SERVICE CAMPAIGN BULLETIN

Reference:	Date:
NTB16-120b	March 28, 2017

VOLUNTARY SERVICE CAMPAIGN
2013 – 2014 PATHFINDER; CVT

**This bulletin has been amended. A correction was made to the DTC number on page 16.
No other changes have been made. Please discard previous versions of this bulletin.**

CAMPAIGN ID #: PC500

APPLIED VEHICLES: 2013 – 2014 Pathfinder (R52)

Check Service COMM to confirm campaign eligibility.

INTRODUCTION

Nissan is conducting this voluntary service campaign on certain specific 2013-2014 Pathfinder vehicles to reprogram the TCM and, if needed, inspect and replace the CVT or CVT control valve. This service will be performed at no charge to the customer for parts or labor.

IDENTIFICATION NUMBER

Nissan has assigned identification number PC500 to this campaign. This number must appear on all communications and documentation of any nature dealing with this campaign.

DEALER RESPONSIBILITY

Dealers are to repair vehicles falling within range of this campaign that enter the service department. This includes vehicles purchased from private parties, vehicles presented by transient (tourists) owners, and vehicles in a dealer's inventory.

REPAIR OVERVIEW

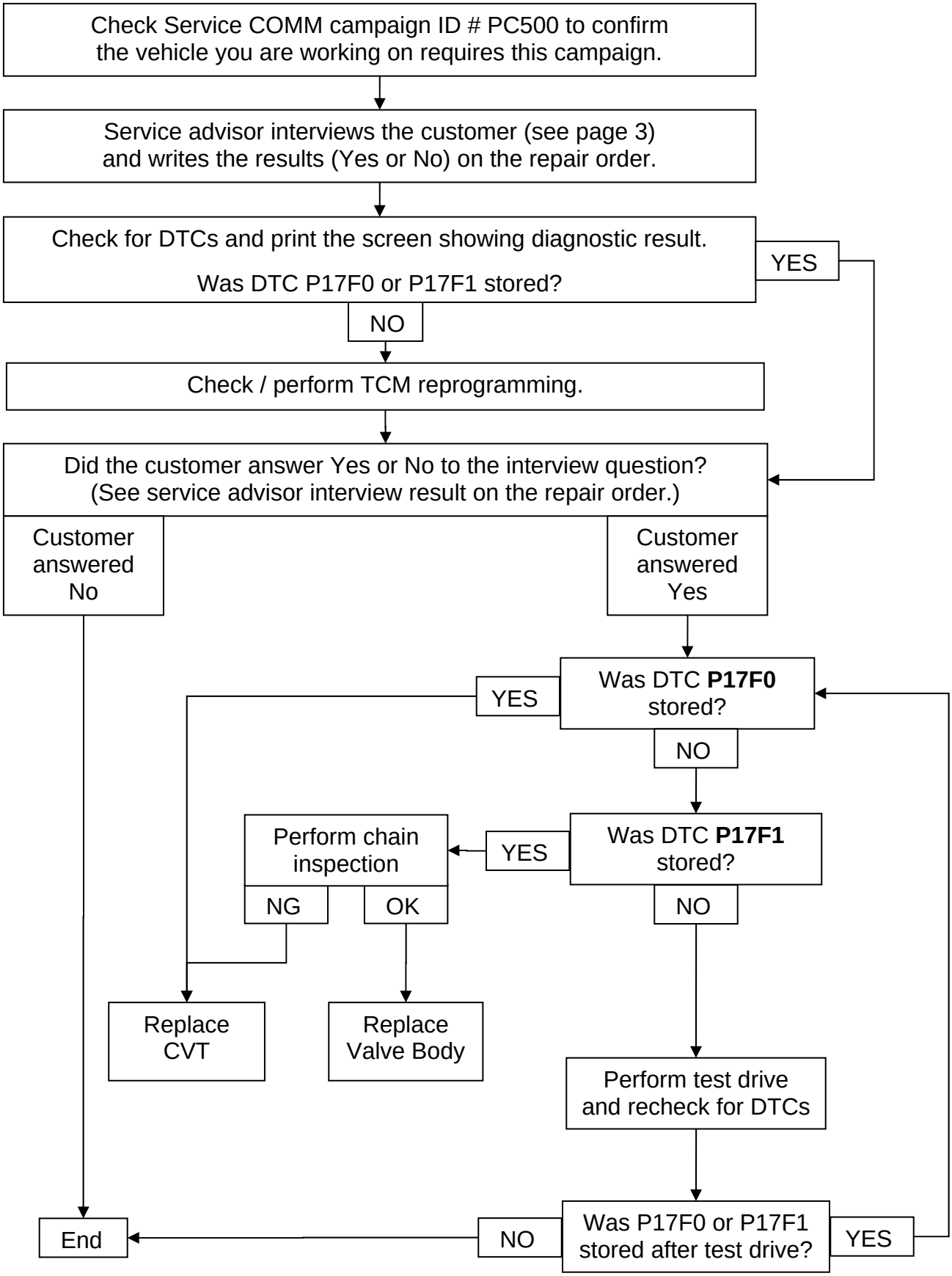


TABLE OF CONTENT

SERVICE ADVISOR INTERVIEW

Question	YES	NO
Are you experiencing any issue with your transmission?		

- Write the result of this interview question on the repair order.

REQUIRED SPECIAL TOOLS

Tech Cam J-51951

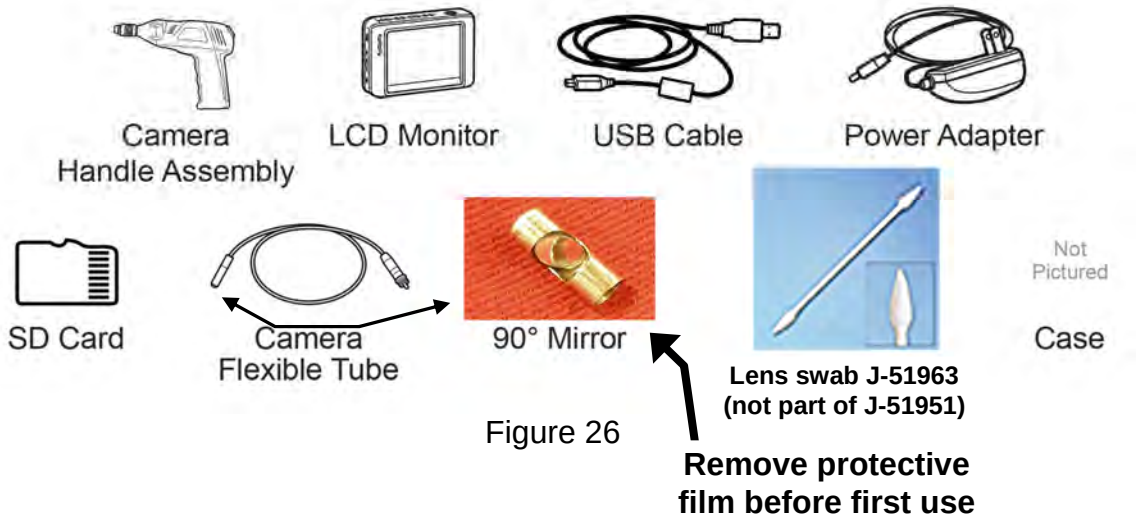


Figure 26

Additional kits and individual components of Tech Cam J-51951 are available from Tech•Mate; online at www.nissantechmate.com, or by phone (1-800-662-2001).

SERVICE PROCEDURE

CHECK FOR DTCs

1. Connect CONSULT-III plus (C-III plus) to vehicle with the plus VI.
2. Start C-III plus.
3. Turn the ignition ON (engine OFF).
4. Wait for the plus VI to be recognized.
   - The serial number will display when the plus VI is recognized.
5. Select **Diagnosis (All Systems)**.

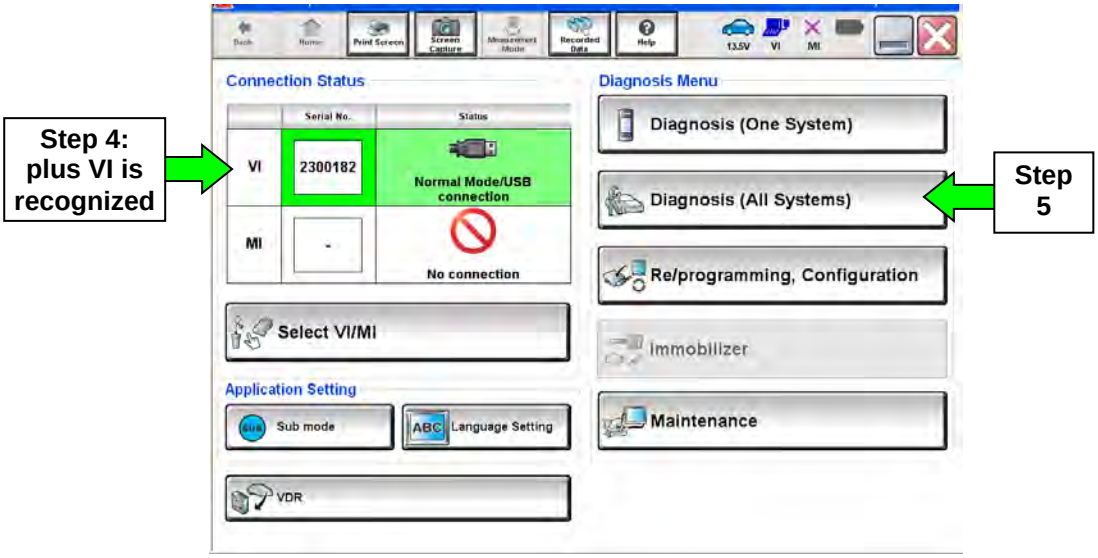


Figure 1A

6. Select **TRANSMISSION**.

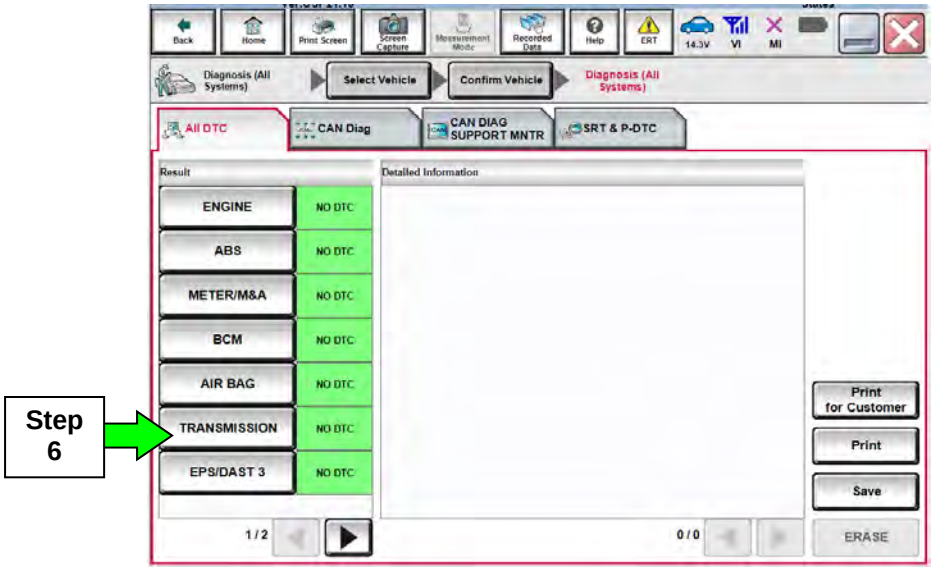


Figure 2A

7. Select **Self Diagnostic Result**.

8. Print a copy of the C-III plus screen showing the diagnostic result (see example in Figure 3A).
   - Make sure the VIN is displayed at the top of the screen.

