

# Authorized Field Change



AFC 20901

Date: APRIL 2020

Subject File: ENGINE

**Subject:** PSI 8.8L Gasoline Engine Recalibration

Model: CE School Bus

Start Date: 28 August 2017 End Date: 17 January 2019

Engine Family: 2018 Model Year PSI 8.8L Gasoline Engines

## DESCRIPTION

To improve the Oxygen Sensor 2 (O2 Sensor 2) On-Board Diagnostics (OBD).

## ELIGIBILITY

This procedure applies ONLY to vehicles marked in the International® Service Portal<sup>SM</sup> with AFC 20901. Check and complete any other open campaigns also at this time.

## TOOLS INFORMATION

**NOTE:** Prior to performing the procedure documented in this AFC, be sure your EZ-Tech® or equivalent Electronic Service Tool (EST) has PSI Engine Control Unit (ECU) Field Programmer Software installed.

Click on the link below to access the EZ-Tech® Download Center:

[Navistar Dealer EZ-Tech and Diagnostic Software Support Resource Center](#)

**NOTE:** Prior to initial setup, download associated driver software for the NEXIQ USB-Link Series. Once the driver for the interface is installed, you can proceed with programming.


Table 1. **Tools Information**

Description	Tool Number	Quantity
Powerlink Programming Cable	12-716-01	1
EZ-Tech® or Equivalent	N/A	1
PSI ECU Field Programmer Software	N/A	1
NEXIQ (USB- Link Series)	N/A	1
Battery Charger 55 Amp	PSC550CC	1


## PARTS INFORMATION


No required parts.

## SERVICE PROCEDURE

 **WARNING:** To prevent personal injury and / or death, or damage to property, park vehicle on hard flat surface, turn the engine off, set the parking brake, and install wheel chocks to prevent the vehicle from moving in both directions.

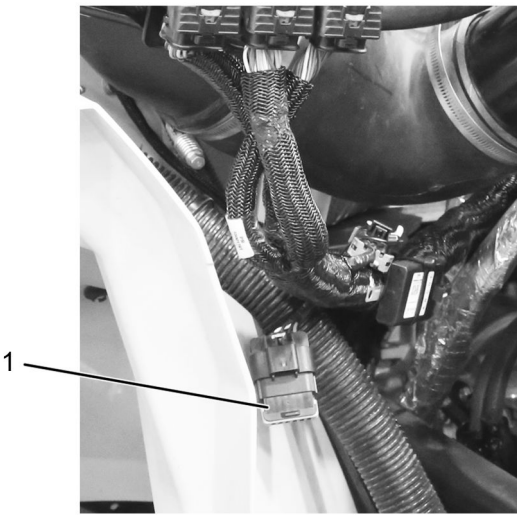
 **WARNING:** To prevent personal injury and / or death, always wear safe eye protection when performing vehicle maintenance.

 **WARNING:** To prevent personal injury and / or death, or damage to property, allow components in engine compartment to cool before servicing engine or vehicle.

 **WARNING:** To prevent personal injury and / or death, or damage to property, keep flames, sparks, or other heat sources away from the vehicle and do not smoke while servicing the vehicle's batteries. Batteries expel gases which may cause an explosion resulting in personal injury / death, or damage to property, avoid contact with any heat sources.

1. Park vehicle on a flat surface with wheels straight ahead.
2. Shift transmission to Park or Neutral, set parking brake.
3. Turn vehicle ignition to Key OFF position.
4. Install wheel chocks.
5. Open battery compartment, connect battery charger to vehicle battery.
6. Unlatch and open hood.
7. Obtain a health report from vehicle.

