

Reference:

Date:

AT16-008

Classification:

NTB16-085

August 25, 2016

# ENHANCED DIAGNOSTIC LOGIC FOR CVT

APPLIED VEHICLES: 2015-2016 Pathfinder (R52) with V6 engine only 2015-2016 Altima Sedan (L33) with V6 engine only 2015-2016 Quest (E52) 2015-2016 Murano (Z52) 2016-2017 Maxima (A36)

## **IF YOU CONFIRM**

The customer reports a transmission judder (shake, shudder, single or multiple bumps or vibration).

**NOTE:** A new diagnostic logic has been established to enhance the diagnostic process by storing diagnostic trouble codes (DTCs) on Applied Vehicles.

The new DTCs are:

P17F1 (CVT JUDDER [C/U INSPECTION]) P17F0 (CVT\_JUDDER [T/M INSPECTION])

# ACTION

- 1. Refer to page 4, step 6 in the **SERVICE PROCEDURE** to confirm this bulletin applies to the vehicle you are working on.
- 2. If this bulletin applies, reprogram the **TCM** (Transmission Control Module).

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:

- Most instructions for reprogramming with 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 Reprogramming" general procedure.

#### **CAUTION:**

- Connect the GR8 to the vehicle battery set to "power supply" mode. If the vehicle battery voltage drops below <u>12.0V or rises above 15.5V</u> during reprogramming, the TCM may be damaged.
- Be sure to turn OFF all vehicle electrical loads.
   If a vehicle electrical load remains ON, <u>the TCM may be damaged</u>.
- Be sure to connect the AC Adapter.
   If the CONSULT PC battery voltage drops during reprogramming, the process will be interrupted and <u>the TCM may be damaged</u>.
- 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 or plus VI during reprogramming, reprogramming may be interrupted and <u>the TCM may be damaged</u>.

- 1. Connect the CONSULT PC to the vehicle to begin the reprogramming procedure.
- 2. Start C-III plus.
- 3. Wait for the plus VI to be recognized.
  - The serial number will display when the plus VI is recognized.

## 4. Select Re/programming, Configuration.

	Back	Home	Screen Capture Mode	Recorded Help TI.8V VI MI	
	Connection Status			Diagnosis Menu	
		Serial No.	Status	Diagnosis (One System)	
VI is recognized	VI	2300727	لک کی Normal Mode/Wireless connection	Diagnosis (All Systems)	
	мі	-	No connection		Step 4
	800	Select VI/M	I		-
		tion Setting Sub mode	Language Setting	Maintenance	
		VDR			
				iguro 1	

Figure 1

5. Follow the on-screen instructions and navigate the 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 TCM **Part Number** and write it on the repair order.

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

CONSULT-III plus Ver VIN	Vehicle :	Country : U.S.A.
Back Home Print Screen Capture	Messurement Mode Data Contemport	
Configuration	tion Selection Save ECU Data	717
Save ECU Data		
	e current part number as listed below to CONSUI n by selecting suitable operation log. Operation lo	
File Label	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	
Operation	REPROGRAMMING	
6A: <u>Current</u> TC		
Part Number	31036 -	
Vehicle	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	
VIN	********	
Date	11/1/201× 1:22:16 AM	Save

Figure 2

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

# Table A

Model	Model Year	Current TCM Part Number Before Reprogramming: 31036 -			
Pathfinder with	2015	9PB0A, 9PB0B, 9PB0C, 9PB0E, 9PB3A			
V6 engine	2016	9PF0A, 9PF1A, 9PF1B			
Altima with	2015	9HP0A, 9HP0B, 9HP0C			
V6 engine	2016	3TF0A, 3TF0B			
Murano	2015	5AA0A, 5AA0D, 5AA0E 5AA1A, 5AA2A			
Marano	2016	5AG0A, 5AG0B			
2015		4AY0A			
Quest	2016	6AX0A, 6AX0B			
Maxima	2016	4RA0A, 4RA0B, 4RA0C, 4RA0D			
IVIAXIIIIA	2017	9DD0A			

7. 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 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. This bulletin does not apply.

