



# SERVICE BULLETIN

Classification: AT12-009g	Reference: NTB12-103g	Date: March 28, 2019
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## 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

**APPLIED TRANSMISSION:** CVT

**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 only**, 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**).

- If a calibration file disc is available, continue to step 2, below.
- If a calibration file disc is not available or was damaged, skip to step 1 on page 21.

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 complete CVT is being replaced, match the following number (calibration file):

- Disc (CD) provided with the new CVT.

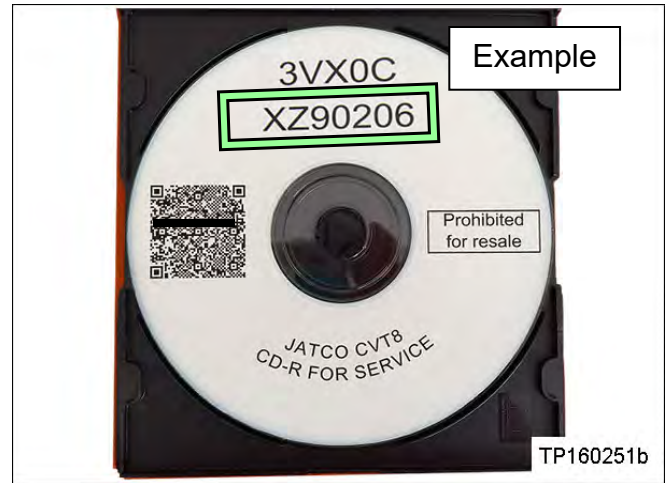


Figure A

- QR label on the new CVT is located on the Transmission range switch.

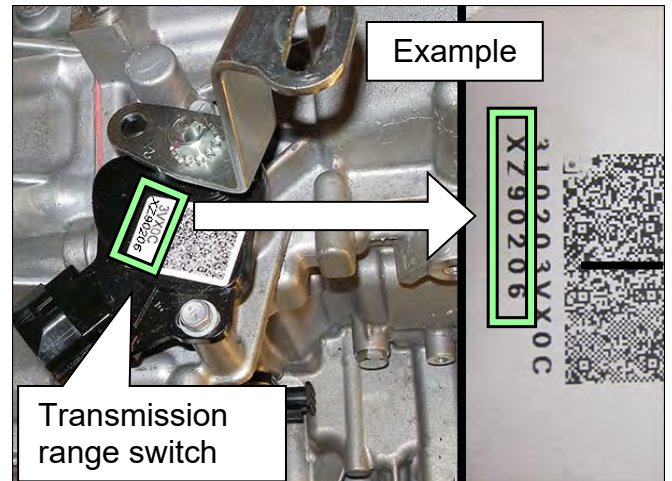


Figure B

- Calibration file number on the CVT case or label.

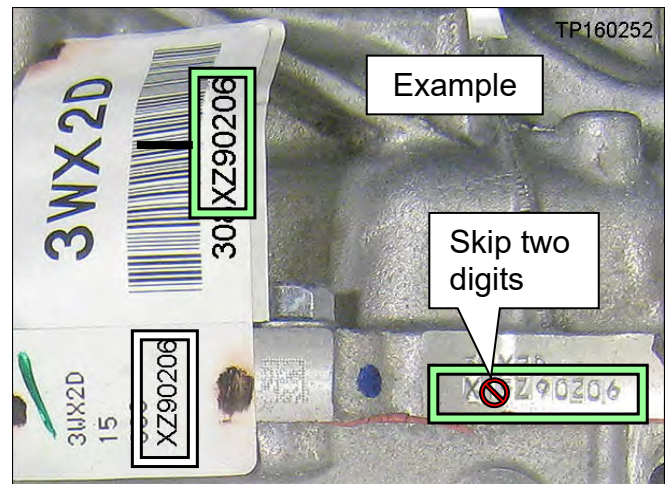


Figure C

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

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

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

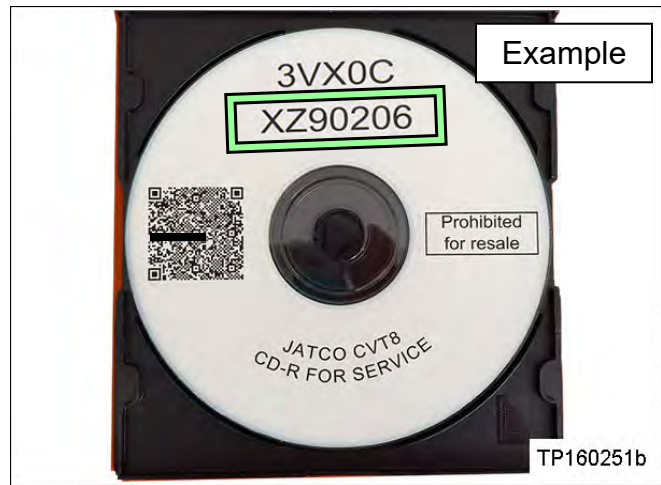


Figure D

- QR label provided with the new valve body.

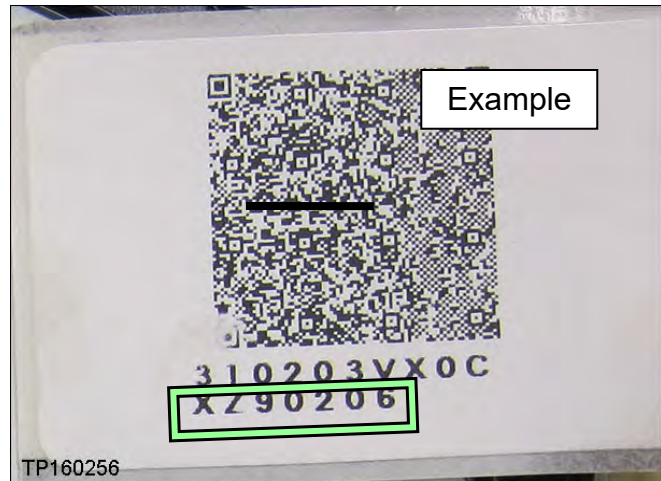


Figure E

- Calibration file number on the valve body.

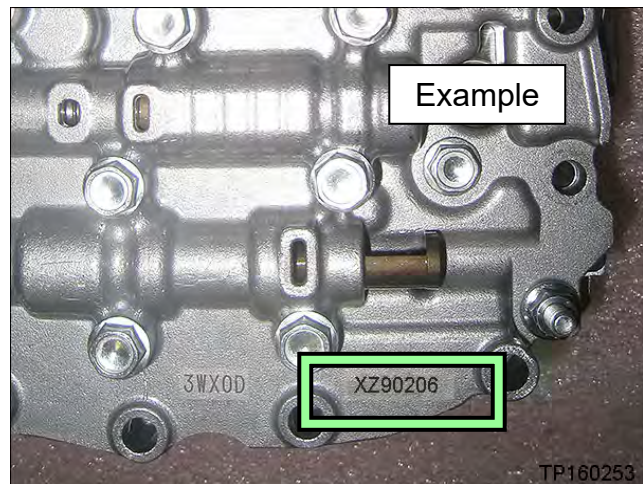


Figure F

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

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)**.

