

**20-2324**17
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TECHNICAL SERVICE BULLETIN

2.7L EcoBoost - Illuminated MIL With Various DTCs

This bulletin supersedes 18-2310. Reason for update: New Part/Procedure For Same Condition

Model:

Ford 2018 F-150	Engine: 2.7L EcoBoost
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Summary

This article supersedes TSB 18-2310 to update Service Procedure and the Labor Operation allowance.

Issue: Some 2018 F-150 vehicles equipped with a 2.7L EcoBoost engine may experience an illuminated malfunction indicator lamp (MIL) with diagnostic trouble codes (DTCs) P2196, P2198, P2BF0, P2BF2, P2BF1, P2BF3, P2BEC, P2BED, P2BEE, P2BEF, P130D, P0300, P0316, P0301-P0306, P0171, P0174, P219A, P219B, P0172 and/or P0175 stored in the powertrain control module (PCM). This may be due to software in the powertrain control module (PCM) or direct injection fuel injectors leaking down. To correct the condition, follow the Service Procedure to reprogram the PCM and/or replace the direct injection fuel injectors.

Action: Follow the Service Procedure steps to correct the condition on vehicles that meet all of the following criteria:

- 2018 F-150
- 2.7L EcoBoost engine
- DTC P2196, P2198, P2BF0, P2BF2, P2BF1, P2BF3, P2BEC, P2BED, P2BEE, P2BEF, P130D, P0300, P0316, P0301-P0306, P0171, P0174, P219A, P219B, P0172 and/or P0175 stored in the PCM

NOTE: Part quantity refers to the number of that service part number required, which may be different than the number of individual pieces. Service part numbers contain 1 piece unless otherwise stated. "As Needed" indicates the part is required but the number may vary or is not a whole number; parts can be billed out as non-whole numbers, including less than 1. "If Needed" indicates the part is not mandatory.

Parts

Part Number		Description	Quantity
JT4Z-9F593-C	Package Contains 1 Piece, 6 Pieces Required	High Pressure Direct Fuel Injector	6
JT4Z-9C995-A	Package Contains 1 Piece, 6 Pieces Required	Injector Clip	6
JT4Z-9J323-A	-	High Pressure Fuel Tube	1
FT4Z-9J323-B	-	High Pressure Fuel Tube	1
FOPZ-9229-A	Package Contains 10 Pieces, 12 Pieces Required	Port Fuel Injector O-Ring Kit	2

JT4Z-9E464-B	-	Exhaust Gas Recirculation (EGR) Gasket	1
Parts To Inspect And Replace Only If Necessary			
JT4Z-9H486-A	Package Contains 6 Pieces	Intake Gasket Kit	If Needed

Warranty Status: Eligible under provisions of New Vehicle Limited Warranty (NVLW)/Emissions Warranty/Service Part Warranty (SPW)/Special Service Part (SSP)/Extended Service Plan (ESP) coverage. Limits/policies/prior approvals are not altered by a TSB. NVLW/Emissions Warranty/SPW/SSP/ESP coverage limits are determined by the identified causal part and verified using the OASIS part coverage tool.

Labor Times

Description	Operation No.	Time
2018 F150 2.7L: Retrieve DTCs, Reprogram The PCM (Do Not Use With Any Other Labor Operations)	202324A	0.3 Hrs.
2018 F150 2.7L: Retrieve DTCs, Monitor PIDs And Replace The Direct Injection Fuel Injectors (Do Not Use With Any Other Labor Operations)	202324B	4.9 Hrs.
2018 F150 2.7L: Retrieve DTCs Reprogram The PCM Monitor PIDs And Replace The Direct Injection Fuel Injectors (Do Not Use With Any Other Labor Operations)	202324C	5.0 Hrs.

Repair/Claim Coding

Causal Part:	9F593
Condition Code:	42

Service Procedure

1. Retrieve and record DTCs. Are DTCs P2196, P2198, P2BF0, P2BF2, P2BF1, P2BF3, P2BEC, P2BED, P2BEE, P2BEF and/or P130D stored in the PCM?

(1). Yes - reprogram the PCM using the appropriate Ford scan tool at the latest software level. Proceed to Step 2.

NOTE: Advise the customer that this vehicle is equipped with an adaptive transmission shift strategy which allows the vehicle's computer to learn the transmission's unique parameters and improve shift quality. When the adaptive strategy is reset, the computer will begin a relearning process. This relearning process may result in firmer than normal upshifts and downshifts for several days.

(2). No - proceed to Step 2.

2. Is the vehicle built before 12-Jul-2018?

(1). Yes - proceed to Step 3.

(2). No - if the PCM was reprogrammed in Step 1, the repair is complete. If answered No to all previous steps, this article does not apply. If any DTCs remain, refer to the Powertrain Controls and Emissions Diagnosis (PC/ED) Manual for further diagnostics.

3. Review DTC's recorded from step #1. Were DTCs P0300, P0316, P0301- P0306, P2196, P2198, P0171, P0174, P219A, P219B, P0172 and/or P0175 stored in the PCM?

(1). Yes - proceed to Step 4.

(2). No - if the PCM was reprogrammed in Step 1, the repair is complete. If answered No to all previous steps, this article does not apply. If any DTCs remain, refer to the PC/ED Manual for further diagnostics.

4. Monitor fuel rail pressure using the appropriate Ford diagnostic scan tool. Start the engine and allow it to idle for 30 seconds. Shut off the engine and monitor the fuel rail pressure. Does the fuel rail pressure drop below 6.9 kPa (10 psi) within 30 seconds after engine shut down?

(1). Yes - replace the direct injection fuel injectors. Refer to the Workshop Manual (WSM), Section 303-04A.

(2). No - if the PCM was reprogrammed in Step 1, the repair is complete. If answered No to all previous steps, this article does not apply. If any DTCs remain, refer to the PC/ED Manual for further diagnostics.

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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 supersede this information with updates. The most recent information is available through Ford Motor Company's on-line technical resources.