

Eure!Car Tech Blog highlights

The Eure!Tech Blog covers a number of problems that mechanics are facing on a daily basis. The Blog can be read at www.euretechblog.ie and is updated on a regular basis. Here are just a few of the problems and solutions posted recently.

Peugeot 206 and 206+

Instrument panel faults

These faults occur in models between the years 1998 and 2015 in instrument panels manufactured by Jaeger and Magneti Marelli.

The symptoms are:

- Speedometer malfunction.
- Tachometer malfunction.
- Temperature indicator malfunction.
- Fuel gauge malfunction.
- General instrument panel malfunction.



There are no fault codes

To verify that the fault lies in the instrument panel, and to rule out possible problems in the vehicle's installation or a sensor, several checks must be made.

Use the vehicles electrical diagrams and measurement apparatus (multimeter, oscilloscope, diagnostic machine, etc.) to make the following checks:

Check the power supplies, groundings, signals (rpm, from the fuel gauge, temperature sensor, etc.), and go into the instrumentation section with a diagnostic machine and carry out a test on the instrument panel actuators.

The majority of the faults in the clocks and indicators are caused by malfunctioning of the stepper motors that rotate the needles. These break and cease to function or malfunction, possibly working in fits and starts.

If problems in the vehicles installation are ruled out after testing, the affected panel can be replaced by a new one, bearing in mind that this must be encoded, or the instrument panel can be sent to a specialised centre for checking and repair.

WARNING! The fitting of used instrument

panels and cabin units in the vehicle can cause variations in the vehicle's mileage. For this reason this practice is not advised.

Peugeot 107, Citroën C1 and Toyota Aygo Power steering problem

This post discusses a peculiar failure in the power steering system of the Peugeot 107, Citroën C1 and Toyota Aygo models. All engines are included in this fault.

Symptom

The main symptom is a failure of the power steering that may occur frequently or sporadically. If the errors are read, the possible codes that can



occur are:

- C1552 - Power supply malfunction PIG - Internal circuit of power steering unit
- C1554 - Power steering failure - Power relay failure

Maintenance Service

1- Access the power steering unit (EPS). In order to do this, remove the top of the dashboard.

The power steering unit is manufactured by Fujitsu and its reference is: 89650-0H010.

2- Checks to be performed on the power steering system.

Direct battery supply between PIN 1 and 2 of the black 2-way connector (2V NR) of the power steering unit.

Check the earth, PIN 2 black 2-way connector (2V NR) of the power steering unit.

Power after contact between PIN 1 and earth - white connector (12V BA) of the power steering unit.

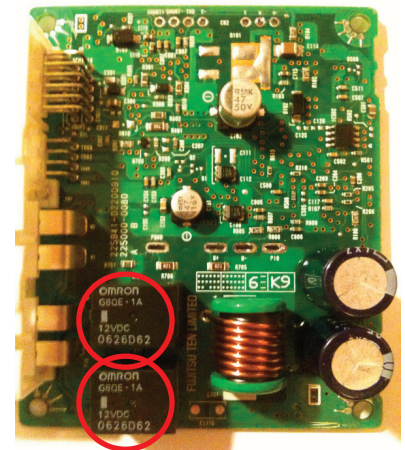
If there is no power, verify the operation and power of the power steering relay. Check relay activation between PIN 14 of the connector (18V BA). Also check the output voltage of the relay in pin 12 of the connector (18V BA).

In case of failure, replace the installation section and/or the defective connector.

3- Check the control cables of the power steering motor from the 2-way white connector (BA 2V) of the power steering unit, PIN 1 and 2.

4- If all the tests described in points 2 and 3 are correct, proceed to remove the power steering unit to open it.

The printed circuit of the power steering unit has two relays (see figure). These two relays are responsible for supplying power to the power steering unit and the electric steering motor.



The potentially faulty relays are circled

Repair

Replace the two relays of the power steering unit named above.

The reference of these is: OMRON G8QE-1A 12V DC

Note: After any intervention in the kinematic steering chain, the sensors of the steering torque should be calibrated using an appropriate diagnostic tool.