

Classification:

AT12-009f

NTB12-103f

November 8, 2018

Date:

CVT / TCM CALIBRATION DATA "WRITE" PROCEDURE

This bulletin has been amended. See AMENDMENT HISTORY on the last page. Please discard previous versions of this bulletin.

APPLIED VEHICLES:	2013 - 2018 Altima Sedan (L33)
_	2019 Altima Sedan (L34)
	2015 - 2017 Juke (F15)
	2016 - 2018 Maxima (A36)
	2015 - 2018 Murano (Z52)
	2015 - 2019 NV200 (M20)
	2013 - 2019 Pathfinder (R52)
	2015 - 2017 Quest (E52)
	2014 - 2019 Rogue (T32)
	2017 - 2018 Rogue Sport (J11)
	2017 - 2019 Sentra Turbo (B17)
	2014 - 2017 Taxi
	2019 Taxi

NOTE: Does not apply to Pathfinder Hybrid, Murano Hybrid, or Rogue Hybrid.

SERVICE INFORMATION

The Service Procedure (starting on page 2) in this bulletin contains the steps to perform TCM Calibration Data "Write" Procedures. These procedures are used when a complete CVT assembly is replaced, a CVT control valve (valve body) is replaced, or a Transmission Control Module (TCM) is replaced.

• Refer to **REPAIR OVERVIEW** on page 2. This is a quick reference to determine which procedures need to be performed.

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.

REPAIR OVERVIEW

PROCEDURE	VALVE BODY REPLACEMENT	TCM REPLACEMENT	CVT ASSEMBLY REPLACEMENT
Erase/Write Calibration Data	Required	Not needed	Required
Save/Write Calibration Data	Not needed	Required	Not needed
G-Sensor Learning	Not needed	Required (except for Juke vehicles)	Not needed
Clutch Point Learning	Required	Required	Not needed
Select Learning	Required	Required	Required

SERVICE PROCEDURE

IMPORTANT: If replacing the **TCM** <u>only</u>, skip to page 14:

SAVE / WRITE CALIBRATION DATA WHEN REPLACING THE TCM.

ERASE / WRITE CALIBRATION DATA WHEN REPLACING CVT OR VALVE BODY

NOTE:

- Use the following steps when a complete CVT assembly or valve body is replaced.
- Also use the following steps if the TCM was replaced with a complete CVT or valve body.

Before starting, make sure:

- ASIST on the CONSULT PC has been freshly synchronized to the current date.
- All C-III plus software updates (if any) have been installed.
- 1. Obtain the calibration file disc (provided with the new CVT or valve body).
- 2. Match the numbers on the disc with the new CVT or new valve body and QR label.
 - See pages 3 and 4 for number matching examples.

If a <u>complete CVT</u> is being replaced, match the following number (calibration file):

Disc (CD) provided with the new CVT.



Figure A

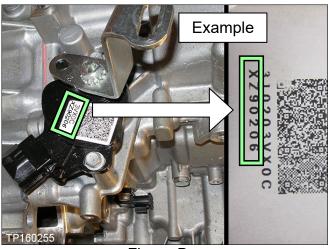


Figure B

TP160252 Example Skip two digits

Figure C

IMPORTANT: All three of the above numbers must be the same (they must match).

• QR label on the new CVT.

Calibration file number on the CVT

case or label.

If a new <u>valve body</u> is being replaced, match the following number (calibration file):

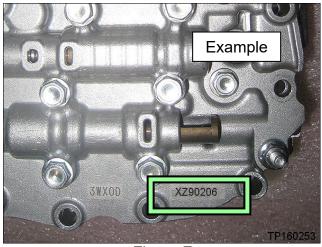
• Disc (CD) provided with the new valve body.



Figure D



Figure E





IMPORTANT: All three of the above numbers must be the same (they must match).

• QR label provided with the new valve body.

Calibration file number on the

valve body.

3. Connect the external disk drive to the CONSULT PC.

NOTE: Use the external disk drive provided with the C-III plus kit.

- 4. Load the CD into the external disc drive.
- 5. Connect the CONSULT PC to the vehicle with the plus VI and then open / start C-III plus.
 - Make sure ASIST and other programs are closed.
- 6. After the plus VI is recognized, select Diagnosis (All Systems).

