### **Technical Bulletin**



## SERVICE BULLETIN

 Classification:
 Reference:
 Date:

 AT17-001d
 NTB17-016d
 November 6, 2017

## 2016 – 2017 TITAN AND TITAN XD; SHIFT SHOCK, LACK OF POWER, AND/OR RPM FLUCTUATES

This bulletin has been changed throughout.
You must read the entire bulletin to properly perform this repair.
Please discard previous versions of this bulletin.

**APPLIED VEHICLES:** 2017 Titan (A61)

2016-2017 Titan XD (A61)

**APPLIED ENGINE:** VK56VD (Gasoline V8)

**APPLIED TRANSMISSION: 7AT - RE7R01B** 

### IF YOU CONFIRM

One or more of the following, or the customer reports one or more of the following:

- Transmission shift shock when accelerating enough to create a 7<sup>th</sup> gear to 3<sup>rd</sup> gear down shift.
- While driving at a steady speed, the engine RPM goes up and down (fluctuates) a small amount.
- With light acceleration at lower speeds there is a lack of power; feels like the selected transmission gear is too high (may also be described as hesitation).

### **ACTION**

- 1. Refer to step 6 in the **SERVICE PROCEDURE** to confirm ECM reprogramming applies.
- 2. Reprogram the ECM, if it applies.
- 3. Refer to step 22 in the **SERVICE PROCEDURE** to confirm TCM reprogramming applies.
- 4. Reprogram the TCM, if it applies.

**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

### NOTE:

- This procedure may require reprogramming of the **ECM and TCM**.
- 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.

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

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

### **ECM Reprogram**

### **Preparation for Reprogramming**

- Take the vehicle for a 10 minute drive in order to meet the following Idle Air Volume Learn (IAVL) conditions:
  - Engine coolant temperature: 70 -100°C (158 - 212°F)
  - ➤ Battery voltage: More than 12.9V (At idle)
  - Transmission: Warmed up



Figure A

#### NOTE:

- After ECM reprogramming is complete, you will be required to perform Throttle Valve Closed Position, IAVL, and Accelerator Closed Position.
- The above conditions are required for the IAVL to complete.

### **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® devices (e.g., cell phones, printers, etc.) within range of the CONSULT PC and the plus VI. If Bluetooth® signal waves are within range of the CONSULT PC during reprogramming, reprogramming may be interrupted and the ECM may be damaged.
- 1. Connect the plus VI to the vehicle and open/start C-III plus.
- 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.

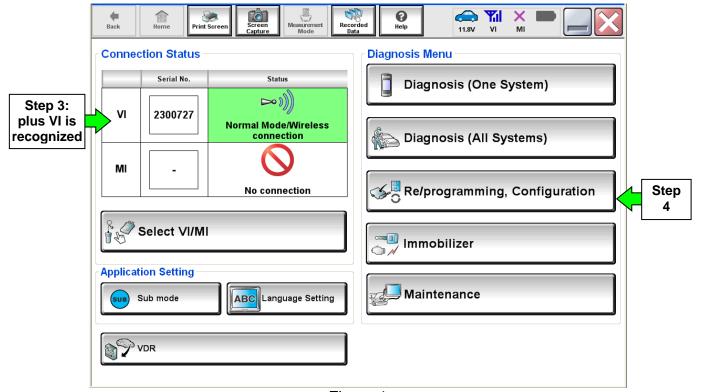


Figure 1

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 ECM reprogramming 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).

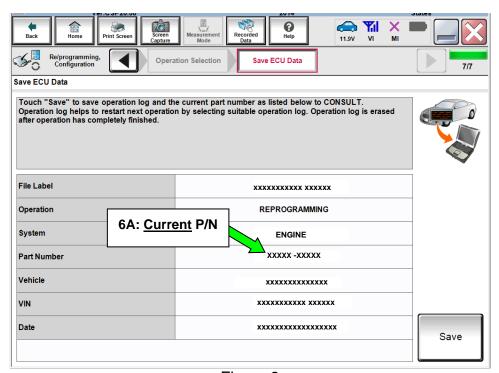


Figure 2

- B. Compare the P/N you wrote down to the numbers in the **Current ECM Part Number** column in **Table A** on the next page.
  - If there is a <u>match</u>, continue with the ECM reprogramming procedure.
  - If there is <u>not a match</u>, ECM reprogramming <u>does not apply</u>. Go to TCM reprogram on page 11.