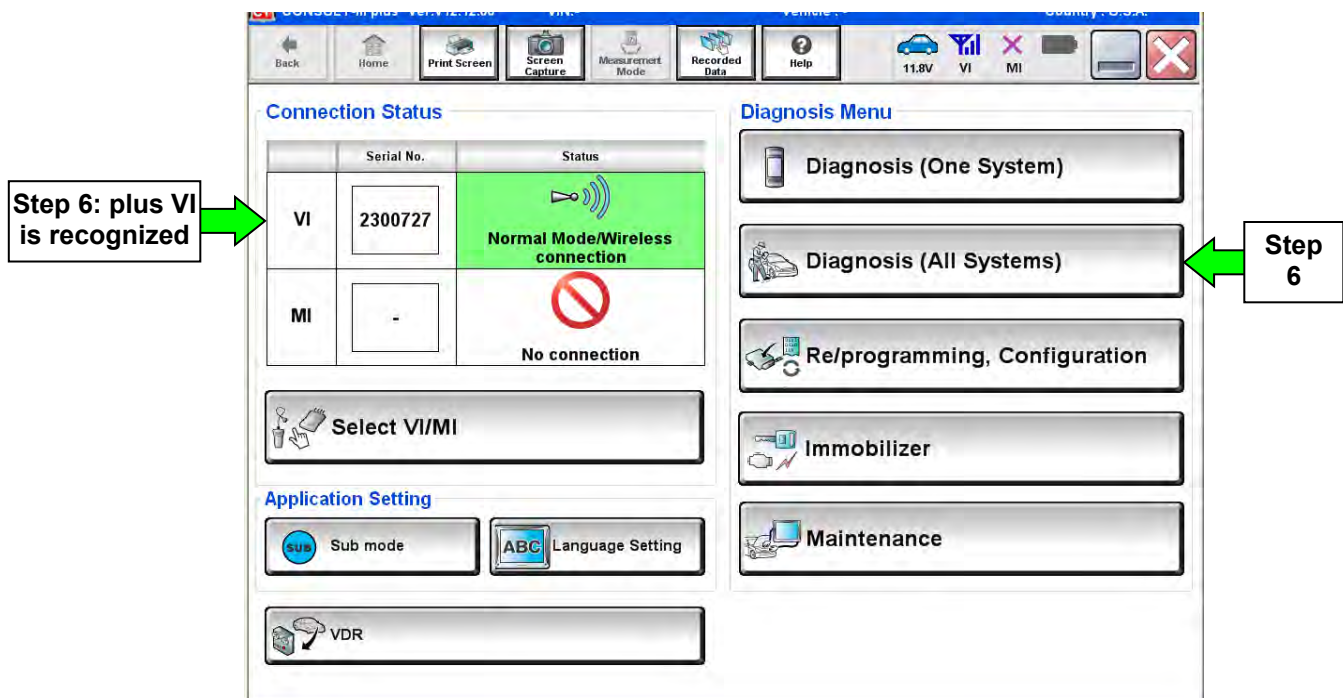


Figure 1

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

8. Select the scroll arrow shown in Figure 2 and select the **CALIB DATA** tab shown in Figure 3.

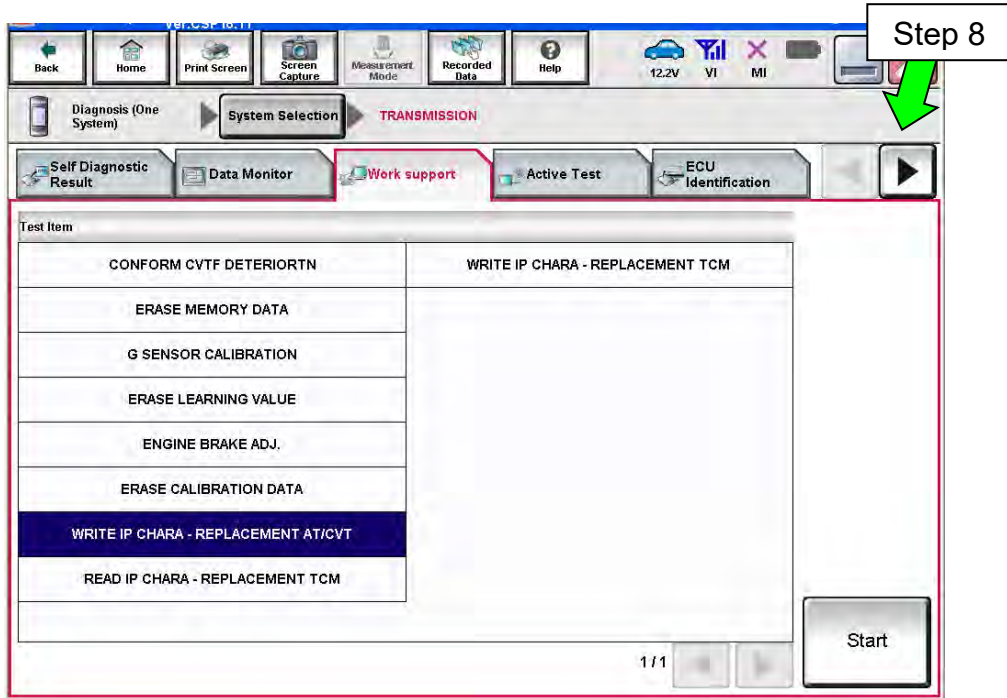


Figure 2

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 the scroll arrow shown in Figure 3 and select the **Work support** tab as shown in Figure 4 on the next page.

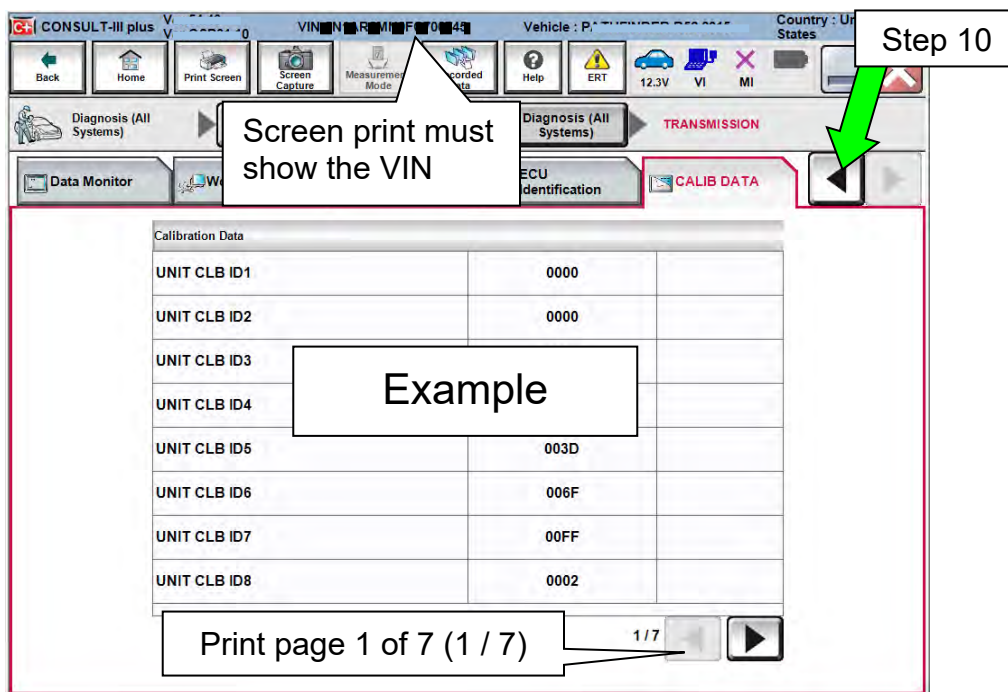


Figure 3

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

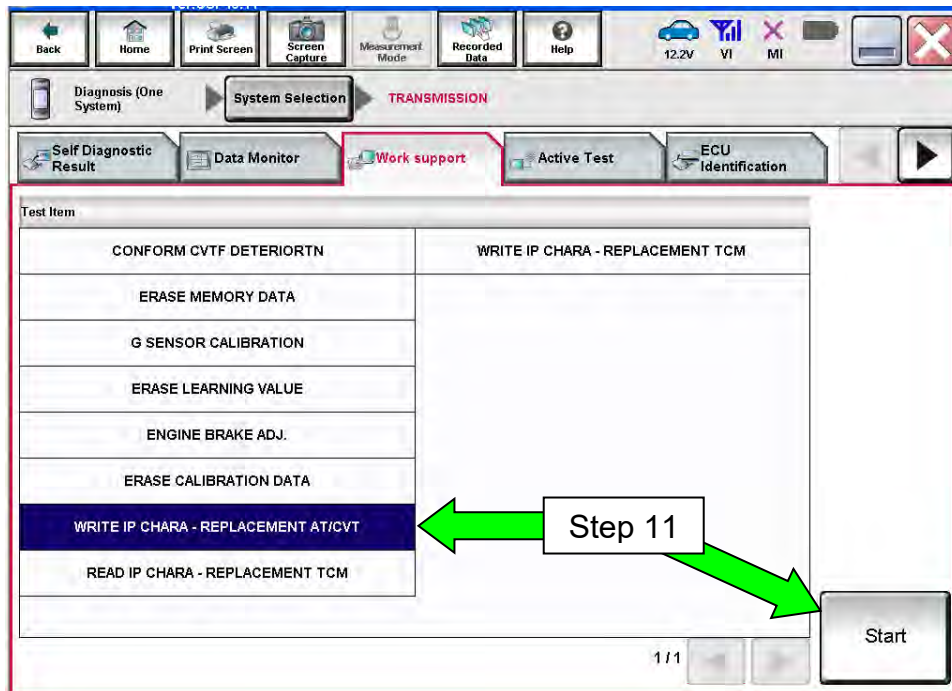


Figure 4

**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, keep ASIST closed, 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**.