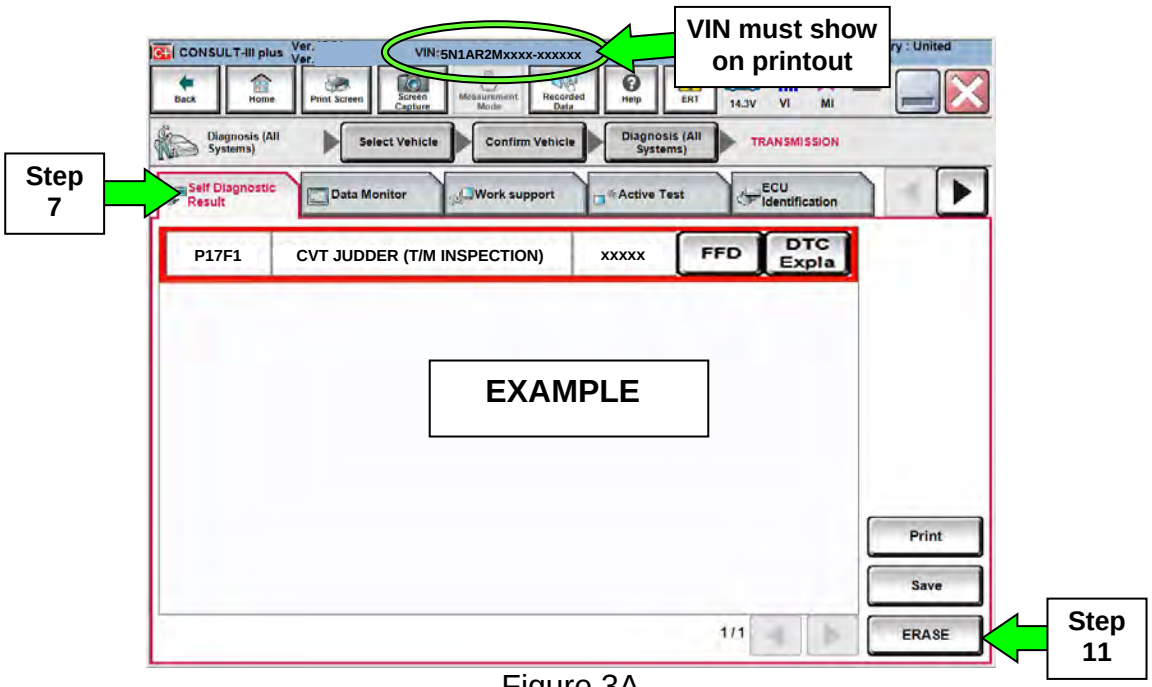


Figure 3A

9. Attach the printout to the repair order.

10. If any DTCs other than P17F0 or P17F1 are stored, they should be repaired and erased before continuing.
    - DTCs other than P17F0 or P17F1 are not covered by this bulletin.

11. Next step:
    - If DTC P17F0 or P17F1 **<u>was not</u>** stored; go to **TCM reprogramming** on the next page.
    - If DTC P17F0 or P17F1 **<u>was</u>** stored; refer to the flow chart on page 2 for the next step.

TCM REPROGRAMMING

NOTE: If DTC P17F0 or P17F1 was stored, reprogramming is **not** needed.

IMPORTANT: Before starting, make sure:

- ASIST on the CONSULT PC has been synchronized to the current date.
- All CONSULT related software updates (if any) have been installed.

NOTE:

- Some vehicles affected by this campaign may already have the specified reprogramming. In step 6 of the reprograming procedure you will determine if reprograming is needed.
- 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 Reprogramming" general procedure.

CAUTION:

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

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**.

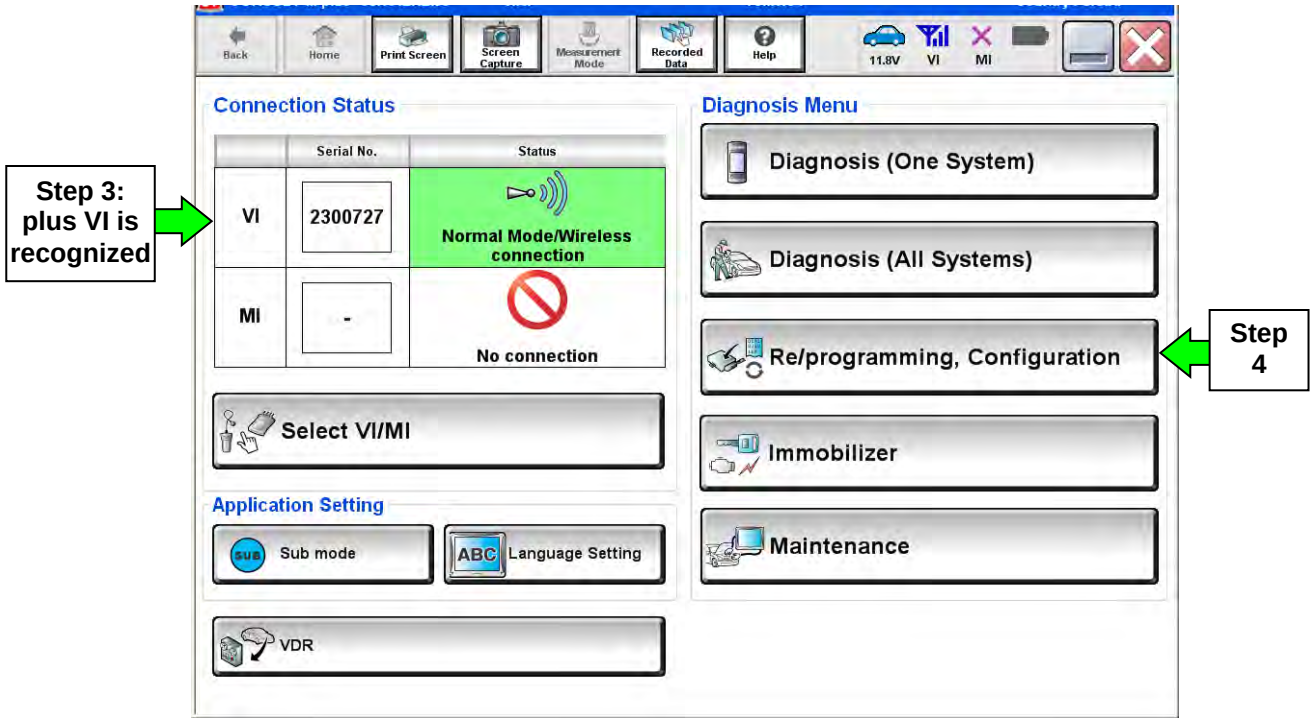


Figure 1B

5. Follow the on-screen instructions and navigate the C-III plus to the screen shown in Figure 2B on the next page.

6. When you get to the screen shown in Figure 2B, confirm this bulletin applies as follows.
   A. Find the TCM **Part Number** and write it on the repair order.

      NOTE: This is the current TCM Part Number (P/N).

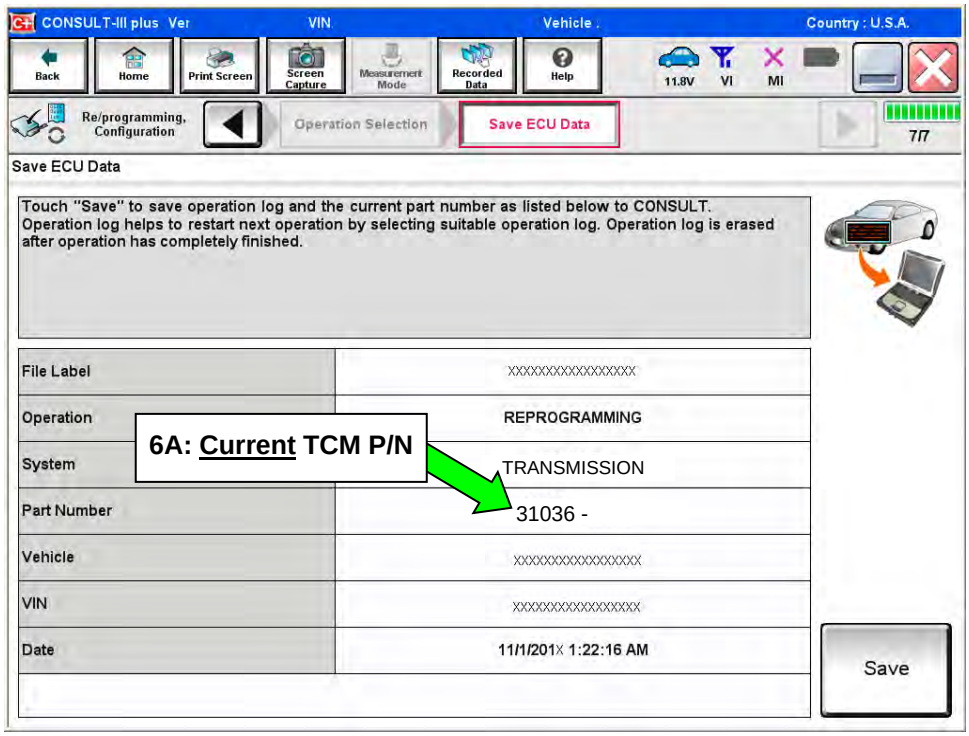


Figure 2B

   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 match, continue with the reprogramming procedure.
      - If there is not a match, reprogramming is not needed.

