#### **Technical Bulletin**



### SERVICE BULLETIN

 Classification:
 Reference:
 Date:

 EC16-032b
 NTB17-060b
 September 13, 2018

# 2016-2018 TITAN XD; DTC P207F AND DEF SYSTEM ERROR IS DISPLAYED ON THE VEHICLE INFORMATION DISPLAY

This bulletin has been amended. The Applied Vehicles section, Table A on page 7, and the DTC Confirmation procedure have been revised. No other changes have been made.

Please discard previous versions of this bulletin.

**APPLIED VEHICLES:** 2016-2018 Titan XD (A61) **APPLIED VIN:** 2016-2017 vehicles: All

2018 vehicles: Built before 1N6BA1(\*\*\*)JN 529982

**APPLIED DATE:** Vehicles built before April 12, 2018

**APPLIED ENGINE:** Cummins 5.0L V8 Diesel

#### IF YOU CONFIRM

DTC P207F DEF QLTY SENS is stored,

**NOTE:** DEF System Error message may be displayed in the Vehicle Information Display.

DEF System Error See Dealer

#### **AND**

DEF concentration is 32.5% ± 1.5% as indicated by refractometer J-54466.

**NOTE:** If DEF concentration is incorrect, this bulletin does not apply. Drain DEF tank and fill with new DEF.

#### **ACTION**

- 1. Save Computer Data with CONSULT-III plus (C-III plus).
- 2. At step 6 of the **ECM Reprogramming** procedure, confirm this bulletin applies to the vehicle you are working on (see page 7).
- 3. If this bulletin applies, continue with **ECM Reprogramming** procedure.
- 4. Write Saved Data with CONSULT-III plus.
- 5. Perform **DTC Confirmation** procedure.

**NOTE:** The vehicle will need to sit for <u>70 minutes with the ignition ON</u> during this procedure.

**IMPORTANT:** The purpose of ACTION (above) is to give you a quick idea of the work you will be performing. You MUST closely follow the entire SERVICE PROCEDURE as it contains information that is essential to successfully completing this repair.

Nissan Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. NOTE: If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Nissan dealer to determine if this applies to your vehicle.

#### SERVICE PROCEDURE

**IMPORTANT:** Before starting, make sure:

- ASIST on the CONSULT PC has been synchronized (updated) to the current date.
- All CONSULT-III plus (C-III plus) software updates (if any) have been installed.

#### **Save Computer Data**

- 1. Connect the CONSULT PC to the vehicle.
- 2. Open / start C-III plus.
- 3. Turn the ignition ON, with engine OFF (engine not running).
- 4. Wait for the plus VI to be recognized.
  - The **Serial No.** will display when the plus VI is recognized.
- 5. Select Diagnosis (One System).

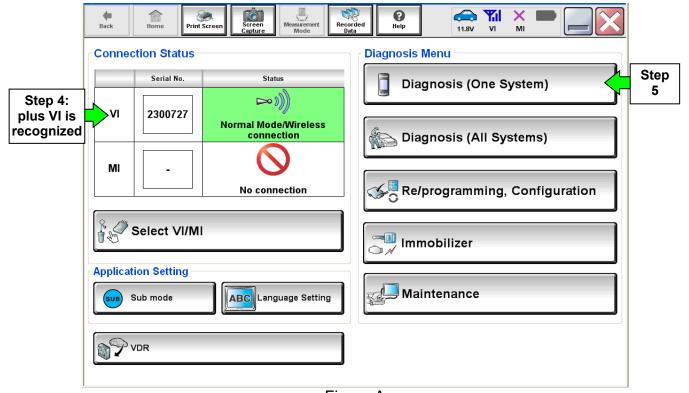


Figure A

- 6. Navigate C-III plus to Engine > Work Support (see Figure B).
- 7. Select SAVE COMPUTER DATA.
- 8. Select Start.

