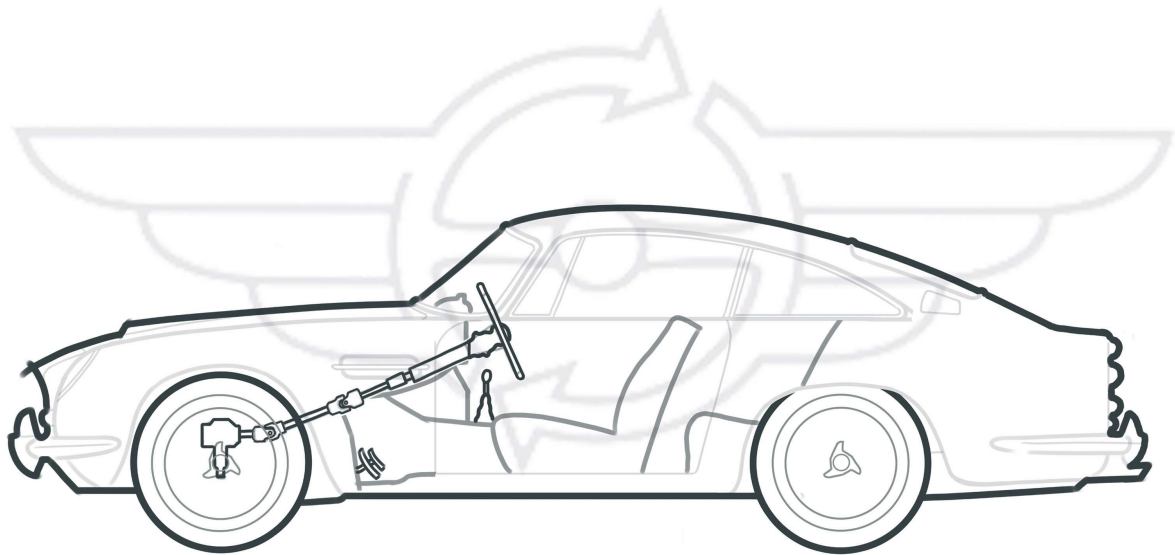


EZ Electric Power Steering

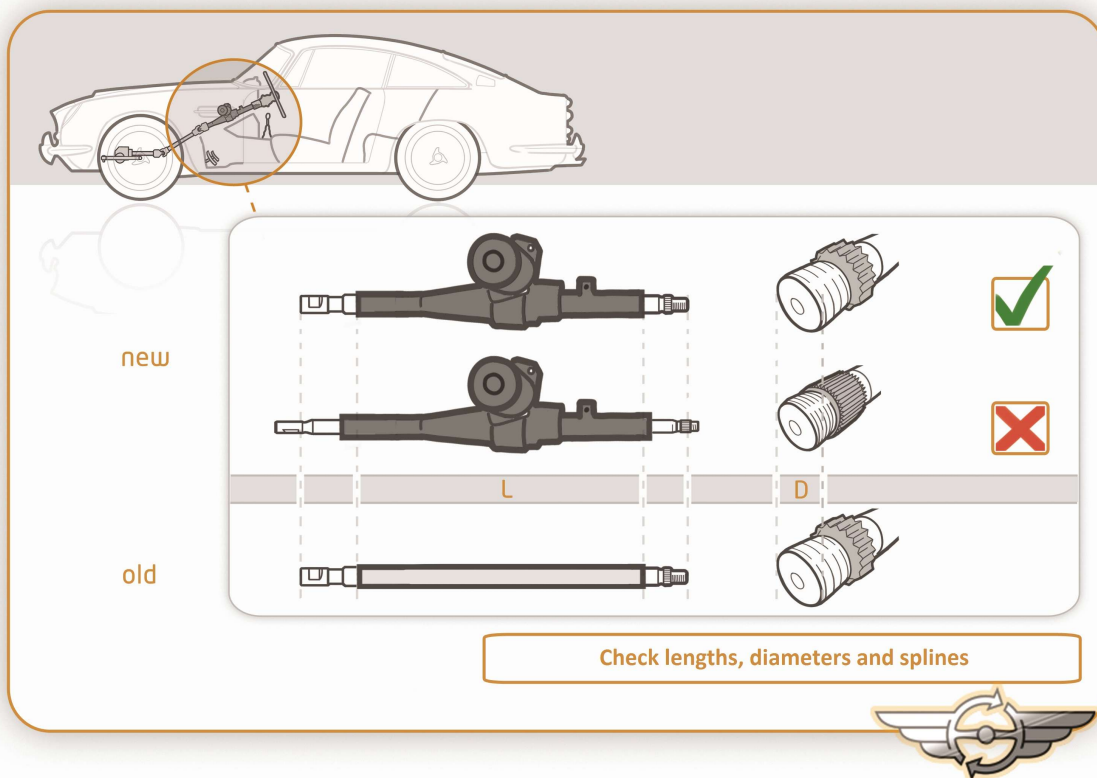


Introduction

Thank you for purchasing this quality product.

Before you begin the installation read this carefully:

Working on a steering system of a classic car requires skill, knowledge and the right tools, like a torque wrench. If you are not sure you are qualified or have the right tools. Have the work carried out by a professional mechanic. After receiving the EZ Power Steering column check that all parts on the contents list and the instruction manual are included.



Compare the EZ Power Steering Column with the original steering column before installing it.

Check if the splines on the top and bottom, the diameter of the steering tube and the length of the column are all the same as the original steering column.

When in doubt you can use the original steering wheel to check the top splines for fit. Never hammer on the steering shaft from the EZ unit!

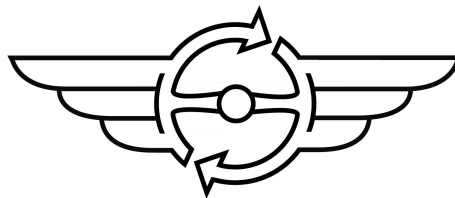
Inspect the condition of the original steering system. Play, heavy points, leakage, U-joints, hardy discs, play or tears, condition of the splines, worn bearings, functioning of the steering lock, horn, indicator switch (including self cancelling function). Repair any faults before the conversion.

Note the straight ahead position of the steering wheel and mark the position on the steering box (especially when the steering wheel doesn't have splines but a single key).