Table A

Model	Model Year	Current TCM Part Number Before Reprogramming: 31036 -
Pathfinder with V6 engine	**2013**	3KD2A 3KD4A, 3KD4B, 3KD4C, 3KD4D, 3KD4E 3KD5A, 3KD5B 3KA2A 3KA4A, 3KA4B, 3KA4C, 3KA4D, 3KA4E 3KA5A, 3KA5B
	2014	9PA3A, 9PA3B, 9PA3C, 9PA3D 9PA7A, 9PA7B, 9PA7C, 9PA7D

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 3B displays.
  - ➢ Select and use the reprogramming option that **does not** have the message "Caution! Use ONLY with NTBXX-XXX".

- If you get this screen and it is blank (no reprogramming listed), it means there is no reprogramming available for this vehicle.

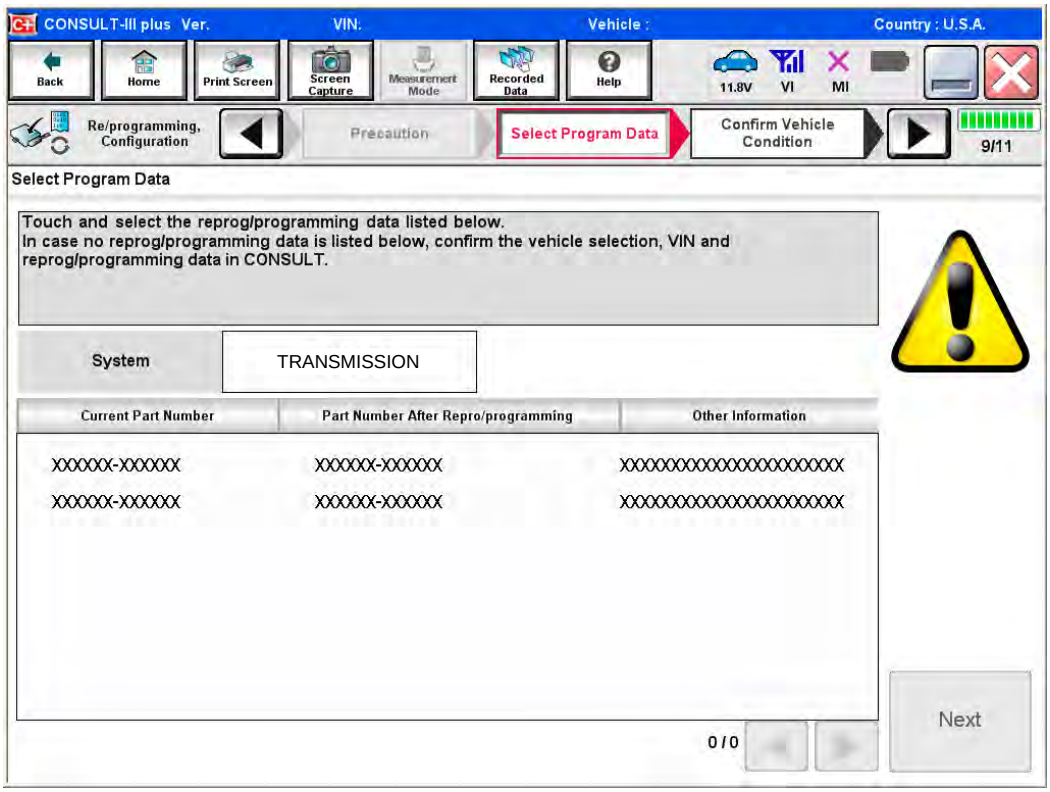


Figure 3B

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

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

9. Disconnect GR8 from the vehicle.

10. Select **Next**.

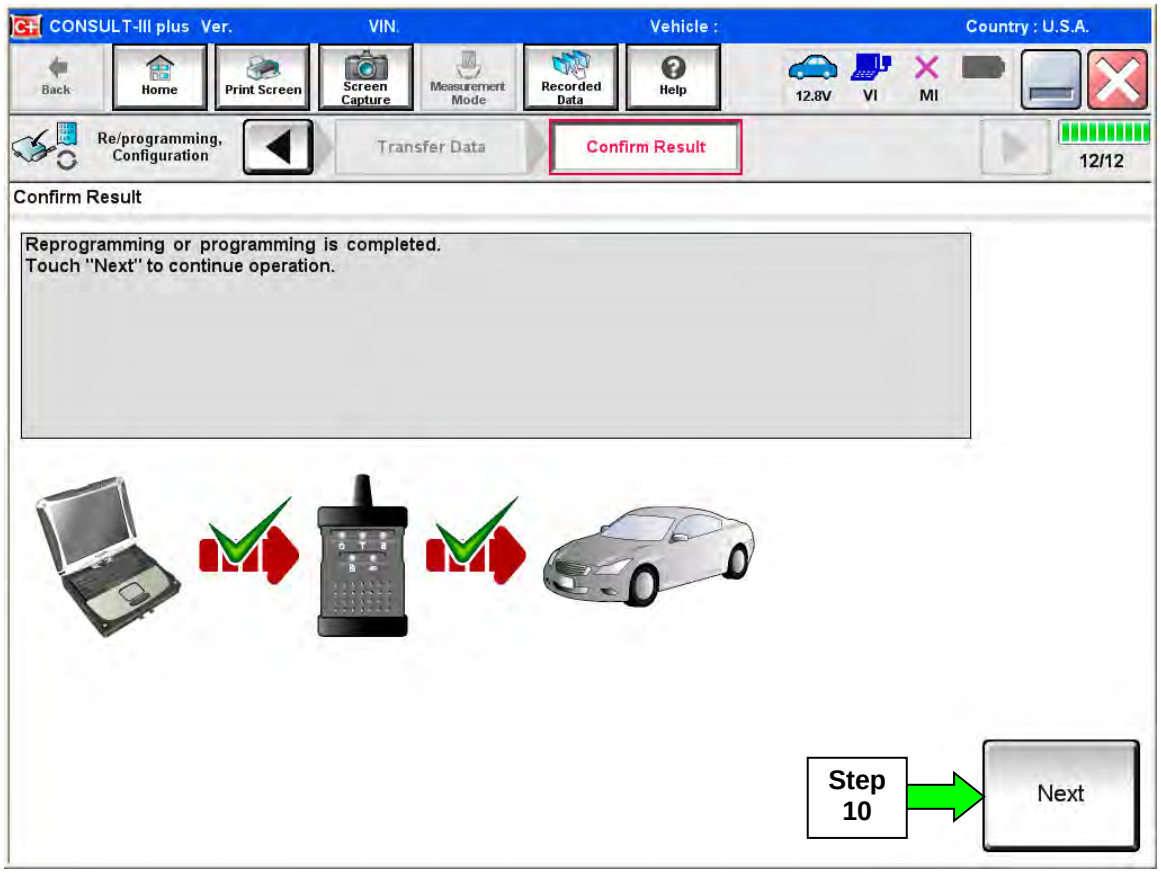


Figure 4B

NOTE:

- In the next step (page 13) you will perform **Erase All DTCs**.
- DTC erase is required before C-III plus will provide the final reprogramming confirmation report.

TCM Recovery:

<u>Do not disconnect plus VI or shut down C-III plus if reprogramming does not complete.</u>

If reprogramming does <u>not</u> complete and the "!?" icon displays as shown in Figure 5B:

- 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 on first attempt and can be selected more than once</u>.

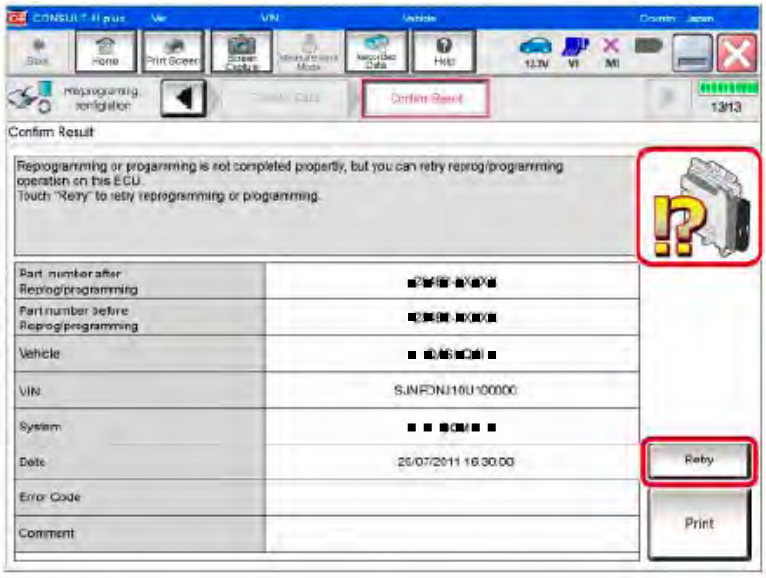


Figure 5B

If reprogramming does <u>not</u> complete and the "X" icon displays as shown in Figure 6B:

- 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.**

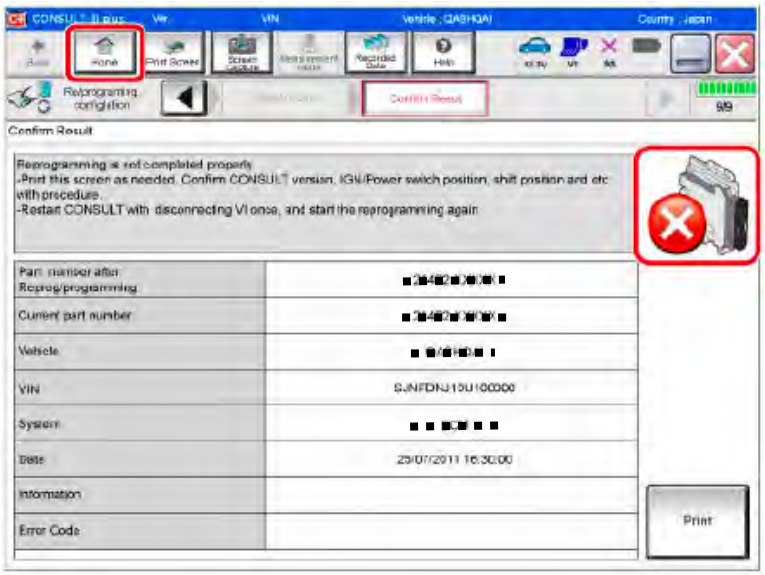


Figure 6B

11. Follow the on-screen instructions to **Confirm Shift Lever Position Display**.

12. Follow the on-screen instructions to **Erase DTCs**.

13. When the entire reprogramming process is complete, the screen in Figure 7B will display.

14. Verify the before and after part numbers are different.

15. Print a copy of this screen (Figure 7B) and attach it to the repair order for warranty documentation.

16. Select **Confirm**.

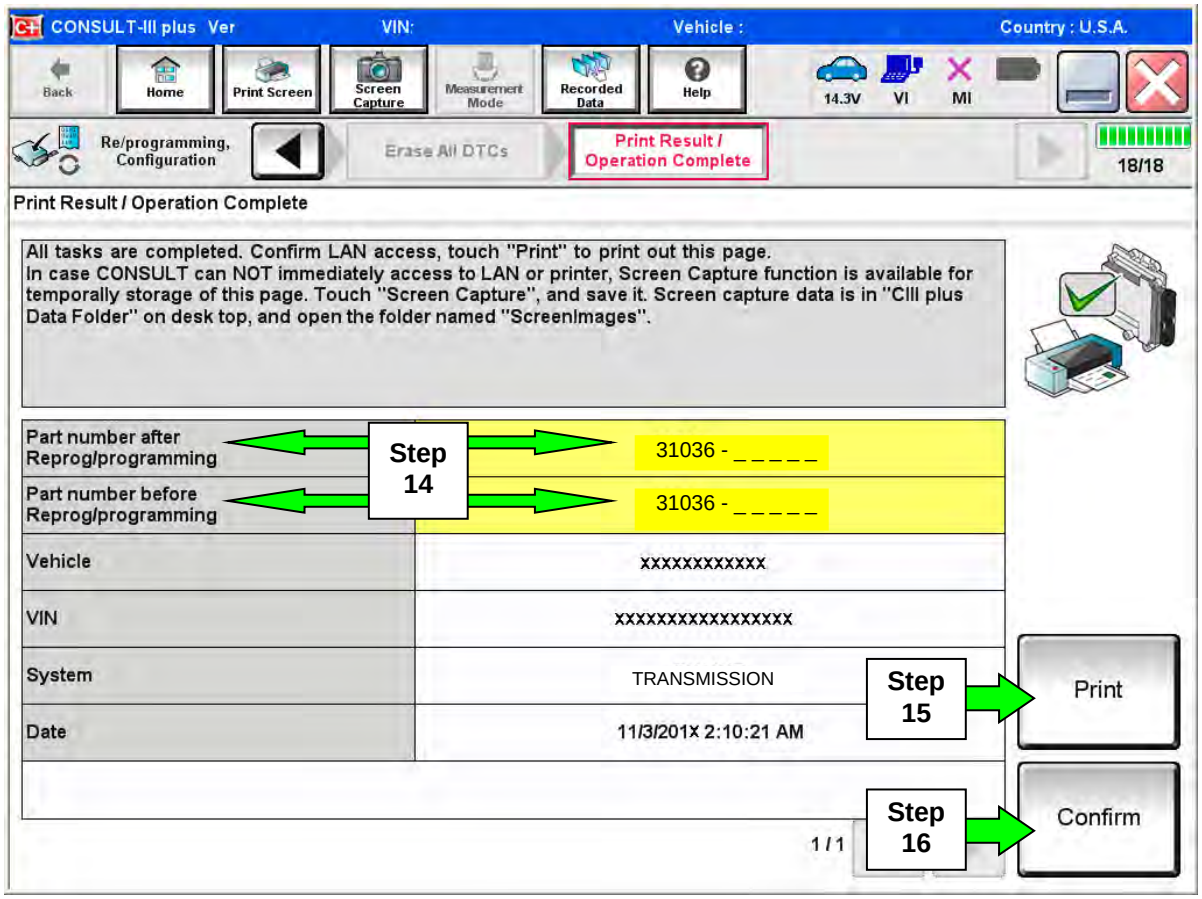


Figure 7B

17. Return C-III plus to the Home screen.

18. Turn OFF C-III plus and the vehicle ignition.

19. Disconnect C-III plus from the vehicle.

20. Refer to the flow chart on page 2 to determine next steps.

TEST DRIVE

IMPORTANT: This part of the Service Procedure is performed **only if <u>both</u> of the following apply:**

- The customer answers <u>Yes</u> to the Service Advisor Interview (see page 3), and
- No DTCs were stored (see page 5).

<u>DTC detection drive pattern for P17F0 / P17F1</u>

NOTE: Perform the following drive pattern in a safe area. Make sure to follow all traffic regulations.

1. Stop the vehicle.
2. Slowly accelerate, applying only slight accelerator pedal **(less than 10% throttle opening)** until 20 mph is reached.
   - Torque converter engagement (full lock up) can occur around 20 mph.
3. Hold 20 mph (about 1000 rpm for 2 seconds).
4. Slowly accelerate, applying only slight accelerator pedal **(less than 10% throttle opening)** until 30 mph is reached.
   - Keep steady acceleration without releasing pressure on the accelerator.
5. Hold 30 mph for 5 seconds.
6. Release accelerator pedal (0% throttle).
7. Coast to 20 mph, then apply the brakes to slowly bring the vehicle to a stop.
8. Slowly accelerate, applying only slight accelerator pedal **(less than 10% throttle opening)** until 20 mph is reached.
   - Torque converter engagement (full lock up) can occur around 20 mph.
9. Hold 20 mph (about 1000 rpm for 2 seconds).

10. Slowly accelerate, applying only slight accelerator pedal **(less than 10% throttle opening)** until 40 mph is reached.
    - Keep steady acceleration without releasing pressure on the accelerator.

11. Hold 40 mph for 2 seconds.

12. Turn the OD (over drive) OFF.

13. Hold 40 mph for 5 seconds.

14. Turn the OD (over drive) ON.

15. Release accelerator pedal (0% throttle).

16. Coast to 30 mph, then apply the brakes to slowly bring the vehicle to a stop.

17. Repeat steps 1 through 16 for a total of three times.

18. When the test drive is compete, re-check for DTCs (see page 5).
    - If P17F0 is stored; go to CVT ASSEMBLY REPLACEMENT on page 25.
    - If P17F1 is stored; go to CVT CHAIN INSPECTION on the next page.
    - If neither of the above codes are stored – campaign is compete.

CVT CHAIN INSPECTION / CONTROL VALVE (VALVE BODY) REMOVAL

IMPORTANT: This part of the Service Procedure is performed **only if both of the following apply:**

- The customer answers Yes to the Service Advisor Interview (see page 3), and
- DTC P17F1 is stored.

1. Remove the valve body.
   - Before lifting the vehicle:
     - Place the transmission gear selector in Neutral.
     - Leave the driver door unlatched. A step further in the procedure may require it.
   - Refer to the Electronic Service Manual (ESM), section TM-Transmission, for valve body removal.

     NOTE:
     - The CVT unit harness connector may be left in place when removing the valve body assembly.
     - The number "7" is on the head of all valve body bolts that need to be removed. Do not remove any bolt that does not have the number "7".

     CAUTION: Never allow any chemicals or fluids other than NS-3 CVT fluid or equivalent to enter the CVT assembly. Never allow any foreign debris, dust, dirt, etc. to enter the CVT assembly.

     NOTE: For additional information, see video # 546: "CVT Chain Inspection". This video is located under the TECH TRAINING GARAGE VIDEOS tab in Virtual Academy.

2. Secure the right front tire with a suitable strap.
   - This will assist in making the chain turn.

3. Mark the left front tire with a suitable marking.
   - This will assure all 360° of the chain is inspected.

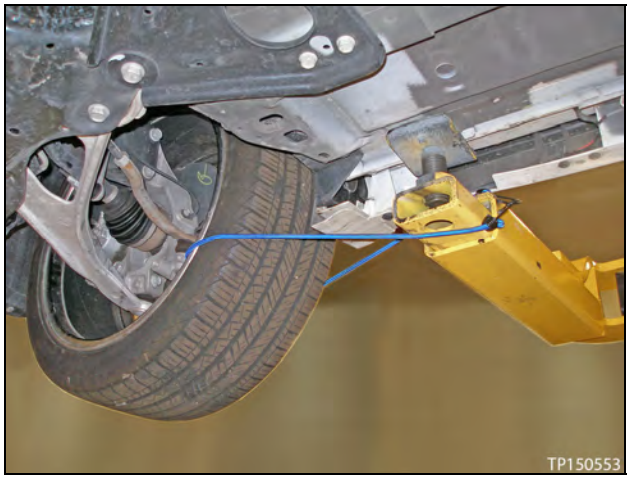


Figure 1C

4. Using borescope J-51951 with mirror attachment, visually inspect the side of the CVT chain that comes in contact with the pulley:

NOTE: It is recommended that you review the instructions and Figures on pages 17 through 23 before continuing with the procedure.

a. Insert the borescope into the correct area of the CVT (see Figures 4C - 7C).

b. Slowly and carefully turn the left front tire one full turn in the forward rotation to view all of the chain.

CAUTION: If the tire is rotated in the rearward rotation, the camera lens may get caught between the chain and pulley.

- Holding the borescope with one hand allows for turning the tire with the other hand (see Figure 2C).

Figure 2C

NOTE: Reference the photos on pages 22 – 24 for examples of chain slippage and for comparison to the vehicle you are working on.

- First inspect the entirety (360°) of the driver side of the chain that comes in contact with the pulley (see pages 19 – 20).

- If the inspection result is OK on all 360° of driver side of the chain; inspect all 360° of the passenger side of the chain.

- **<u>If no evidence of chain slippage</u>** is found on both sides of the chain; go to VALVE BODY REPLACEMENT on page 26.

- **<u>If any evidence of chain slippage</u>** is found, go to step 5 below.

5. Evidence of chain slippage was found:

   a. Create video of the <u>chain slip/damage</u> and the <u>VIN</u> for PCC (Powertrain Call Center) CVT replacement authorization.

   - Use borescope J-51951 to record a 15 second or less continuous video of the most severe evidence of **chain slip/damage** and the **VIN** on the F.M.V.S.S. certification label (VIN label).

   - For best picture, the camera lens should be about 10 mm away from the object being recorded.

