SERVICE BULLETIN

AT10-009c

NTB11-002c

November 5, 2013

Date:

2010 MAXIMA, MURANO, & V-6 ALTIMA; MIL IS ON AND / OR SLOWER-THAN-NORMAL ACCELERATION

This bulletin has been amended to update the SERVICE PROCEDURE to CONSULT-III plus. The REPAIR FLOW CHART and TCM P/N table have been amended. Please discard all previous versions of this bulletin.

APPLIED VEHICLES: 2010 Maxima (A35)

2010 Murano (Z51) 2010 Altima Sedan (L32) equipped with VQ35DE engine **ONLY** 2010 Altima Coupe (CL32) equipped with VQ35DE engine **ONLY**

IF YOU CONFIRM:

The vehicle has slower-than-normal acceleration from a stop at times

and / or

The customer describes the vehicle has slower-than-normal acceleration from a stop at times

NOTE: The condition of slower-than-normal accelerating from a stop, if it should occur, happens more commonly when the vehicle has been driven for extended periods at highway speeds.

and / or

The MIL is ON with <u>DTC P1778</u> (STEP MOTOR) stored in Engine and/or Transmission.

ACTION:

Refer to the **REPAIR FLOW CHART** on page 2 for repair 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 **REPAIR FLOW CHART** (on page 2) and the **SERVICE PROCEDURE** if applicable (starting on page 3) as they contain information that is essential to successfully completing the 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

Remove Control Valve Assembly

PRECAUTIONS WHEN REPLACING CONTROL VALVE ASSEMBLY

Transmissions are vulnerable to particles (dust, metal, lint, etc.)

- When replacing a valve body, make sure your work environment (shop, workbench, etc.), the transmission area (sub-frame, oil pan, harness connector, etc.), and your hands are free of contamination.
- Make sure all parts are clean prior to installing on the vehicle. Unpack Service Parts just before installation.

NOTE: The transmission does not need to be removed for this procedure.

1. Write down all radio station presets.

Presets	1	2	3	4	5	6
Α						
В						
С						
SAT						

- 2. Set the vehicle on a hoist, but do not raise it.
- 3. Disconnect both battery cables, negative cable first.

- 4. Remove the CVT dipstick, and then raise the vehicle on the hoist.
- 5. Remove the undercover from underneath the front bumper.
- 6. Remove the transmission pan drain plug and drain the CVT fluid.

WARNING: CVT Fluid may be hot.

7. Remove the oil pan bolts to remove the oil pan.

 Disconnect CVT harness connector F6 by turning it in the direction shown in Figure 1.



Figure 1

9. Remove the nut and lock nut to remove the manual plate (see Figure 2).



Figure 2

10. Remove the collar from the manual shaft (see Figure 3).



Figure 3

- 11. Remove the large lock ring holding the black CVT connector to the transmission case (see Figure 4).
 - Push the black CVT connector down inside the transmission case to remove it.



Figure 4

• Black CVT harness connector and lock ring shown removed from the transmission case (see Figure 5).



Figure 5

12. Disconnect the harness from the Primary oil pressure sensor assembly (see Figure 6).



Figure 6

- 13. Remove the bolts attaching the valve body to the transmission (see Figure 7).
 - There are eleven (11) bolts shown and numbered for convenience.
 - There are three (3) different length bolts which are identified by: <u>S</u>-short
 - <u>M</u>-medium
 - <u>L</u>-long



Figure 7

14. Carefully remove the valve body.

- Note the position of the Ratio Control Valve and attached shift link (see Figure 8).
- Be careful not to allow the Ratio Control Valve to fall out.



Figure 8

- 15. Make sure you replace the two (2) lip seals shown in Figure 9.
 - Do not reuse the old lip seals.
 - Use petroleum jelly or equivalent to keep the new lip seals in place during reassembly.



Figure 9

Install the replacement Control Valve Assembly:

16. <u>Carefully</u> install the new valve body and shift link with the fork end of the shift link around the pin (see Figure 10).



Figure 10

17. While you are doing step 16 above, the lower end of the shift link must stick through the bottom of the step motor pin as shown in Figure 11.



Figure 11

18. Install finger tight the eleven (11) valve body bolts removed on page 7, step 13.

• Make sure the different lengths of bolts are installed in the correct holes (see page 7, Figure 7).

IMPORTANT CHECKS:

- After you install the new valve body, make sure the upper end (fork end) of the shift link is positioned around the pin. Space is very limited in the work area.
- Install the CVT dip stick and make sure there is adequate clearance between the dipstick and the harness.

