

# TECHNICAL SERVICE BULLETIN Illuminated ABS Indicator, Engine Will Not Turn Off, Will Not Shift Out Of Park And/Or Various Electrical Symptoms

22-2044

15 February

#### Model:

Ford 2020-2022 Super Duty

# **Summary**

This article supersedes TSB 22-2004 to update the vehicle symptoms.

**Issue:** Some 2020-2022 F-Super Duty vehicles may exhibit a condition where the engine will not turn off and/or have various electrical symptoms including a dead battery, horn stays on and no crank/no start. The vehicle may also have an illuminated anti-lock braking system (ABS) indicator with diagnostic trouble codes (DTCs) C0020 and U3003 in the ABS module. The vehicle may not shift out of park (P) and/or have continuously illuminated brake lamps with DTCs P0504 and/or C0040. This may be a result of water/moisture intrusion into the battery junction box (BJB). The BJB is located under the hood of the vehicle. This water/moisture intrusion may be related to the BJB cover not installed completely or broken cover tabs/locking fingers allowing water/moisture into the BJB. To correct the condition, follow the Service Procedure steps to inspect for water/moisture intrusion into the BJB and replace the BJB if water/moisture intrusion is found.

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

- 2020-2022 F-Super Duty
- At least one of the following symptoms:
  - Engine will not turn off
  - Dead battery
  - Horn stays on
  - No crank/no start
  - Illuminated ABS Indicator with DTCs C0020 and U3003
  - Will not shift out of park (P) and/or continuously illuminated brake lamps with DTCs P0504 and/or C0040

#### **Parts**

Service Part Number	Quantity	Description	
LC3Z-14A068-A	1	Power Distribution Box / Battery Junction Box (Diesel Engine)	
LC3Z-14A068-B	1	Power Distribution Box / Battery Junction Box (Gas Engine)	

**Warranty Status:** Eligible under provisions of New Vehicle Limited Warranty (NVLW)/Service Part Warranty (SPW)/Special Service Part (SSP)/Extended Service Plan (ESP) coverage. Limits/policies/prior approvals are not altered by a TSB. NVLW/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
2020-2022 F-Super Duty: Inspect And Replace The BJB (Do Not Use With Any Other Labor Operations)	222044A	0.6 Hrs.

### Repair/Claim Coding

Causal Part:	14A068
Condition Code:	42

# **Service Procedure**

- **1.** Visually inspect the BJB for signs of water/moisture intrusion. Are there signs of water/moisture intrusion into the BJB and/or broken cover tabs/locking fingers?
  - (1). Yes proceed to Step 2.
  - (2). No this article does not apply. Refer to Workshop Manual (WSM) for symptom based diagnostics.

Figure 1 - Example of moisture intrusion with BJB cover on



Figure 2 - Example of moisture intrusion with BJB cover off



# 2. Replace the BJB assembly.

- (1). Remove the battery and battery tray. Refer to the Workshop Manual, Section 414-01.
- (2). Remove the BJB cover.
- (3). Loosen the two BJB connector bolts and remove the battery power cable nut. Disconnect the battery power cable from the BJB.
- (4). Release the BJB from the two locking tabs on each side of the BJB.
- (5). Lift the BJB to allow access to both BJB connectors. Disconnect both connectors and remove the BJB.
- (6). Remove the cover from the new BJB and connect both connectors to the new BJB.
- (7). Install the new BJB into both locking tabs.
- (8). Attach the battery power cable and tighten the battery power cable nut to 10.5 Nm (93 lb-in). Tighten the connector bolts to 5.4 Nm (48 lb-in).
- (9). Install the new BJB cover making sure the cover tabs/locking fingers are installed correctly.
- (10). Install the battery tray and battery back into the vehicle. Refer to WSM, Section 414-01.

Figure 3 - Correct cover installation





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Figure 4 - Incorrect cover installation





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Figure 5 - Incorrect cover installation





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Figure 6 - Incorrect cover installation



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