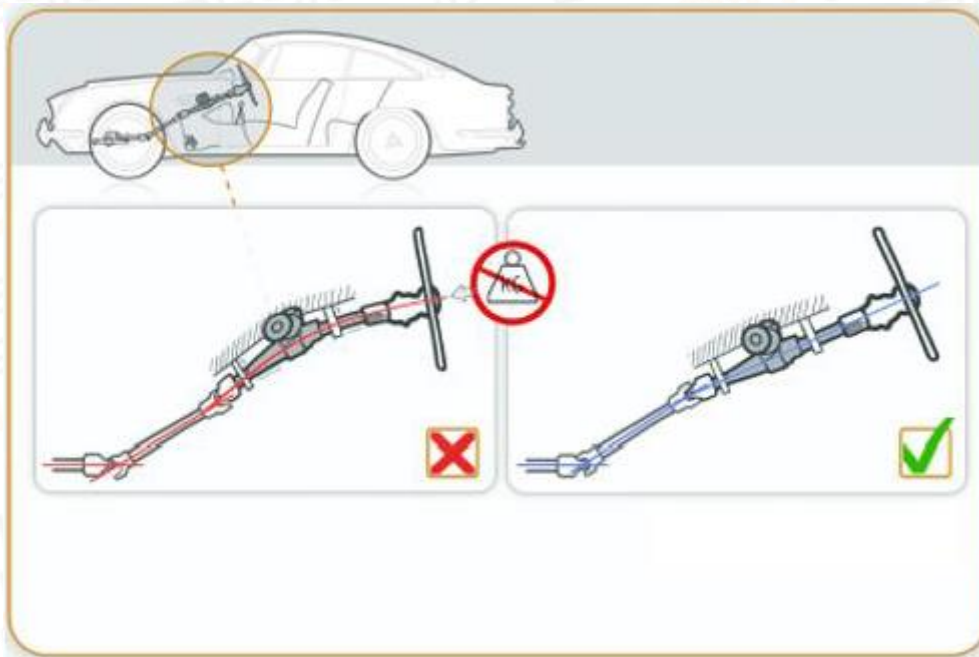


## Installation:

Never strike the input shaft with an object during or after assembly. This can adversely affect the sensors.



The steering system must always be properly aligned and mounted without tension.



**STEP 1.**

Check the tire pressure and take a test drive with the car. Check whether the steering wheel returns to the straight-ahead position. Check whether the controls and instruments are defective. If all this is in order, then proceed with the conversion.

**STEP 2.**

Find a power supply connected via the contact. This is necessary for controlling the power steering unit (see point 22). To do this, disassemble the bottom plate under the dashboard if present, the switched power supply can be removed from the contact lock or the start button. Then disconnect the earth cable from the battery. Make a choice before installation, or put the wheels and steering wheel in the straight-ahead position, mark this position and continue with the conversion. Or determine the centre of the wheelhouse by dividing the number of steering turns, from full left to full right, by two and adjust the wheel alignment after installation, if necessary.

**STEP 3.**

Remove the panel which covers the heater unit. This is fixed with four bolts.

**STEP 4.**

Remove the panel which covers the heater unit. This is fixed with four bolts.





**STEP 5.**

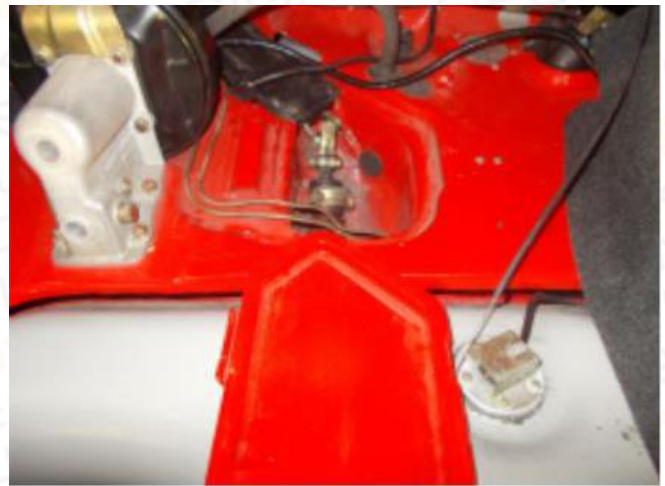
Remove the small ventilation grille underneath the windscreen. this is installed with 4 screws.

**STEP 6.**

The heater unit is fixed with 2 screws, under the ventilation grille. After removal from these screws, the unit can be removed. To make the removal easier, it's preferred to remove the heater motor, this is installed with two screws to the unit itself.

**STEP 7.**

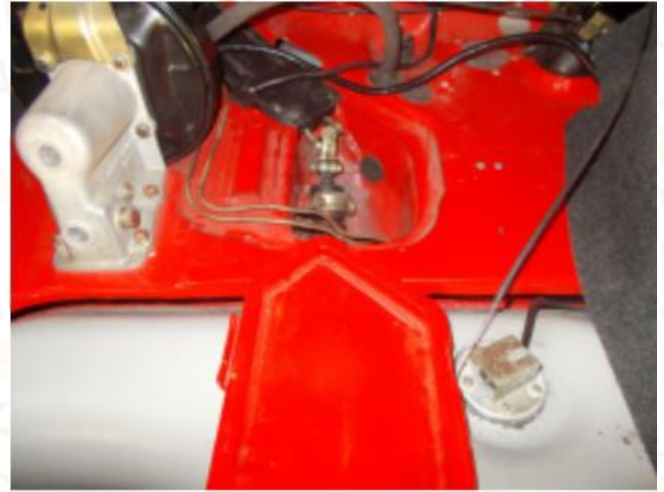
Heater motor and heater unit removed.