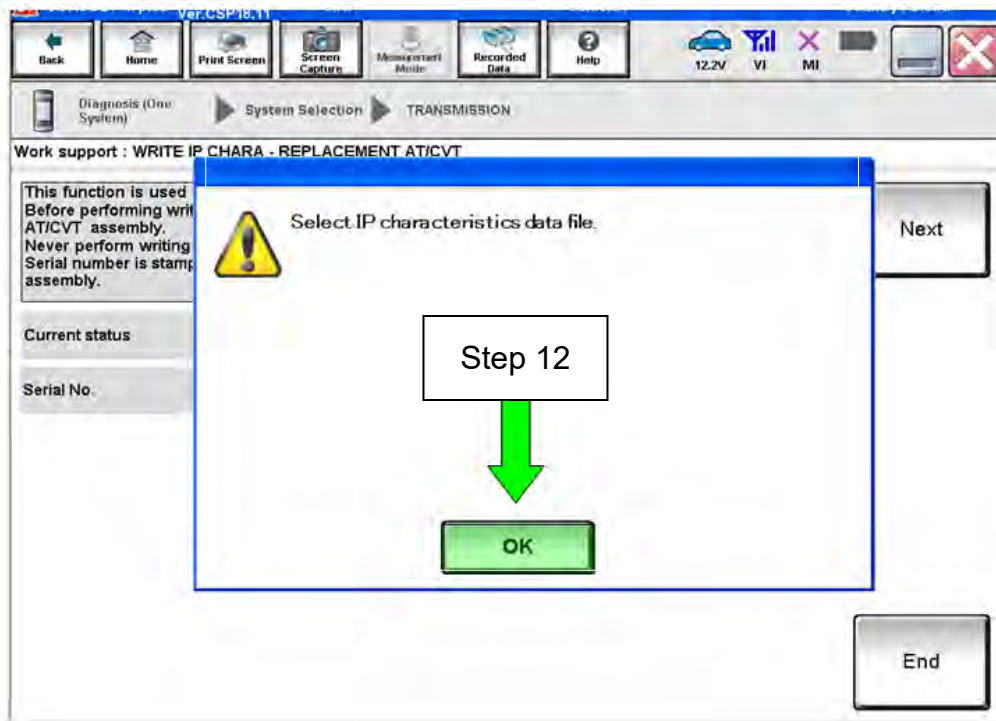


Figure 5

13. Select **My Computer**.

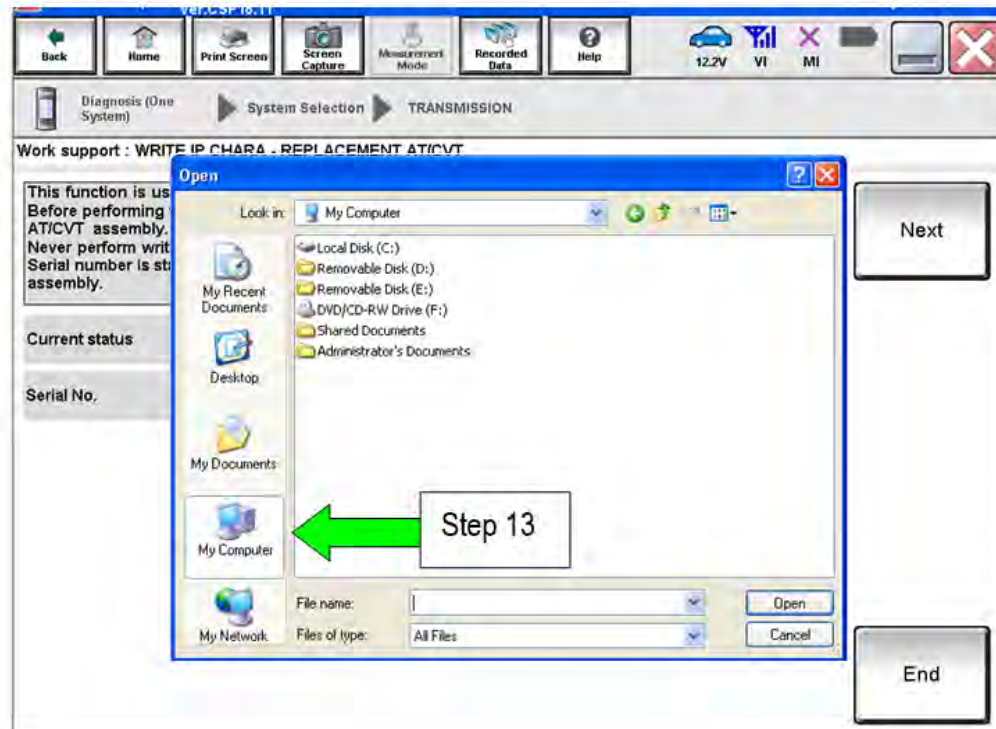


Figure 6



14. Locate the calibration file.

- If a calibration file disc was available, select **DVD/CD-RW Drive (F:)**
- If a calibration file disc was **NOT** available, navigate to the file location written down in step 8 on page 23.

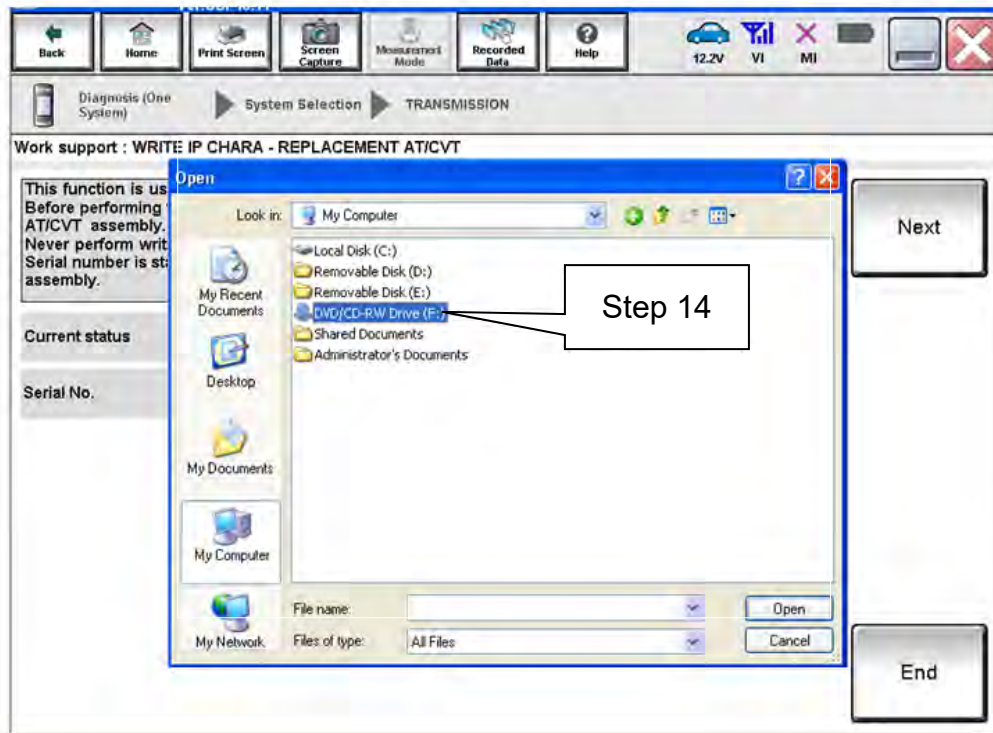


Figure 7

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

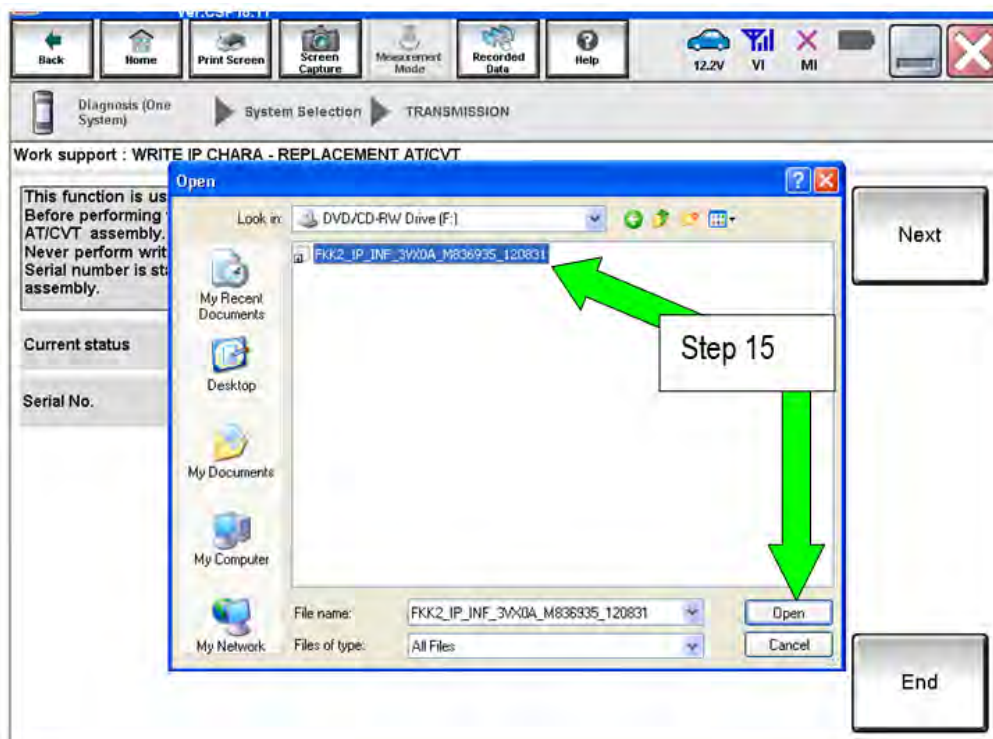


Figure 8

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 “STOPPED, no comm. with ECU” shows when trying to write calibration data, verify that the vehicle is in park (P).

