



AT12-009e

SERVICE BULLETIN

Classification:

Reference: NTB12-103e Date: April 26, 2017

CVT / TCM CALIBRATION DATA "WRITE" PROCEDURE

This bulletin has been amended. APPLIED VEHICLES has been updated. SERVICE INFORMATION has been amended. A REPAIR TABLE has been added. Procedural steps have been added to SERVICE PROCEDURE. Discard all previous versions of this bulletin.

APPLIED VEHICLES: 2013 – 2017 Altima Sedan (L33) 2013 – 2017 Pathfinder (R52) 2015 – 2017 Murano (Z52) 2015 – 2017 Quest (E52) 2014 – 2017 Rogue (T32) 2016 – 2017 Maxima (A36) 2015 – 2017 Juke (F15)

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.

NOTE: The following information may be helpful when performing the TCM Calibration Data "Write" Procedures:

• When starting the calibration "write" procedure in CONSULT-III (C-III) plus, and after selecting START under Work Support, the C-III plus screen may only blink.

If this occurs, close ASIST (if open), and then select Start again.

- If there is still no change: reboot the CONSULT PC, <u>keep ASIST closed</u>, and then 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).

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

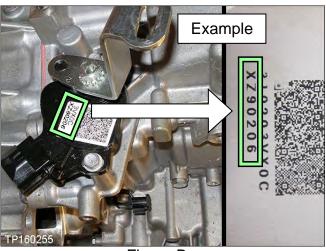


Figure B

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.

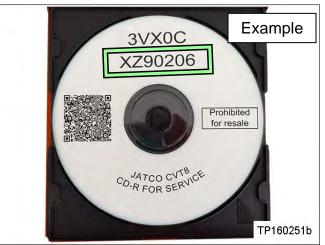


Figure D

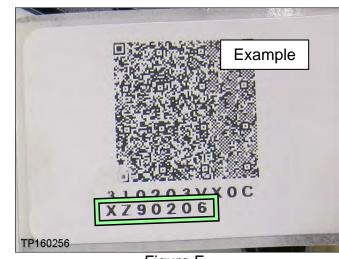


Figure E

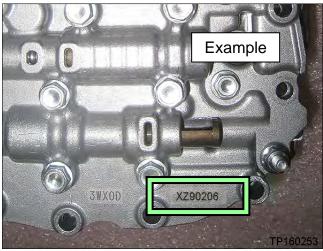


Figure F

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).

	Back	Home Print	Screen Streen Mode Rem	Coorded Help Diagnosis Menu	
		Serial No.	Status	Diagnosis (One System)	
Step 6: plus VI is recognized	VI	2300727	⊳>)))) Normal Mode/Wireless connection	Diagnosis (All Systems)	L Step
	м	-	No connection	Re/programming, Configuration	- 6
	-	Select VI/M		Immobilizer	
		tion Setting Sub mode	ABC Language Setting	Maintenance	
	37	VDR			

Figure 1

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

8. Select the scroll arrow shown in Figure 2.

Back Rome Print Screen Coptor Diagnosis (One System) System Selection	Meese critert Recorded Peese Critert Step TRANSMISSION TRANSMISSION
Self Diagnostic Data Monitor	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/CV	
READ IP CHARA - REPLACEMENT TCM	
	Start
	171

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.

CONSULT-III plus Ver. Back Ver. Print Screen Capture Measurement Mode Diagnosis (All Systems) Diagnosis (All Screen print n show the VIN	NUST	ISMISSION	Step 10
Calibration Data			
UNIT CLB ID1	0000		
UNIT CLB ID2	0000		
	ample		
UNIT CLB ID4			
UNIT CLB ID5	003D		
UNIT CLB ID6	006F		
UNIT CLB ID7	OOFF		
UNIT CLB ID8	0002		
Print page 1 of 7 (1	/ 7) 1/7		

Figure 3

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

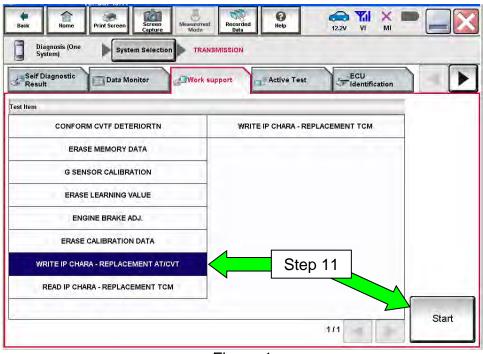


Figure 4

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.