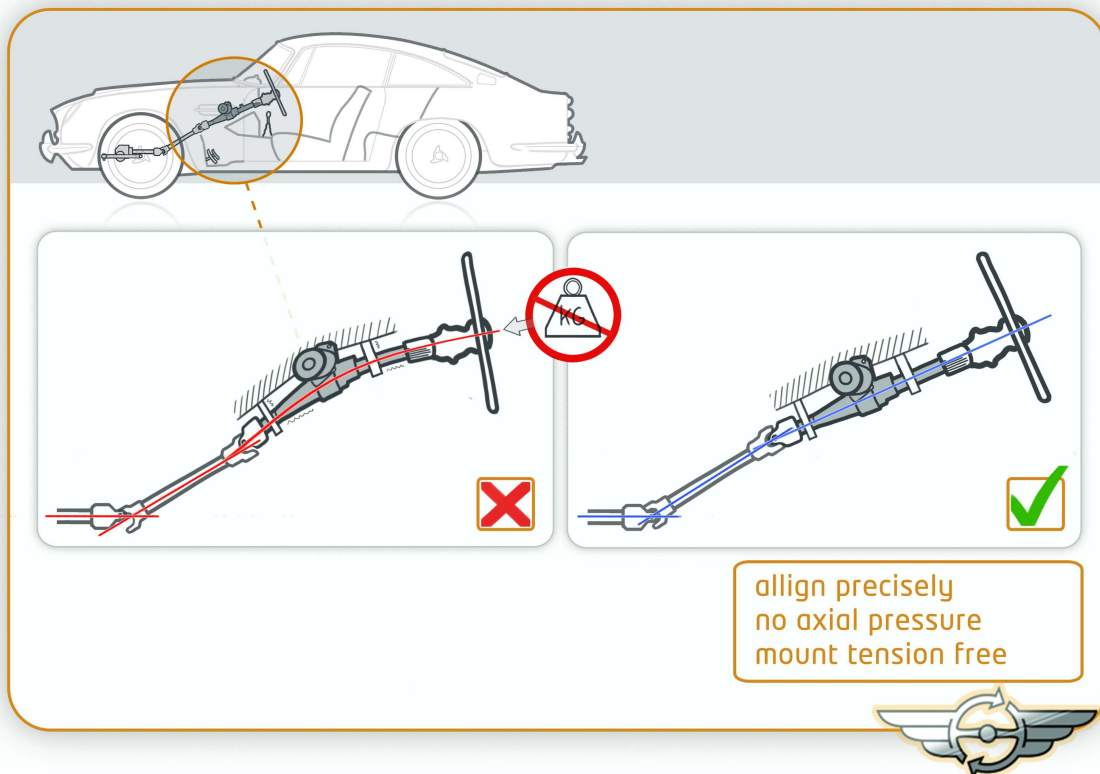
Check the tire pressure and take a test drive. Classic cars require a lower tire pressure than most modern cars. Many classics have over inflated tires to compensate the heavy steering. Consult the owner's manual for factory recommendation.

NOTE: If the car is equipped with a steering box, be sure that the oil level from the steering box is checked and OK.

EZ Powersteering cannot be held responsible for an improper installation of the EZ powersteering unit.



Installation



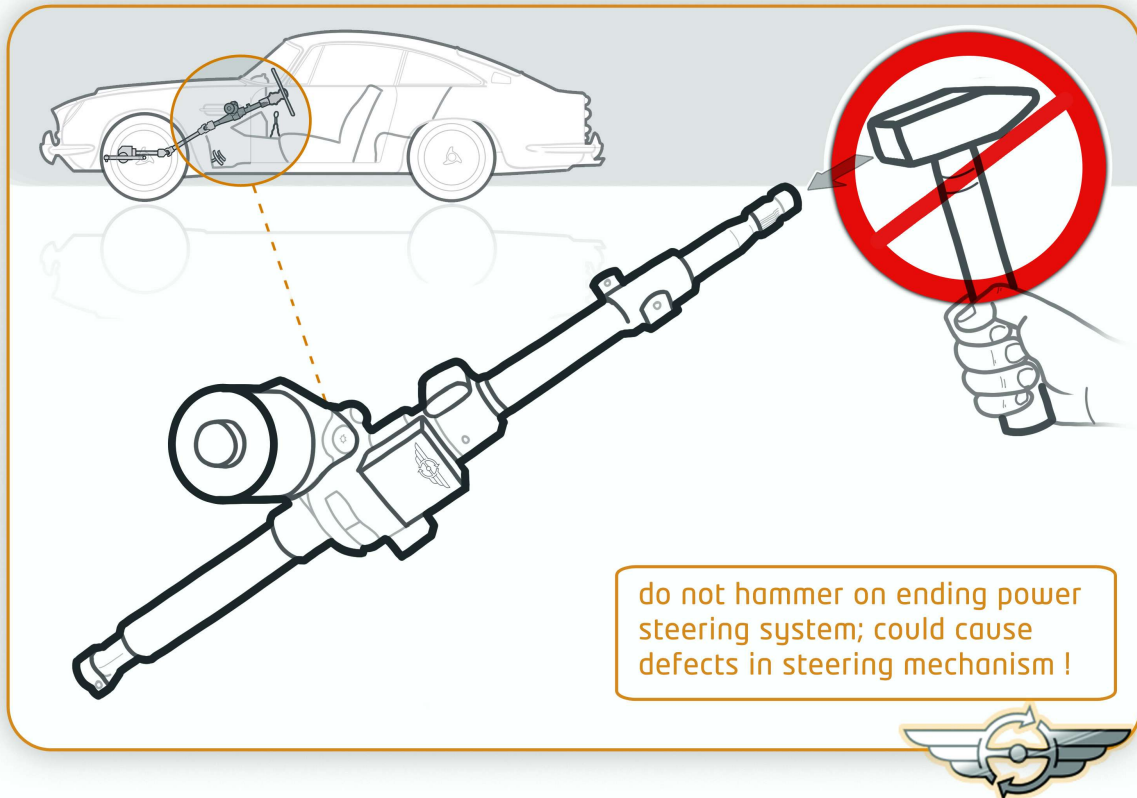
The steering column must always be fitted aligned precisely straight and mounted tension free.

