

EZ ELECTRIC POWER STEERING

INSTALLATION MANUAL

MORGAN 2003 – 2007 (HA LR-2 19MM)





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THE PRODUCT

Thank you for choosing an EZ ELECTRIC POWER STEERING system for its quality, certification and easy assembly. Since 2006 we produce complete steering columns with integrated power steering. All columns are custom made for each type of car and we already have 200 types in stock! For more information about our products (power steering systems and replica steering wheels) or to place an order, visit our website www.ezpowersteering.nl or send an e-mail to info@ezpowersteering.nl. If you have any questions about the installation, please contact us at workshop@ezpowersteering.nl.

Version C1.1

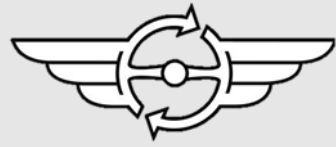
Date 05-07-2022

This manual should be read carefully to avoid errors. Check whether all parts of the set are present. This can be done on the basis of the picture in this manual. Before installation, compare the EZ POWER STEERING column with the original column. Check that the dimensions are the same. Also fit the steering wheel to the column.

If you do not have the skills or tools to perform the installation, have it performed by a professional. EZ POWER STEERING cannot be held liable for incorrect installation or self-inflicted damage.

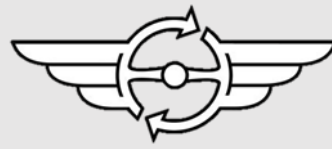
The manuals are generally based on a left-hand-drive vehicle. In most cases, the right-hand drive version is the mirror image of the installation of a left-hand drive vehicle.

If you think that any changes are needed in this manual, we would like to receive your pictures and comments. With your feedback we can improve our manuals