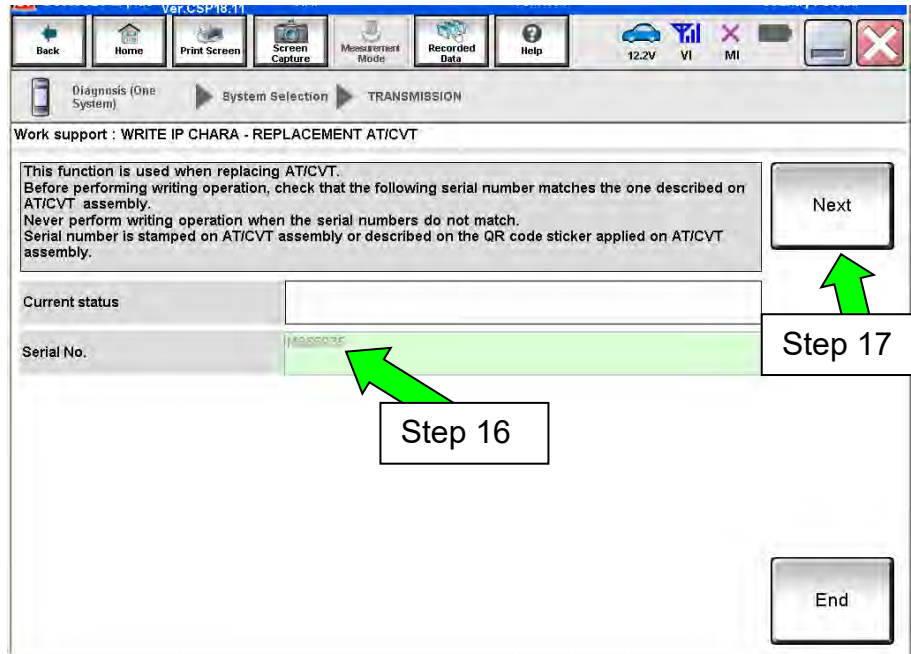


Figure 9

18. Before selecting **Start**, follow the directions in Figure 10.

- **Do not** follow the directions on the C-III plus screen.