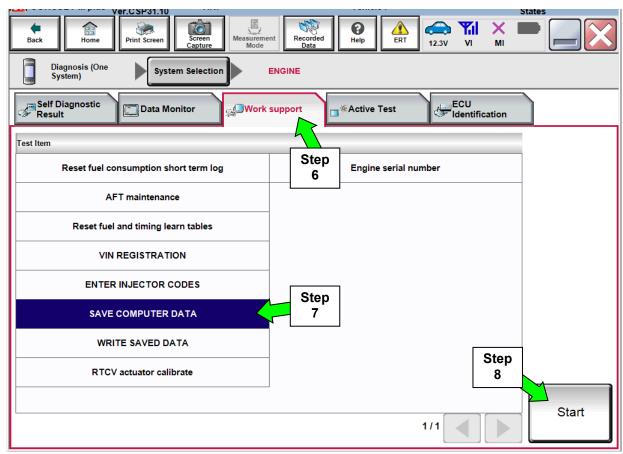


Figure B

#### NOTE:

• After selecting Start, a screen message may appear that says:

Latest diagnostic tool update must be used before saving the data, otherwise there is a risk that the data entry will not work.

If the above message appears, select Continue.

9. Make sure the ignition is ON and the engine is OFF (engine not running).

#### 10. Select Confirm.

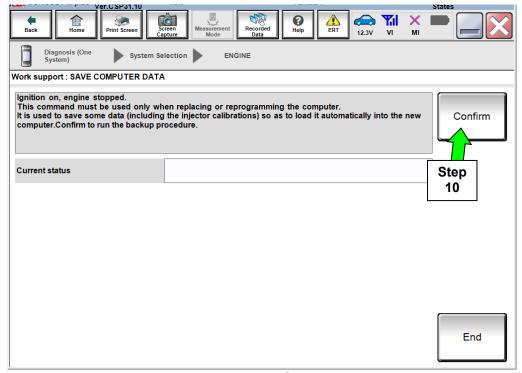


Figure C

#### 11. Select End.

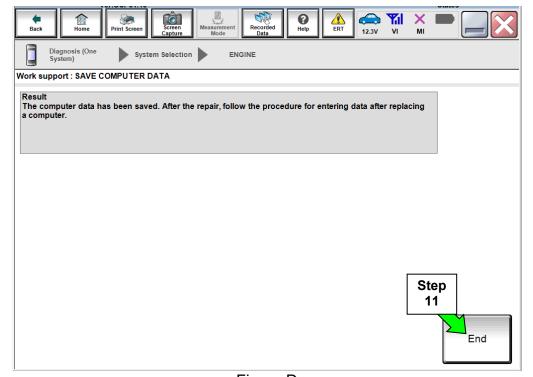


Figure D

#### **ECM Reprogramming**

#### NOTE:

- Most instructions for reprogramming with CONSULT-III plus (C-III plus) are displayed on the CONSULT PC screen.
- If you are not familiar with the reprogramming procedure, click here. This will link you to the "CONSULT- III plus (C-III plus) Reprogramming" general procedure.
- For the Titan XD Diesel, the GR8 set to ECM power supply mode can be attached to either 12 volt battery.

#### **CAUTION:**

- Connect the GR8 to the 12V battery and set to ECM power supply mode.
   If the vehicle battery voltage goes below 12.0V or above 15.5V during reprogramming, the ECM may be damaged.
- Be sure to turn OFF all vehicle electrical loads.
   If a vehicle electrical load remains ON, the ECM may be damaged.
- Be sure to connect the AC Adapter.
   If the CONSULT PC battery voltage drops during reprogramming, the process will be interrupted and the ECM may be damaged.
- Turn OFF all external Bluetooth<sup>®</sup> devices (e.g., cell phones, printers, etc.) within range of the CONSULT PC and the plus VI. If Bluetooth<sup>®</sup> signal waves are within range of the CONSULT PC during reprogramming, reprogramming may be interrupted and the ECM may be damaged.

5/17

NTB17-060b

- 1. Return to the C-III- plus Home screen (see Figure 1).
- 2 Confirm the ignition is ON, with engine OFF.
- 3. Confirm the plus VI is recognized.
  - The **Serial No.** will display when the plus VI is recognized.
- 4. Select Re/programming, Configuration.