Diagnosis (One System)	Print Screen Screen Messaver Recorded Data	12.2V VI MI
This function is used Before performing writ AT/CVT assembly. Never perform writing Serial number is stamp assembly.	Select IP characteristics data file.	Next
Current status	Step 12	
	ОК	End

Figure 5

13. Select My Computer.

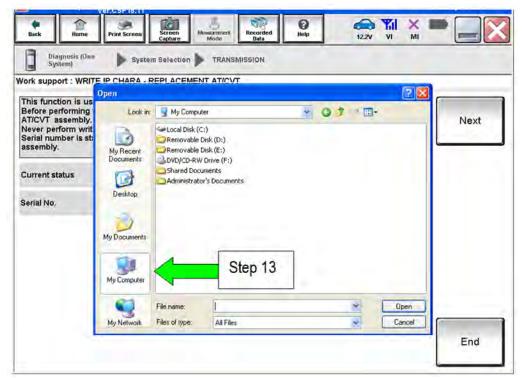


Figure 6

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

Diagnosis (One System)	E IP CHARA - F	REPLACEMEN		N			-
This function is us Before performing AT/CVT assembly. Never perform writ Berial number is sti	Open Look in:	My Comput	::)	2) # : 0 +	2 2	Next
Current status	My Recent Documents	Removable I Removable I NVD/CD-RW Shared Docu	Disk.(E:) Drive.(F:)	St	ep 14		
Serial No.	Desktop						
	My Computer						
		File name:			~ [Open	
	My Network	Files of type:	All Files		* (Cancel	1

Figure 7

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

This function is us	Open		T AT/CVT		?	<u> </u>
Before performing AT/CVT assembly. Never perform writ Serial number is str assembly. Current status	Look in: My Recent Documents	DVD/CD-RV	V Drive (F:) 3980A_M836935_120		Step 15	Next
serial No.	Desktop My Documents My Computer			L		7

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.

Back	Ame Home	Print Screen	Screen Capture	Messurement Mode	Recorded Data	0 Help	12.2V	Yal Vi	<mark>ж</mark> 🔳	
Diago Syste Work suppor			m Selection		MISSION					
AT/CVT as Never perfo	orming writ sembly. orm writing	ing operatio operation w	n, check th hen the se	at the follow	rs do not ma	tch.	es the one de			Next
Current stat	tus		ljeonor.						-	Step 17
					Step 1	6				
									ſ	
										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.

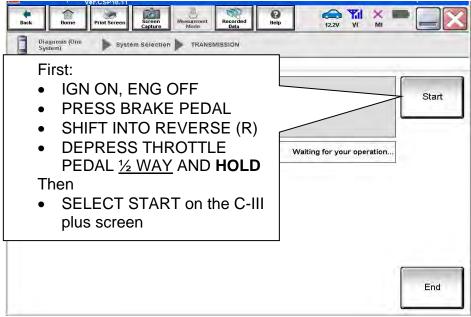


Figure10

19. Follow the on screen instructions.

Consort in Mas V	er.CSP19.10	KIN-OF		1000121	venicle . Fr		2010	States
Back Horne	Print Screen	Screen Capture	Messamement Mode	Recorded Data	() Help	12.10		
Diagnosis (All Systems)		ct Vehicle		ı Vehicle 🕨	Diagnosis (Systems)		MISSION	
ork support : WRITE	IP CHARA - F	REPLACEM	ENT AT/CV	τ				
Please perform the foll	lowing steps.							Next
1 Turn OFF the key Current Key SW Status		vait at least	2 seconds.				OFF	
/aiting Time							2	
2 Please turn switch	h OFF to ON.							
3 Please click the "f	NEXT"button	when you	finished abo	ove process,				
								End
			_					L

Figure 11

20. Follow the on screen instructions.

Ver.CSP19.10	States
Back Home Print Screen Capture	Aessnorrert Mode Recorded Bata
Diagnosis (All Select Vehicle	Confirm Vehicle Diagnosis (All Systems) TRANSMISSION
Work support : WRITE IP CHARA - REPLACEMEN	NT AT/CVT
IP characteristics data of the entered serial nur The following preconditions should be met: - IGN ON - ENG OFF	Write
- 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
Serial No. 2701699	instrument cluster
	Touch Start = Touch Write
	End
	Enu
	Figure 12