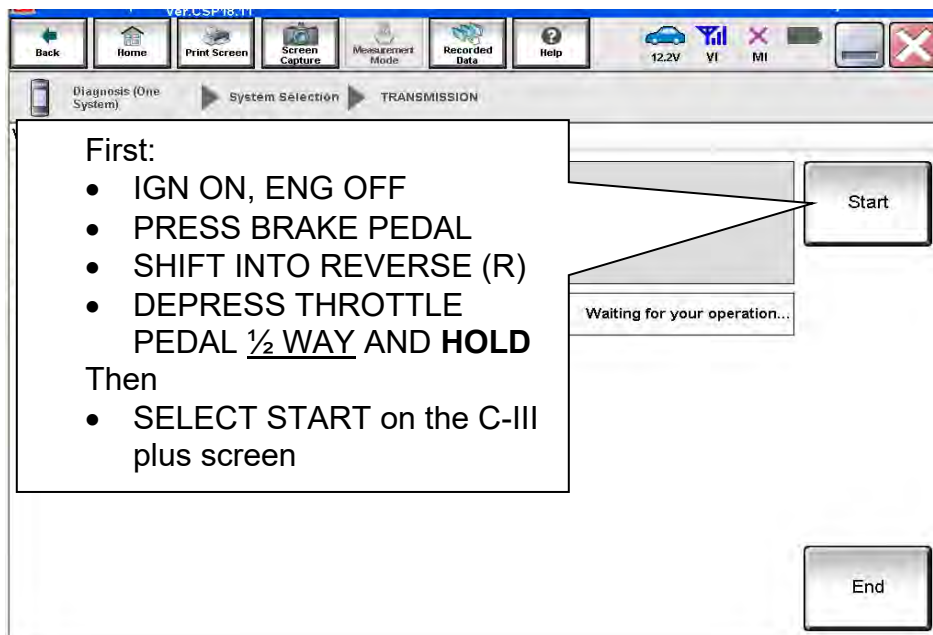


Figure10

19. Follow the on screen instructions.

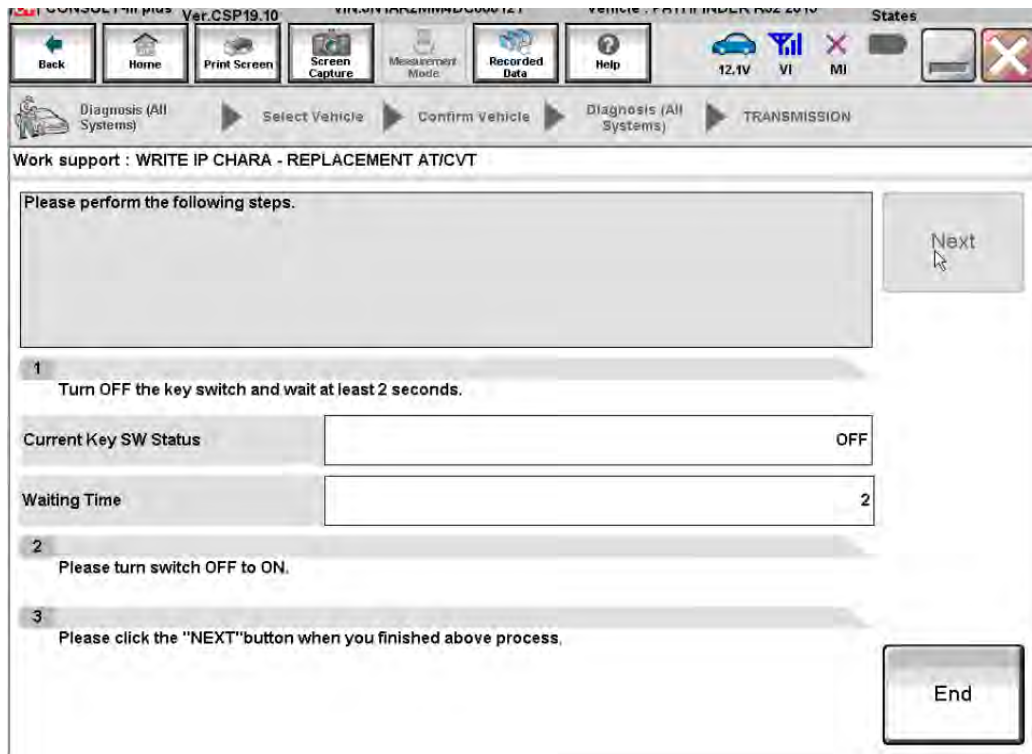


Figure 11

20. Follow the on screen instructions.

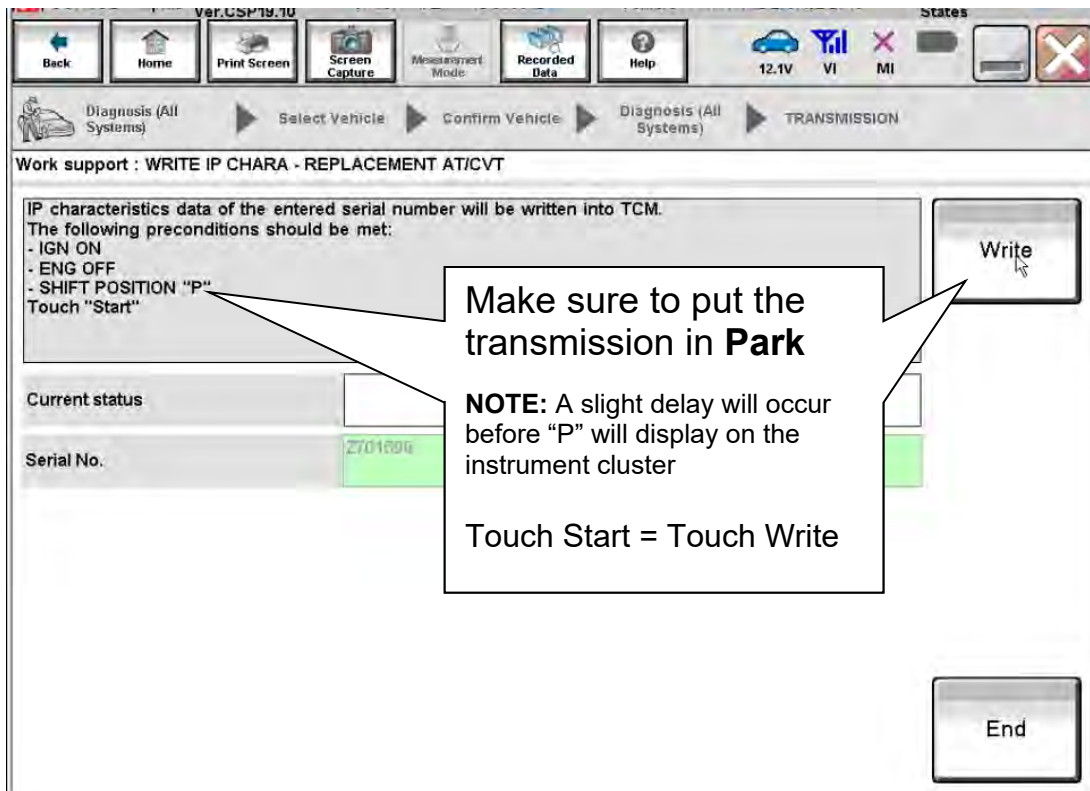


Figure 12

21. After **Complete** is displayed, select **End**.

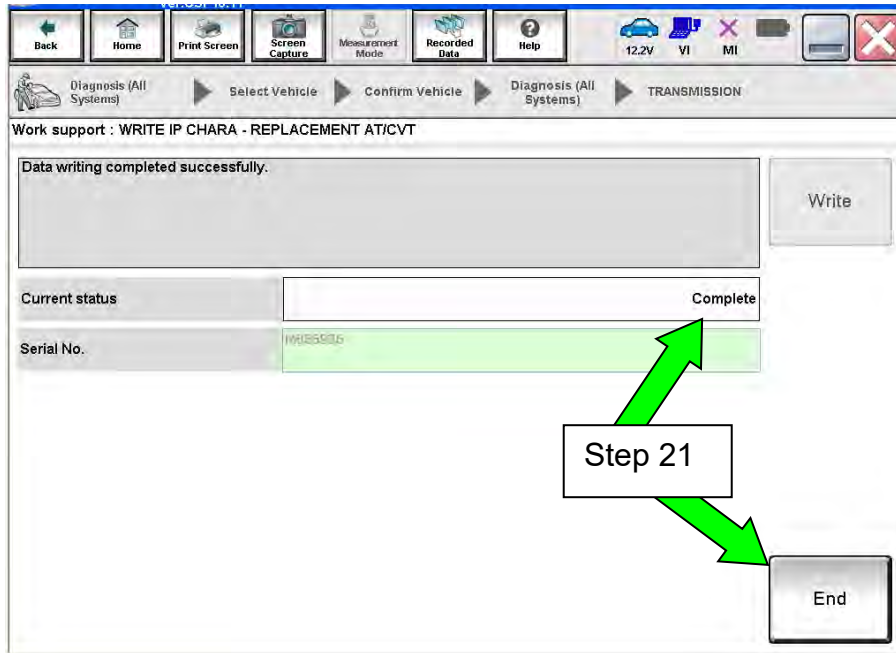


Figure 13

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 valve body 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 CVT assembly was replaced, do not 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)**.