### Table A

Model	Current ECM Part Number: 23710 -
2016 Titan XD	EZ48A, EZ49A, EZ58A, EZ59A
	EZ20B, EZ21B, EZ22B, EZ23B
	EZ20C, EZ21C, EZ22C, EZ23C
	EZ20D, EZ21D, EZ22D, EZ23D
	EZ20E, EZ21E, EZ22E, EZ23E
2017 Titan and Titan XD	EZ01A, EZ02A, EZ03A, EZ04A, EZ05A, EZ06A, EZ07A. EZ08A
	EZ10A, EZ11A, EZ13A, EZ14A, EZ16A, EZ17A, EZ19A, EZ24A
	EZ26A, EZ27A, EZ28A, EZ29A
	EZ36A, EZ37A, EZ38A, EZ39A
	EZ01B, EZ02B, EZ03B, EZ04B, EZ05B, EZ06B, EZ07B, EZ08B
	EZ10B, EZ11B, EZ13B, EZ14B, EZ16B, EZ17B, EZ19B, EZ24B
	EZ26B, EZ27B, EZ28B, EZ29B
	EZ36B, EZ37B, EZ38B, EZ39B
	EZ10C, EZ11C, EZ13C, EZ14C, EZ16C, EZ17C, EZ19C, EZ24C
	EZ10D, EZ11D, EZ13D, EZ14D, EZ16D, EZ17D, EZ19D, EZ24D
	EZ10E, EZ11E, EZ13E, EZ14E, EZ16E, EZ17E, EZ19E, EZ24E

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 does **not** 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.

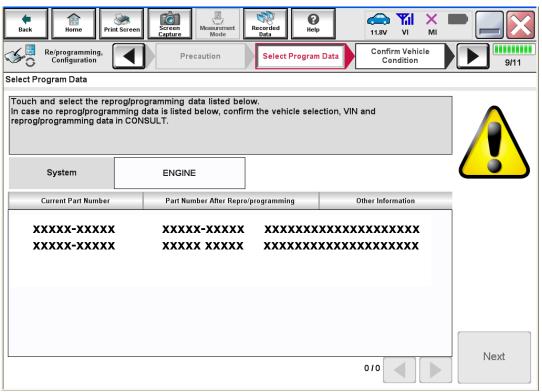


Figure 3

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**.

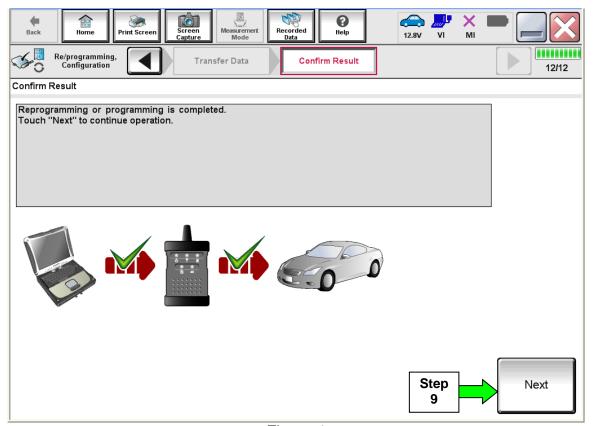


Figure 4

**NOTE:** Additional steps on page 9 are 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.

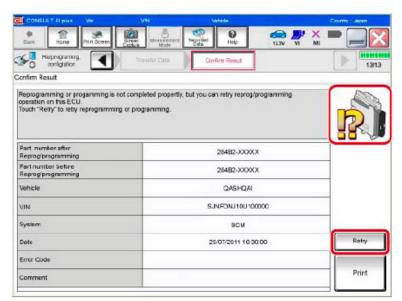


Figure 5

# 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.

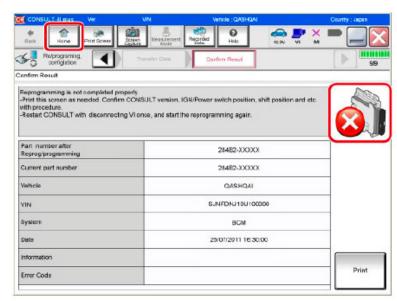


Figure 6

- 10. Follow the on-screen instructions to perform the following:
  - Throttle Valve Closed Position
  - Idle Air Volume Learn (IAVL)

### NOTE:

- Listed below are the conditions required for IAVL to complete.
- If IAVL does not complete within a few minutes, a condition may be out of range.
  - Engine coolant temperature: 70 -105° C (158 -221°F)
  - ➤ Battery voltage: More than 12.9V (At idle)
  - > Selector lever: P or N
  - ➤ Electric load switch: OFF (Air conditioner, headlamp, rear window defogger)
  - Steering wheel: Neutral (Straight-ahead position)
  - Vehicle speed: Stopped
  - > Transmission: Warmed up (ATF TEMP SE less than 0.9V)
- Accelerator Pedal Close Position Learning
- Erase DTCs

Continue to the next page.

