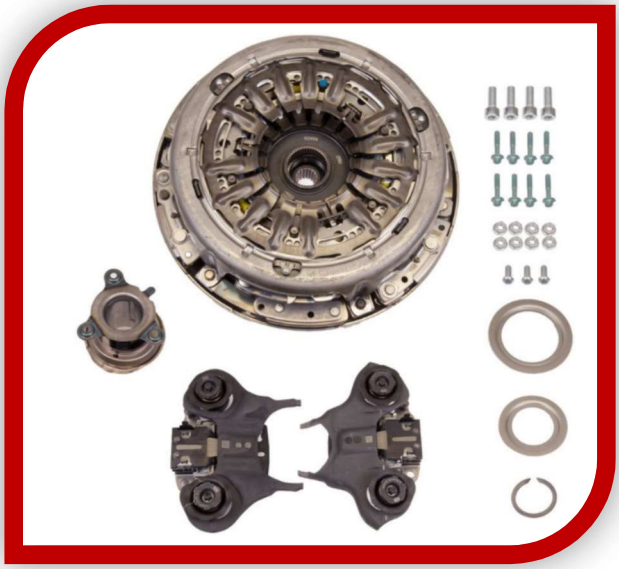
Technical Service Bulletin

The main reason for replacement of the OE clutch on the applications listed for Platinum Driveline's 07-233, is due to a shudder caused by leaking seals on the vehicle. If a shudder remains present after replacement of the original equipment clutch, Ford's scan tool and software may be required to program the TCM to eliminate this shudder. Additionally, Ford's test drive procedure must be followed to ensure that the fix is enacted. If a vibration is present after replacement of the OE Clutch, it is likely due to improper clutch to flex plate mounting. See below Ford's procedure on clutch to flex plate mounting to ensure proper installation.

Affected Applications:

Start Year	End Year	Make	Model	Engine	Fitment
2011	2017	Ford	Fiesta	L4; 1.6L; 1596cc	Automatic Dual Clutch
2014	2017	Ford	Fiesta	L3; 1.0L 999cc	Automatic Dual Clutch
2012	2017	Ford	Focus	L4; 2.0L; 1999cc	Automatic Dual Clutch
2016	2017	Ford	Focus	L3; 1.0L 999cc	Automatic Dual Clutch



07-233 Image:

DPS6 Programming:

Verify the Vehicle Communication Module (VCM) and Ford approved diagnostic tool (IDS) are connected to the vehicle. Carry out a full network communications test and verify the calibration file (from Ford service website) is available on the tool. (Refer to Ford service manual diagnostic procedures for network failure)

1. Perform software installation:
   - If programming the TCM, use the Ford approved diagnostic tool:
     - Go to Module Programming sub menu / Module Programming / Programmable Module installation / TCM and follow the on-screen instructions.
   - If reprogramming the TCM, use the Ford approved diagnostic tool:
     - Go to Module Reprogramming sub menu / Module Programming / Module Reprogramming / TCM and follow the on-screen instructions.

2. Transmission Range [TR] sensor must be learned:
   - Use the Ford approved diagnostic tool, go to TCM Adaptive Learning sub menu / PCM / TCM / TCM Adaptive learning.
     - Select TR Sensor, then select Perform Adaptive learning and follow the on-screen instructions.

3. Shift Drum adaptation (part of clutch adaptive learn process):
   - Use the Ford approved diagnostic tool, go to TCM Adaptive Learning sub menu / PCM / Transmission / TCM Adaptive learning.
     - Select Shift Drum and follow the on-screen instructions.
   - If the shift drum adaptation fails to complete:
     - The shift motors use a lot of current, be sure the battery is fully charged or use a battery charger if necessary.
     - Be sure to check all battery connections and grounds for corrosion and solid connection.
     - Reboot the computer while shutting the vehicle off for more than 30 seconds, then rerun the procedure.
   - If the shift drum learn is still unsuccessful, there is likely a fault in the shift drum system:
     - Damaged shift actuators.
     - Damaged shift actuator geartrain.
     - Damaged shift forks, shift drums or gear synchronizers.

4. Clutch Adaptive learning must be performed, the clutch adaptive learn is done in three phases:
   1. Adaptive memory clear, preliminary learn activities and a clutch travel test.
   2. Clutch pressure plate adjustment procedure.
   3. Clutch touch point teach-in.

   Start by following these guidelines:
   - Do not turn the steering wheel during this procedure.
   - Maintain consistent brake pedal pressure during this procedure.
   - Run the engine until engine temp is 1/3 to 1/2 normal range so that the fans will not run during the procedure.
   - During the procedure, the computer will ask for wide open throttle, if RPMs will not stabilize release the accelerator pedal fully and try again.
   - Use the Ford approved diagnostic tool, go to TCM Adaptive Learning sub menu / PCM / Transmission / TCM Adaptive learning / Clutch.
     - Select Clutch and follow the on-screen instructions.

     If the reset/learn commands to the TCM are successful, no user notification will be present (skip to step 5).