CONTENT



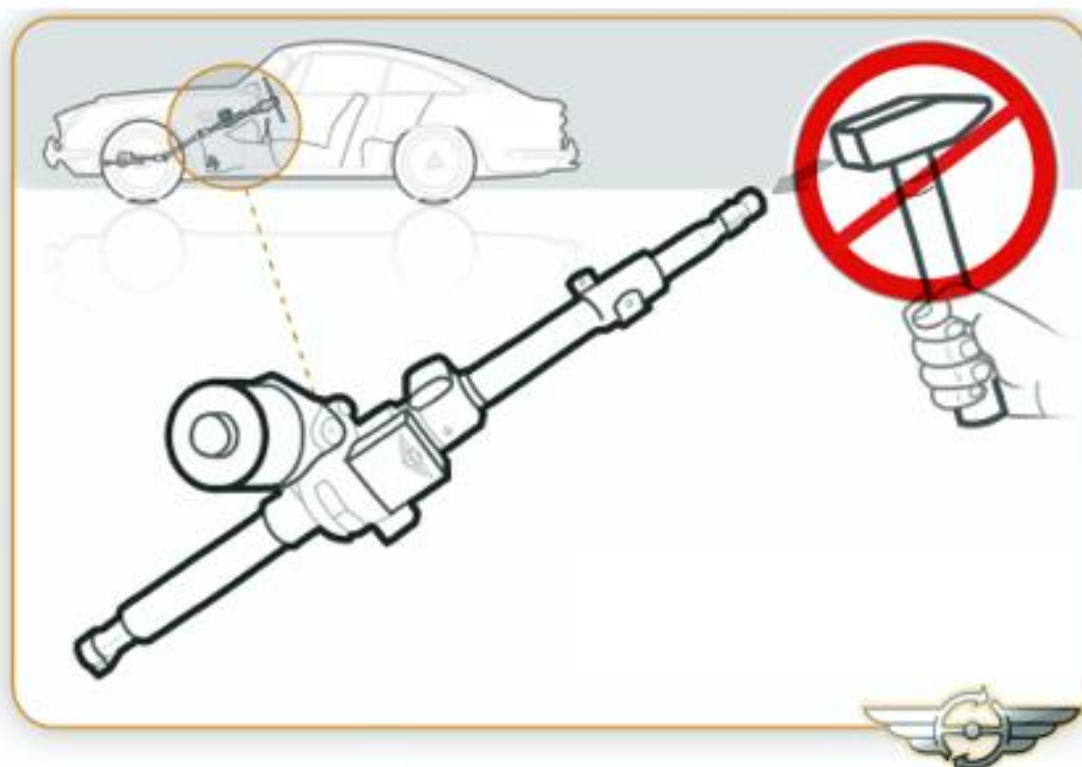


BEFORE AND AFTER ASSEMBLY

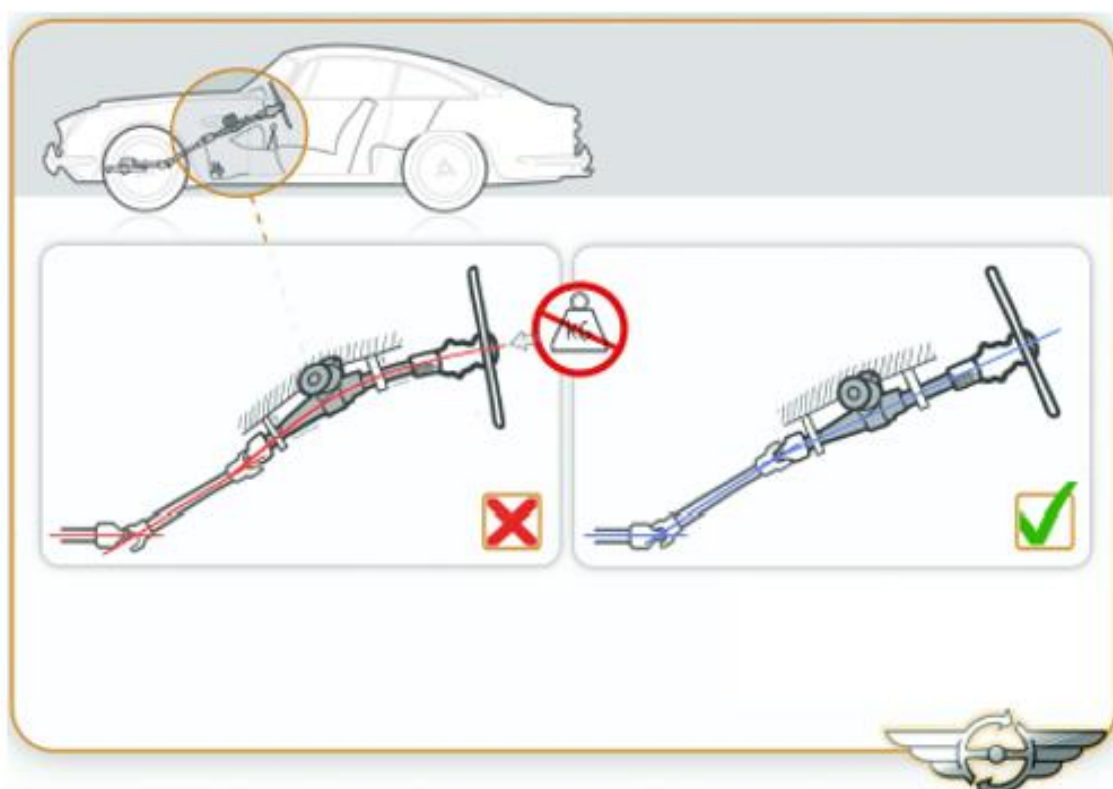




INSTALLATION



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

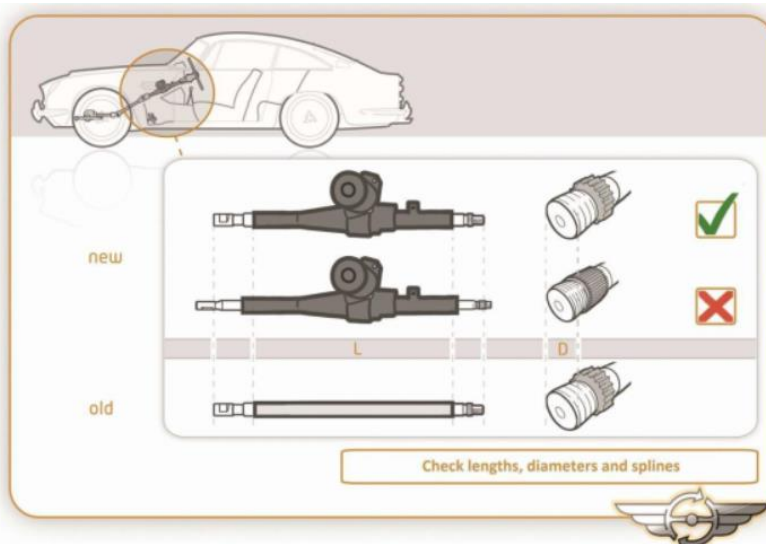


The steering system must always be properly aligned and tension-free.



Check length, diameter and splines

Compare the EZ Power Steering Column (EZ-unit) 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 of the EZ unit!



In the car industry its common to have some small tolerances in spline connections. In very exceptional cases connecting a new shaft from the EZ-unit in the original (old) U-joint could cause a tight fitting. This is sometimes relatively easy to solve by sanding only about 0,2mm (0,007 inch) in the inner part of the U-joint and also the spline on the output shaft on the EZ-unit.





Torque tightening values in Nm.

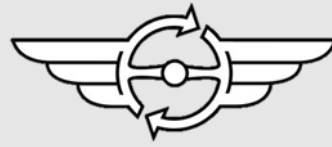
When the new steering column is being fitted hand tighten all the bolts and check if everything turns smoothly before tightening to required Torque, use torque tightening table below:

	Alu	8.8	10.9	12.9
M6	6	11	16	19
M8	15	27	40	47

The system works with a torsion bar into the unit, this measures the amount of torque/load on the steering shaft while steering, the torque sensor measures this and sends a voltage to the ECU. The ECU uses this signal together with the speed signal to control the electric motor from the EZ-unit

Voltage

The basic EZ-unit, is a 12V system with negative earth! There are extra wiring sets available, so that the kit will work with a 6V or 24V system and/or positive earth. Check your vehicle setup before fitting the EZ-unit.



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 everything is in order, proceed with the conversion.

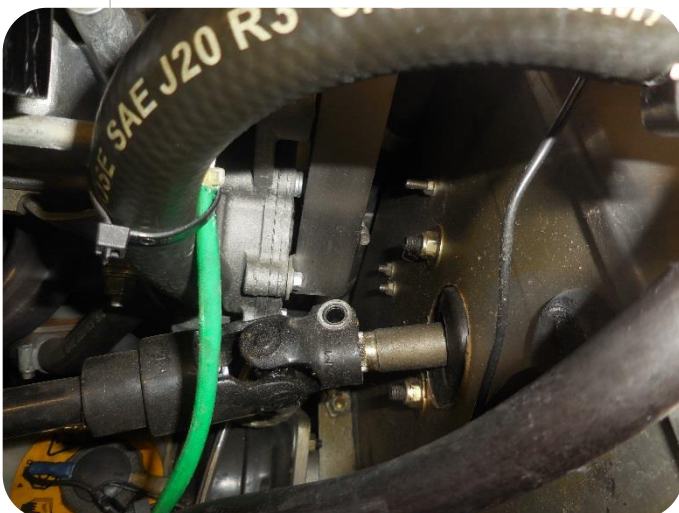
Step 2.

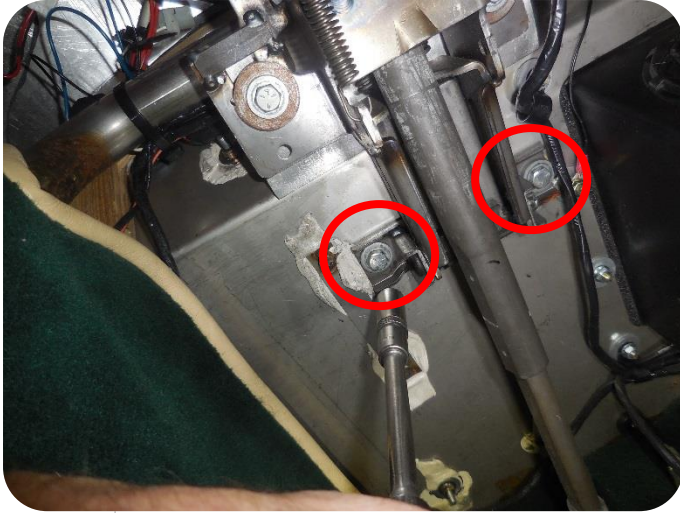
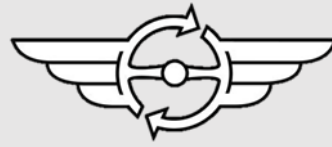
Look for a power supply switched via the contact, this is necessary to control the powersteering unit (see point 14). Then disconnect the ground cable from the battery and move the front wheels to the straight ahead position. Mark this