- 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.

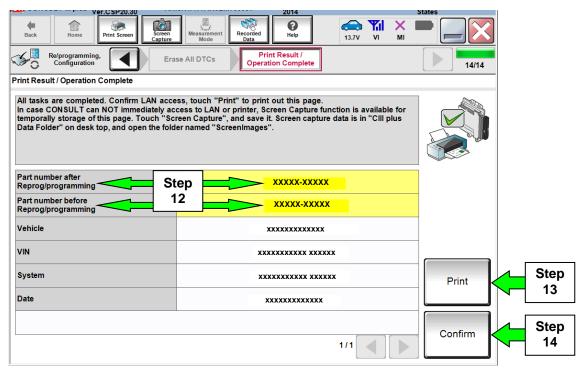


Figure 7

- 15. Return C-III plus to the Home screen.
- 16. Go to TCM Reprogram on the next page.

### **TCM Reprogram**

### **Preparation for Reprogramming**

#### **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 TCM may be damaged.
- Be sure to turn OFF all vehicle electrical loads.

  If a vehicle electrical load remains ON, the TCM 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 TCM may be damaged.
- Turn OFF all external Bluetooth® devices (e.g., cell phones, printers, etc.) within range of the CONSULT PC and the plus VI. If Bluetooth® signal waves are within range of the CONSULT PC during reprogramming, reprogramming may be interrupted and the TCM may be damaged.
- 17. Confirm C-III plus is on the Home Screen (see Figure 8).
- 18. Confirm the ignition is ON, with engine OFF.
- 19. Confirm the plus VI is recognized.
  - The **Serial No.** will display when the plus VI is recognized.
- 20. Select Re/programming, Configuration.

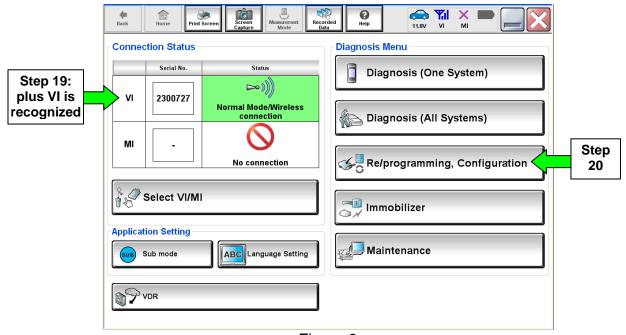


Figure 8

- 21. Follow the on-screen instructions and navigate C-III plus to the screen shown in Figure 9 below.
- 22. When you get to the screen shown in Figure 9, confirm TCM reprogram applies as follows.
  - A. Find the TCM **Part Number** and write it on the repair order.

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

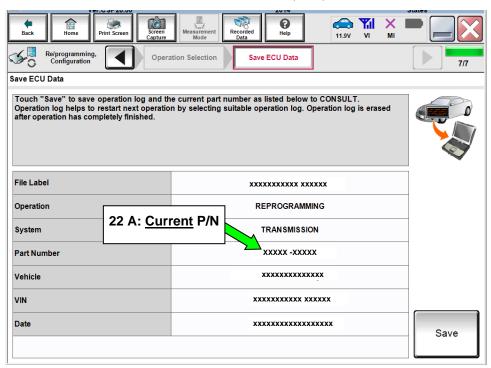


Figure 9

- B. Compare the P/N you wrote down to the numbers in the **CURRENT TCM PART NUMBER** column in **Table B** below.
  - If there is a match, continue with the reprogramming procedure.
  - If there is not a match, TCM reprogramming does not apply.

Table B

MODEL	CURRENT TCM PART NUMBER: 31039 -				
2016 Titan XD	X052A, X052B				
2010 Htall AD	X058A, X058B				
	26X2A, 26X2B, 26X2C, 26X2D				
	X046A, X046B				
2017 Titan and Titan XD	X048A, X048B, X048C, X048D				
	X049A, X049B				
	X058C, X058D				

23. Follow the on-screen instructions to navigate C-III plus and reprogram the TCM.

### 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 10 displays.
  - Select and use the reprogramming option that does not 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.