Step 6: plus V VI 2300727 Normal Mode/Wireless connection MI - No connection No No No Connection MI - No No No Connection No No <th></th> <th>H Back</th> <th>Home Print</th> <th></th> <th>Recorded Data</th> <th>(11.8V VI MI</th> <th></th> <th></th>		H Back	Home Print		Recorded Data	(11.8V VI MI		
Step 6: plus VI Image: Step 6: plus VI VI 2300727 Normal Mode/Wireless connection MI . No connection No connection No connection No connection Select VI/MI Application Setting Sub mode Image Setting Maintenance		Conne				าน		
is recognized VI 2300/27 Normal Mode/Wireless connection MI - No connection No connection Select VI/MI Application Setting Sub mode Mireless No connection No connection N	Step 6: plus VI			0	Diagno	osis (One Syste	m)	
MI - No connection No connection Select VI/MI Application Setting Sub mode Application Setting			2300727	Normal Mode/Wireless	Diagno	osis (All System	is)	
Select VI/MI Application Setting Sub mode ABC Language Setting Maintenance		м	-					
Application Setting Immobilizer		8 /**				ogramming, Con	inguration	
Sub mode Image Setting Maintenance						pilizer		
VDR				Language Setting	Mainte	enance		
		2	VDR]			

Figure 1

7. Navigate C-III plus to **TRANSMISSION** > Work Support.

8. Select the scroll arrow shown in Figure 2.

	Step 8				
Back Home Print Screen Screen Messurement Mode Recorded Data Help 12.2V VI MI Diagnosis (One System) System Selection TRANSMISSION TRANSMISSION TRANSMISSION					
Self Diagnostic	support Active Test				
Test Item					
CONFORM CVTF DETERIORTN	WRITE IP CHARA - REPLACEMENT TCM				
ERASE MEMORY DATA					
G SENSOR CALIBRATION					
ERASE LEARNING VALUE					
ENGINE BRAKE ADJ.					
ERASE CALIBRATION DATA					
WRITE IP CHARA - REPLACEMENT AT/CVT					
READ IP CHARA - REPLACEMENT TCM					
	1/1 Start				

Figure 2

9. Print a copy of the screen shown in Figure 3 and attach it to the repair order.

NOTE:

- Make sure to print page 1 of 7 (1 / 7).
- This screen print is used for warranty documentation.
- 10. Select scroll arrow shown in Figure 3.

Back Home Print Screen Capit	reen print mus	ed Help ERT 1	2.3V VI MI	Country States	Step 10
Calibration Data	w the VIN	ECU Identification	CALIB DATA		
UNIT CLB ID1		0000			
UNIT CLB ID2		0000			
UNIT CLB ID3	Exan	nple			
UNIT CLB ID4				_	
UNIT CLB ID5		003D			
UNIT CLB ID6		006F			
UNIT CLB ID7		00FF			
UNIT CLB ID8		0002			
Print page 1 of 7 (1 / 7)					
	Гіанн				

Figure 3

11. Select WRITE IP CHARA – REPLACEMENT AT/CVT, and then select Start.

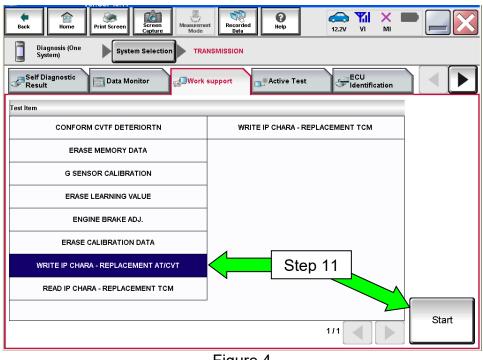


Figure 4

IMPORTANT: When starting the calibration "write" procedure in C-III plus, and after selecting **Start** under **Work Support**, the C-III screen may only blink.

- If this occurs, confirm ASIST is closed and then perform step 11 above.
 - If there is still no change: reboot the CONSULT PC, <u>keep ASIST closed</u>, and restart this procedure from step 1.
 - If error "STOPPED, no comm. with ECU" shows when trying to write calibration data, verify that the vehicle is in park (P).