## SERVICE PROCEDURE (CONT.)



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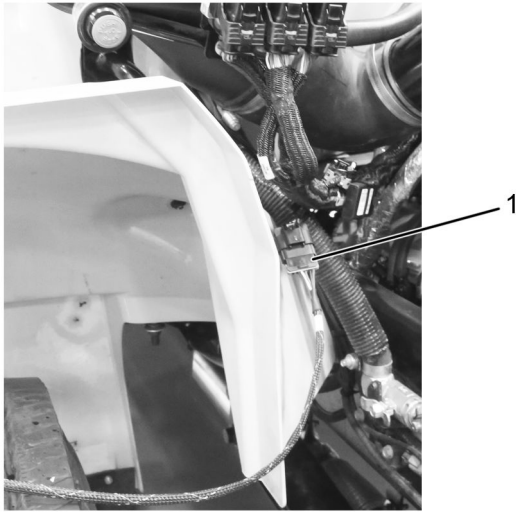
**Figure 1. Engine Harness - Proprietary Network Connector**

1. Cap

**NOTE: Save protective cap for reuse.**

8. Locate proprietary network connector located on the engine harness below Engine Control Module (ECM). Remove protective cap (Figure 1, Item 1) and save for reuse.

## SERVICE PROCEDURE (CONT.)



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**Figure 2. Powerlink Programming Cable - Under Hood**

1. Connector
9. Using Powerlink programming cable, connect appropriate connector (Figure 2, Item 1) to proprietary network harness.
10. Route remainder of programming cable into vehicle interior.

## SERVICE PROCEDURE (CONT.)

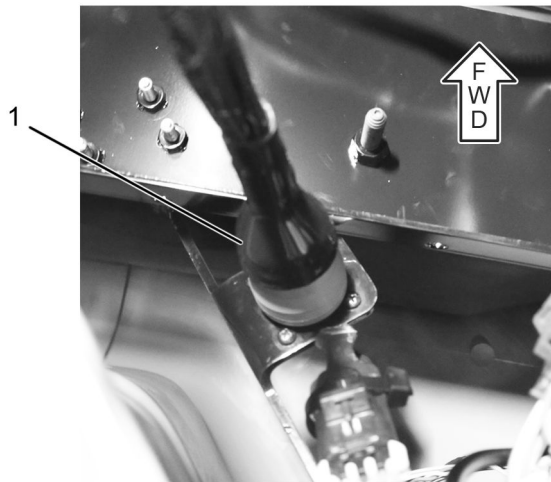


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**Figure 3. Data Link Connector (DLC) - Under Dash**

1. DLC

11. Locate DLC (Figure 3, Item 1) under vehicle dash.



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**Figure 4. Powerlink Programming Cable - Under Dash**

1. Connector

12. Connect 6-pin connector of programming cable (Figure 4, Item 1) to DLC.

## SERVICE PROCEDURE (CONT.)



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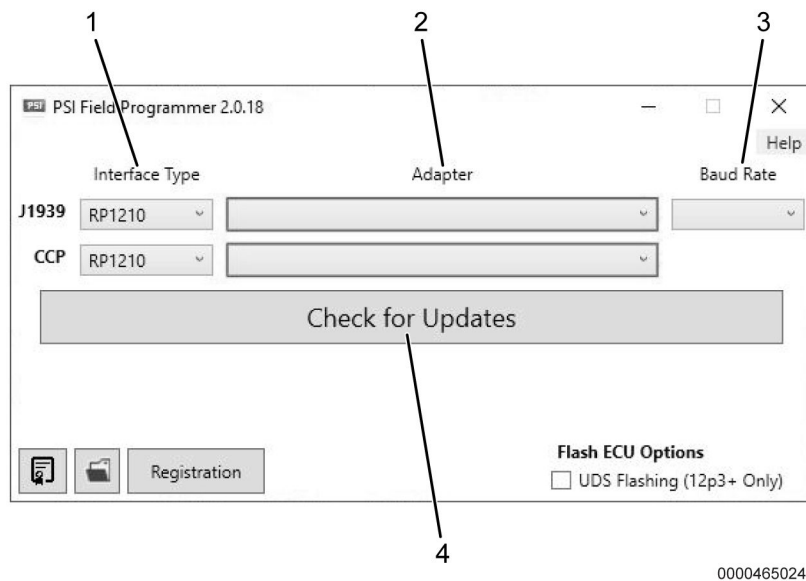
**Figure 5. Powerlink Programming Cable - USB Interface**

1. Programming cable
2. Laptop / USB interface connector

**NOTE: Ensure laptop screen saver and sleep settings are turned OFF or set to a minimum of one hour.**

13. Connect programming cable (Figure 5, Item 1) to laptop / USB interface connector (Figure 5, Item 2).
14. Turn vehicle ignition to Key ON, Engine OFF.