CONSULT-III plus Ver.	VIN:	Vehicle :		Country : U.S.A.
Back Home Prin	nt Screen Capture	Recorded Data	11.8V VI MI	-
Re/programming, Configuration	Precaution	Select Program Data	Confirm Vehicle Condition	9/11
Select Program Data				
		below. nfirm the vehicle selection, VIN a	nd	
System	TRANSMISSION			
Current Part Number	Part Number After Re	pro/programming Oth	her Information	
XXXXXXX-XXXXXXXX	XXXXXXX-XXXXXXX	xxxxxxxxxx	000000000000000000000000000000000000000	
XXXXXX-XXXXXXX	X00000X-X00000X	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	000000000000000000000000000000000000000	
			010	Next

Figure 3

**IMPORTANT:** If C-III plus locks up or freezes at this point or displays "cannot complete reprogramming, the CONSULT PC is set up with User Rights. Reprogramming can be completed with Administrator log in", the TOUGHBOOK settings need to be changed so that Users have full access rights. See your Dealership's IT System Administrator for details.

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

**NOTE:** If the screen in Figure 4 does <u>not</u> display (indicating that reprogramming did not complete), refer to the information on the next page.

- 9. Disconnect the battery charger from the vehicle.
- 10. Select Next.

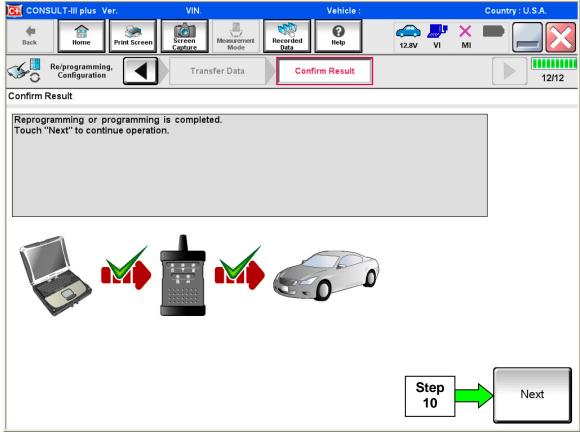


Figure 4

# NOTE:

- In the next step (page 9), you will perform **Erase All DTCs**.
- DTC erase is required before C-III plus will provide the final reprogramming confirmation report.

## **TCM Recovery**

# Do not disconnect plus VI or shut down C-III plus if reprogramming does not complete.

# 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<sup>®</sup> devices are OFF.
- All electrical loads are OFF.
- Select <u>retry</u> and follow the on screen instructions.
- <u>"Retry" may not go through</u> on first attempt and can be selected more than once.

CONSULT-II plus Ver	WN	Untide		Country : Jacon
Back Hone Print Screen	Sates Mode	Negotided Data	12.3V VI MI	
sonigiation	Transfer Data	Confirm Resul		1313
Confirm Result				
Reprogramming or programming is n operation on this ECU. Touch "Retry" to retry reprogramming		but you can retry reprog	(programming	R
Part number after Reprogramming		29452-3000	a a	
Heprog/programming				
Part number before Reprog/programming			(III.	
Part number before		Rando Jakon International		_
Part number before Reprog/programming			-	_
Part number sefure Reprog/programming Vehicle		<ul> <li>QAGHQAI</li> </ul>	■ 18050	
Part number before Reprog/programming Vehicle VIN		E 1046 HQAI BJARDABHALAC		Retry
Part number before Reprog/programming Vehicle VIN System		E BAGHORI BJARDIBIRGAN E BORI		Retry

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 / 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.

CONSULT-IL BUS VIE	MN.	Vehicle : QASHQAI	County : Japan
Bark Hone Print Screer	Ecreen CopMar Neasurement	Recorded Help 0.7	e 📲 💥 🖿 🔜 🔀
Configition	Transfer Data	Confirm Result	999
Confirm Result			
Reprogramming is not completed p -Print this screen as needed. Confi with precedure. -Restart CONSULT with disconnee	m CONSULT version, IG		fion and etc
Part number after Reprog/programming		= 28482400000 =	
Current part number		<b>20402</b> 000000	
Vehicle		# @/#HD/# I	
VIN			
System			
Date		NESID NO IN THE MISSION	
Information			
Error Code			Print



