1.6L OR 2.0L GTDI—DRIVABILITY CONCERNS WITH DTCS P0106/P0236/P06A7—OR ENGINE FAULT SERVICE ENGINE NOW MESSAGE WITHOUT DTCS

FORD:

2013 Escape

ISSUE

Some 2013 Escape vehicles equipped with 1.6L or 2.0L Gasoline Turbocharged Direct Injection (GTDI) engines may exhibit difficult to start, runs rough at start up, crank no start, lack of power, loss of RPM or hesitation concerns with diagnostic trouble codes (DTCs) P0106, P0236, or P06A7. These conditions may be caused by corrosion in connector terminals of the Turbocharger Boost Sensor/Charge Air Cooler Sensor (TCBP/CACT/MAPT), or a wiring concern in signal return splices for TCBP/CACT/MAPT and MAP sensors. Some vehicles may also exhibit a drivability concern along with an Engine Fault Service Engine Now message in the Instrument Panel Cluster (IPC) message center, without any DTCs in self test.

ACTION

Follow the Service Procedure Steps to correct the condition.

SERVICE PROCEDURE

- 1. Using Integrated Diagnostic System (IDS), check for DTCs.
- 2. Does the vehicle exhibit a drivability concern with DTC P06A7 stored?
 - a. Yes replace TCBP/CACT/MAPT sensor and connector pigtail. Refer to Workshop Manual (WSM), section 303-14, and Wiring Diagram, Section 5-1. (Figures 1 and 2)
 - (1) Other DTCs may be present along with P06A7, which share the VREF circuit.
 - (2) 1.6L GTDI engine TCBP/CACT (MAPT) sensor location. (Figure 1)



Figure 1 - Article 13-7-5

(3) 2.0L GTDI engine TCBP/CACT (MAPT) sensor location. (Figure 2)





- b. No proceed to Step 3.
- 3. Does the vehicle exhibit a drivability concern with only DTC P0106 or P0236 stored?

NOTE: The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford or Lincoln dealership to determine whether the Bulletin applies to your vehicle. Warranty Policy and Extended Service Plan documentation determine Warranty and/or Extended Service Plan coverage unless stated otherwise in the TSB article. The information in this Technical Service Bulletin (TSB) was current at the time of printing. Ford Motor Company reserves the right to supercede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.

TSB 13-7-5 (Continued)

- a. Yes replace the signal return splice for MAP sensor (DTC P0106) or for TCBP/CACT/MAPT sensor DTC P0236. Refer to Workshop Manual (WSM), section 303-14, and Wiring Diagram, Section 5-1. (Figures 3-5).
 - (1) 1.6L GTDI engine MAP sensor signal return splice location (S123). (Figure 3)



Figure 3 - Article 13-7-5

(2) 1.6L GTDI engine TCBP/CACT signal return splice location (S178). (Figure 4)



Figure 4 - Article 13-7-5

 (3) 2.0L GTDI engine MAP (S108) and TCBP/CACT (S182) signal return splice locations. (Figure 5)



Figure 5 - Article 13-7-5

- b. No proceed to Step 4.
- 4. If the vehicle exhibits a drivability concern along with an Engine Fault Service Engine Now message in the Instrument Panel Cluster (IPC) message center without any DTCs stored in PCM memory, perform wiggle test on Powertrain Control Module engine harness (12A581) while monitoring MAP, TCBP and BARO Sensors PSI with IDS. If signal noise or VREF pull down is confirmed during harness wiggle test, replace the Signal Return splice for MAP or TCBP/CACT/MAPT sensors. Refer to Workshop Manual (WSM), section 303-14, and Wiring Diagram, Section 5-1. (Figures 3-7)
 - Some of the splices have more than just MAP or TCBP/CACT signal return circuits; replace all signal return circuits in these splices.
 - b. 1.6L or 2.0L GTDI engine wiggle test here by pushing and pulling on the harness lightly while monitoring MAP, BARO, TIP_PRS-BOOST at key on engine off (KOEO). (Figure 6)

TSB 13-7-5 (Continued)



 c. 2.0L GTDI engine wiggle test here by pushing and pulling on the harness lightly while monitoring MAP, BARO, TIP_PRS-BOOST pressure in PSI units at KOEO. (Figure 7)

Figure 6 - Article 13-7-5



Figure 7 - Article 13-7-5

PART NUMBER	PART NAME	
BV6Z-9F479-A	TCBP/CACT/MAPT Assembly	
BU2Z-14S411-ATA	Wire Assembly	
3U2Z-14A088-AB	Kit - Terminal	

WARRANTY STATUS: Eligible Under Provisions Of

New Vehicle Limited Warranty Coverage And Emissions Warranty Coverage Warranty/ESP coverage limits/policies/prior approvals are not altered by a TSB. Warranty/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool.

TSB 13-7-5 (Continued)

OPERATION 130705A	DESCRIPTION 2013 Escape: Check DTCs And Replace The TCBP/CACT/MAPT Senor and Pigtail (Can Be Claimed With Operations B And C In this Article)	TIME 0.6 Hr.	130705C	2013 Escape: Check D Perform Wiggle Test Following Service Procedure To Determine Which Splices Need Replaced (Can Be Clair With Operations A And	TCs 0.3 Hr. e med B
130705B	2013 Escape: Check DTCs And Replace Signal Return Splices For MAP And TCBP/CACT/MAPT Includes Time To Access Splice (Can Be Claimed With Operations A And C In this Article)	1.0 Hr.	DEALER COD BASIC PART I 9F479	In this Article) ING NO.	CONDITION CODE 49