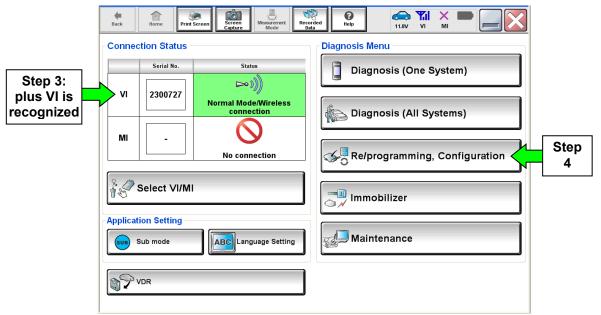


Figure 1

5. Follow the on-screen instructions and navigate C-III plus to the screen shown in Figure 2 on the next page.

- 6. When you get to the screen shown in Figure 2, confirm this bulletin applies as follows.
  - A. Find the ECM **Part Number** and write it on the repair order.

**NOTE:** This is the <u>current</u> ECM Part Number (P/N).

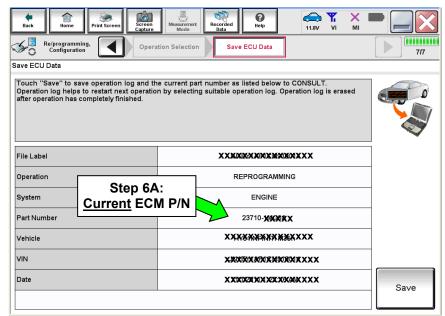


Figure 2

- B. Compare the P/N you wrote down to the numbers in the **Current ECM Part Number** column in **Table A** below.
  - If there is a match, continue with the reprogramming procedure.
  - If there is <u>no match</u>, this bulletin <u>does not apply</u>. Close C-III plus and refer to ASIST for further diagnostic information.

#### Table A

Model	Current ECM Part Number: 23710-				
2016 Titan XD Cummins Diesel	EZ41C, EZ41D, EZ41E EZ42A, EZ42B, EZ42C, EZ42D, EZ42E EZ43A, EZ43B				
2017 Titan XD Cummins Diesel	EZ44D, EZ44E EZ45A, EZ45B, EZ45C				
2018 Titan XD Cummins Diesel	EZ47C, EZ47D				

7. Follow the on-screen instructions to navigate C-III plus and reprogram the ECM.

#### NOTE:

- In some cases, more than one new P/N for reprogramming is available.
  - ➤ If more than one new P/N is available, the screen in Figure 3 displays.
  - Select and use the reprogramming option that <u>does not</u> have the message "Caution! Use ONLY with NTBXX-XXX".
- If you get this screen and it is <u>blank</u> (no reprogramming listed), it means there is no reprogramming available for this vehicle. Close C-III plus and refer back to ASIST for further diagnosis.

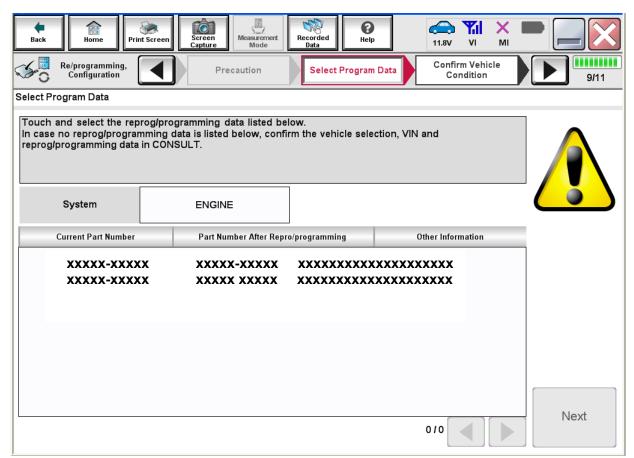


Figure 3

8. When the screen in Figure 4 displays, reprogramming is complete.

**NOTE:** If the screen in Figure 4 does not display (indicating that reprogramming did not complete), refer to ECM recovery on the next page.