21. After Complete, select End.

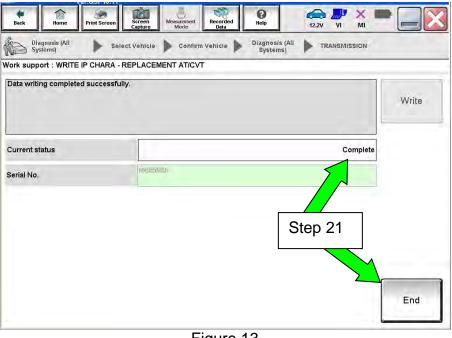


Figure 13

- 22. Select **Home** to return to the screen shown in Figure 1 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 Service Manual 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

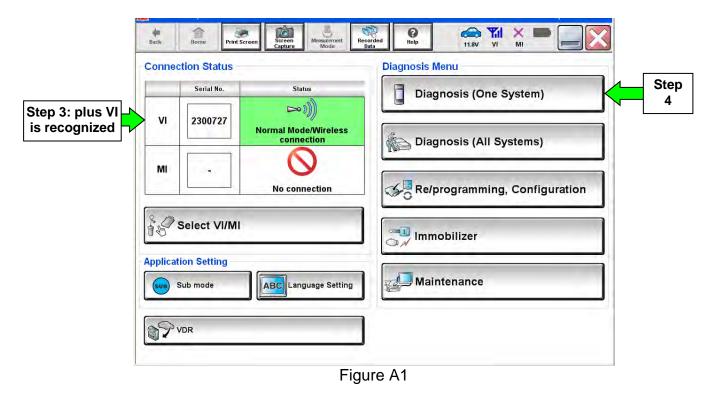
SAVE / WRITE CALIBRATION DATA WHEN REPLACING THE TCM

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.

ert Recorded Help 12.2V VI MI	
support Active Test	
WRITE IP CHARA - REPLACEMENT TCM	
Step 6	
111	Start
	ANSMISSION

Figure A2

7. Select Start.

urrent status		Waiting for your opera	tion Step 7
			Otep 7

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.

Back Print Ser	Capture Mode	et Recorded Help	12.2V	VI MI	
Work support : READ IP CHAR	A - REPLACEMENT TCM	97.		-	
Data saved successfully.					Retry
Current status				Completed	
		[Step 9		
					End
		Figure A4			

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 Screen Meas	arenert Recorded Data
System	TRANSMISSION
Test Item	
CONFORM CVTF DETERIORTN	WRITE IP CHARA - REPLACEMENT TCM
ERASE MEMORY DATA	
G SENSOR CALIBRATION	
ERASE LEARNING VALUE	
ENGINE BRAKE ADJ.	Stop 12
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.

Back	A Home	Print Screen	Screen Capture	Measurement Mode	Recorded Data	() Help	12.2V	Yi Xi	
	iaynosis (One ystem)	Syste	em Selection	TRANSI	VIISSION				
	a de verere	IP CHARA -	the states of a	ENT TCM	_				
This fund The fund Touch "S	tion writes I	l when replac P characteris	tics data, sa	ved in CON	SULT, to TCI	И.			Start
Current s	status					Wa	liting for you	ır operatior	
									Step 13
									End
				_					

Figure A6

14. Select Yes.

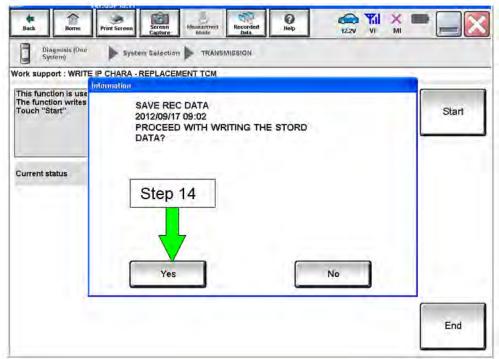


Figure A7

- 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.

Back Horne Print Scre	1001 3 500	Image: Weight of the second
Diagnosis (All Systems)	Select Vehicle 🕨 Confirm Vehicle 🕨	Diagnosis (All Systems) TRANSMISSION
Work support : WRITE IP CHAR	A - REPLACEMENT AT/CVT	
Data writing completed succes	sfully.	Write
		WILLE
Current status		Complete
Serial No.	Waa69d5	
		Step 16
		End
	Figure A	\8

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.