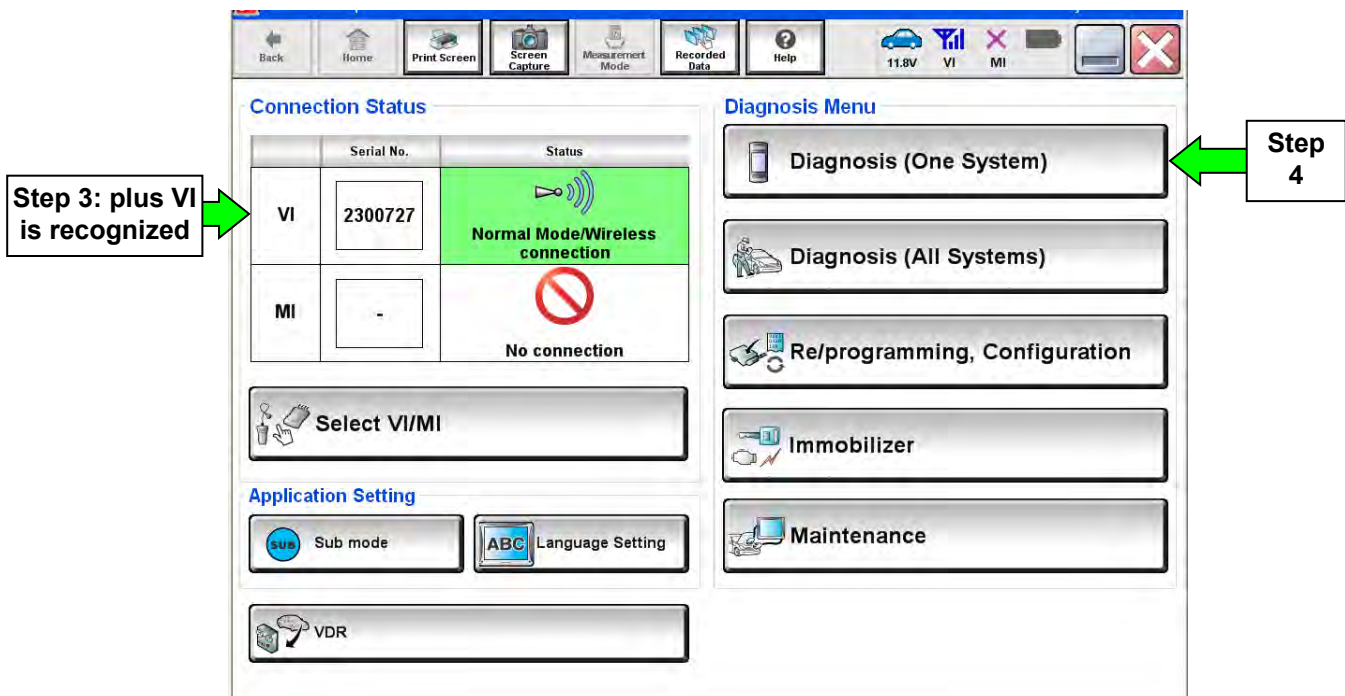


Figure A1

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

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

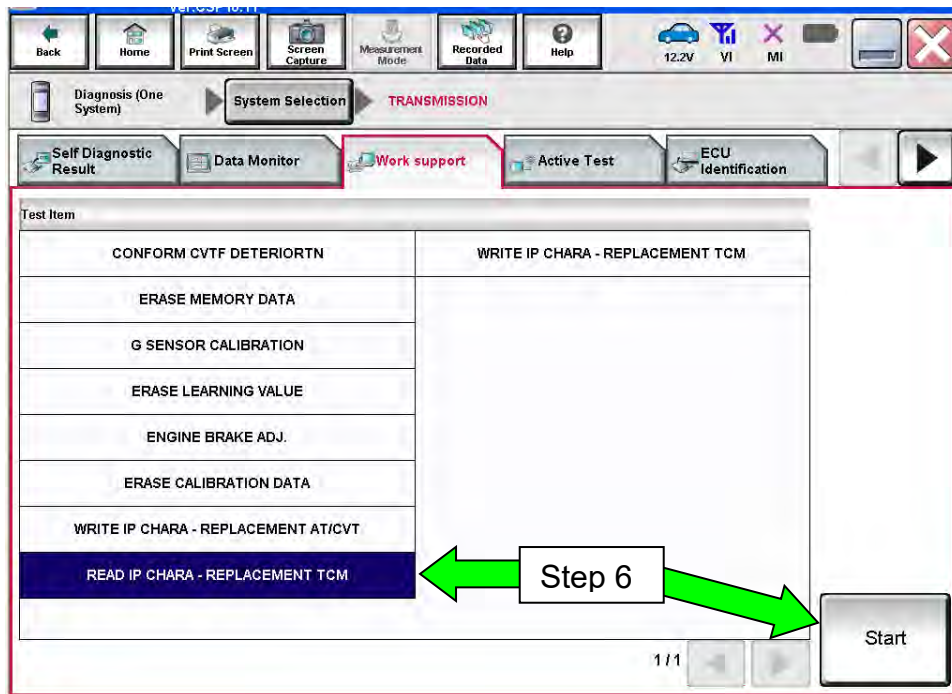


Figure A2

7. Select **Start**.

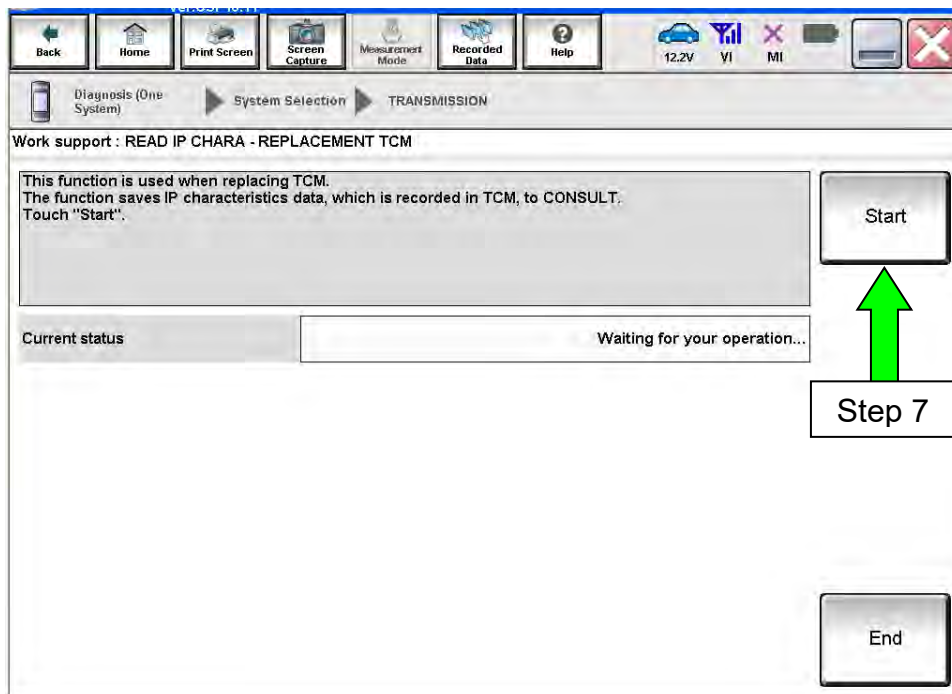


Figure A3

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**.

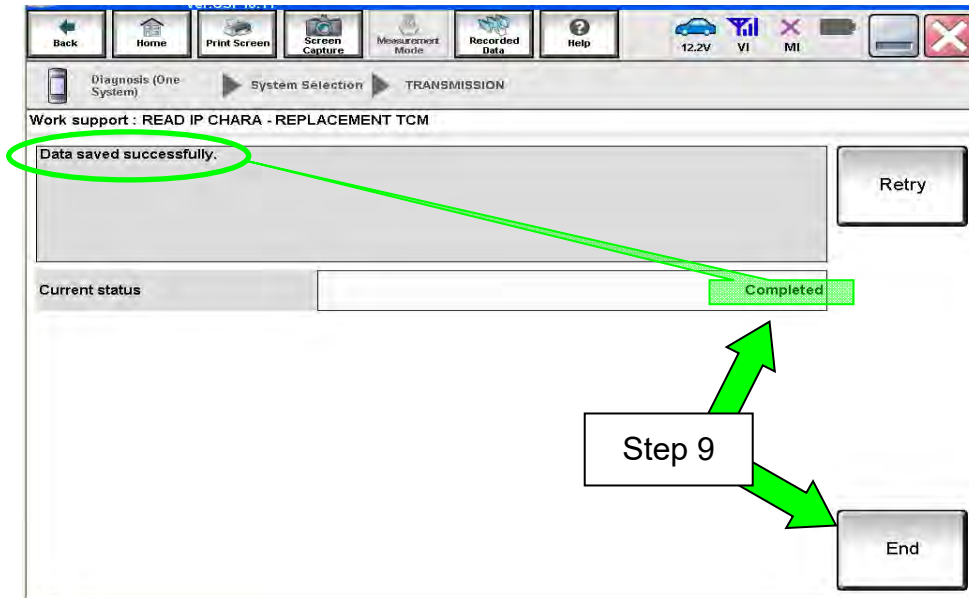


Figure A4

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



## Write Calibration Data After TCM Replacement

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

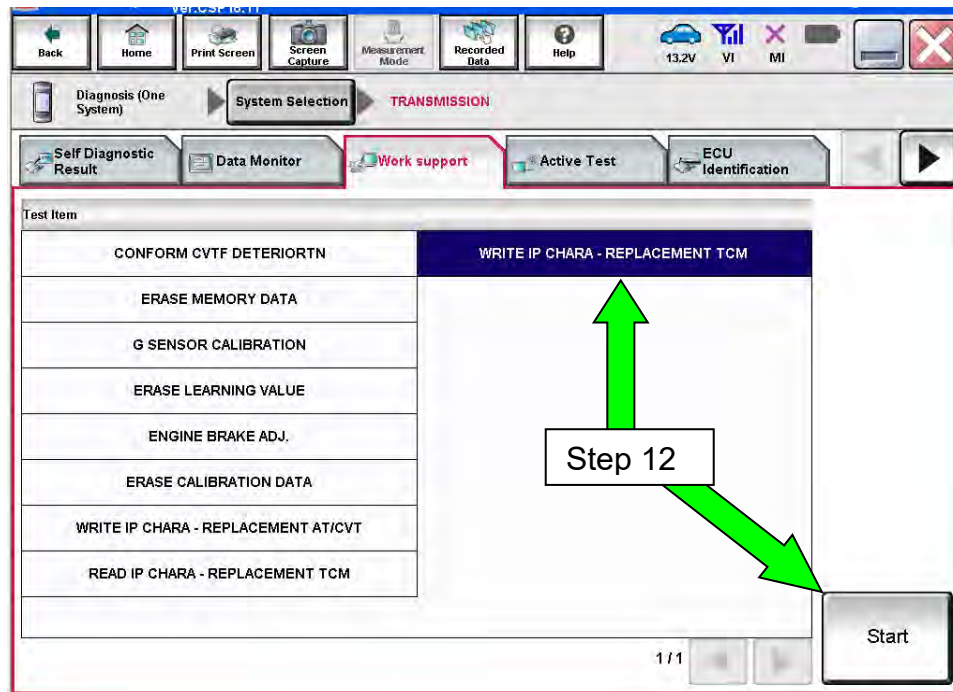


Figure A5

**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, keep ASIST closed, 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.

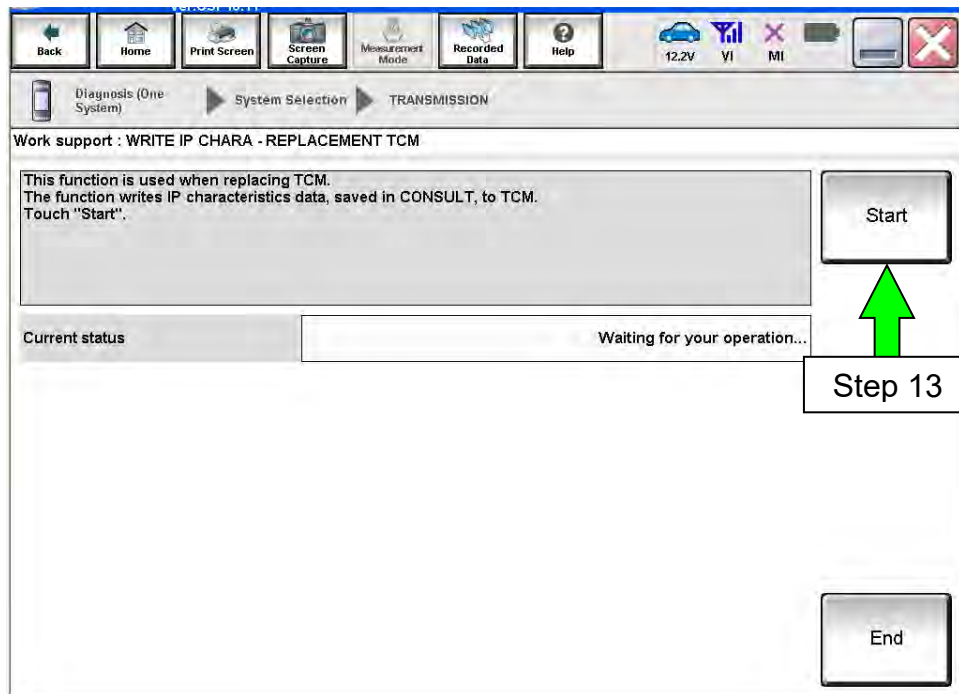


Figure A6

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** is displayed, select **End** to finish.