19. Torque the eleven (11) valve body bolts.

- Tightening torque: 6.9-8.9 N•m (0.7-0.9 kg-m, 61.1-78.8 in-lb) *.
- Torque sequence as per Figure 7, page 7: 6-7-5-8-4-9-3-10-2-11-1.
- Refer to Figure 7 for bolt numbering and position.

20. Reinstall the collar on the manual shaft (see page 5, step 10 and Figure 3).

21. Align the manual plate with the notch in the manual valve (see Figure 12).

NOTE: First, tighten the nut, and then tighten the lock nut with the specified tightening torque.

• Use a Torque wrench to tighten both the 14 mm and 19 mm nuts; same torque specification for both:

TORQUE: 20.6-23.5 N•m (2.1-2.3 kg-m, **15.1 - 17.3 ft-lb**) *



Figure 12

- 22. Reconnect the harness to the primary oil pressure sensor (see page 6, step 12 and Figure 6).
- * Do not confuse <u>in-lb</u> with <u>ft lb</u>.

23. Install the black CVT connector in its transmission case mounting hole.

- Secure it by installing its large lock ring.
- Secure the gray F6 CVT connector to the black CVT connector.

24. Install the oil pan with a new gasket and new bolts.

- Make sure the oil pan and magnets are clean.
- Bolts tightening torque: 5.4 7.4 N•m (0.5 0.7 kg-m, 47.8 65.5 in-lb). *

25. Install the drain plug with new seal.

- Drain plug torque: 21.0 N•m (2.14 kg-m, **15.5 ft lb**)
- 26. Install the undercover.
- 27. Connect both battery cables, negative cable last.

28. Check the fluid level.

- Add as necessary.
- Inspect for fluid leaks.
- 29. For Maxima and Murano: Go to "**TCM Reprogramming: Determine And Perform If Needed**" on page 11 to determine if the TCM needs to be reprogrammed.
 - a. If TCM reprogramming applies, reprogram the TCM, perform TCM initialization, and then skip to step 31.
 - b. If TCM reprogramming does <u>not</u> apply, go to step 30.

NOTE: TCM reprogramming does not apply to V-6 Altima. Go to step 30.

30. Perform TCM initialization.

- Refer to "TCM Initialization Procedure" on page 18.
- 31. Reset / initialize all applied systems i.e., radio, power windows, clock, sunroof, etc.
 - Refer to the ESM as needed.

32. Make sure to erase DTCs from all Systems.

33. Test drive the vehicle and make sure it operates correctly, and:

- The MIL is OFF, and there are no DTCs stored in ENGINE and / or TRANSMISSION.
- If the MIL comes ON; diagnose, perform repairs, and erase DTCs.
 - Diagnosis and repairs beyond TCM reprogramming / initialization and valve body replacement are not covered by this bulletin.
- * Do not confuse in-lb with ft lb.

TCM Reprogramming: Determine and Perform if Needed

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.

CAUTION:

- Connect the GR8 to the vehicle 12 volt battery and set to ECM power supply mode. If the vehicle battery voltage drops below <u>12.0V or rises above 15.5V</u> during reprogramming, <u>the TCM may be damaged</u>.
- 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[®] devices (e.g., cell phones, printers, etc.) within range of the CONSULT PC and the VI. If Bluetooth[®] signal waves are within range of the CONSULT PC 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 CONSULT-III (C-III) plus.
- 3. Wait for the plus Vehicle Interface (VI) to be recognized.
 - The serial number will display when the plus VI is recognized.
- 4. Select Re/programming, Configuration.

		Г-III plus Ver.V12.12.0	D VIN:-	Vehicle : -		Country : U.S.A.	
	H Back	Home Print Screen	Screen Capture Mode Re	scorded Help	11.8V VI MI	-	
	Connect	ion Status		Diagnosis Menu -			
		Serial No.	Status	Diagnosis	s (One Systen	n)	
VI is recognized	VI	2300727	► 》》)) Normal Mode/Wireless connection		s (All System:	s)	
	м	_	\bigotimes			<i>·</i>	
			No connection	S Re/progra	amming, Cont	figuration	L Step I 4
	s ک ک	elect VI/MI		Immobiliz	:er		
	Applicatio	on Setting ub mode	ABC Language Setting	Maintena	nce		
	VI VI	DR					

Figure 13

5. Follow the on-screen instructions and navigate C-III plus to the screen shown in Figure 14 on the next page.

- 6. When you get to the screen shown in Figure 14, 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 Rome Print Screen Capture	Measurement Mode	🚓 🏋 🗙 🖿 🔛 🔀				
Configuration	tion Selection Save ECU Data	7/7				
Save ECU Data						
Touch "Save" to save operation log and the current part number as listed below to CONSULT. Operation log helps to restart next operation by selecting suitable operation log. Operation log is erased after operation has completely finished.						
File Label	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX					
Operation	REPROGRAMMING					
System 6A: <u>Current</u> TC						
Part Number	31036 -					
Vehicle	*******					
VIN	******					
Date	11/1/201× 1:22:16 AM	1 Save				

Figure 14

- B. Compare the P/N you wrote down to the numbers in the **Current TCM Part Number** column in **Table A** below.
 - 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 reprogramming is not needed.