**STEP 8.**

Remove the lid from the smugglers box in the luggage compartment. This is installed with 2 screws.

**STEP 9.**

Remove the cover which is installed over the steering shaft. This is installed with 2 clips, prior to the reinstallation from the cover it needs to be modified, see point 27.

**STEP 10.**

Check if the steering system is in its centre position, if needed mark this position on the steering rack. Remove the lower bolt from the lower U-joint (see photo). Remove the original bracket, this is installed with 2x M8 bolts.





**STEP 11.**

Remove the bolts from the upper U-joint (see photo) the U-joint itself stays inside the car. The lower U-joint can be removed with the shaft.



The removed shaft with U-joint.

**STEP 12.**

To get enough clearance for the new unit, some excessive material needs to be removed. Use the template at the bottom of this manual to determine the location to do this.

**STEP 13.**

Sheet metal removed.





**STEP 14.**

Remove the electric motor from the unit, this is installed with 2 bolts.

**STEP 15.**

The unit has 2 colours of markings. This is to clarify the difference in angle between the 2 U-joints, depending on which type of U-joint Porsche used (see point 15). The type of U-joint determines what colour of marking is used.

**STEP 16.**

Steel U-joint.



Cast iron U-joint.

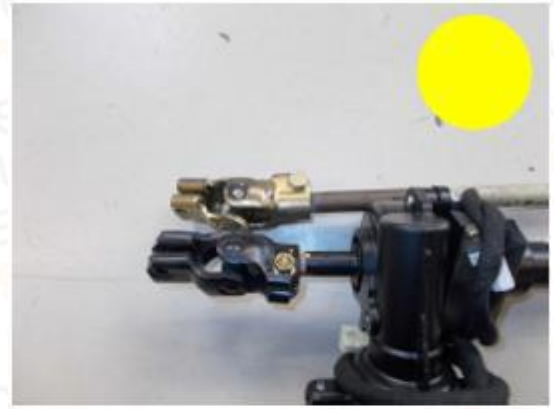


**STEP 17.**

When there is a steel U-joint used be sure that the yellow markings align. This means the markings on the U-joint should correspond with the ones on the new unit.

When the cast Iron U-joint is used, be sure that the red markings align. This means the markings on the U-joint should correspond with the ones on the new unit.

The red marking has nine teeth offset against the yellow markings. This does mean that the steering wheel needs to be reset 90 degrees afterwards. The input axle can differ in length. Make sure you gently pull out the axle otherwise you can damage the sensor. If you accidentally pull it out completely make sure the two dots are aligned when putting it back.

**STEP 18.**

Install the new unit in the car and recheck the alignment and if the unit doesn't touch the body from the car. Do not forget to tighten the bracket (point 10) and the U-joint bolts.





**STEP 19.**

To Install the bracket a hole needs to be drilled. Install the bracket to the EZ unit and use it get the right location to drill. Install the bracket afterwards with the supplied bolts. This is needed to support the unit. To mark the correct position, temp. Install the motor and turn the unit until it just touches the brake booster. Mark the hole and drill it.

**STEP 20.**

Install the ECU to the brake fluid reservoir and connect the EZ harness with the ECU.

**STEP 21.**

Connect the thick supplied red wire (30+) directly to the battery plus via the fuse holder.

**STEP 22.**

Connect the thin red wire (15+) with a contact-switched power supply (see point 2)

**STEP 23.**

Connect the black wire (31-) with a suitable clean ground point.

**STEP 24.**

Pull the speedometer from the dash, it's mounted in rubber so it can be "sticky" to pull out.



**STEP 25.**

Connect the blue wire from the EZ harness with pin 31B at the speedometer.



Reinstall the speedometer into the dash. Be sure that the wiper mechanism is not catching the wiring!

**STEP 26.**

Before the heater unit is installed, the original cover needs to be modified. See photo. Use the template to determine where the cut needs to be made.



After the cover has been cut the remaining piece can be installed into the car.





**STEP 27.**

Reinstall the heaterunit back into the car. Install the electric motor on the new unit once the heater unit has been fitted.

**STEP 28.**

Reinstall the grille underneath the windscreen.

**STEP 29.**

On the inside of the car the new unit is visible. Use the supplied cover to solve this. Use some self-tapping screws to install this cover. Also apply some sealant before installing it!



**STEP 30.**

Secure all wiring. Prior to the installation from the panel a recess needs to be cut into this panel to get enough clearance between the new unit and the panel. Use the new unit to determine the correct location. Once this has been done, the panel and carpet can be reinstalled into the luggage compartment

**STEP 31.**

After switching on the ignition, a click can be heard from the ECU, the system is now operational, check this by making steering movements. After switching off the ignition, another click is heard after approximately 4 seconds. The system is then switched off.

**STEP 32.**

Take a test drive and check all systems again. Also check if the position of the steering wheel is correct, if not adjust it.

**STEP 33.**

The end result.