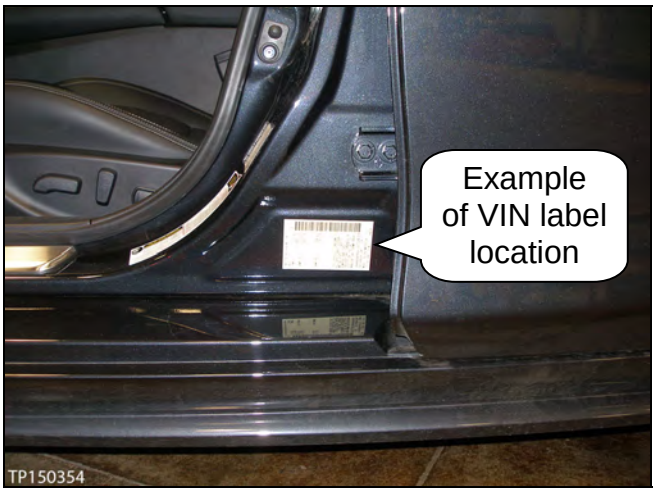


Figure 3C

   b. The CVT unit requiring replacement will need to be reassembled (valve body reinstalled) for Nissan parts return/collection.

   c. Go to CVT ASSEMBLY REPLACEMENT on page 25.

NOTE:

- The required video must be attached to the Powertrain Call Center CVT Preauthorization Form (in ASIST) prior to calling for authorization. Failure to submit a continuous video will cause immediate denial of request for replacement.
- Before starting to record, make sure the camera handle's AA batteries are fresh and the LCD monitor's battery is charged.
- The whole video will show as backward, or reversed mirror image. This is okay.
- The required video must show clear evidence of chain slippage and be 15 seconds or less.

Refer to Figures 4C to 8C for camera lens (borescope) insertion instructions:

- Insert the camera lens behind the pulley between the guide rail and the pulley where shown in Figure 4C (see also Figure 5C – 8C).

- Insert approximately 8-9 inches, and then view the side of the chain that contacts the pulley.

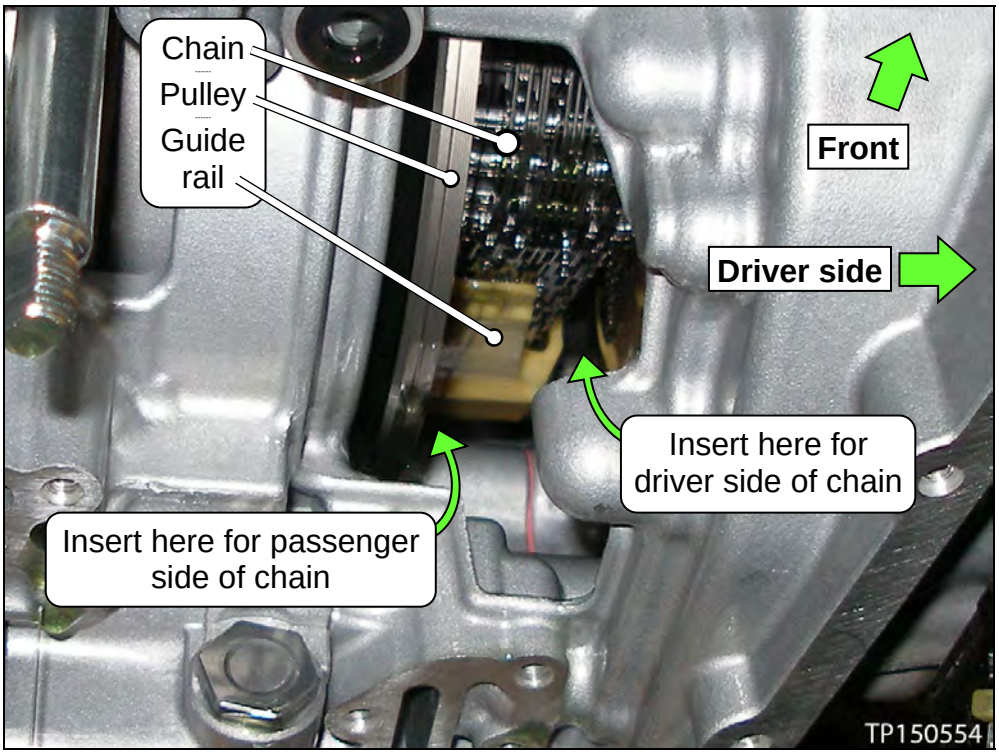


Figure 4C

- Figure 5C shows where to insert the camera lens on the driver side of the chain.

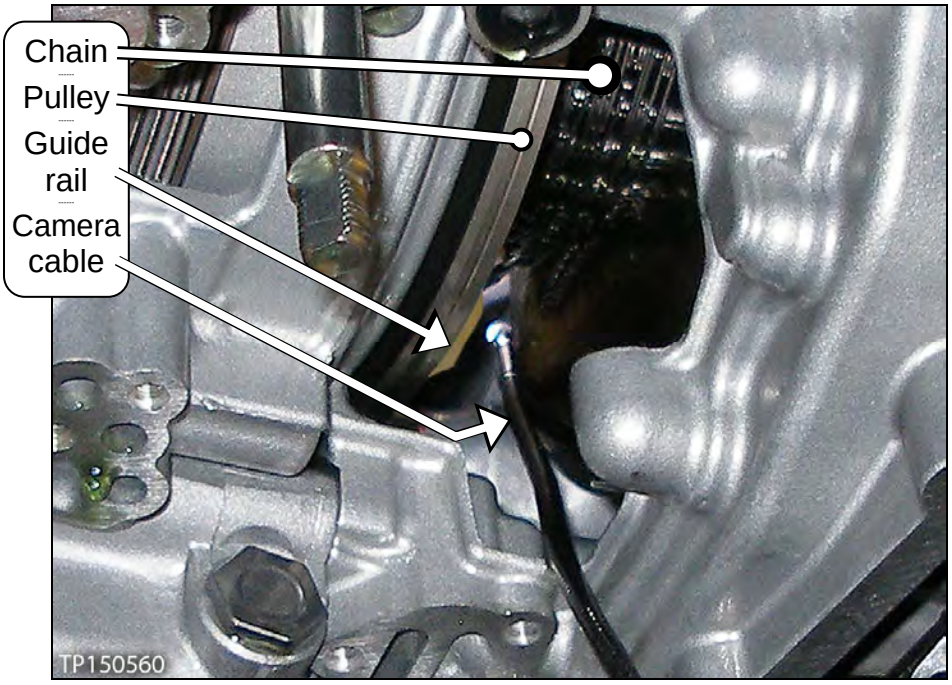


Figure 5C

- Figure 6C shows where to insert the camera lens on the passenger side of the chain.

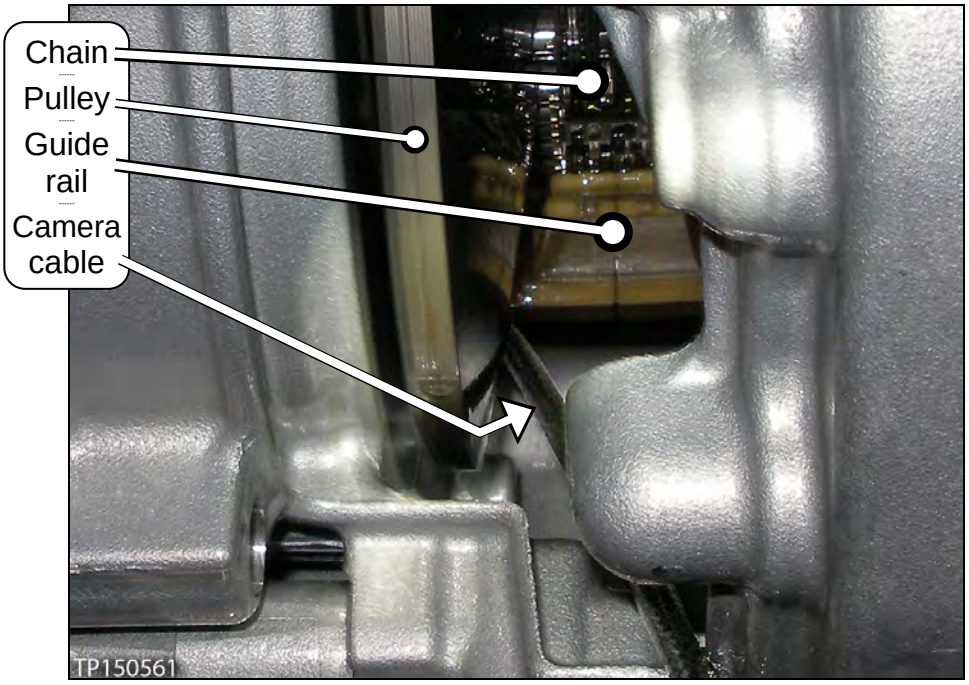


Figure 6C

- Figures 7C and 8C show the routing and location of the camera.

  NOTE: The CVT's side cover was removed for easier viewing of camera location.
  The side cover is <u>not</u> to be removed at any time during this procedure.