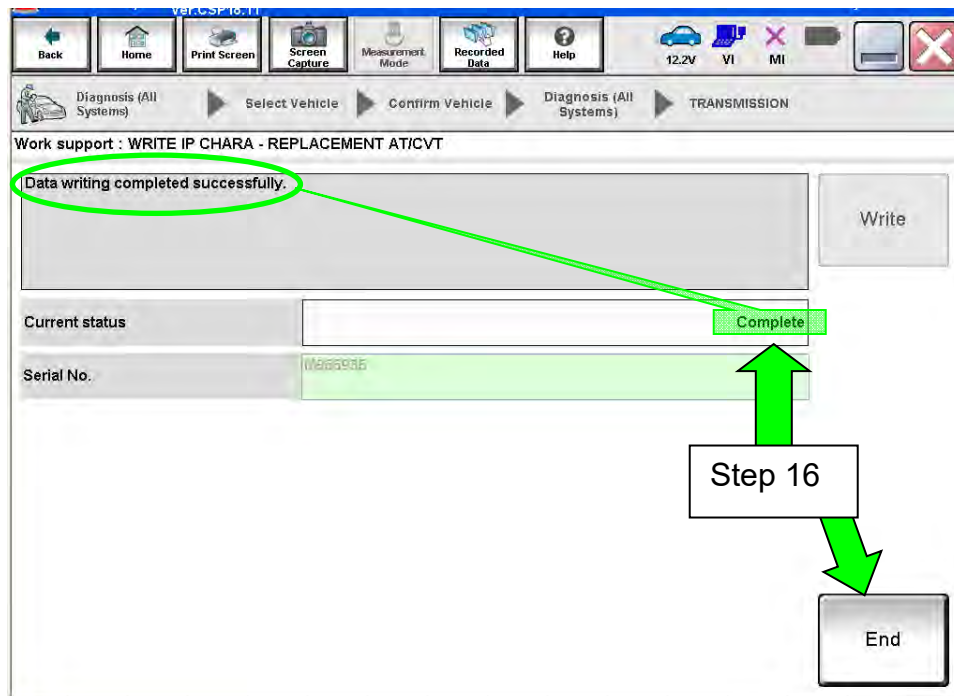


Figure A8

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. Do not 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.

## OBTAINING A CALIBRATION FILE WHEN CD IS UNAVAILABLE

1. Open ASIST and click on Specialty Tools, then click on “CVT/TCM Calibration” as shown in the Figure 1, below.

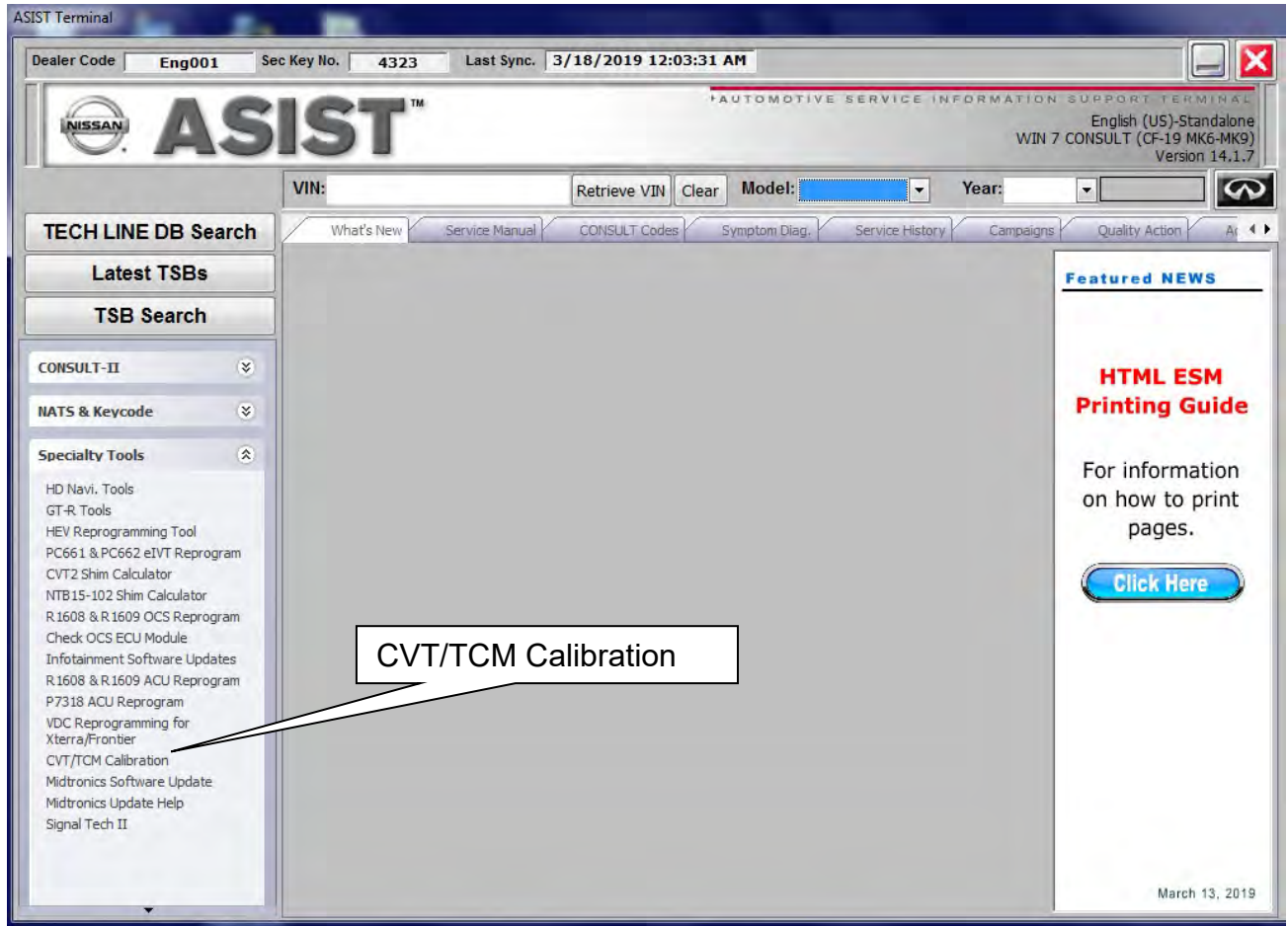


Figure 1

2. Enter the information into the **CVT/TCM Configuration** screen as seen below.
3. Select “**Retrieve & Save File.**”

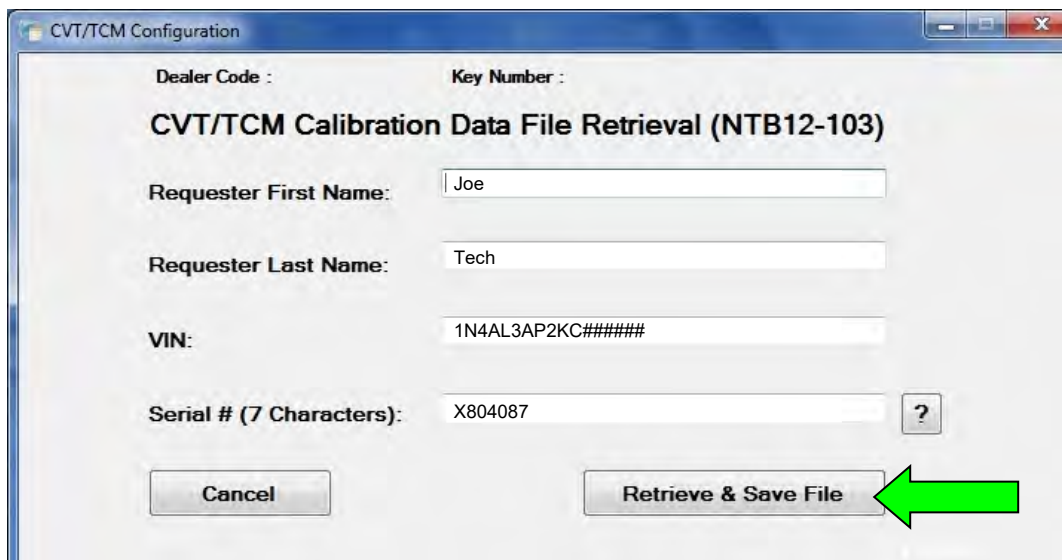
The image shows a screenshot of the "CVT/TCM Configuration" window. The window title is "CVT/TCM Configuration". It contains the following fields: "Dealer Code :" (empty), "Key Number :" (empty), "CVT/TCM Calibration Data File Retrieval (NTB12-103)", "Requester First Name:" (Joe), "Requester Last Name:" (Tech), "VIN:" (1N4AL3AP2KC#####), and "Serial # (7 Characters):" (X804087). There is a question mark icon next to the Serial # field. At the bottom, there are two buttons: "Cancel" and "Retrieve & Save File". A green arrow points to the "Retrieve & Save File" button.