The opposite reaction force of the steering wheel movement is transmitted to the mounting points of the steering column through the EPS unit. Therefore it is important that these mounting points are sufficiently strong and all bolts are tightened and locked correctly use torque tightening table on next page.

All steering shafts, joints and other connections of the steering shafts must be strong enough to resist the full steering force. It is important that if there are 2 U-Joints in the steering column that they are in the correct position in relation to each other (correct Phasing). Pay attention to this when installing the steering column. When in doubt check the workshop manual of the concerned car or check with EZ Power Steering

When installing the EZ Power Steering column ensure that everything is precisely aligned so no oscillating shafts or shafts that are mounted with too much tension. Both can worsen the self centering effect of the steering.

When the new steering column is being fitted hand tighten all the bolts and check if everything turns smoothly before tightening to the required Torque, use torque tightening table on next page.

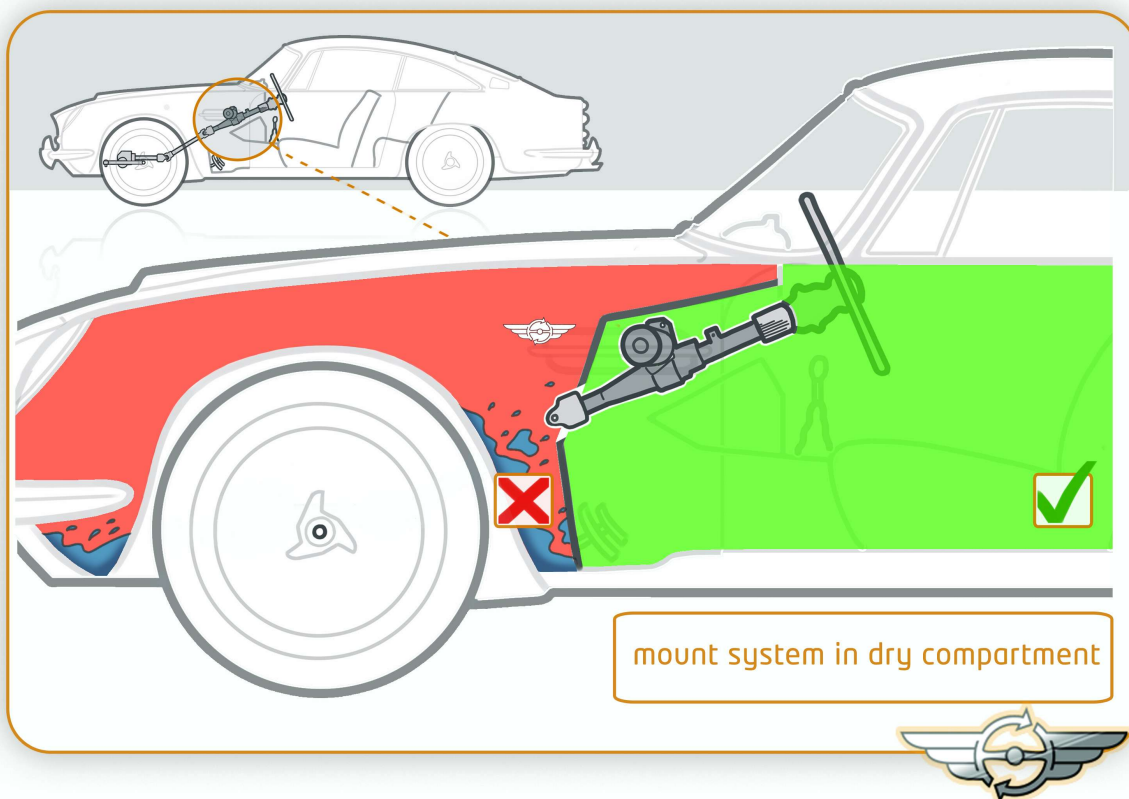


Do not hit the input shaft (steering wheel side) or exert axial force on an output joint. This may result in the steering torque sensor being affected, causing the steering to be lighter to one side than the other.

Torque tightening values in Nm.

	8.8	10.9	12.9
M6	11	16	19
M8	27	40	47
M10	54	79	93
M12	93	137	160

Electrics



The EPS unit standard voltage is 12V with negative earth. The EPS unit and wiring loom, ECU and other electric components may not be exposed to high temperatures (60 degrees centigrade or higher) or a wet environment. In nearly all cases (exception Porsche 911) the concerned electrics are fitted under the dashboard. To Avoid possible overload the following is important:

The power supply wires from the ECU must have a diameter of 6mm². Connect the red supply wire (30+) directly to the starter relay or the plus terminal of the battery and fuse with the supplied 40 Ampere fuse.



Note: it's advisable to add protection over the power supply cable. Where it runs through the firewall! Please use the supplied protection for this.

