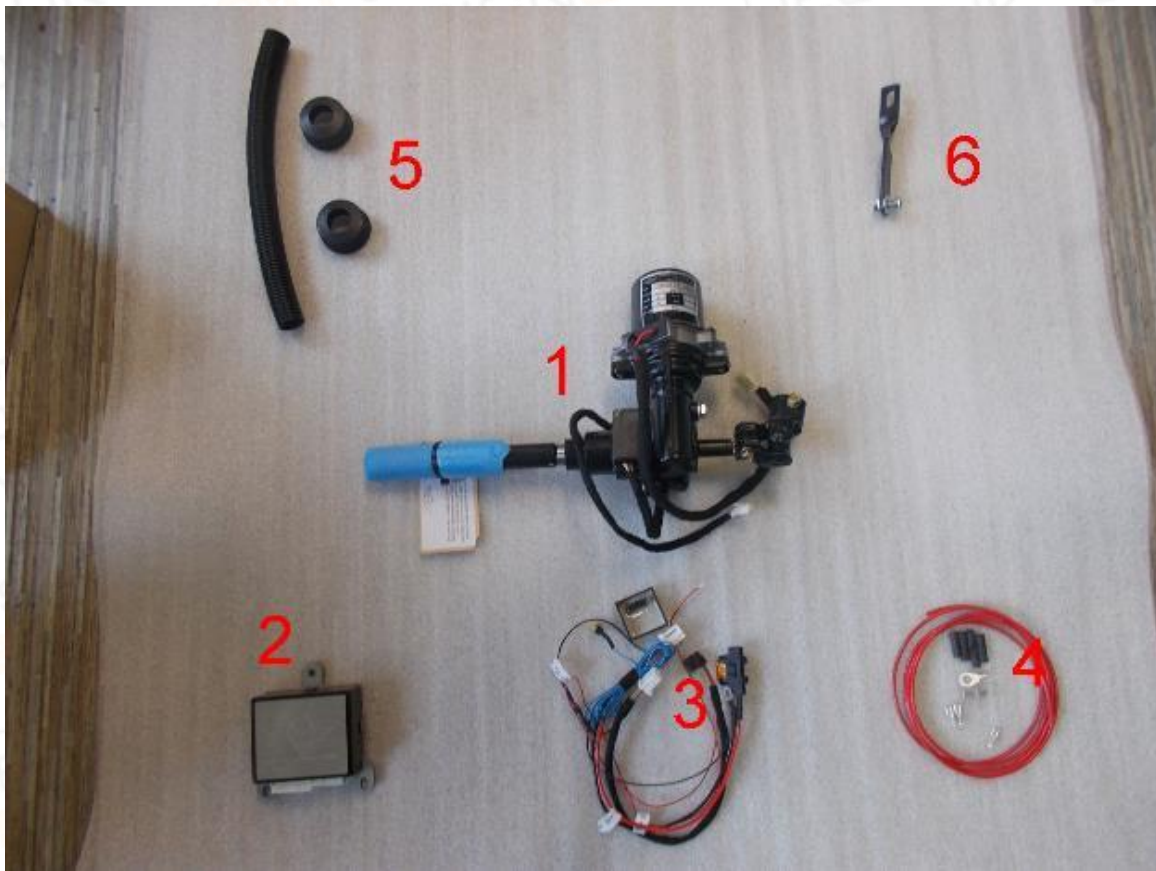


**DESIGN 911**  
Centre for Porsche

# POWER STEERING CONVERSION KIT

## – LHD –

### FOR PORSCHE 911 74-89 WITH AIR CONDITIONING

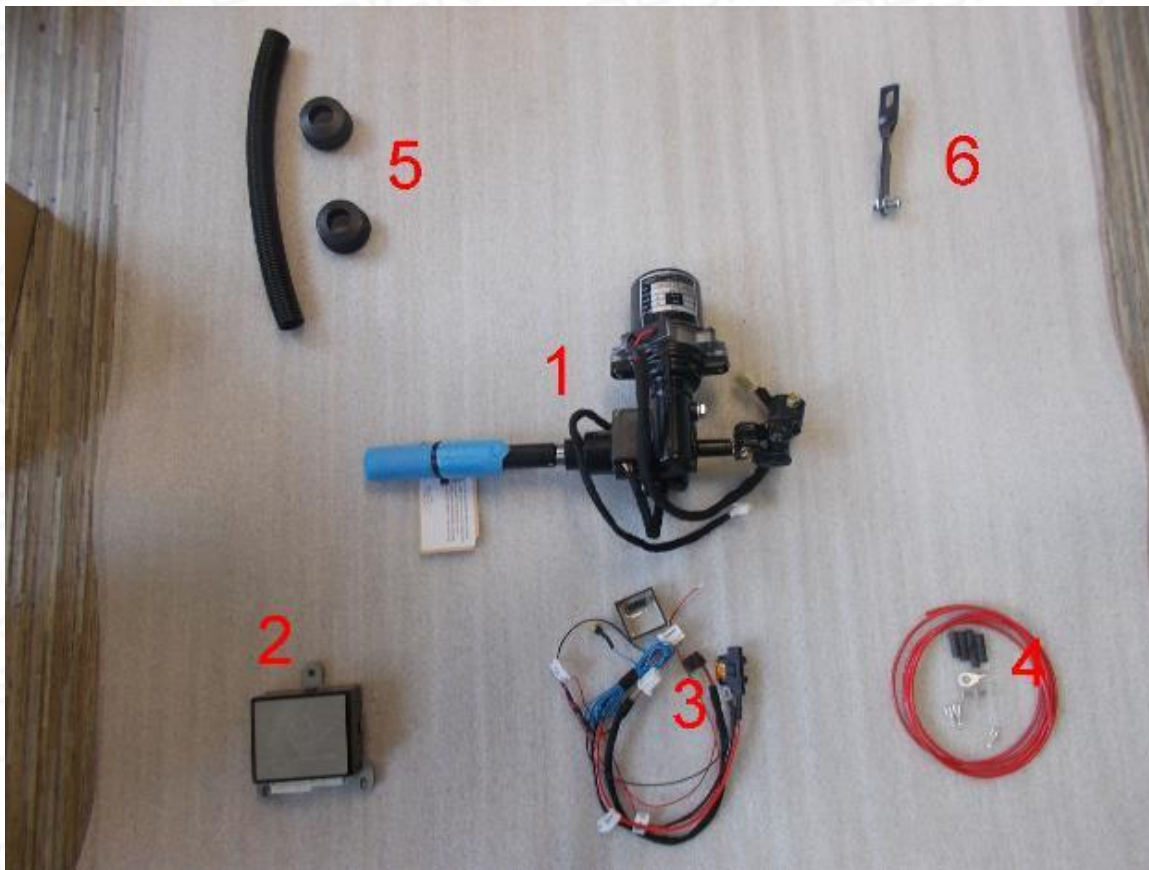


*This installation manual must be read very carefully to avoid mistakes. Check if all parts are present in the kit using the picture in the manual.*

*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.*

## CONTENTS



1. Power Steering unit
2. ECU
3. 3 Cable harness
4. Power Cable (30+)
5. Thin stove hose
6. Mounting bracket



## Installation:

### STEP 1.

Check tyre pressure and test drive the car. Check that the steering wheel returns to the straight-ahead position. Check that the steering and instruments are not faulty. If all this is in order, proceed with the conversion.

### STEP 2.

Remove the carpet from the trunk. Locate a contact switched 12V plus, use the eighth fuse counted from the driver. Check it! Make sure this wire is mounted on the fused side (usually at the bottom) mark this side (see point 22). After this, disconnect the ground cable from the battery and put the steering in the middle position.