#### 9. Select Next.

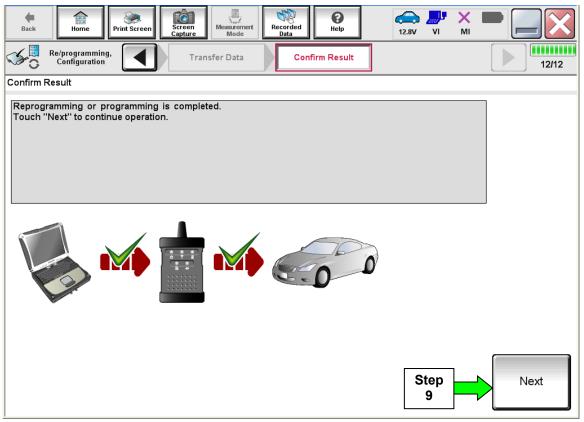


Figure 4

#### NOTE:

- In the next step (page 11) you will perform DTC erase.
- This operation is required before C-III plus will provide the final reprogramming confirmation report.

#### **ECM Recovery**

### <u>Do not disconnect the plus VI or shut down C-III plus if reprogramming does not complete.</u>

If reprogramming does <u>not</u> complete and the "!?" icon displays as shown in Figure 5:

- Check battery voltage (12.0 - 15.5 V).
- Ignition is ON, engine OFF.
- External Bluetooth® devices are OFF.
- All electrical loads are OFF.
- Select <u>retry</u> and follow the on screen instructions.
- "Retry" may not go through on first attempt and can be selected more than once.

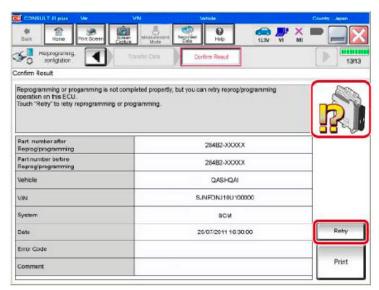


Figure 5

## If reprogramming does <u>not</u> complete and the "X" icon displays as shown in Figure 6:

- Check battery voltage (12.0 15.5 V).
- CONSULT A/C adapter is plugged in.
- Ignition is ON, engine OFF.
- Transmission is in Park.
- All C-III plus / VI cables are securely connected.
- All C-III plus updates are installed.
- Select <u>Home</u>, and restart the reprogram procedure from the beginning.

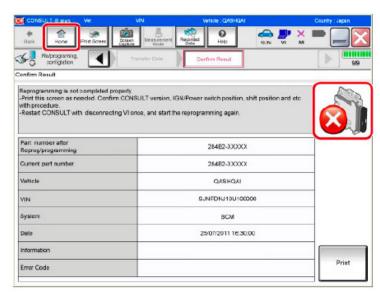


Figure 6

- 10. Follow the on-screen instructions to **Erase DTCs**.
- 11. When the entire reprogramming process is complete, the screen in Figure 7 will display.
- 12. Verify the before and after part numbers are different.
- 13. Print a copy of this screen (Figure 7) and attach it to the repair order for warranty documentation.

#### 14. Select Confirm.

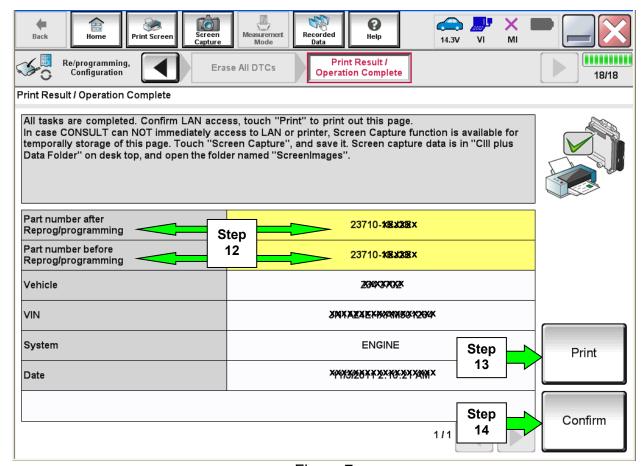


Figure 7

Continue to the next page.