     If the reset/learn commands to the TCM are unsuccessful follow below:
   - If phase one fails, "Reset Clutch Friction General Coefficients" will be displayed along with the step of the failure.
     - First, shut the vehicle off and allow it to power down for more than 30 seconds. If this doesn't work, reboot the computer and communication device, then re-attempt the reset. If it still doesn't work, disconnect the negative battery cable for 10 minutes to reset the TCM.
     - If it won't learn clutch position:
       - If the IDS indicates the TCM can't identify the open position of the clutch actuators, reboot the computer. If that doesn't work, power vehicle down for at least 30 seconds and rerun the procedure.
       - Note: Ensure vehicle is key on engine off, brake pedal is held down and the transmission is not shifted.

- Won't perform adaptive learn of shift drum (see step 3).
- Won't learn neutral state:
  - Note: Ensure vehicle is key on engine off, brake pedal is held down and the transmission is not shifted.
  - If the computer fails to obtain neutral state for one or both shafts, reboot it. If that doesn't work, power vehicle down for at least 30 seconds and rerun the procedure.
  - Note: This shouldn't occur unless binding is happening in the transmission shift components.

- For phase two, follow the on-screen instructions. It's a good idea to disable any aftermarket alarms, GPS systems, remote start systems, etc.
  - Possible issues during programming: no or inconsistent wide-open throttle, inconsistent brake pedal pressure, communication issue, TR sensor output incorrect, cannot shift into neutral, etc.
  - If the clutch travel test fails for reasons other than programming it's possible that the clutch actuators, jack screws, fork ramp assembly, release bearings are seized or non-functional. It could also be that one of the clutch actuator motor circuits has faults.
- For phase three, follow the on-screen instructions, be sure the vehicle is in PARK, steadily HOLD the brake pedal down.
  - During this procedure the TCM will learn its touch points for both shafts.
    - The most common error during phase three is inconsistent calculated load caused by torque fluctuations.
    - Note: During this the technician should notice two RPM drops, which is normal during this operation.
      - Don't pump the brake pedal, it could affect vacuum and cause a fault in the procedure.
      - Warn engine up 1/3 to 1/2 normal operating temperature (low enough that the fans will stay off).
      - Turn the A/C system off (compressor dis/engagement).
      - During the fifteen second idle stabilization process technician should turn on headlights, rear defroster, seat heaters, etc. to dampen any torque fluctuations.

5. If necessary, the clutch system test:
   - Use the Ford approved diagnostic tool, go to TCM Adaptive Learning sub menu / PCM / Transmission / clutch system test.
     - Select clutch system test and follow the on-screen instructions.

6. If necessary, the speed sensor test:
   - Use the Ford approved diagnostic tool, go to TCM Adaptive Learning sub menu / PCM / Transmission / speed sensor test.
     - Select speed sensor test, select the desired speed sensor and follow the on-screen instructions.

7. The Drive cycle must be performed:
   Note: There may be drivability concerns if the drive cycle is not completed.
   Note: For successful drive cycle completion the vehicle must be driven on a level road.
   1. Depress vehicle brake pedal (do not use parking brake).
   2. Shift to Drive.
   3. Wait 15 seconds.
   4. Shift to Reverse.
   5. Wait 2 seconds.
   6. Repeat (1-5) ten (10) times.
   7. Accelerate from a stop with light throttle to 15 mph (24 km/h).
   8. Brake gently to a complete stop (allow at least 6 seconds).
   9. Repeat steps (7-8) five (5) times in a parking lot type setting.
   10. Accelerate from a stop with light throttle performing 1-2, 2-3, 3-4 shifts maintaining 1700-2000 rpm.
   11. Accelerate to a speed between 50 mph (80 km/h) and 65 mph (104 km/h), achieve 6th gear, keep throttle steady with engine below 3000 rpm for a minimum of two (2) minutes.
   12. Repeat step 11 two (2) times.
   13. Test drive the vehicle. After this procedure, the Neutral Profile Correction must be performed.
   - Refer to the scan tool manufacturer's instruction manual for details.

TB1

DPS6 Vibration:

Tips on vibration avoidance when installing the DPS6 clutch and transmission.

Engine must always be rotated in the clockwise direction (when looking at the front of the engine at the front crankshaft pulley).

Removal:
-During the transmission removal, index the clutch to the flex plate.
-Always replace the six clutch-to-flex plate nuts.

Installation:
-If re-using the clutch, align the index marks previously made.
-If using a new clutch, align the factory index marks (circle and triangle).
-Be sure to rotate the crankshaft clockwise five times before the clutch-to-flex plate nuts are installed.
-After the 5x rotation, make sure the clutch-to-flex plate studs can move freely (i.e. the clutch and flex plate are not binding against one another).
-Whether installing or reinstalling the clutch, the number 1 nut should be installed closest to the alignment mark.
-There are 6 nuts, starting at nut 1 torque to 12 nm then skip a stud and torque nut 3 to 12 nm, follow the same procedure for nut 5.
--After the three are torqued to 12nm, install and/or tighten the remaining nuts in the sequence 2, 3, 4, 5, 6, 1 to 25nm.
-If vibration after installation occurs, and it is believed to come from the clutch/flex plate area, remove and replace all 6 nuts and follow the procedure, starting at 5x rotation.

The roll-restrictor bolts are different lengths, if the longer bolt is installed in the subframe it can cause NVH problems.

When installing half shafts, only apply pulling force to the tulip housing to see if the circlip is seated.