EZ ELECTRIC POWER STEERING

INSTALLATION MANUAL

TRIUMPH TR3





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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.com 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 Date 16/7/20

This manual must be read very carefully to avoid errors.

Check that all parts of the set are present. This can be done on the basis of the picture in this manual.

Compare the EZ POWER STEERING column with the original column. Make sure the dimensions are the same.

If you do not have the skills or the tools to do the installation, have the installation done by a professional.

EZ POWER STEERING cannot be held liable for incorrect installation or self-inflicted damage.



CONTENT

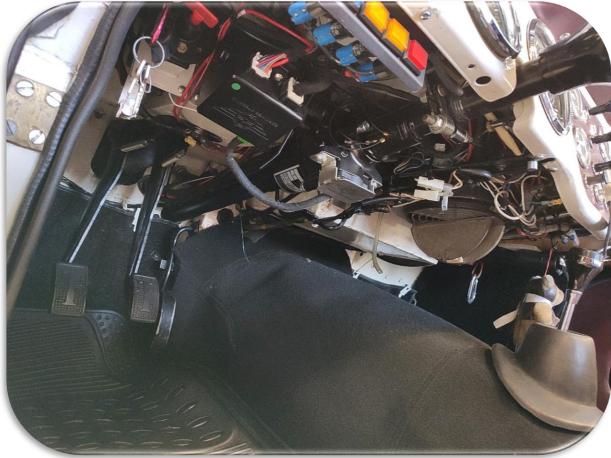


- 1 EZ. steering column
- 2 Wire set with controller and potentiometer
- 3 Power cable set battery ECU



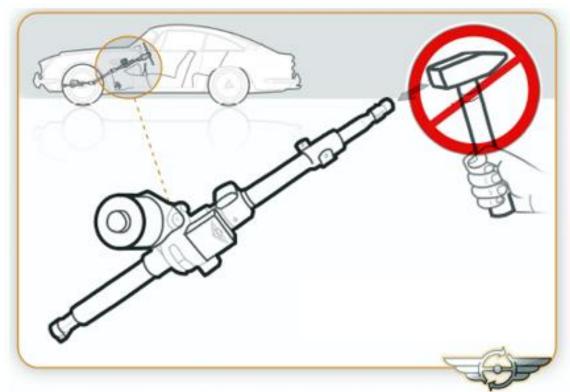
BEFORE AND AFTER ASSEMBLY



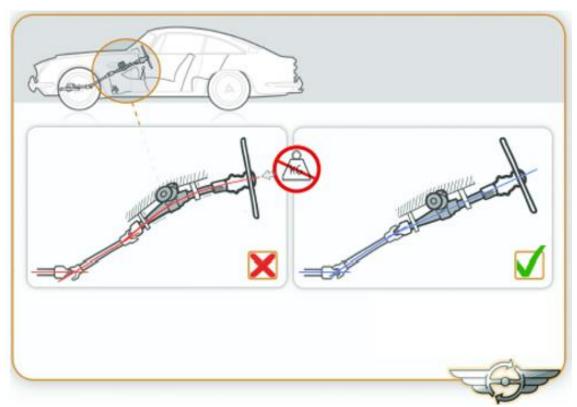




INSTALLATION



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.



Step 1.

Check the tire pressure and test drive the car. Check that the steering wheel returns to the straight off position after a turn. Check that the steering and instruments are not faulty. If everything is in order, proceed with the conversion.

Step 2.

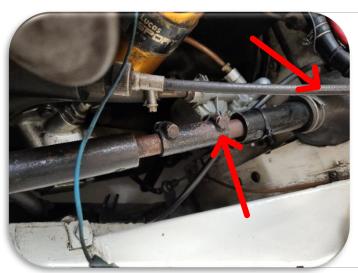
Look for a power supply switched via the contact. This is necessary to control the EZ powersteering unit. To do this, if present, remove the bottom plate under the dashboard, the switched-mode power supply can either be removed from the contact lock or the start button. Then disconnect the ground cable from the battery. Make a choice before installation, or put the wheels and handlebars in the straight-ahead position and mark this position and proceed with the conversion. Or determine the centre of the steering rack by the number of steering revolutions, from full left to full right, by dividing two and only adjust the wheel alignment after installation, if necessary.



Step 3.

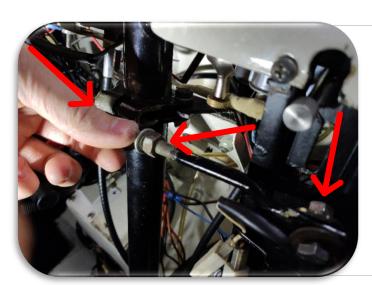
Measure the protrusion length of the steering axle (even after the steering wheel and hub and indicator turn) and steering column in relation to each other and the dashboard, note these lengths. This is to make sure that when mounting the new EZ unit, the whole comes back to the same position (if possible).





Step 4.

Remove the mounting bolt from the handlebar axle coupling. And the rubber around the steering tube, which is pressed against the bulkhead.



Step 5.

Dismantle the steering column by unscrewing the fixing at the bottom.





Step 6.

Dismantle the indicator switch by loosening the adjusting screws at the rear. The indicator switch cannot be removed because the axle is hollow and has a hollow pipe in it which is stuck in the steering box.



Step 7.