12. Select OK.

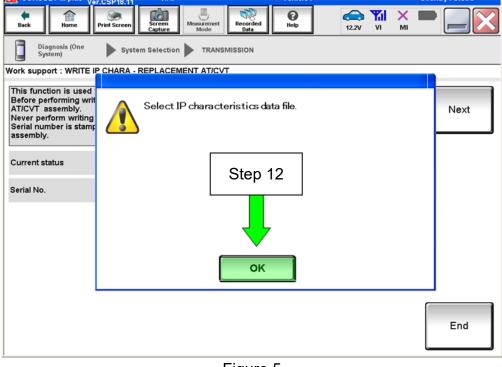


Figure 5

13. Select My Computer.

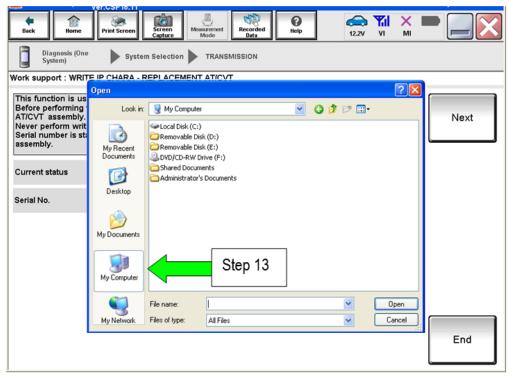


Figure 6

14. Select DVD/CD-RW Drive (F:)

e Back Home	Print Screen	Screen Meas	arement lode	C Help	12.2V	VI MI	
Diagnosis (One System)	System	m Selection 🕨	TRANSMISSION				
Work support : WRIT	'E IP CHARA - F	REPLACEMENT	AT/CVT				
This function is us	Open					? 🛛	
Before performing AT/CVT assembly.	Look in:	😼 My Computer		💌 G 🕫	• 🕾 🔊		Next
Never perform writ Serial number is st		Local Disk (C:)	(n.)			_	
assembly. Current status	My Recent Documents	Removable Disk	(E:) ive (F:)	Step	14		
Current status		Administrator's		1			
Serial No.	Desktop						
	My Documents						
	My Computer						
	§	File name:			*	Open	
	My Network	Files of type:	All Files		~	Cancel	
							End

Figure 7

15. Highlight the file and then select **Open**.

	Ver.CSP10.11	-					
Back Home	Print Screen	Screen Measu	rement de Data	() Help	12.2V	VI MI	🔀
Diagnosis (One System)	Syster	n Selection 🕨	TRANSMISSION				
Work support : WRIT	E IP CHARA - R	REPLACEMENT	AT/CVT			_	
This function is us	Open					? 🛛	
Before performing AT/CVT assembly.	Look in:	2 DVD/CD-RW	Drive (F:)	3 Ø	F 📂 🛄 •		Next
Never perform writ Serial number is st		FKK2_IP_INF_3	VX0A_M836935_120831				
assembly.	My Recent Documents						
Current status					Step 1	5	
Serial No.	Desktop			L			
	My Documents						
	My Computer						
	S	File name:	FKK2_IP_INF_3VX0A_M	836935_120831	· [Open	
	My Network	Files of type:	All Files		~	Cancel	
'							End

Figure 8

- 16. Verify that the serial number (calibration file number) matches the numbers from step 2 on page 2 (see Figures on pages 3 and 4).
 - If the numbers do not match, contact TECH LINE.

17. Select Next.

NOTE: If error message "Stopped, No Comm with ECU" is displayed, confirm that the vehicle is in Park.

Vertus Verus Verus Verus <th>-</th>	-
Diagnosis (One System) System Selection TRANSMISSION Work support : WRITE IP CHARA - REPLACEMENT AT/CVT	
This function is used when replacing AT/CVT. Before performing writing operation, check that the following serial number matches the one described on AT/CVT assembly. Never perform writing operation when the serial numbers do not match. Serial number is stamped on AT/CVT assembly or described on the QR code sticker applied on AT/CVT assembly.	Next
Serial No.	Step 17
Step 16	
	End

Figure 9

- 18. Before selecting Start, follow the directions in Figure 10.
 - **<u>Do not</u>** follow the directions on the C-III plus screen.