Step 3.

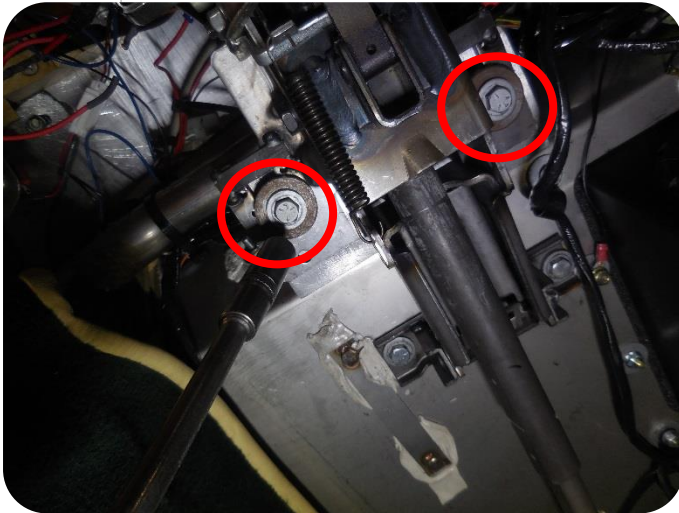
Unscrew the coupling behind the bulkhead.





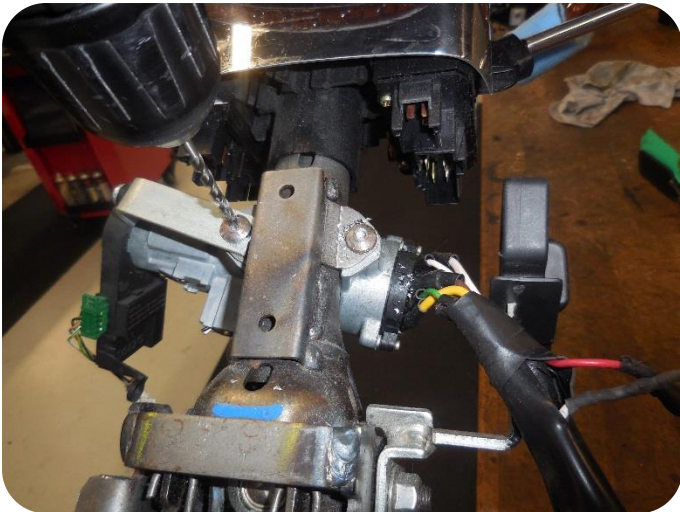
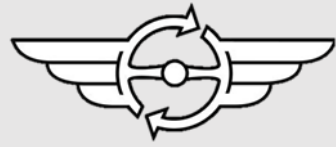
Step 4.

Loosen these four bolts.



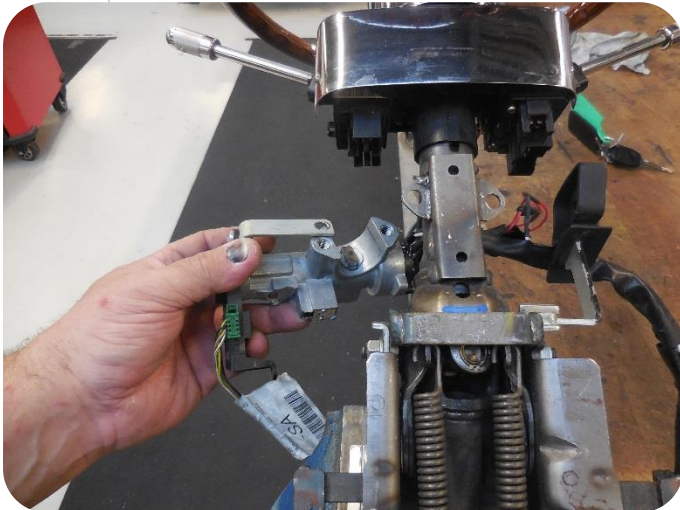
Step 5.