As described earlier, a hollow tube runs from the handlebar to the wheelhouse. This is secured at the bottom of the steering rack with a nut. This nut has to be loosened, so that the indicator can be pulled 10-20cm. forward.



Step 8.

This picture shows that the spline has been pulled out of the coupling and that the inner tube is still running. After this as described above 10-20cm. After it has been pulled out (to the steering side) it can be sawed off. In the hollow tube there are 4 wires. These serve for the horn and the direction indicator. These wires can also be pulled through at the same place.





Step 9.

After the hollow pipe has been cut and the wires are loose, the wires can be pulled out of the wheelhouse. These wires are later routed through the engine compartment, through the bulkhead on the EZ. Unit mounted. For this purpose there are 4 towing contacts.

The sawn-off tube must be pushed back into the wheelhouse. (This is the 10-20cm. from step 8) This to optimize the sealing of the steering box. After it is in the right position, it can be fixed again with the nut. See step 7.

Step 10.

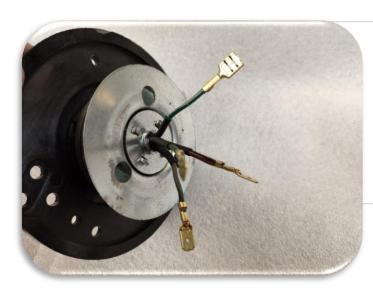
After the steering column has been stripped of the wiring and the hole tube has been loosened, it can be removed completely. Place the old column next to the new unit and check if the dimensions match.



Step 11.

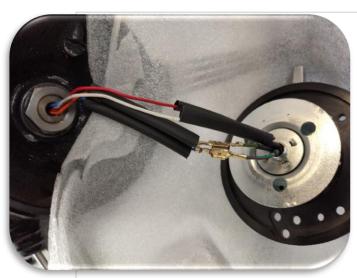
The turn signal turn-off unit must be adjusted to fit the new unit. The hollow tube is cut off/grinded as short as possible. Make sure that the wires are not damaged.





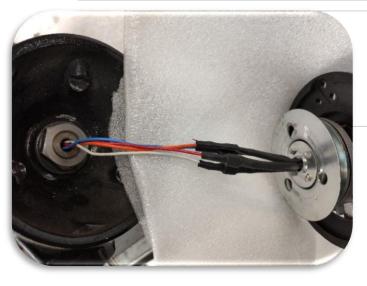
Step 12.

The old wiring can be shortened to 4-6cm. After this sliding plugs are mounted to connect them to the wires on the new EZ unit.



Step 13.

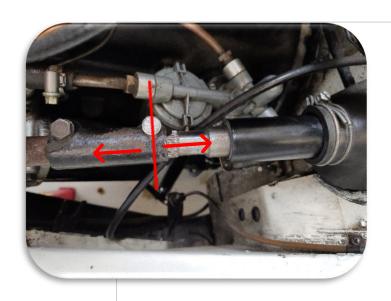
In order to ensure that the wires do not touch, a heat shrink tube is used. As shown on the right, these go over the entire plugs. PLEASE NOTE: Make a note of the color of the wires on a certain socket. This is to make sure that the old cable is properly connected to the new socket via the motor compartment.



Step 14.

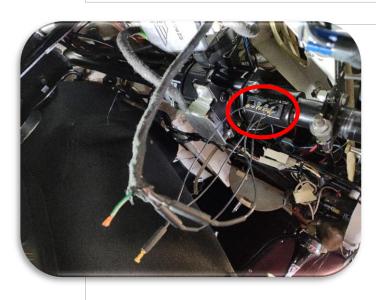
See here the connected plugs with the insulation around them.





Step 15.

The new steering column can be placed in the car. The column can be placed loosely under the dashboard, so that it can still be adjusted (see step 6) This picture shows that there is still an adjustment option with regard to the splines. This can be used to determine the projection distance. (See step 4). If it is adjusted correctly, the bolt of this clutch can be tightened again.



Step 16.

Once the column is mounted in the correct position, the wiring can be connected. Pull the cut wires from the horn and direction indicator (which originally came to the steering wheel via the wheelhouse) through the engine compartment into the bulkhead, under the dashboard. These 4 wires can now be connected to the towing contacts. Make sure the right colors are connected to the right contacts as described in step 13.

Attention: The towing contacts are secured with a socket. This should not be turned too tightly so that the wires can still make a springy movement. When securing the wiring, the wires must run straight or sloping away from the contacts, also so that they can continue to spring.



Step 17.

After the steering column has been mounted, the ECU has to be placed. Try to place it close to the engine, but out of sight (see the overview picture of 'after installation' if necessary). Then the electronics can be connected. Connect the thick supplied red wire (30+) via the fuse holder directly to the battery plus. It is wise to insulate the wire with an extra sheath in the engine room.

Step 18.

Connect the thin red wire (15+) to a contact-switched power supply. See step 2.

Step 19.

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

Connect the other plugs of the wiring harness. If supplied, hang the potentiometer under the dashboard. Find a location within easy reach. This allows you to adjust the excitation.

Step 20.

Install the previously disconnected battery ground cable. 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, a click can be heard again after about 4 seconds. The system is then switched off.



Step 21.

Mount the steering wheel and the turn signal.

Step 22.

Take a test drive and check all systems again. Also check if the position of the steering wheel is correct. See step 2.