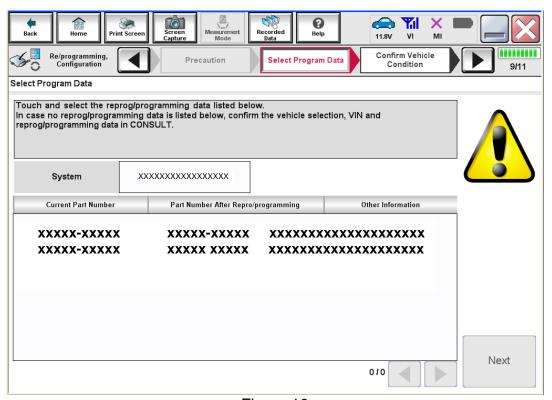


Figure 10

24. When the screen in Figure 11 displays, reprogramming is complete.

**NOTE:** If the screen in Figure 11 does not display (indicating that reprogramming did not complete), refer to TCM Recovery on the next page.

25. Disconnect the GR8 (battery charger) from the vehicle.

### 26. Select Next.

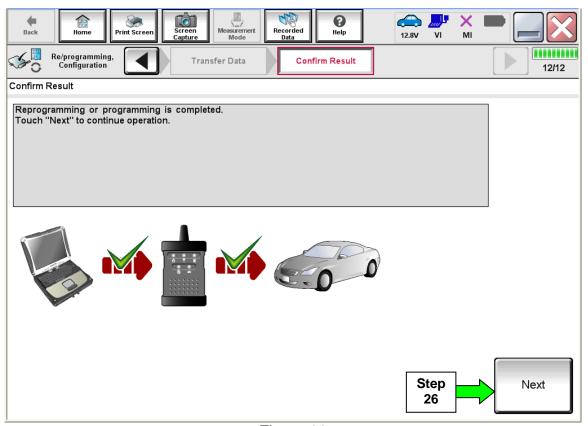


Figure 11

**NOTE:** Additional steps on page 16 are required before C-III plus will provide the final reprogramming confirmation report.

### **TCM 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 12:

- Check battery voltage (12.0 - 15.5 V).
- Ignition is ON, engine OFF.
- External Bluetooth<sup>®</sup> 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.

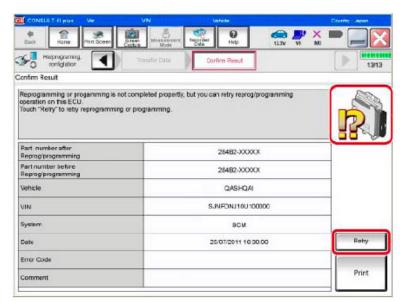


Figure 12

# If reprogramming does $\underline{not}$ complete and the "X" icon displays as shown in Figure 13:

- 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.

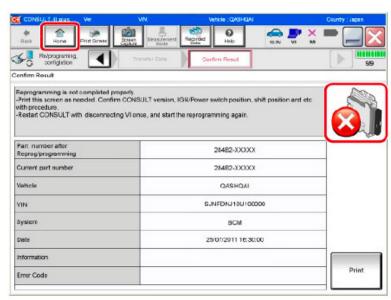


Figure 13

- 27. Follow the on-screen instructions to Confirm Shift Lever Position Display.
- 28. Follow the on-screen instructions to Erase DTCs.
- 29. When the entire reprogramming process is complete, the screen in Figure 14 will display.
- 30. Verify the before and after part numbers are different.
- 31. Print a copy of this screen (Figure 14) and attach it to the repair order for warranty documentation.

### 32. Select Confirm.

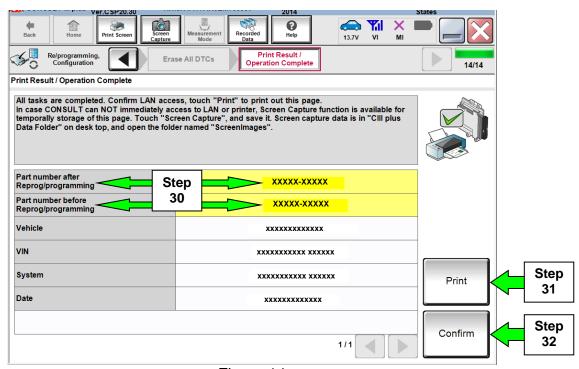


Figure 14

- 33. Make sure both the ECM and TCM have been checked and reprogrammed, if needed.
- 34. Close C-III plus.
- 35. Turn the ignition OFF.
- 36. Disconnect the plus VI from the vehicle.

### **CLAIMS INFORMATION**

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

DESCRIPTION	OP CODE	PFP	SYM	DIAG	FRT
Reprogram TCM and ECM	DX56AA	(1)	ZE	32	0.8 hrs.

<sup>(1)</sup> Refer to the electronic parts catalog (FAST or equivalent) and use the ECM assembly part number (23710-\*\*\*\*\*) as the Primary Failed Part (PFP).