



TECHNICAL SERVICE BULLETIN

Illuminated MIL With Misfires DTCs/Water In Spark Plug Wells And/Or Corrosion On Ignition System Components

22-2025

03 February
2022

This bulletin supersedes 21-2147.

Model:

Ford
2019-2022 Ranger

Summary

This article supersedes TSB 21-2147 to update the vehicle model years affected.

Issue: Some 2019-2022 Ranger vehicles may exhibit an illuminated malfunction indicator lamp (MIL) with diagnostic trouble codes (DTCs) P0300, P0301, P0302, P0303, P0304 and/or P0316 stored in the powertrain control module (PCM). This may be due to water build up in the spark plug well(s) which can lead to signs of corrosion on ignition system components. To correct the condition, follow the Service Procedure to resolve the source of all DTCs and to install an engine appearance cover.

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

- 2019-2022 Ranger
- Illuminated MIL with DTCs P0300, P0301, P0302, P0303, P0304 and/or P0316 stored in the PCM
- Presence of water in one or more of the spark plug well(s) and/or signs of corrosion on ignition system components
- Engine appearance cover not installed

Parts

| Service Part Number | Quantity | Description | Unit of Issue | Piece Quantity |
|---------------------|-----------|---|---------------|----------------|
| L1MZ-6A949-A | 1 | Engine Cover | | |
| W714647-S450-B | 1 | Engine Appearance Cover Stud Bolt | 4 | 2 |
| W520201-S450B | 1 | Engine Appearance Cover Nuts | 4 | 2 |
| XG-3-A | As Needed | Motorcraft® Silicone Brake Caliper Grease and Dielectric Compound | | |

Quantity refers to the amount of the service part number required to repair the vehicle.

Unit of Issue refers to the number of individual pieces included in a service part number package.

Piece Quantity refers to the total number of individual pieces required to repair the vehicle.

Unit of Issue and Piece Quantity are 1 unless otherwise stated.

As Needed indicates the amount of the part may vary and/or is not a whole number. Parts can be billed out as non-whole numbers, including less than 1.

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 |
|--|---------------|------|
| 2019-2022 Ranger: Install Engine Appearance Cover (Do Not Use With Any Other Labor | 222025A | 0.3 |