Figure 2

4. Determine if the file is located in the database.

- If the pop-up shown in Figure 3 populates,
  - Write down the saved file location
  - Select “OK”
  - Continue to step 5 on page 5.

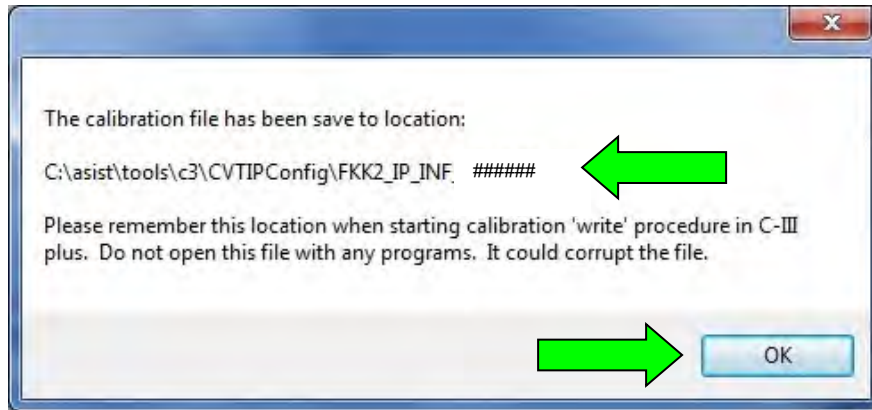


Figure 3

- If the pop-up shown in Figure 4 populates, select “OK” and continue to step 5, below.

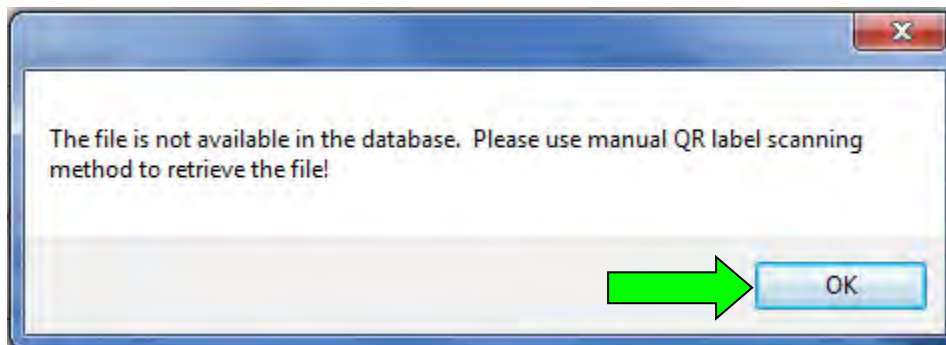


Figure 4

5. Locate the J-52352 Scanner and plug it into the USB Port on your computer.

6. Place the cursor in the CVT/TCM Configuration box and scan the **NEW** QR label.

**NOTE:** QR labels are provided on the **NEW** calibration file disc and on the Transmission range switch of the **NEW** CVT as shown in Figure B on page 3.

7. Select “**Save File.**”

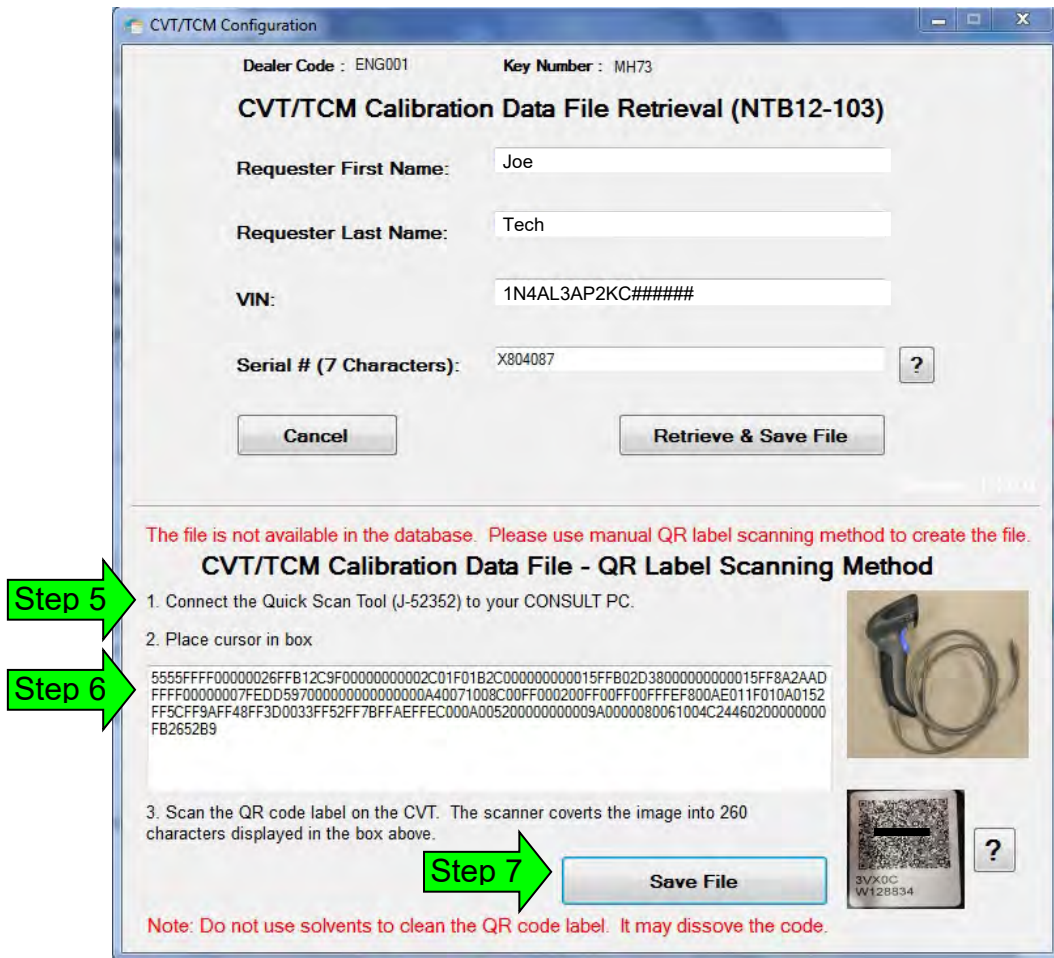


Figure 5

8. The new file will be located in **C:\asist\tool\c3\CVTIPConfig\FKK2\_IP\_INF\_#####**

**IMPORTANT:** Write down the file location.

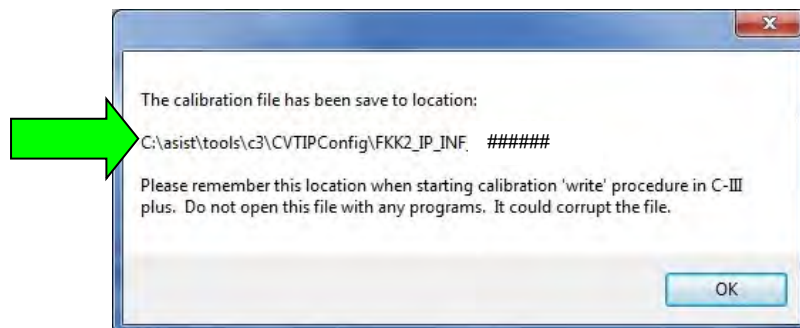


Figure 6

9. Select “**OK**”.

10. Go to step 5 on page 5.

## AMENDMENT HISTORY

<b>PUBLISHED DATE</b>	<b>REFERENCE</b>	<b>DESCRIPTION</b>
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.
March 28, 2019	NTB12-103g	Added procedure to obtain calibration file without CD.