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

CONSULT-III plus Ver VI	N: Vehicle :	Country : U.S.A.						
Back Home Print Screen	Measurement Recorded Help	3v VI MI						
Configuration	rase All DTCs Print Result / Operation Complete	18/18						
Print Result / Operation Complete								
All tasks are completed. Confirm LAN access, touch "Print" to print out this page. In case CONSULT can NOT immediately access to LAN or printer, Screen Capture function is available for temporally storage of this page. Touch "Screen Capture", and save it. Screen capture data is in "CIII plus Data Folder" on desk top, and open the folder named "ScreenImages".								
Part number after Reprog/programming	Step 31036							
Part number before Reprog/programming	13 31036							
Vehicle	*****							
VIN	*****							
System	TRANSMISSION	Step Print						
Date	11/3/201× 2:10:21 AM							
	1/1	Step 15 Confirm						

Figure 7

- 16. Close C-III plus.
- 17. Turn the ignition OFF.
- 18. Disconnect the plus VI from the vehicle.

**NOTE:** The Information below is provided as Service Information and is not part of the Service Procedure in this bulletin.

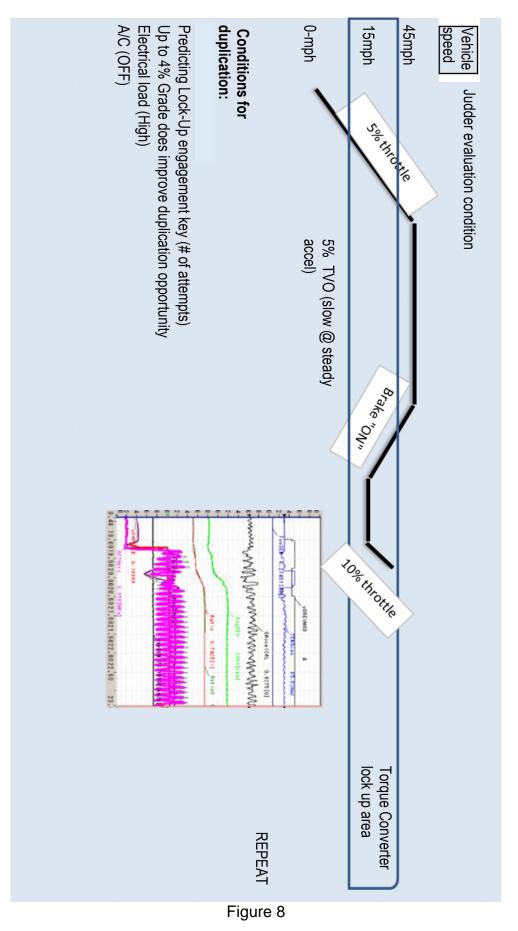
## DTC detection drive pattern for P17F0 / P17F1

- This new diagnostic logic will monitor conditions in the CVT while the customer is operating their vehicle in their usual daily drive patterns.
- Figure 8, on the next page, illustrate conditions under which judder can be reproduced.
- Specific drive conditions that can be used to test for judder (shake, shudder, single or multiple bumps or vibration) are:
- 1. Slowly accelerate from a stop (zero mph), applying only slight accelerator pedal **(0% 10% throttle opening)** until 40 mph is reached.
  - During acceleration, torque converter engagement (full lock up) can occur between 20-35 mph.
- 2. Prior to torque converter lock up, slowly modulate accelerator pedal:
  - A. Decrease accelerator pedal pressure slowly, approaching a closed throttle position.
  - B. Smoothly and slowly reapply accelerator pedal pressure back to approximately 10% throttle opening.

#### **IMPORTANT:**

- Slight grade (climbing hill) may aid in performing the above drive conditions.
- DTC detection logic will require three events before storing a DTC.

Figure 8 below illustrates conditions under which judder can be reproduced.



## **CLAIMS INFORMATION**

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

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Reprogram Transmission Control Module	(1)	JE99AA	ZE	32	(2)

(1) Refer to FAST and use the Transmission Control Module part number (31036-XXXXX) as the PFP.

(2) Reference the current Nissan Warranty Flat Rate Manual and use the indicated Flat Rate Time.