Get the whole column with the steering wheel out of the car.



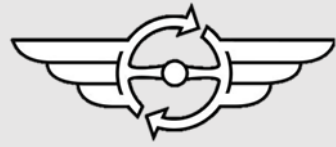
Step 6.

Drill out these bolts and then remove the mechanism from the original column. This can be transferred to the new column.



Step 7.

Remove the horn cap from the handlebar and then loosen the wire.



Step 8.

Unscrew the nut on the steering wheel.
Now the block with switches can be removed from the original column.



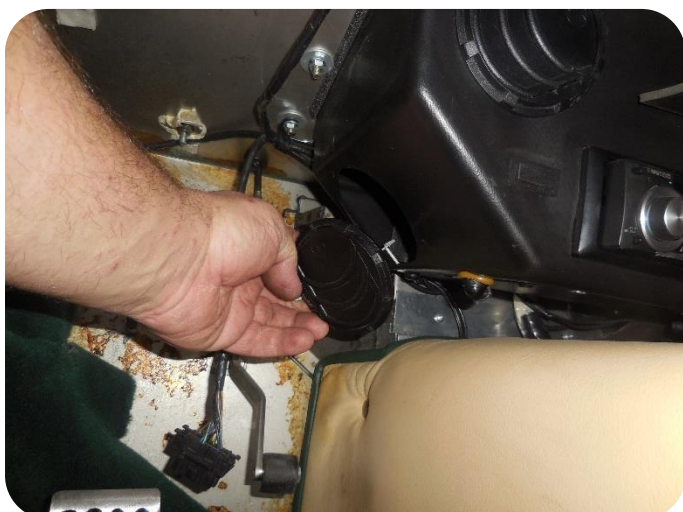
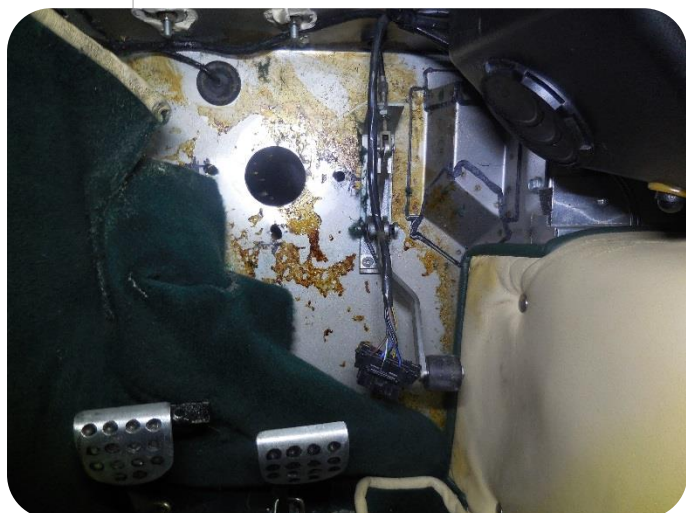
Step 9.

Remove these two blocks from the EZ unit.



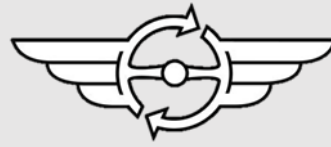
Step 10.

Dismantle the part that sits against the bulkhead on the inside of the car.