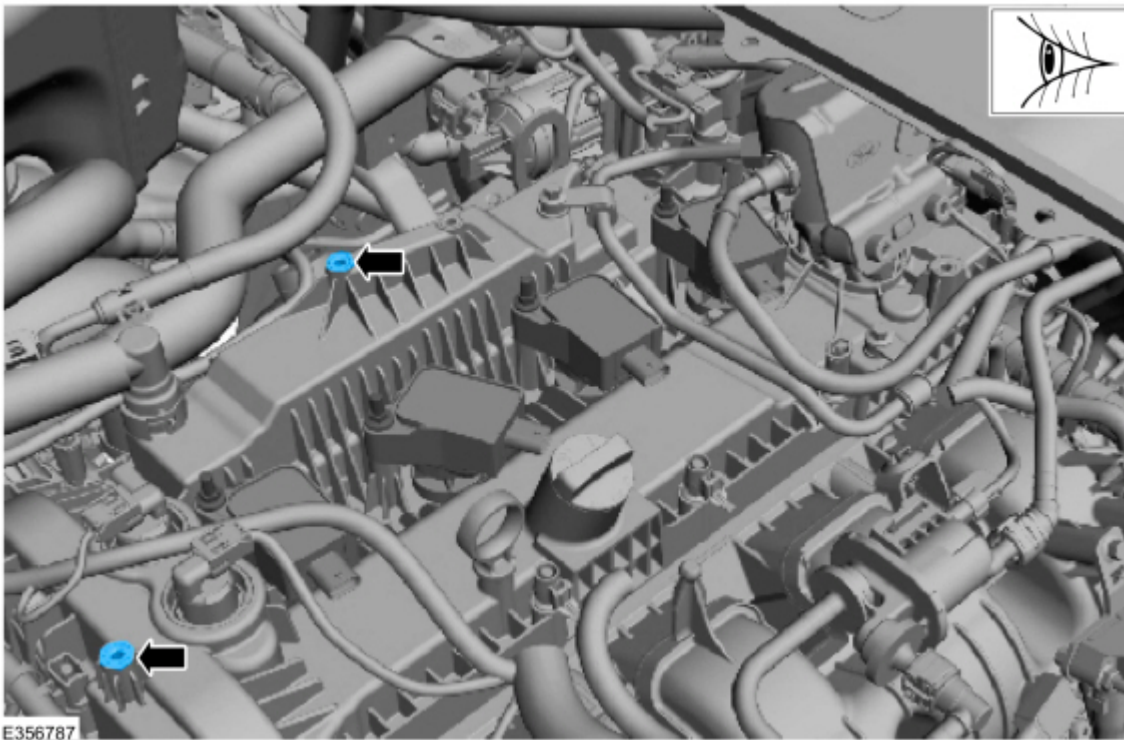
Repair/Claim Coding

| | |
|-----------------|----------|
| Causal Part: | 21022A68 |
| Condition Code: | 68 |

Service Procedure

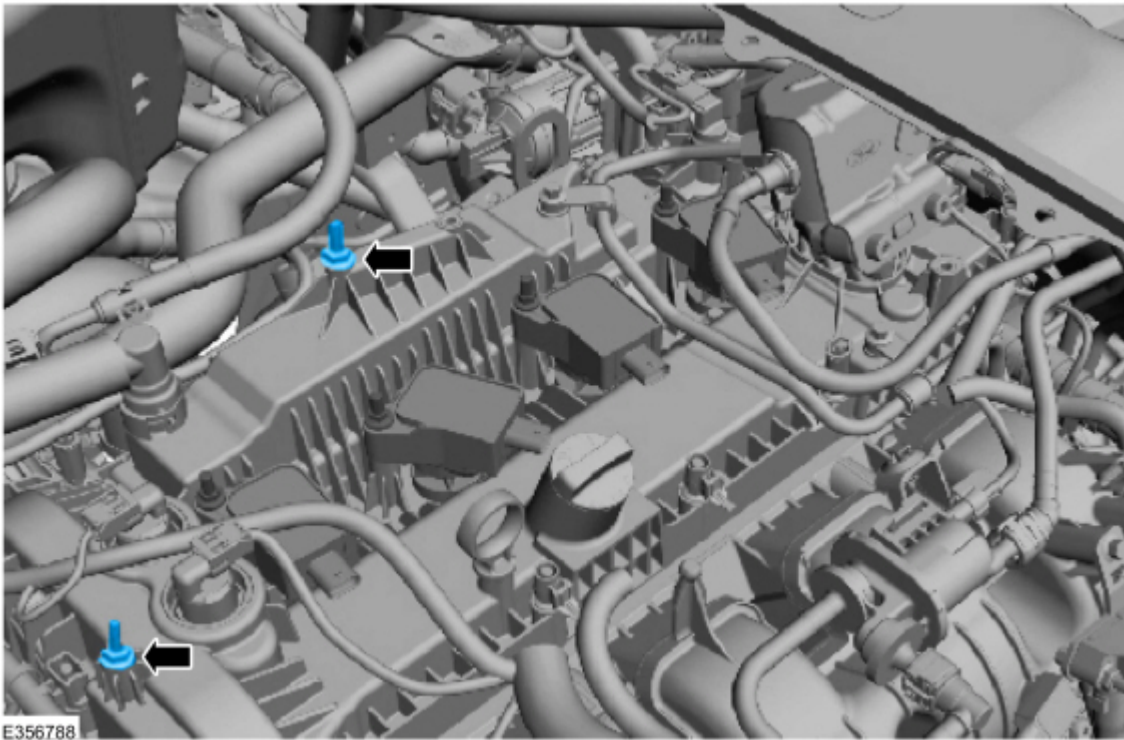
1. Resolve engine misfire DTCs P0300, P0301, P0302, P0303, P0304, and/or P0316 per normal diagnostics outside of this article. Refer to Powertrain Control/Emission Diagnosis (PC/ED) Manual. Proceed to Step 2.
2. Open the hood to access the engine compartment.
3. Locate the 2 engine appearance cover mounting bosses on the valve cover. (Figure 1)

