

Difficult gear change and judder/vibration

Part Number: 835035, 826712, 826729

For Vehicle: Audi, Seat, Skoda, VW, 1.9 TDI with a BKC, BLS or BXE engine

The vehicles listed above may experience clutch pedal vibrations, difficult gear change or judder during gear change.

Difficult gear change or judder issues can be attributed to a number of commonly worn parts fitted to the vehicle including the clutch ball pin and clutch release lever, gear synchro hubs (in particular the third and fourth) and both gear wheels.

Valeo recommend during the fitment of a clutch or flywheel to check the following:

- Are the gear synchro hubs worn, damaged or faulty?
- Is the clutch ball pin worn, broken or faulty? (figure 1)
- Check the clutch release arm for wear, cracks and correct actuation. (figure 3)
- Check the guide tube for wear and cracks. (figure 2)
- Are the gearwheels in good condition with no wear?
- Check correct gear oil is being used.

With regard to the vehicle manufacturer it is :  Figure 1. Clutch ball pin

Check and renew all of the above parts if necessary. All of the above are available through the vehicle manufacturer.

Failure to check and replace where necessary will result in difficult gear selection and/or vibration.



Figure 2. Guide tube



Figure 3. Release arm

Avoiding clutch pedal vibrations

Clutch pedal vibrations can be attributed to a faulty or worn frequency modulator. A frequency modulator is an anti vibration unit placed on many vehicles within the hydraulic line (see figure 4). The frequency modulator is specifically calibrated to the vehicle and engine in order to dampen vibrations through the clutch line.

Vibrations are generated as a result of axial torque deviations in the crankshaft. The torque deviation is transferred to the pedal via the clutch hydraulic line and the frequency modulator suppresses the pulsations in the hydraulic line preventing vibrations to the clutch pedal.

The frequency modulator dampens vibrations particularly well during actuation of the clutch but it will also reduce significantly other higher frequency oscillations such as vehicle noise/judder.

Valeo recommend during the fitment of a clutch or flywheel the following should be checked to prevent pedal vibrations:

- Is the electronic control software up to date?
- Is a frequency modulator fitted?
- Is the frequency modulator faulty?

Check and renew all of the above if necessary. These are available through the vehicle manufacturer. Failure to check and replace where necessary will result in difficult gear change or vehicle judder and/or vibration.

**Please be aware 835035 is not suitable for vehicles with Stop Start technology*

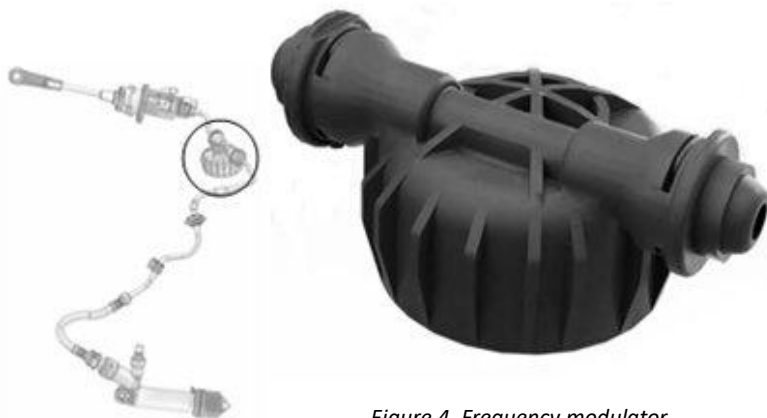


Figure 4. Frequency modulator