



# Service Update

## SU2201: DEF Diagnostics for CAN Sensors

**Models Affected:** Certain Blue Bird Buses equipped with Cummins Diesel engines built starting Jan 2016 with the below engine families:

- B6.7 CM2350 B121B (Excluding engines built in 2021)
- B6.7 CM2450 B155B
- ISB6.7 CM2350 B101 (Engines built in 2016 only)
- ISL9 CM2350 L101 (Engines built in 2016 only)
- L9 CM2350 L116B
- L9 CM2350 L123B
- L9 CM2450 L126B

**Subject:** Blue Bird specific troubleshooting required for Cummins TSB210187.

**WARNING:** Always follow all Federal, State, Local and Shop safety standards and use proper safety equipment, and thoroughly read and understand all instructions before performing these procedures. Park bus on level surface, apply parking brake, turn off ignition key, and chock wheels.

**Summary:** This document is intended to provide guidance to the specific diagnostic procedures required by Blue Bird to install an available temporary engine calibration to allow unit operation during repair parts procurement. **A unique authorization code is assigned to each ESN. Contact your local Blue Bird dealer to verify part availability and obtain an authorization code, if applicable.**

To find your local Blue Bird dealer, go to [www.Blue-Bird.com/Find-a-Dealer](http://www.Blue-Bird.com/Find-a-Dealer)

### Diagnostic Procedure:

- Review the below flow charts for troubleshooting DEF sensor fault codes. For troubleshooting DTC's not listed in one the below flow charts, follow Cummins published troubleshooting documents per the applicable workshop manual.
- If the Blue Bird diagnostic flow chart(s) identifies the DEF sensor assembly is inoperative, and service parts are unavailable, **the Blue Bird dealer is REQUIRED to submit a technical support ticket via vantage and request a unique authorization code.**
- If this unit is being repaired at an authorized Cummins repair facility, the locations are **REQUIRED** to contact their local Blue Bird dealer and request they **submit a technical support ticket via Vantage and request a unique authorization code.**
- ECM image is highly recommended to be attached to support ticket for faster processing. If an image is not available, detailed diagnostics and supporting details around fault code timing will be requested. **Lack of supporting diagnostics may result in denial of an authorization code request.**

Once pre-authorization is obtained, email must be sent to [T2484@cummins.com](mailto:T2484@cummins.com) with the following items:

- 1) evidence pre-authorization was received,
- 2) ESN,
- 3) OEM,
- 4) current ECM code

**NOTE:** **A diagnostic scan tool MUST be used for diagnostics.** The instrument cluster does not provide the level of needed detail to objectively determine the failure(s). Failure to diagnose will result the in the vehicle illuminating the MIL/amber engine warning after the new sensor/head has been installed and the calibration reverted back to OEM.

### Parts Required:

Qty	Blue Bird #	Description
1	10078848	CAP,CONNECTOR
2	NA	Wire tie (obtain locally)



**Protective cover will be provided by Blue Bird dealers at no cost to repair centers. Blue Bird dealers can order them as needed thru standard parts channels and claim on warranty repairs. Wire ties to be sourced locally.**

1. Key off, cut Ty-wrap(s) and disconnect DEF sensor.
2. Install cover 10078848 onto the frame harness and secure harness end with wire tie. Bend the DEF header harness away from the OE chassis harness and secure with wire tie.