### STEP 3.

Then dismantle the protection plate behind which the stove body is mounted. This plate is attached with 4 bolts.



### STEP 4.

Disconnect the stove hoses and control cables and plug connection from the stove unit. Then disassemble the manifold (see photo). This is attached with 1 screw (it is clamped at the back).



**STEP 5.**

Dismantle the grille under the windscreen, it is attached with 4 screws.

**STEP 6A.**

The stove unit itself is attached with 2 screws (under the grate). After removing these screws the stove unit can be dismantled.

To make the disassembly of the whole stove unit easier, it is possible to first remove the motor (it is attached with 2 screws).

**STEP 6B.**

Stove unit removed.





**STEP 7.**

Dismantle the protective cover over the steering shaft. This is mounted with 2 clips. Before reassembling it, it must be adjusted (see item 27).

**STEP 8.**

Check that the steering is in the centre position, mark this position on the steering rack. Remove the lower bolt from the universal joint.

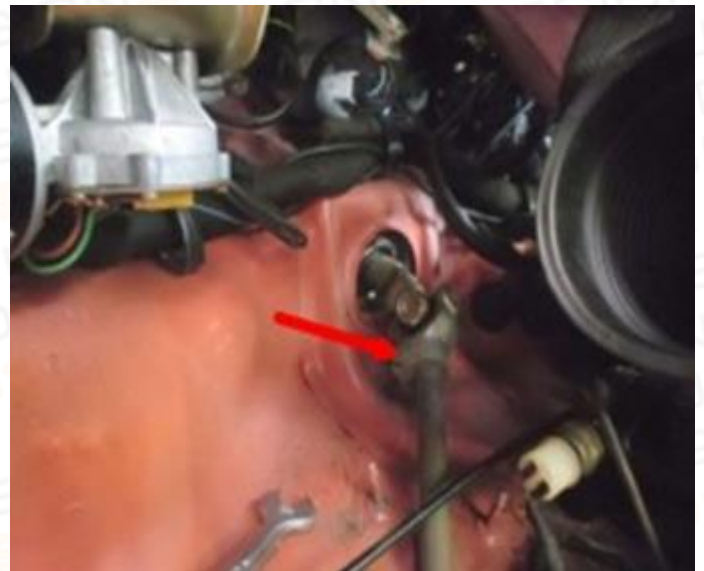


**STEP 9.**

Dismantle the original mounting bracket. It is attached with 2x M8 bolts.