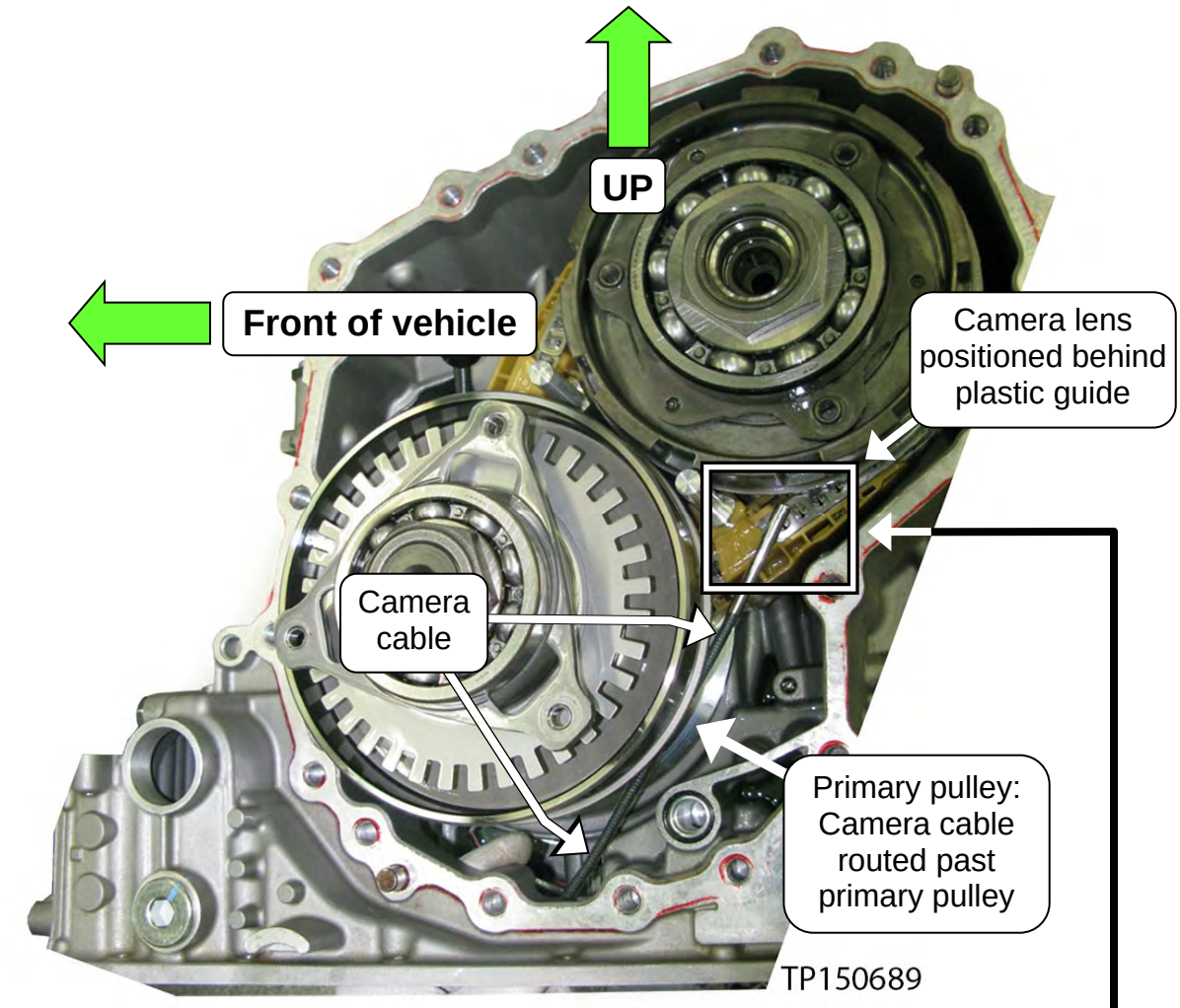


Figure 7C

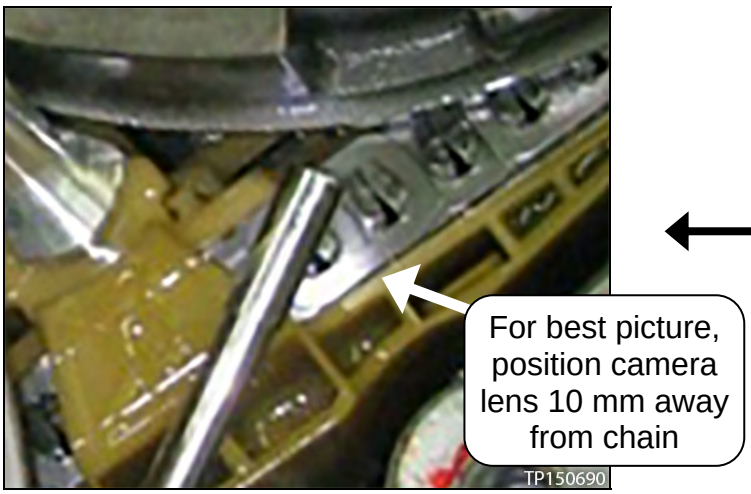


Figure 8C

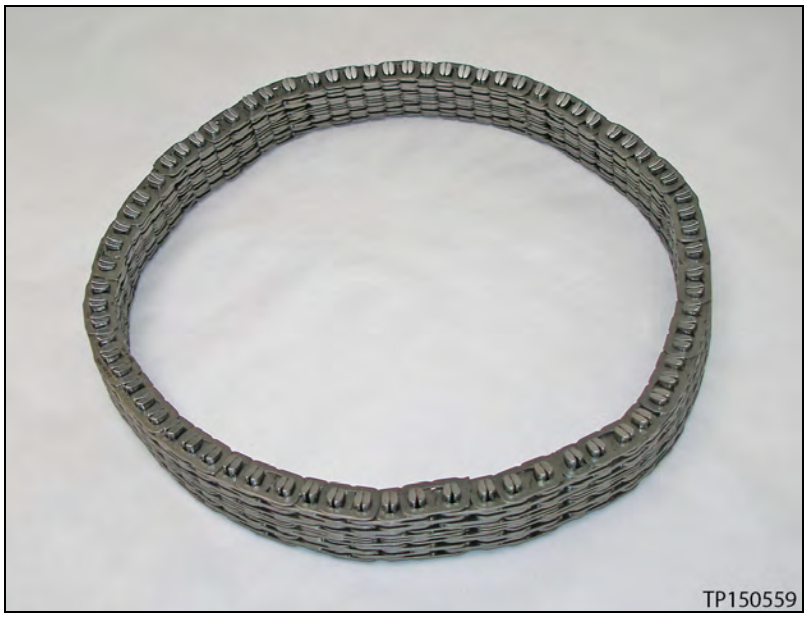


Figure 9C: CVT chain

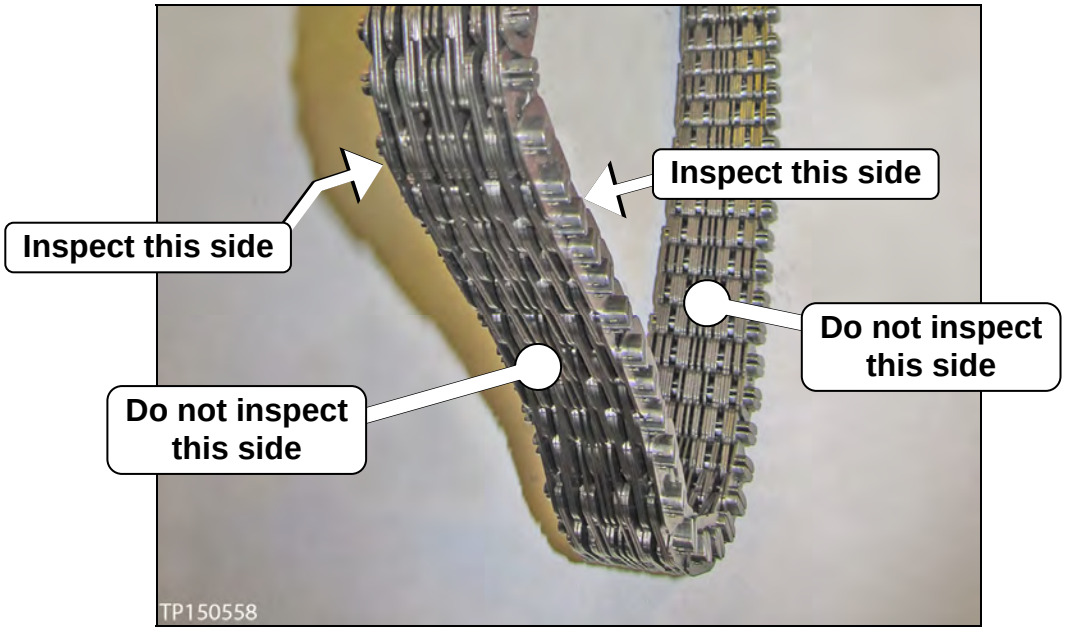


Figure 10C

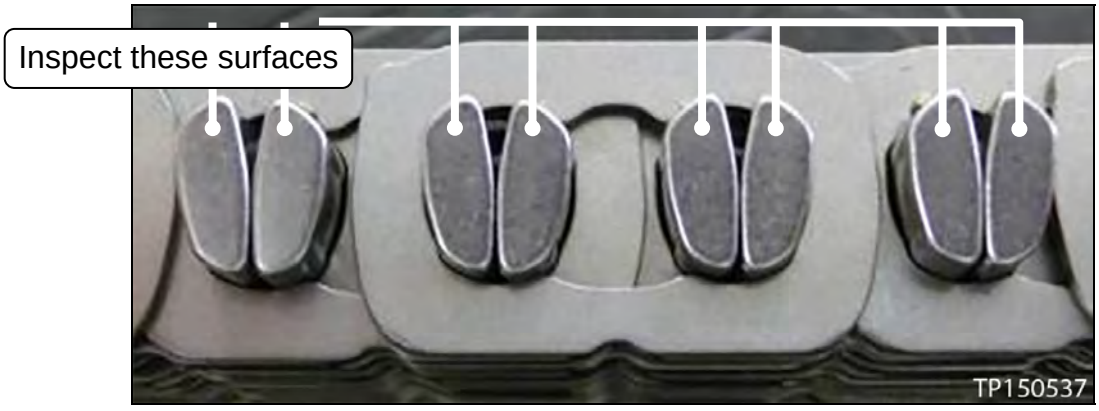


Figure 11C: Close-up of area to be inspected

Photos in Figure 12C and 13C were taken with borescope J-51951.

Figure 12C

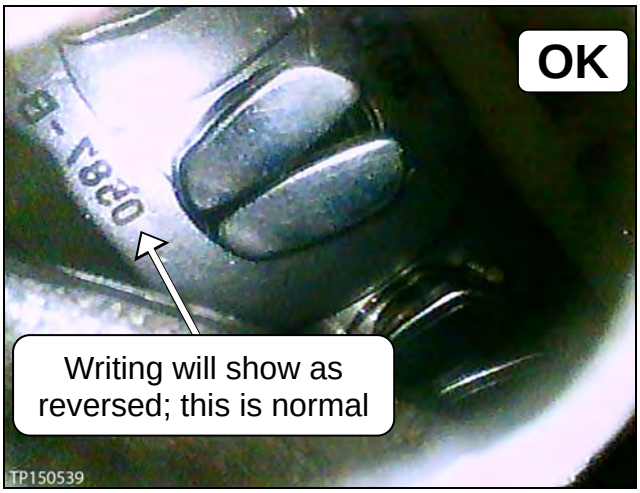


Figure 13C

Figure 14C

Figure 15C

Pictures in Figure 16C – 20C were taken with borescope J-51951.