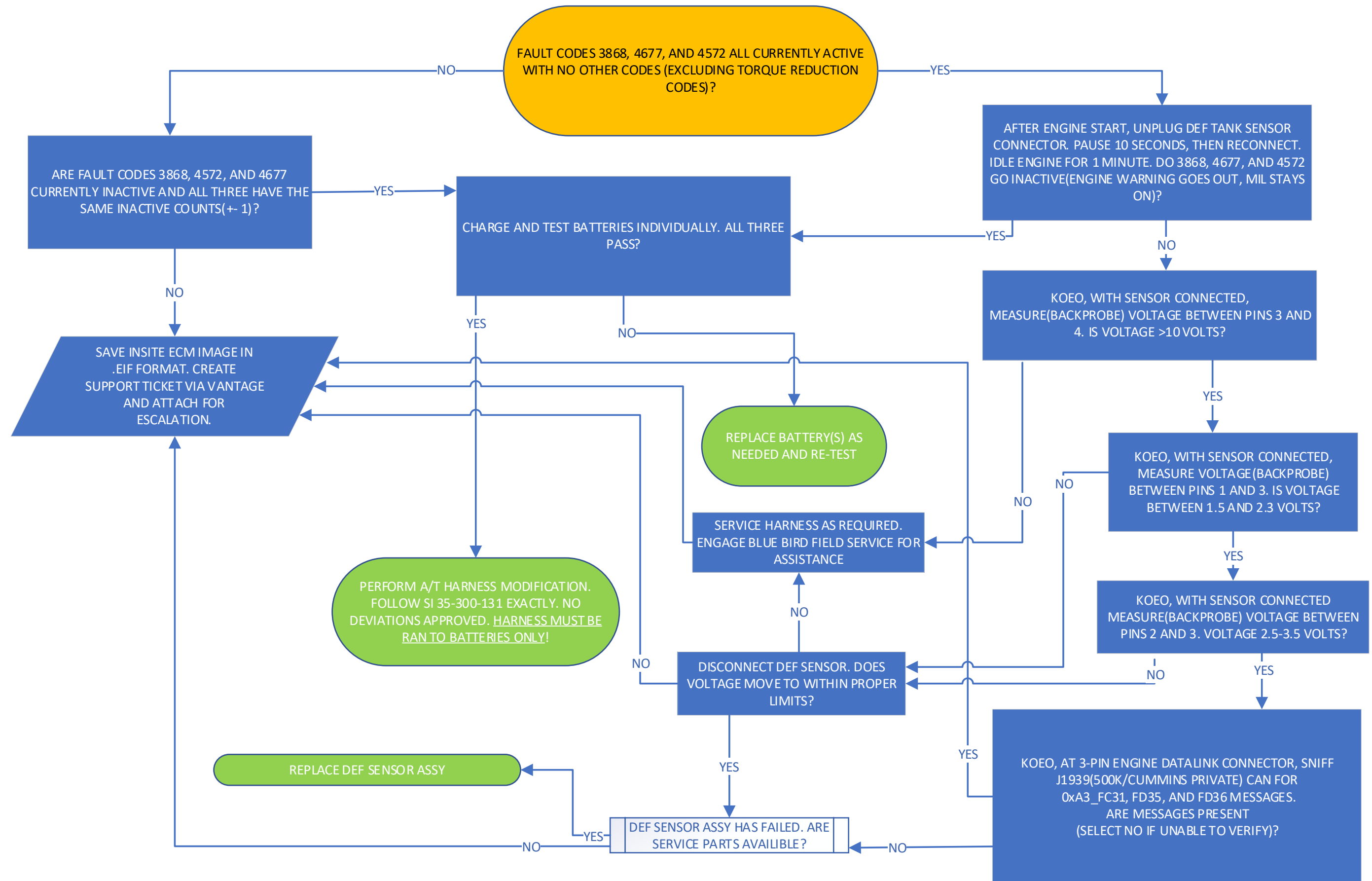
**NOTE:** Cummins TSB210187, step 3 states to cut the pig tail off of the DEF sensor header while the calibration is downloading. **DO NOT CUT THE BLUE BIRD DEF SENSOR PIGTAIL.** The cavity plug installed on step 2 is sufficient. **Damaging the DEF sensor pigtail or connector may result in warranty charge backs.**

3. Acquire Fleet count for InSite tool to be used and use the ECM code lookup tool listed below to identify the proper code for the effected bus(s).  
[https://quickserve.cummins.com/qs3/qsol/service/def\\_header\\_ecm\\_tools.html](https://quickserve.cummins.com/qs3/qsol/service/def_header_ecm_tools.html)
4. Install temp ECM calibration. Follow Cummins workshop manual for additional information/instruction if needed.
5. Disregard Cummins TSB210187 steps 4-8
6. Verify new Cummins Engine Calibration is installed.
7. Required to submit for remittance via Cummins TRP2484.