## SERVICE PROCEDURE (CONT.)



**Figure 6. PSI Field Programmer Window**

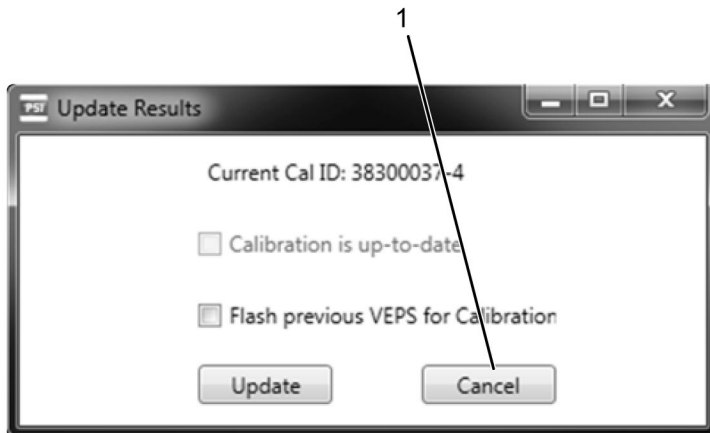
1. Interface type
2. Adapter
3. Baud rate
4. Check for Updates button

15. Open PSI ECU Field Programmer and set up interface hardware:

- a. Select CAN INTERFACE TYPE (Figure 6, Item 1) from J1939 and CCP drop-down menus.
- b. Select CAN ADAPTER (Figure 6, Item 2) from J1939 and CCP drop-down menus.
- c. Select CAN BAUD RATE (Figure 6, Item 3) from J1939 drop-down menu.

16. Select CHECK FOR UPDATES button (Figure 6, Item 4) to review calibration status. When prompted, select NEXT button to continue.

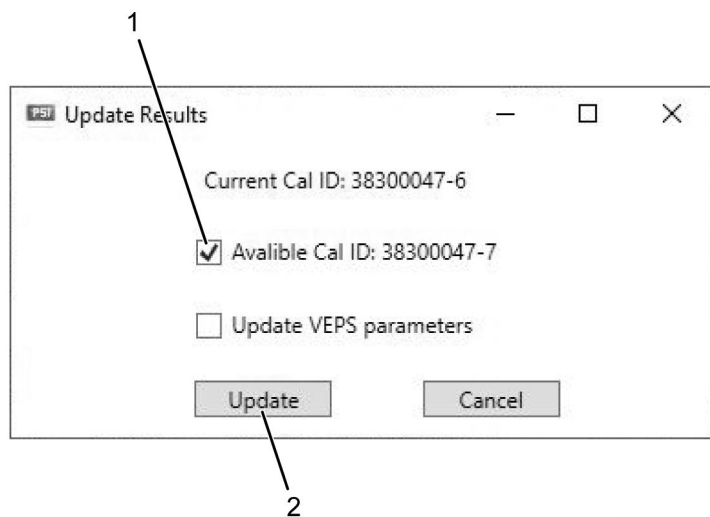
## SERVICE PROCEDURE (CONT.)



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**Figure 7. Update Results Window - Calibration Current**

1. Cancel button



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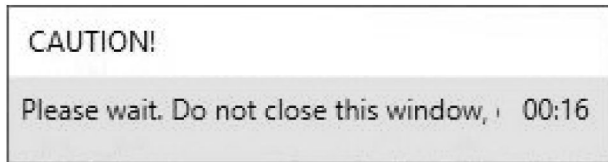
**Figure 8. Update Results Window - Calibration Available**

1. Available Cal ID check box
2. Update button

### 17. Check calibration status:

- If calibration is current, Update Results - Calibration Current window is displayed (Figure 7). Select CANCEL button (Figure 7, Item 1) and proceed to Step 20.
- If calibration update is available, Update Results - Calibration Available window is displayed (Figure 8). Continue with Step 18.

## SERVICE PROCEDURE (CONT.)



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**Figure 9. Timer Window**

**NOTE: Timer window (Figure 9) is displayed when Update button is selected. DO NOT close timer window. Allow time to expire (25 seconds) before continuing.**

18. Select AVAILABLE CAL ID check box (Figure 8, Item 1) and then select UPDATE button (Figure 8, Item 2) to initiate programming.

