Rough Gear Change in First & Second Gears Due to Unadapted PDK / Achieving Successful PDK Calibration, and Adaption

This bulletin replaces bulletin Group 3, #1704, dated 12-19-17.

Attention: **Service Managers/Service Technicians**

Vehicle Type: **Panamera (971)**

Model Year: **2017 - 2018**

Concern: Abrupt, 'Harsh' Gear Shift Changes, particularly in first and second gears

Information: Rough gear changes with unmatched engine and transmission revs can be attributed to an un-adapted PDK. Transmission performance issues characterized by unmatched, abrupt shifts, particularly in first and second gears may require a driving adaption. Prior to the adaption drive, update PDK Software using the latest PT3G Version and perform a calibration. Successful calibration of the PDK is a prerequisite for the adaption drive.

If the calibration presents itself as problematic the following are tips to aid in success:
(1) Overfilling the transmission fluid is sometimes helpful to achieve successful calibration. Upon successful calibration, prior to the adaption drive, drain the excess fluid, ensuring an acceptable transmission fluid level.
(2) Maintenance of vehicle data (only for model year 2017 vehicles). In Diagnostics of the PT3G-> Additional Menu-> Maintenance of Vehicle Data (MoVD)-> Value Group-> SP7 – Repair data record for main transmission. Exit the MoVD. Enter PDK-> Maintenance Repairs-> CU Replacement-> Write Data. Next, enter PDK-> Coding/Programming-> Automatic Programming. Perform Calibration.

If calibration fails, do NOT back out of the PDK CU, go back to the calibration screen and retry this up to fifteen times.

Prior to commencing with adaptation drive, the transmission oil 'Temperature' must be > 140° F (60° C), and the Transmission Control unit must be free of faults. The adaption procedure shall be carried-out as follows:

(1) Ignition on.
(2) Depress the accelerator pedal slowly, including kick down, hold for 5 seconds and then gradually release the accelerator pedal.
(3) Start the engine
(4) With the vehicle remaining stationary, carry-out the following shifts:
- N --> R, stay for 10 seconds, return to N (repeat 3x)
- N --> D, stay for 10 seconds, return to N (repeat 3x)
- D --> R, stay for 10 seconds, return to D (repeat 3x)

Information:
(cont'd)

(5) Drive the vehicle in a normal driving style for a few minutes without kick down and not exceeding 30% maximum throttle.
- Shift up through all gears from 1st up to the highest gear without using the brake pedal (or only slightly if unfeasible) while holding the accelerator pedal at a constant throttle position. Do not use the paddles.
- Shift down through all gears from the highest down to 1st gear without using the brake pedal (or only slightly if unfeasible) while holding the accelerator pedal at a constant throttle position. Do not use the paddles.
- Repeat step (5) three times.
- Ideally, the vehicle must drive in each gear, 4th through 8th, for several minutes held constantly in gear, provided this is possible.

(6) Stop the vehicle, shut-off the engine and lock the doors for 5 minutes.
(7) Unlock the vehicle, start the engine and test drive the vehicle. Verify the shift concern is resolved.

Ideally, it is only necessary to run this adaption routine once for approximately five miles. However, successful adaption of the PDK can require completing this routine several times with up to sixty miles of driving.

If adaption is not successful as judged by continued occurrences of harsh shifts, then please submit a TechLine Assistance Request (TLAR) through PTEC.