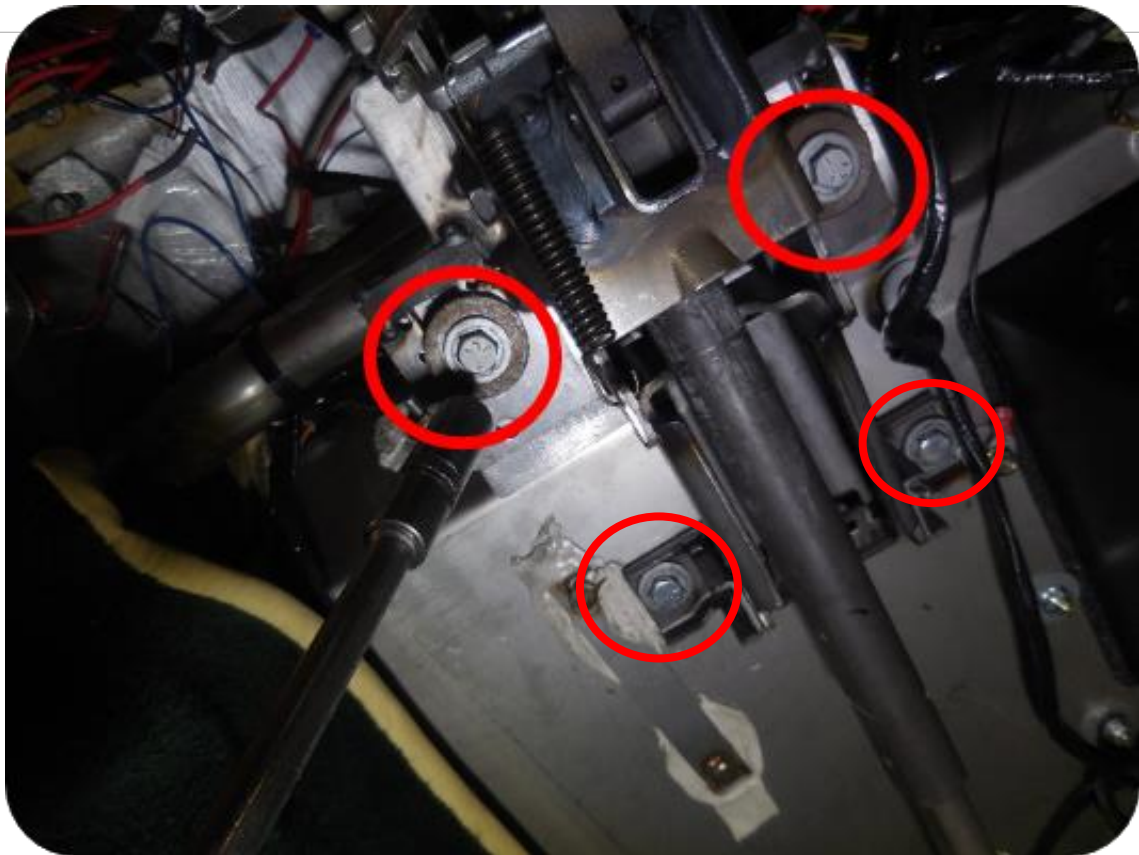
Step 11.

Remove this ventilation grille from the centre console. The motor of the EZ unit just falls a little in the ventilation duct.



Step 12.

Now insert the EZ unit. First screw on the supplied triangular part, which is located against the bulkhead. Then the four circled bolts. Also tighten the bolt in the cross joint in the engine compartment.





Step 13.

Now put the block with the switches on the EZ unit, reconnect all wires. Put the steering wheel back in the car, put the horn cap back in.

Step 14.

Reconnect the battery. Then find a contact-controlled voltage to connect the thin red wire (15+).

Step 15.

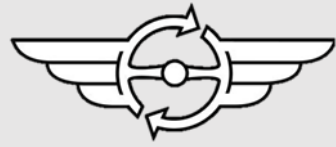
Connect the thick red wire (30+) via the fuse holder directly to the battery plus.

Step 16.

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

Step 17.

After switching on the ignition a click is audible from the ECU, the system is now operational, check this. After switching off the ignition, a click is audible after about 4 seconds. The system switches off with a delay.



Step 18.

Now reassemble the steering wheel of the car. Make a test drive and check all systems again. Also check if the position of the steering wheel is correct.

Step 19.

Make a test drive and check all systems again. Also check if the position of the steering wheel is correct.

Step 20.

The end result.