**NOTE: When the CAL ID programming is complete, the Update VEPS will begin.**

19. Cycle ignition key when prompted by program:
- Turn vehicle ignition to Key OFF position
  - Turn vehicle ignition to Key ON, Engine OFF.

**NOTE: Timer window (Figure 9) is displayed a second time. Once timer expires (25 seconds), programming is complete. Continue with Step 20.**

20. Turn vehicle ignition to Key OFF position.
21. Disconnect EST from DLC and underhood proprietary network connector.
22. Install protective cap to proprietary network connector.
23. Close and latch hood.
24. Disconnect battery charger from vehicle battery and close compartment.
25. Remove wheel chocks.

### LABOR INFORMATION

Operation number must appear on all claims.

**Table 2. Labor Information**

Operation No.	Description	Time
A40-20901-1	Connect to Vehicle. Recalibration Not Required.	0.2 hr
A40-20901-2	Connect to Vehicle and Recalibrate ECU.	0.4 hr

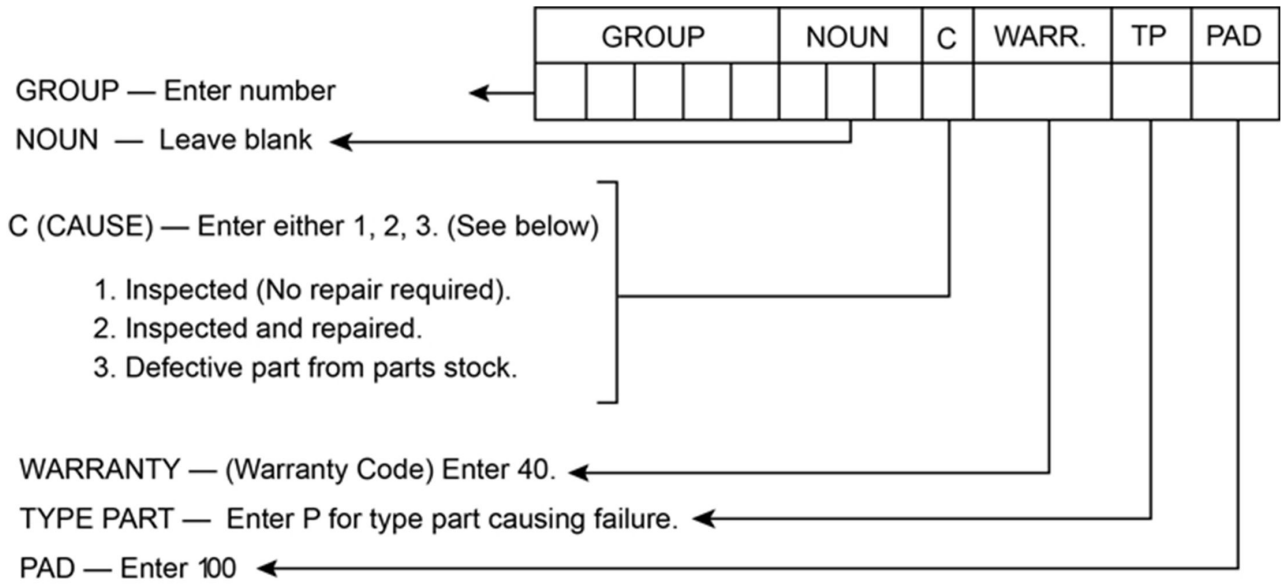
**ADMINISTRATIVE PROCEDURE**

Expense is to be charged to Warranty. Claims are to be submitted in the normal manner, making reference to Authorized Field Change Number 20901.

Section 7 of the Warranty Policy and Procedures Manual contains further information related to the submission and processing of AFC / Recall claims.

As with all claim submissions, items acquired locally must be submitted in the "Other Charges" tab. The cost of any bulk items (such as a bag of cable tie straps, roll of wire, barrel of oil, or tube of silicone) should be prorated for the cost of the individual pieces / amount used during each repair.

To ensure this important improvement is made in a timely manner, all claims for 20901 activity must be submitted by 01 April 2021 or within the normal warranty period for the vehicle, if after 01 April 2021.



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