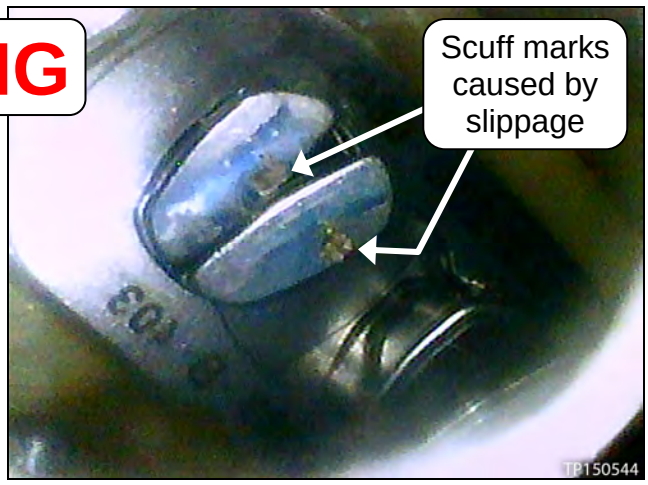


Figure 16C

Figure 17C

Figure 18C

Figure 19C

Figure 20C

CVT ASSEMBLY REPLACEMENT

IMPORTANT: This part of the Service Procedure is performed **only if the following apply:**

- The customer answers Yes to the Service Advisor Interview (see page 3), and
- DTC P17F0 is stored (before or after test drive), or
- The chain inspection result is NG.

NOTE:

- PCC authorization to replace the CVT assembly is required (see page 50).
- If the valve body was removed for chain inspection, it will need to be reinstalled for Nissan parts return/collection.

1. Remove the CVT assembly from the vehicle.
   - Refer to the Electronic Service Manual (ESM), section TM – Transaxle & Transmission, for removal information.

2. Flush the CVT cooler(s).
   - **IMPORTANT:** A CVT Cooler flush is required. Refer to COOLER FLUSH on page 33.
   - It may be easier to flush the cooler while the CVT is removed.

3. Install the new CVT assembly into the vehicle.
   - Refer to the ESM, section TM – Transaxle & Transmission, for installation information.

4. Go to ERASE / WRITE CALIBRATION DATA WHEN REPLACING CVT or VALVE BODY on page 38.

IMPORTANT: Check for fluid leaks before returning the vehicle to the customer.

VALVE BODY REPLACEMENT / INSTALLATION

IMPORTANT: This part of the Service Procedure is performed **only if the following apply:**

- The customer answers Yes to the Service Advisor Interview (see page 3), and
- DTC P17F1 is stored (before or after test drive), and
- The chain inspection result is OK.

NOTE: Valve body replacement does not require PCC authorization.

1. If the valve body is being replaced, it should have already been removed to inspect the chain.

2. **Confirm that the QR label, control valve and CD part numbers all match before installing the control valve (**refer to page 38)**.**

   IMPORTANT: Valve Body installation steps in this bulletin may contain different style parts than what were originally installed in the CVT. Pay careful attention, REASSEMBLY MAY NOT BE IDENTICAL TO DISASSEMBLY.

3. If an oil strainer bracket was removed, discard it. An oil strainer bracket will not be used with the new oil strainer.

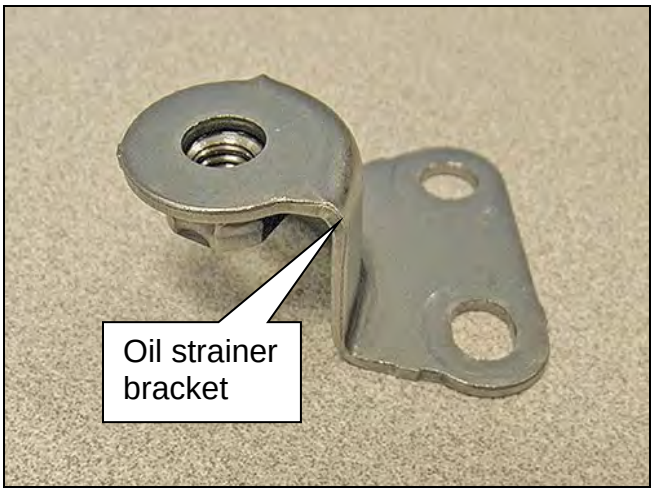


Figure 1D

4. Install a new lip seal.

   - Do <u>NOT</u> reuse the old lip seal.
   - Apply a small amount of petroleum jelly to the lip seal to keep it in place on the CVT.

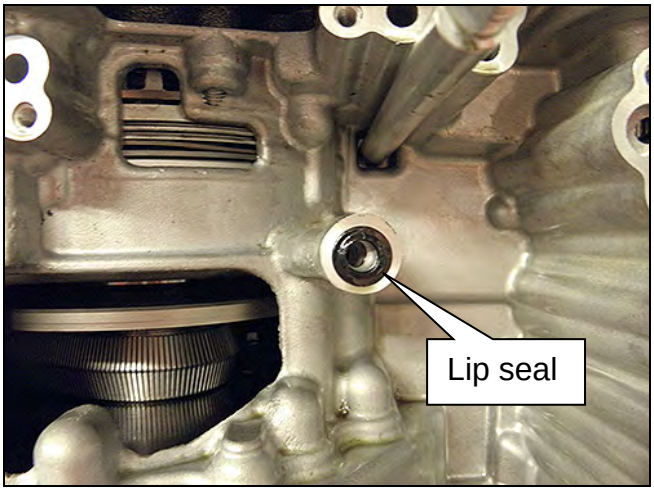


Figure 2D

5. Install the valve body with eleven (11) mounting bolts.

   IMPORTANT: Leave Four (4) ✖ bolt holes blank at this step.

   CAUTION: Make sure the wiring harness does not get pinched (see Figures 4D and 5D for correct routing).

   - 54 mm long bolt – 7 pieces
   - 44 mm long bolt – 2 piece
   - 25 mm long bolt – 2 piece

     CAUTION: The two 25 mm bolts are installed WITHOUT the strainer bracket.

     ➢ Bolt torque: 7.9 N•m (0.81 kg-m, **70 in-lb.**)

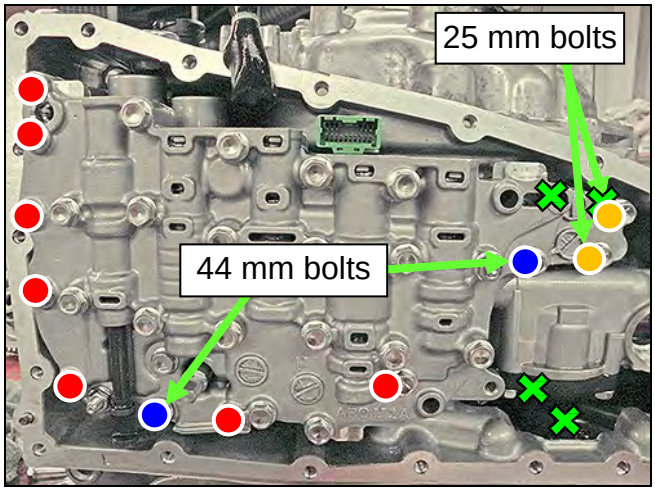


Figure 3D

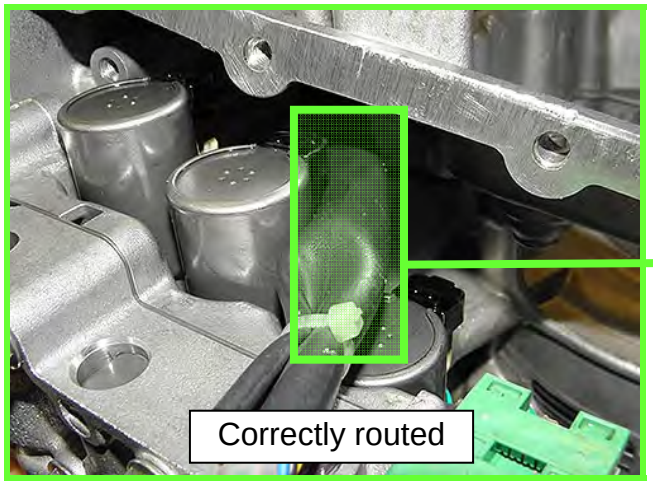


Figure 4D

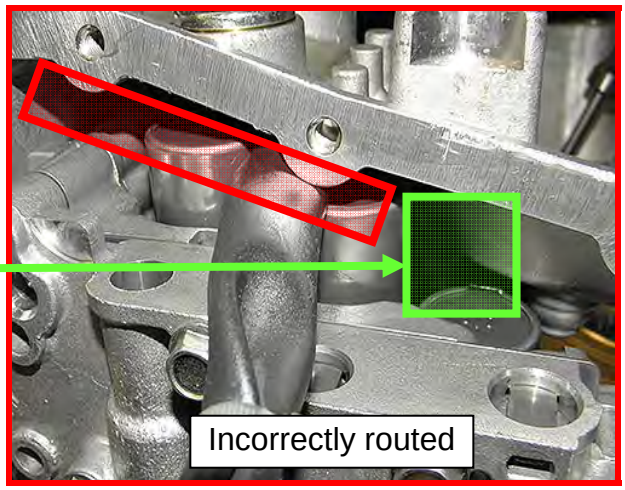


Figure 5D

6. Replace the metal bracket of the temperature sensor as follows:

   NOTE: The new bracket will be oriented the same way as the old one.

   a. Cut the plastic zip tie with an appropriate tool to remove the temperature sensor bracket from the terminal harness assembly (see Figure 6D).

      CAUTION: Cut the plastic zip tie over the metal bracket to avoid damage to the temperature sensor.

   b. Discard the removed bracket and plastic zip tie.

   c. Use the plastic zip tie from Parts Information to attach the new temperature sensor bracket to the temperature sensor of the terminal connector harness.

      IMPORTANT: Locate the plastic zip tie at the **center notch** of three notches on the temperature sensor.

   d. Cut off excess zip tie.