MODEL	Current TCM P/N: 31036-
2010 Maxima	9N00C, 9N00D, 9N00E, 9N01A, 9N01B, 9N09A
2010 Murano	1AA0A, 1AA0B, 1AA0C, 1AA0D, 1AA0E, 1AA9A, 1AA1A, 1AA1B, 1AA1C
2010 Altima V-6	No TCM reprogramming necessary; (see page 3, REPAIR FLOW CHART)

Та	ble	A
	INIC	

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.
 - \succ In this case, the screen in Figure 15 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.

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.

CONSULT-III plus Ver.	VIN:	Vehicle :		Country : U.S.A.		
Back Home	t Screen Capture Mode	Recorded Data	11.8V VI MI			
Re/programming, Configuration	Precaution	Select Program Data	Confirm Vehicle Condition	9/11		
Select Program Data						
Touch and select the reprog/programming data listed below. In case no reprog/programming data is listed below, confirm the vehicle selection, VIN and reprog/programming data in CONSULT.						
System	TRANSMISSION					
Current Part Number	Part Number After Re	epro/programming Other Information				
xxxxxx-xxxxxxx	xxxxxxx-xxxxxxx	xxxxxxxxx	000000000000000000000000000000000000000			
XXXXXXX-XXXXXXX	XXXXXXX-XXXXXXX	20000000	xxxxxxxxxxxxxxxxxx			
			0/0	Next		

Figure 15

8. When the screen in Figure 16 displays, reprogramming is complete.

NOTE: If the screen in Figure 16 does <u>not</u> display (reprogramming does <u>not</u> complete), refer to the information on the next page.

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



Figure 16

NOTE:

- In the next step (page 17), 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 17:

- 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.
- <u>"Retry" may not go through</u> on first attempt and can be selected more than once.

CONSULT-IN PLUE Ver	VN	Vehicle .	Econter : Japan
Back Hono Print Screen	Satesen Castelle Castelle	Balantina Help	12.3V 🐙 💥 🖿 👝 🔀
sonigition	Transfer Data	Corline Resul	13/13
Confirm Result			
Reprogramming or programming a operation on this ECU Touch "Reny" to letty reprogramm	s rot completed property, ning or programming.	but you can retry reprog	
Part number after Reprog/programming		121498-1000	•
Part number sefore Reprog/programming		123438-3000	C=
Part number before Reprog/programming Vehicle		nearaith an coin	•
Part number sefure Reprog/programming Vehicle VIN		EARDE-JOOD DAGROOM SJNFONJ10U10	0 0 00000
Part number before Reprog/programming Vehicle VIN System		RURERUMAN DAGHQAI SJNFONJ10U10	0
Part number before Reprograpping mining Vehicle VIN System Date		25-57-2011 163	(*
Part number Sefire Reprogregersamming Vehicle VIN System Date Error Code		2010 - 20	

Figure 17

If reprogramming does <u>not</u> complete and the "X" icon displays as shown in Figure 18:

- 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.

CONSOLT IL BUS W.	VIN:	Vehicle (CASHQA)	County : Jepan
Ball Hone Print Screer	Kiten Stan	Vegendad Hele e.av	🛃 💥 🖿 🥅 🔀
S configition	Treveler Data	Confirm Reput	99
Confirm Result			
Reprogramming is not completed prop -Print this screen as needed. Confirm with procedure. -Restart CONSULT with disconnecting	erly CONSULT version, IGI I VI once, and start the	#Power switch position, shift positi reprogramming again.	on and etc
Part number after Reprog/programming		= 26482#2000K	
Part number after Reprog/programming Current part number		= 264624000000 = 264624000000	
Part number after Reprog/programming Current part number Vehicle	-	= 28482 #0404K = = 28482 #0404K = = = #48404	
Part number after Reprog/programming Current part number Vehicle VIN		2848280008 F 2848280908 F 2648280908 F 200859008 F 200859008 F	
Part number after Reprogramming Current part number Wehcle VIN System		24482120000 24482120000 24482120000 0484621 5.NFDN110U100000 048462	
Part number after Reprogramming Current part number Vehicle VIN System Date		2442 00000 2442 00000 2442 00000 0/0100 0/0100 0/0100 0/0100 0/0100 29/07/2911 16:3000	
Part number after Reprophysionming Current part number Vehicle VIN System Date Information		2442 00000 2442 00000 2442 00000 5.NFDN1100100000 5.NFDN1100100000 29/07/201116:30000	

Figure 18

- 11. Follow the on-screen instructions to **Erase All DTCs**.
- 12. When the entire reprogramming process is complete, the screen in Figure 19 will display.
- 13. Verify the before and after part numbers are different.
- 14. Print a copy of this screen (Figure 19) and attach it to the repair order for warranty documentation.
- 15. Select Confirm.