#### **Write Saved Data**

- 1. Return to the C-III- plus Home screen (see Figure 1A).
- 2 Confirm the ignition is ON, with engine OFF.
- 3. Confirm the plus VI is recognized.
  - The Serial No. will display when the plus VI is recognized.
- 4. Select Diagnosis (One System).

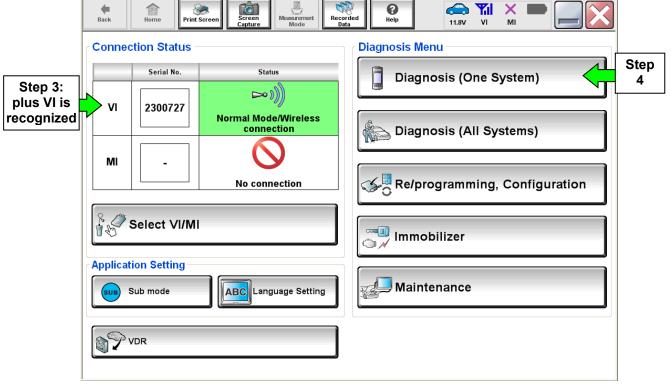


Figure 1A

- 5. Navigate C-III plus to Engine > Work Support (see Figure 2A).
- 6. Select WRITE SAVED DATA.
- 7. Select Start.

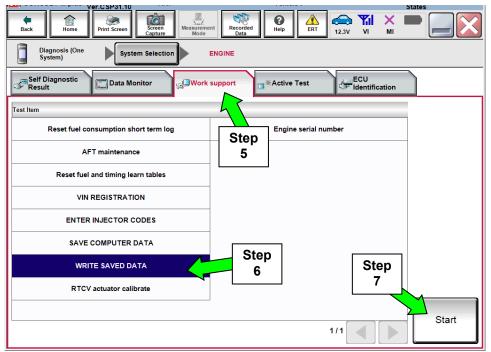


Figure 2A

- 8. Make sure the ignition is ON and the engine is OFF (engine not running).
- 9. Select Confirm.

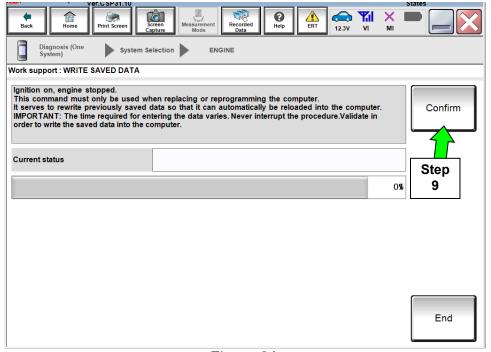


Figure 3A

#### 10. Wait for the procedure to complete.

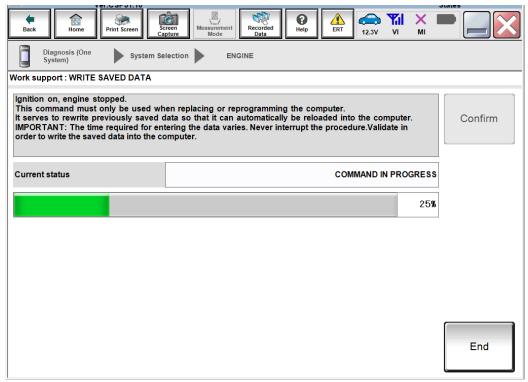


Figure 4A

#### 11. Select End.

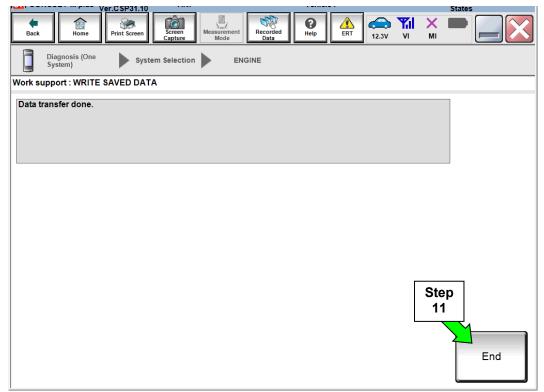


Figure 5A

#### **IMPORTANT:**

The following DTC Confirmation Procedure must be done to confirm proper operation of the DEF system sensors. If these sensors are not operating properly, **DTC P207F may be stored again in a short time.** 

#### **DTC Confirmation Procedure**

- 1. Navigate C-III plus to **Engine > Data Monitor** and select **UREA TANK TEMP** (see Figure 1B) and **DEF QUALITY SENSOR TEMP** (see Figure 2B).
- 2. Select Start.