**STEP 10.**

Remove the bolt from the upper universal joint. The upper universal joint remains in the car. The lower universal joint can now be removed with the steering axle itself.

**STEP 11.**

Disassembled steering axle with universal joint.





**STEP 12.**

In order to obtain space for the unit, excess material must be removed. Use the supplied jig and the unit to determine how much should be removed. It is possible that, in addition to the jig, another part may need to be removed in order to place the unit free of stress.

**STEP 13.**

Remove the electric motor from the new unit. This to make it easier to fit it into the car.

**STEP 14.**

After this a recess should be knocked to provide enough space for the new unit. Use the new unit to determine the correct location. See picture as an example. TIP: Use a spherical hammer.



**STEP 15.**

The new unit is provided with different colour markings to mark the angular rotation of the universal joints. This depends on the universal joint used by Porsche. There are 2 versions, see item 15. The type of universal joint mounted in the car determines which colour marking is used.

**STEP 15A.**

Steel crosslink.

**STEP 15B.**

Cast iron cross joint.





**STEP 16A.**

If a steel universal joint is fitted, use the yellow markings. Make sure that these correspond to the coupling on the new unit.

**STEP 16B.**

If a cast iron cross joint is fitted, use the red markings. Make sure that these correspond to the coupling of the new unit. The red marking is 9 teeth compared to the yellow marking.

In this case it is necessary to move the handlebars 90 degrees.

The input shaft may vary in length. Be sure to pull out the shaft carefully, otherwise you may damage the sensor. If you accidentally pull it out completely, make sure the two points are aligned when you replace it.

**STEP 17.**

Mount the new unit in the car. Check again that all markings are in line and that the new unit does not touch the body anywhere. Do not forget to re-attach the mounting bracket (point 9) and cross couplings.



**STEP 22.**

In order to secure the mounting strip, a hole must be drilled. Mount the mounting strip to the new unit and use it to determine the position of the hole. Mark this position and then drill the hole ( $\text{Ø}8.5\text{mm}$ ). Then secure the mounting strip with the supplied bolts. This strip is necessary to absorb the reaction forces of the unit. Then mount the electric motor on the new unit.

**STEP 19.**

Mount the new ECU on the brake fluid holder and connect the wiring harness to the ECU.

**STEP 20.**

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





**STEP 21.**

Connect the thin red wire (15+) to a contact switched 12v plus. Normally this is the eighth fuse from the driver's side. (Check this). Make sure that the 15+ is connected to the fused side (see point 2).

**STEP 22.**

Connect the black wire 31 to a suitable ground point.

**STEP 23.**

Remove the odometer from the dashboard, it can normally be pushed out of the dashboard. This is mounted in a rubber and can therefore be a bit stuck.

**STEP 24.**

Connect the blue cable of the Unit to the electronic speed signal (31B).



**STEP 25.**

Install the odometer in the dashboard, making sure that the blue wire is not caught between the wiper mechanism.

**STEP 26.**

Mount the stove house with accessories in the car.

**STEP 27.**

Mount the thinner stove hose, some adjustments need to be made.





**STEP 27A.**

Saw off 2.5cm of the tube (see photo 27).

**STEP 27B.**

Slide 1 of the supplied adapter rubbers into the manifold piece.

**STEP 27C.**

Mount the other rubber adapter in the original hose.

**STEP 27D.**

Now mount the thin hose in both rubber reducers (see picture). It now fits between the unit and the heater unit.



**STEP 28.**

Mount the grille under the windscreen.

**STEP 29.**

Before reassembling the protective cap, it must be shortened so that it connects to the new unit. Tighten the protective cap with cable ties.

**STEP 30.**

Secure all cabling and mount the protective plate behind the stove body. A recess must be made in this protection plate to allow space for the electric motor. See photo as an example. When this is done, the carpet can be placed back in the trunk.





**STEP 31.**

Connect the ground cable to the battery min. After switching on the ignition, a click can be heard from the ECU, the system is now operational. Check this. The system switches off slowly, this is noticeable by the click that is audible a few seconds after switching off the ignition.

**STEP 32.**

Test drive the car and again check all systems for proper functioning.