CONSULT-III plus Ver VIN:	Vehicle :	Country : U.S.A.						
Back Home Print Screen Capture	Measurement Mode Mode	🕞 🦊 🗶 🖿 🥅 🔀						
Re/programming, Configuration	e All DTCs Print Result / Operation Complete	18/18						
Print Result / Operation Complete	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 St Part number before Reprog/programming	a) a) a) a) a) a) a) a)							
Vehicle	*****							
VIN	*****							
System	TRANSMISSION	Step Print						
Date	11/3/201× 2:10:21 AM							
	11	1 Step 1 15 Confirm						

Figure 19

16. If TCM Initialization has already been performed, go back to page 10, step 31.

TCM Initialization Procedure

NOTE: If reprogramming is not performed, make sure TCM initialization is performed as part of the control valve assembly replacement.

- 1. Set the parking brake with the selector lever in "P" (Park).
- 2. Attach C-III plus to the vehicle with the plus VI.
- 3. Turn the ignition ON (engine OFF not running).
- 4. Open C-III plus and navigate screens to: **Diagnosis One System** >> **Transmission** >> **Calibration Data.**
- 5. Print the Calibration Data and save a copy (or write down the calibration data).
- 6. Select Transmission Self Diagnostic Results.
- 7. Perform the initialization (EEPROM erase) procedure as follows:
 - a. Press and hold the brake pedal.
 - b. Shift the selector lever to "R" (Reverse).
 - c. Press and hold the accelerator pedal down about one-third, but no more than halfway.
 - The purpose of this step is to get both the <u>wide open throttle</u> and <u>closed throttle</u> <u>position</u> signals to read "OFF" at the same time.
 - d. Press Erase on the C-III plus screen.
 - e. Shift the selector lever to "P" (Park).

NOTE: If the EEPROM erase was successful, the "P" in the instrument display will have a short delay (about 1.5 seconds) before illuminating after shifting to park.

- f. Remove foot from brake and accelerator.
- g. Turn the ignition OFF.
- h. Wait 5 seconds.
- i. Turn the ignition ON.
- 8. On C-III plus, select Transmission Calibration Data again.
- 9. Print the Calibration Data and save a copy (or write down the calibration data).
- 10. Compare the values between the first and second Calibration Data prints.
 - The procedure is complete if the values are different.
 - If the values are not different, repeat the procedure.
- 11. Make sure to erase DTCs from all systems.
- 12. Return to page 10, step 31.

PARTS INFORMATION

VEHICLE	DESCRIPTION	PART#	QTY
2010 Maxima (A35)	Valve Assy - Control	31705-1XE2B	1
2010 Murano (Z51)	Valve Assy - Control	31705-1XE1E	1
2010 Altima (C/L32) w/VQ35DE	Valve Assy - Control	31705-1XE2C	1
ALL	Gasket - Oil Pan	31397-1XE0A	1
ALL	Nissan CVT Fluid (1)	999MP-NS200P	(2)
ALL	Washer - Thrust (lip seal)	31528-1XA01	2
ALL	Bolt (oil pan)	31377-1XD0D	20
ALL	Seal - O Ring (drain plug)	31526-1XA01	1

(1) Order Nissan CVT NS-2 Fluid through the Nissan Maintenance Advantage program: Phone: 877-NIS-NMA1 (877-647-6621) Website order via link on dealer portal <u>www.NNAnet.com</u> and click on "Tire Advantage" link.

(2) Up to eight (8) quarts.

CLAIMS INFORMATION

Submit a Primary Failed Part (PP) line claim using the following claims coding.

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
RPL CONTROL VALVE ASSY	(1)	JD48AA	75	22	(2)
REPROGRAM TCM	(1)	JE99AA		52	(2) (3)

(1) Reference the Parts Information Table and use the applicable Control Valve Assy P/N as the PFP.

- (2) Reference the current Nissan Warranty Flat Rate Manual and use the indicated flat rate time.
- (3) FRT allows adequate time to access DTCs and reprogram TCM. No other diagnostic procedures subsequently required. Do NOT claim any Diagnostic Op Codes with this claim.