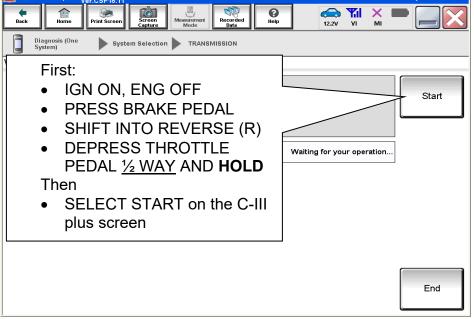


Figure10

19. Follow the on screen instructions.

Ver.CSP19.10		Venicle . PATTIL INDER NO	2 20 13	States
Back Home Print Screen Sc	reen Measurement Mode	Image: Weight of the second		•
Diagnosis (All Select Vo	ehicle Confirm Vehicle	Diagnosis (All Systems) TRA	NSMISSION	
Work support : WRITE IP CHARA - REPI	LACEMENT AT/CVT			
Please perform the following steps.				Next
1 Turn OFF the key switch and wait a	at least 2 seconds.			
Current Key SW Status			OFF	
Waiting Time			2	
2 Please turn switch OFF to ON.				
3 Please click the "NEXT"button wh	en you finished above process.			
				End

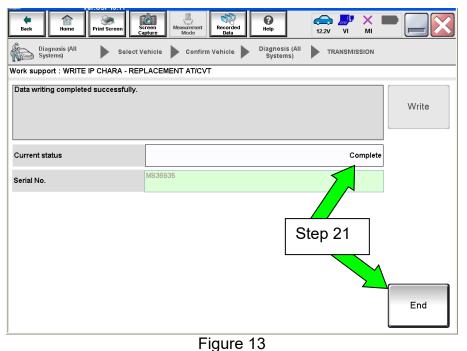
Figure 11

20. Follow the on screen instructions.

Back Home Print Screen Capture Messu	Image: States Image: States
Work support : WRITE IP CHARA - REPLACEMENT	er will be written into TCM.
- IGN ON - ENG OFF - SHIFT POSITION "P" Touch "Start"	Make sure to put the transmission in Park
Current status	NOTE: A slight delay will occur before "P" will display on the instrument cluster
	Touch Start = Touch Write
	End

Figure 12

21. After Complete, select End.



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- 22. Select **Home** to return to the screen shown in Figure 1 on page 5.
- 23. Perform steps 6 9, starting on page 5.
- 24. Attach the second screen print to the repair order.

NOTE: Screen prints are used for warranty documentation.

25. Clear any DTCs that may have set.

NOTE: Any DTCs that will not clear are not covered by this bulletin. Refer to the appropriate Electronic Service Manual (ESM) for further diagnostic information.

- 26. If the <u>valve body</u> was replaced, perform CLUTCH POINT LEARNING under "Transmission Work Support" in C-III plus.
 - Follow the steps for CLUTCH POINT LEARNING exactly as presented in C-III plus.
 - If the procedure is not performed correctly, the vehicle may not move when the CVT is placed in gear.
 - If this condition occurs, cycle the ignition OFF/ON, and then perform CLUTCH POINT LEARNING again.

27. If the <u>CVT assembly</u> was replaced, <u>do not</u> perform CLUTCH POINT LEARNING.

28. Perform Select Learning (Drive / Reverse Learning).

- a. Set the parking brake.
- b. Start the engine, and then wait five (5) seconds.
- c. Move the shift selector to the N position and hold more than two (2) seconds, and then move it to the D position and wait for transmission engagement.
- d. Repeat step 28c ten times.
- e. Move the shift selector to the N position and hold for more than 2 seconds, and then move it to the R position and wait for transmission engagement.
- f. Repeat step 28e ten times.
- g. Move the shift selector to the P position, and then turn the ignition OFF.