Connect the black ground wire (31-) cable eyelet to a suitable earth point (not to the column). If you have a positive earth car (Plus battery terminal connected to the chassis) ensure that you have the correct wiring loom with additional relay. In some cases it may be necessary to mount the ECU insulated from the chassis. When in doubt please inquire with EZ Power Steering.

The thin red wire which is ignition switched (15+) should preferably be taken direct from the ignition switch. Check the voltage between the ignition switched plus against earth, with switched on ignition, this must be at least 11,5 Volt. If it drops below this the electric power steering will switch off. (When this happens during driving, the vehicle will drive similar as before the EZ conversion). Be sure to measure the voltage under load (with other electrical devices switched on like: cooling fan, windshield wiper or electric window defroster, etc.) and with running engine.

If needed there are electronical devices available, to maintain the correct ignition switched voltage above 11.5V!

Also a simple test of the electronics is to check if you hear a click after switching on the ignition, another click should be heard after 1 or 2 seconds after switching off the ignition.

Speed/load Sensitive:

Our kits are standard equipped with a potentiometer or speed sensor. This speed sensor is installed at the back of the speedometer, the original cable will be installed on the sensor.

By doing this, the EZ unit will be speed sensitive. This means that at higher speeds there will be less assistance from the unit.

When the potentiometer setup is used, you can set the amount of assistance manually, normally when driving at higher speeds, your steering will be lighter, this effect will be the same with the potentiometer setup. The lesser load needs to be applied, the lesser assistance you will get from the EZ Unit.

You can only use one option, it's not possible to use both features!

We use 2 different speed sensors, a plastic or aluminium one. They have different wire colours, see below for more info:

Plastic type sensor:

Brown: Plus

Blue: Minus

Green/yellow: Speed signal

Aluminium type sensor:

Red: Plus

Black: Minus

Blue: Speed signal

For technical assistance or questions you can contact us by E-mail on:
workshop@ezpowersteering.nl or parts@ezpowersteering.nl