Figure 1



4. Install the 2 engine appearance cover stud bolts to the valve cover and tighten to 10 Nm (89 lb-in). (Figure 2)

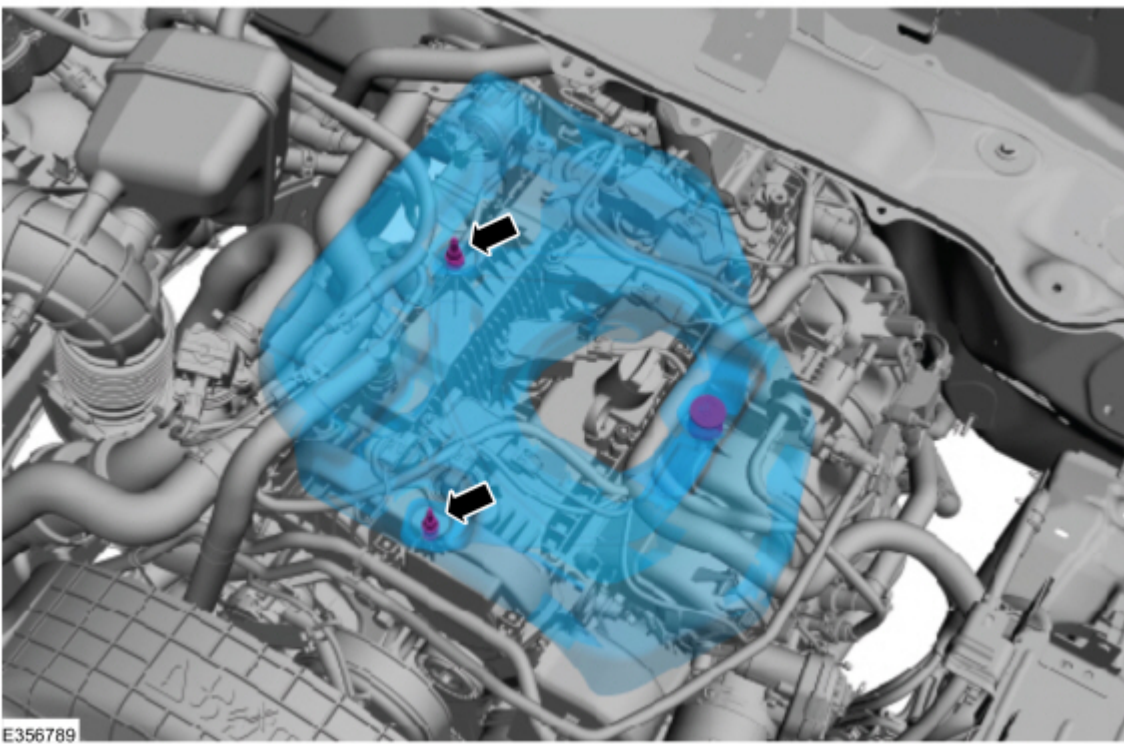
Figure 2



5. Lubricate each grommet on the engine appearance cover with silicone brake caliper grease and dielectric compound or equivalent to aid in installation of the cover.

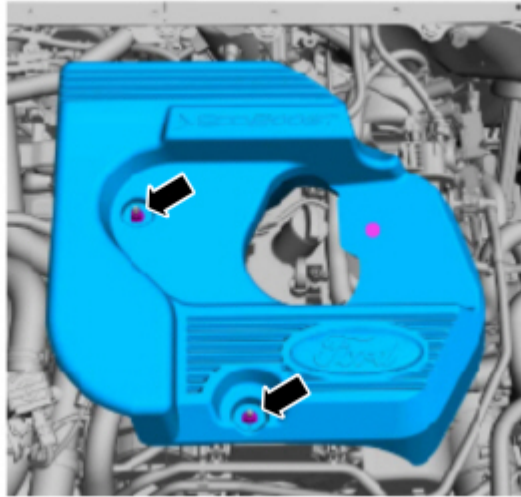
6. Install the engine appearance cover. (Figure 3)

Figure 3



7. Install and tighten the 2 engine appearance cover nuts to 10 Nm (89 in-lb). (Figure 4)

Figure 4



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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.