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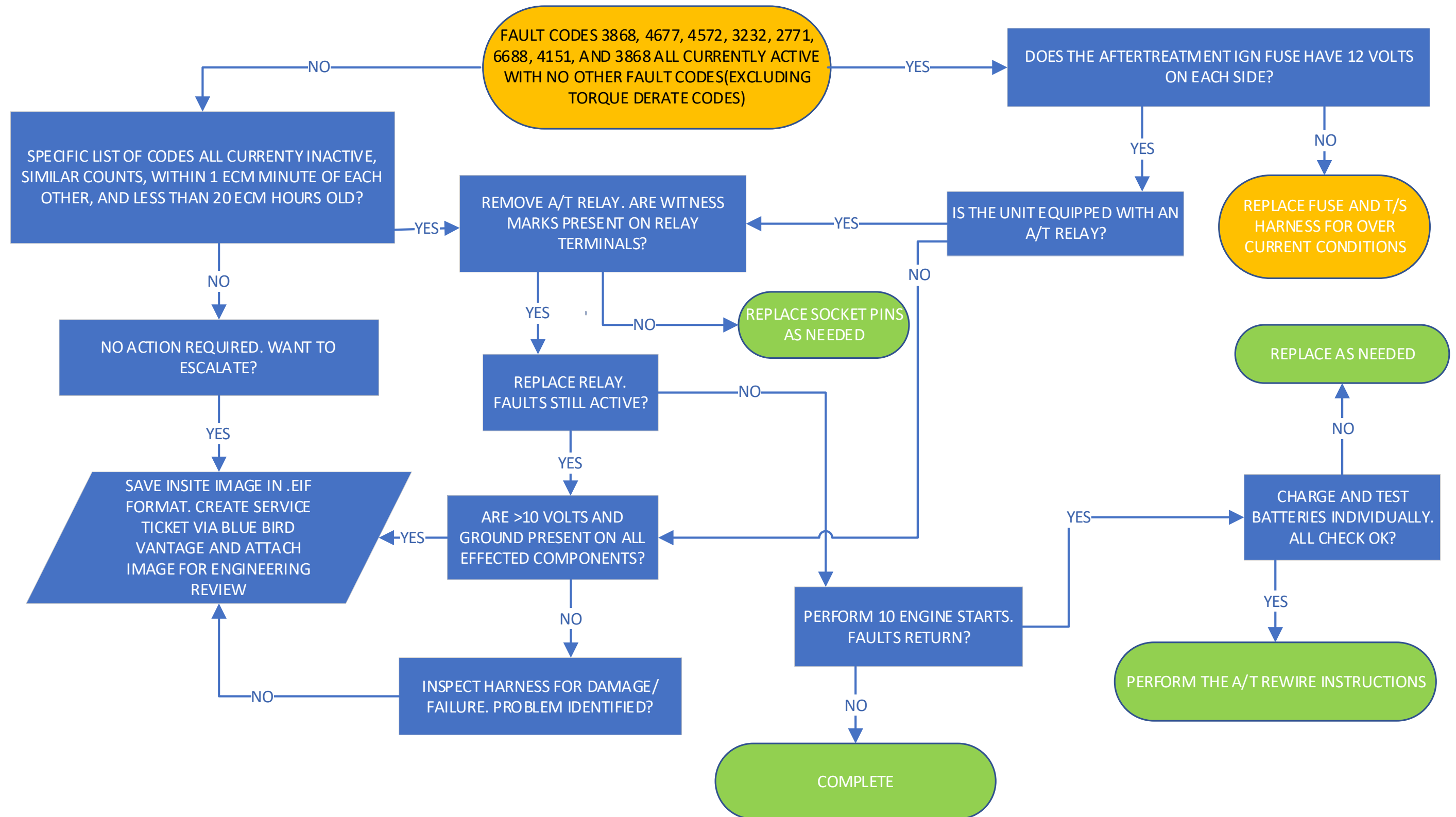
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