29. Test drive the vehicle.

END

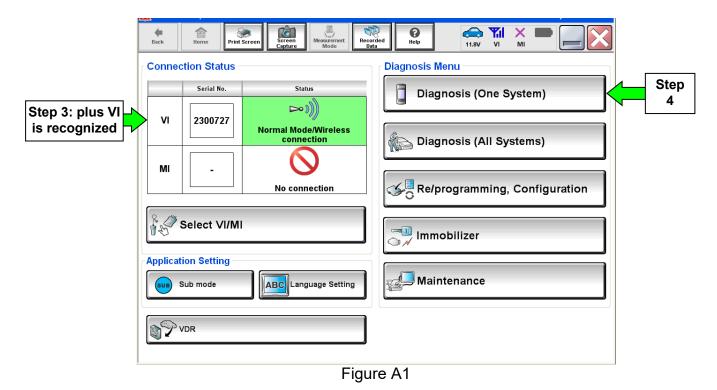
SAVE / WRITE CALIBRATION DATA WHEN REPLACING THE TCM

NOTE:

- The following steps are used if **TCM only is replaced**.
- If the CVT or valve body is being replaced, go back to page 2.
- Before starting, make sure:
 - > ASIST on the CONSULT PC has been freshly synchronized to the current date.
 - > All C-III plus software updates (if any) have been installed.

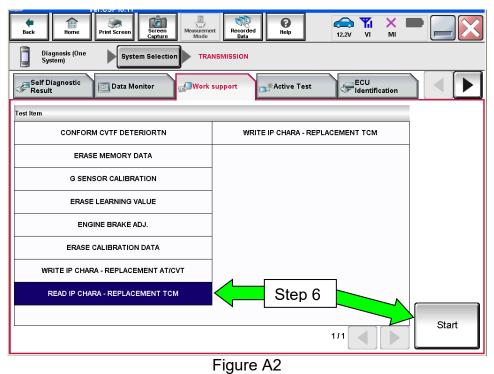
Save Calibration Data Before TCM Replacement

- 1. Connect the CONSULT PC to the vehicle.
- 2. Open / start C-III plus.
 - Make sure ASIST and other programs are closed.
- 3. Wait for the plus VI to be recognized.
 - The serial number will display when the plus VI is recognized.
- 4. Select Diagnosis (One System).



5. Navigate C-III plus to TRANSMISSION >> Work Support.

6. Select **READ IP CHARA – REPLACEMENT TCM**, and then **Start**.



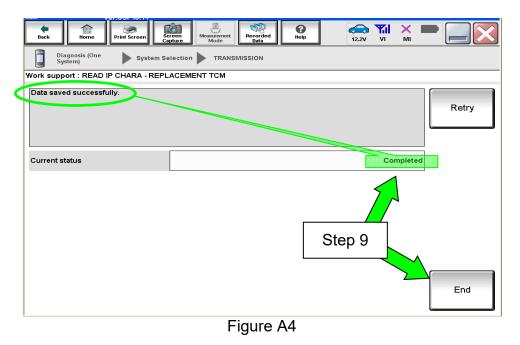
0

7. Select Start.

Back Home Print Screen Sc	reen pture Mode Recorded Data		📶 🗙 🖿 🔛 🔀
Diagnosis (One System Se System)	rection TRANSMISSION		
Work support : READ IP CHARA - REPL	ACEMENT TCM		
This function is used when replacing T The function saves IP characteristics of Touch "Start".	CM. lata, which is recorded in TCM, to	CONSULT.	Start
Current status		Waiting for your	operation
			Step 7
			End

Figure A3

- 8. When the calibration data has been saved to the CONSULT PC, the message "Data saved successfully" will be displayed and Current status will indicate Completed (see Figure A4).
- 9. Select End.



- 10. Replace the TCM.
- 11. After the TCM has been replaced, go to <u>Write Calibration Data After TCM Replacement</u> on the next page.

Write Calibration Data After TCM Replacement

Back Home Print Screen Streen Mode	t Recorded Help 13.2V VI MI P C						
Self Diagnostic Data Monitor Work support							
Test Item							
CONFORM CVTF DETERIORTN	WRITE IP CHARA - REPLACEMENT TCM						
ERASE MEMORY DATA							
G SENSOR CALIBRATION							
ERASE LEARNING VALUE							
ENGINE BRAKE ADJ.							
ERASE CALIBRATION DATA	Step 12						
WRITE IP CHARA - REPLACEMENT AT/CVT							
READ IP CHARA - REPLACEMENT TCM							
	1/1 Start						

12. After the TCM has been replaced, select **WRITE IP CHARA – REPLACEMENT TCM**, and then select **Start**.

Figure A5

IMPORTANT: When starting the calibration "write" procedure in C-III plus, and after selecting **Start** under **Work Support**, the C-III plus screen may only blink.

