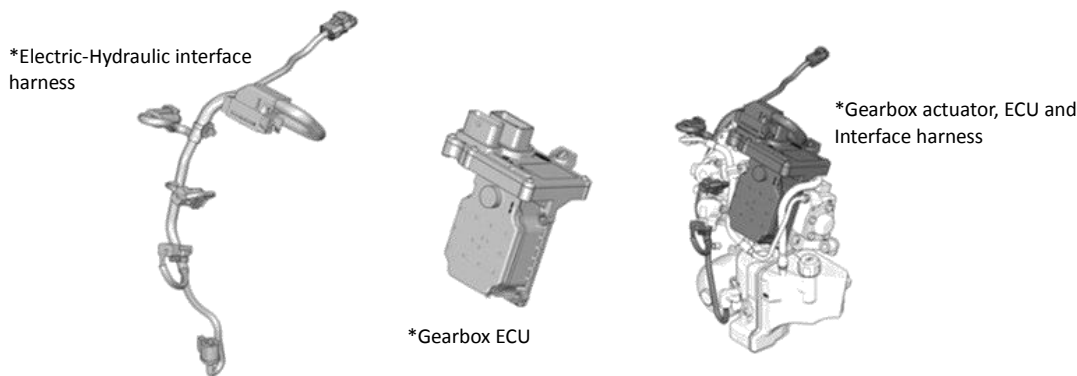


Robotised manual gear selection issues

Modern semi automatic Peugeot and Citroen vehicles often come with a robotised manual gearbox. The automated manual system is a regular manual gearbox (with clutch, flywheel etc) that is operated electronically (no clutch pedal). When the gearbox changes gear, the car automatically disengages the drive, switches to the intended gear and then re engages the drive with no actuation needed from the driver.

A robotised manual gearbox often comes fitted with an electronic clutch actuator, a gearbox actuator and a gearbox ECU (electronic control unit). The conventional 2 piece clutch is actuated by the electromechanical clutch actuator. Once the clutch has opened the shift process within the electromechanical the gearbox actuator takes over. The two actuators are controlled by the ECU. The ECU takes into consideration the engine speed, the gearbox configuration and the position of the gear selector in order to decide when and which gear is most suitable.

At OE level and within the aftermarket, Valeo provide clutch, flywheel and concentric slave cylinder on the DV6C engine which uses a similar robotised manual gearbox.



Due to the complexity of the gear selection, issues such as clutch slip and incorrect or non gear engagement has commonly been miss-attributed to the Valeo clutch part number 828118, flywheel part number 836047 or CSC part number 810009 when the gearbox actuator is the component at fault.

Common Clutch actuator / Gearbox actuator issues affecting clutch engagement:

- Gears won't select
- Selecting wrong gears
- ECU logging clutch actuator faults
- ECU logging gear actuator faults

It is important to understand when changing any of the transmission components the ECU, gearbox and clutch actuator systems may need re-initialising or re-adjusting during the replacement process. Failure to do so can result in a reduction of clutch life.

*All repairs and re-configuration of units must be done in accordance with the vehicle manufacturer.