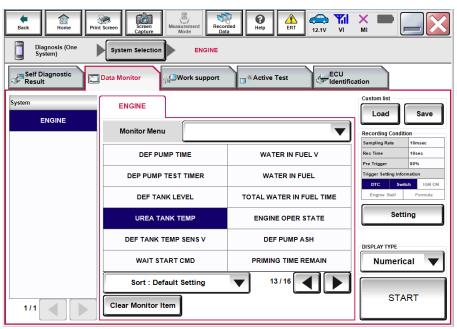


Figure 1B

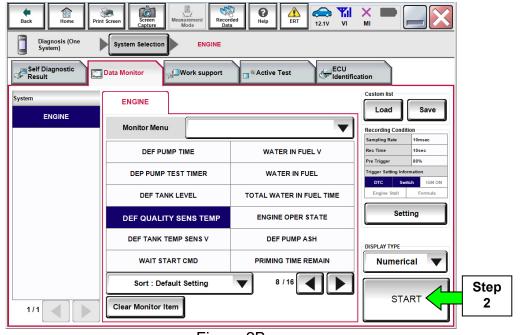


Figure 2B

- Confirm UREA TANK TEMP and DEF QUALITY SENSOR TEMP are -4°C (25°F) or more.
  - If needed, start the engine and let it run until the UREA TANK TEMP and DEF QUALITY SENSOR TEMP warms to -4°C (25°F) or more.

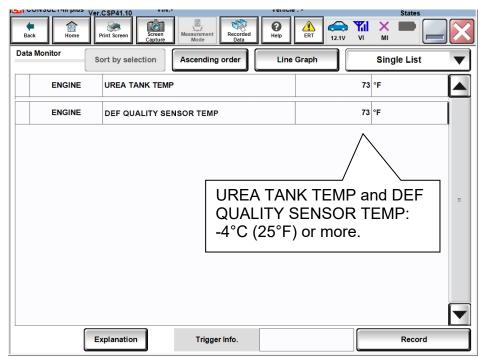


Figure 3B

- 4. Turn the hazard lights (4 way flashers) ON.
- 5. Allow the vehicle to sit for 70 minutes with the ignition ON.

**NOTE:** If preferred, the GR8 (battery charger) can be disconnected from the vehicle and the vehicle can be started and idled for 70 minutes.

- 6. Use C-III plus to check for DTC P207F.
  - If DTC P207F is stored again, refer to the Electronic Service Manual (ESM), section
     ENGINE > ENGINE CONTROL SYSTEM, for further diagnosis and repair.
  - If P207F is not stored, go to the next step (step 7).
- 7. Close C-III plus.
- 8. Turn the ignition OFF.
- 9. Disconnect the plus VI from the vehicle.

- 10. If not already completed, disconnect the GR8 (battery charger) from the vehicle.
- 11. Test drive the vehicle and make sure it operates correctly and the MIL is OFF.
  - If the MIL comes ON, go back to ASIST for further diagnostic information.
  - Diagnosis and repairs beyond ECM reprogramming are not covered by this bulletin.

#### **CLAIMS INFORMATION**

#### Submit a Primary Part (PP) type line claim using the following claims coding:

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Save Computer Data and ECM Reprogram	(1)	DX50AA	ZE	32	0.8*

<sup>(1)</sup> Refer to the electronic parts catalog (FAST) and use the ECM assembly part number as the Primary Failed Part (PFP).

<sup>\*</sup> FRT allows adequate time to access DTC codes and reprogram ECM. No other diagnostic procedures subsequently required. Do NOT claim any Diagnostic Op Codes with this claim.