- If this occurs, confirm ASIST is closed, and then perform step 12 above.
 - If there is still no change: reboot the CONSULT PC, <u>keep ASIST closed</u>, and restart the procedure from the beginning.
 - If error "STOPPED, no comm. with ECU" shows when trying to write calibration data, verify that the vehicle is in Park (P).

13. Select Start again.

Diagnosis (One						
Diagnosis (One System) System Selection TRANSMISSION						
Work support : WRITE IP CHARA - REPLACEMENT TCM						
This function is used when replacing TCM. The function writes IP characteristics data, saved in CONSULT, to TCM. Touch "Start". Current status Waiting for your operation						
Step	13					
En	d					

Figure A6

14. Select Yes.

Back Borne	Print Screen Capture Moder Recorded Bate Figure 12.2V VI MI	-
Diagnosis (One System)	System Selection TRANSMISSION	
Work support : WRIT	E IP CHARA - REPLACEMENT TCM	
This function is use The function writes Touch "Start".		Start
Current status	Step 14	
		End



- 15. When the calibration data has been written to the TCM, the message **"Data writing completed successfully"** will be displayed and **Current status** will indicate **Complete** (Figure A8).
- 16. After Complete, select **End** to finish.

Pack Home Print Screen S	reen ppture Measurement Mode Bata Pelp	12.2V VI MI				
Diagnosis (All Systems) Select Vehicle Confirm Vehicle Systems) TRANSMISSION						
Work support : WRITE IP CHARA - REPLACEMENT AT/CVT						
Data writing completed successfully.		Write				
Current status		Complete				
Serial No.	M836935					
		Step 16				
		End				
Figure A8						

17. Clear any DTCs that may have set.

NOTE: Any DTCs that will not clear are not covered by this bulletin. Refer to the appropriate Service Manual for further diagnostic information.

18. Perform G-Sensor Learning under "Transmission Work Support" in C-III plus.

Juke vehicles: Skip to step 19. <u>Do not</u> perform G-Sensor learning on Juke vehicles.

19. Perform CLUTCH POINT LEARNING under "Transmission Work Support" in C-III plus.

NOTE: Skip this step if the CVT assembly was replaced.

- Follow the steps for CLUTCH POINT LEARNING exactly as presented in C-III plus.
- If the procedure is not performed correctly, the vehicle may not move when the CVT is placed in gear.
 - If this condition occurs, cycle the ignition OFF/ON, and then perform CLUTCH POINT LEARNING again.

20. Perform Select Learning (Drive / Reverse Learning):

- a. Set the parking brake.
- b. Start the engine, and then wait five (5) seconds.
- c. Move the shift selector to the N position and hold for more than two (2) seconds, and then move it to the D position and wait for transmission engagement.
- d. Repeat step 20c ten times.
- e. Move the shift selector to the N position and hold for more than two (2) seconds, and then move it to the R position and wait for transmission engagement.
- f. Repeat step 20e ten times.
- g. Move the shift selector to the P position, and then turn the ignition OFF.
- 21. Test drive the vehicle.

AMENDMENT HISTORY

PUBLISHED DATE	REFERENCE	DESCRIPTION
November 14, 2012	NTB12-103	Original bulletin published.
March 22, 2013	NTB12-103a	APPLIED VEHICLES section revised.
October 17, 2013	NTB12-103b	APPLIED VEHICLES section revised, and changes made throughout to accommodate updated version of CONSULT-III plus.
March 31, 2016	NTB12-103c	APPLIED VEHICLES and SERVICE PROCEDURE sections revised.
June 9, 2016	NTB12-103d	APPLIED VEHICLES section revised.
April 26, 2017	NTB12-103e	APPLIED VEHICLES, SERVICE INFORMATION, SERVICE PROCEDURE sections revised, and REPAIR OVERVIEW added.
November 8, 2018	NTB12-103f	APPLIED VEHICLES and SERVICE INFORMATION sections revised.