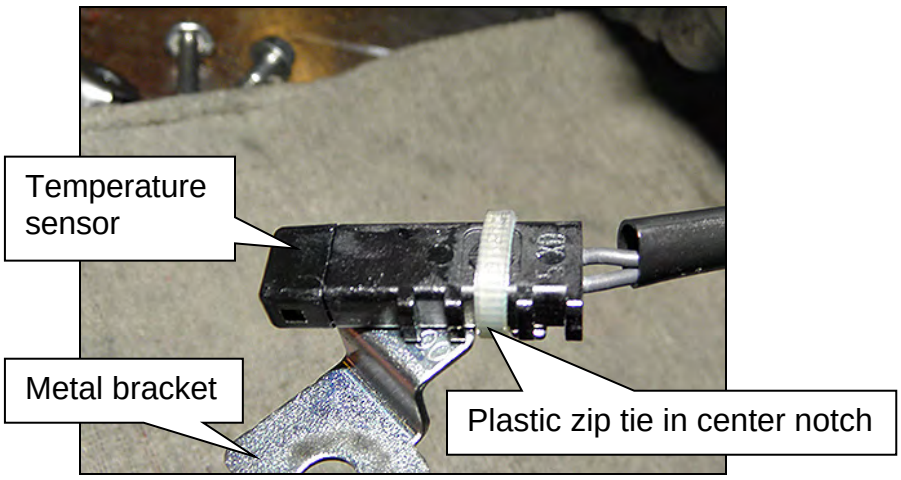


Figure 6D

7. Connect the electrical harness connector.

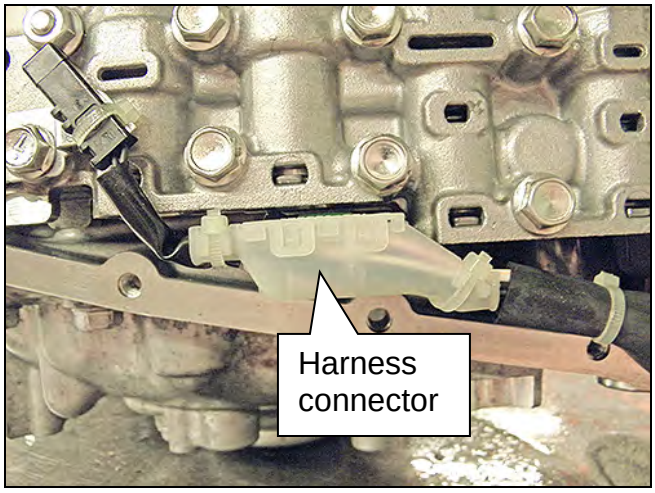


Figure 7D

8. Install the CVT fluid temperature sensor bracket to the valve body with one (1) bolt (Figure 8D).

   NOTE: Leave one (1) bolt hole blank as it will be used to secure the oil strainer at a later step.

   - Bolt torque: 7.9 N•m (0.81 kg-m, **70 in-lb.**)

   • Bolt length: 54 mm

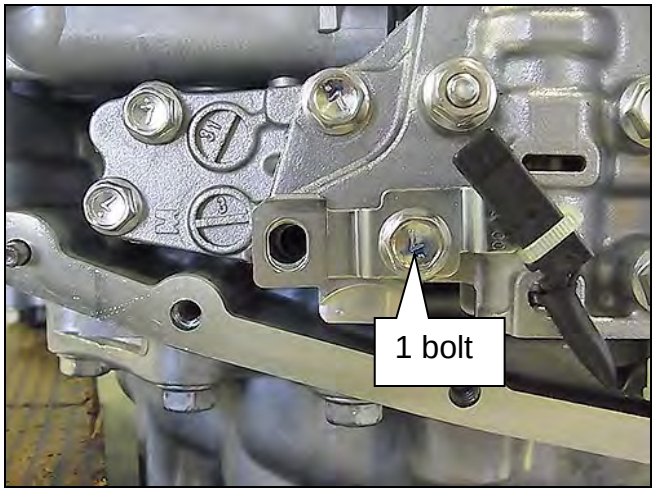


Figure 8D

9. Install the new oil strainer, with its new O-ring seal, with two (2) bolts.

   NOTE: Replacement strainer maybe a different shape than the original.

   - Bolt torque: 7.9 N•m (0.81 kg-m, **70 in-lb.**)

   • 54 mm long bolt - 2 pieces.

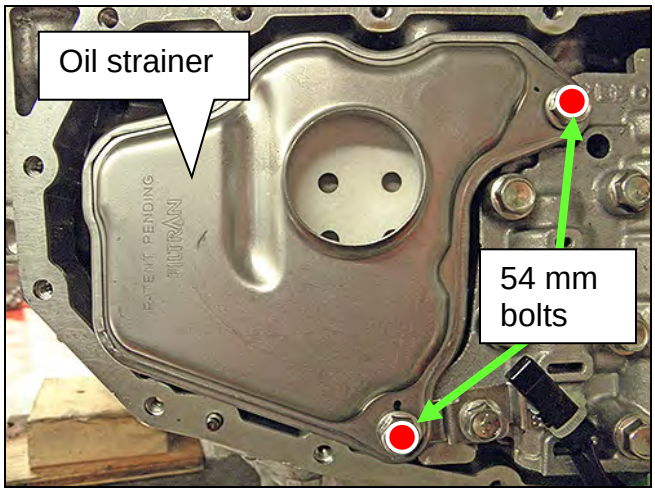


Figure 9D

10. Install the manual plate, lock washer, and nut.

    NOTE: Make sure the manual plate fits into the slot of the manual valve before applying torque to the nut.

    - Reuse the existing manual plate, lock washer, and nut.
    - Nut torque: 22.1 N•m (2.3 Kg-m, **16 ft-lb**.)

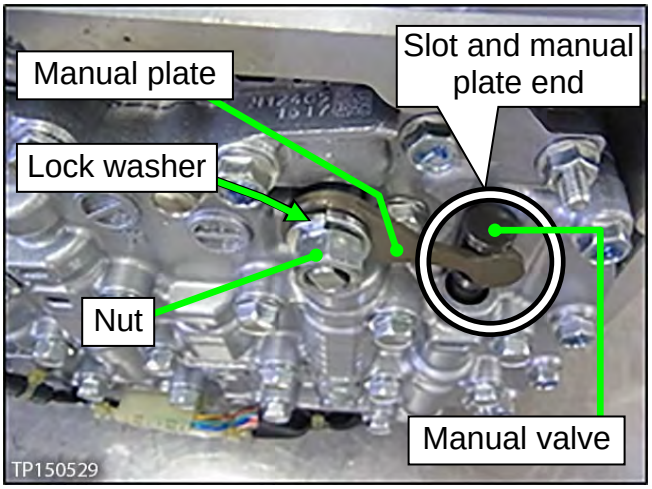


Figure 10D

11. Clean the original oil pan and magnets with a suitable cleaner. Visible debris should not be present at re-assembly.

12. Reassemble the original magnets to the pan.

    NOTE: Return the magnets to their original locations.

13. Install a new oil pan gasket to the pan.

14. Install the oil pan bolts (see Figure 11D).

    - Reuse the existing pan bolts.
      - Oil pan bolts torque: 7.9 N•m (0.81 kg-m, **70 in-lb.**)

15. Install a new drain washer to the drain plug on the oil pan.

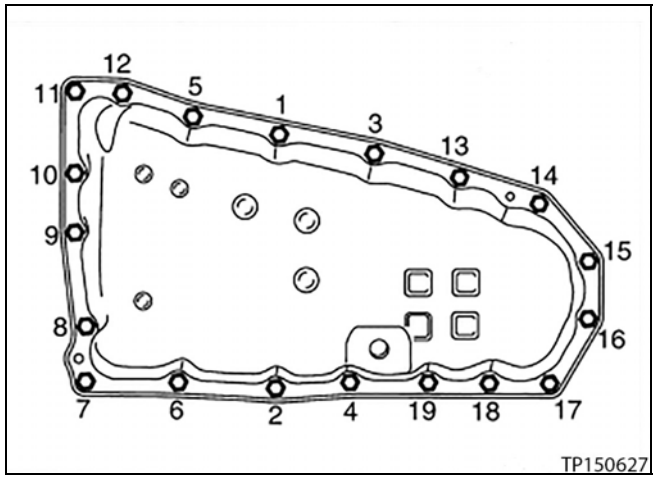


Figure 11D

16. Fill the CVT assembly with NS-3 CVT fluid or equivalent.

    - Refer to the ESM, section **TM – Transaxle & Transmission** for CVT fluid filling.

17. Attach the QR label with the new calibration data onto the transmission range switch (inhibitor switch).

    - See Figure 12D and 13D below.

    - QR Label and CD-R are included with the replacement valve body.

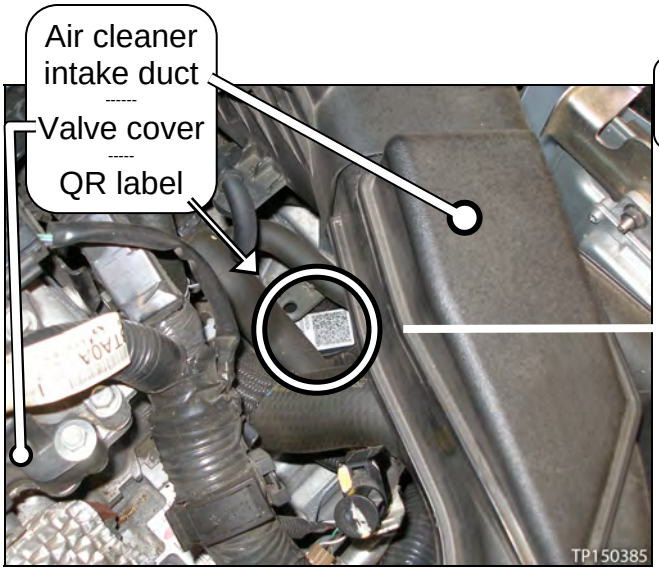


Figure 12D

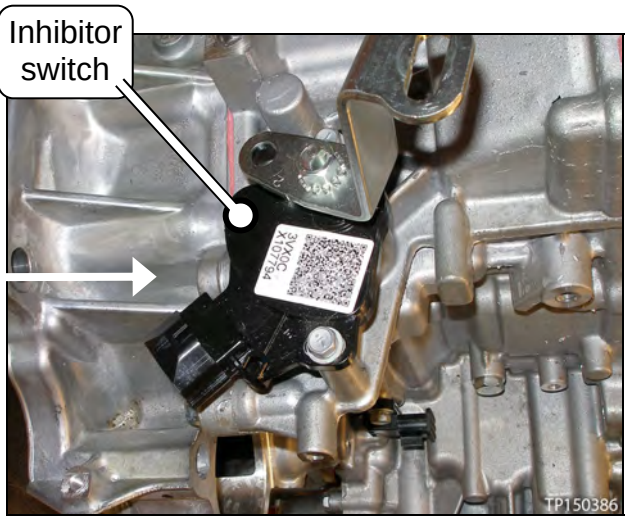


Figure 13D

18. Flush the CVT cooler(s).

    - **IMPORTANT:** A CVT Cooler flush is required. Refer to COOLER FLUSH on page 33.

19. **IMPORTANT:** Install Write IP Characteristics to the TCM.

    - Refer to ERASE / WRITE CALIBRATION DATA WHEN REPLACING CVT or VALVE BODY on page 38.

IMPORTANT: Check for fluid leaks before returning the vehicle to the customer.

COOLER FLUSH

NOTE: The following steps include flushing the radiator based CVT Transmission Fluid Cooler and the external CVT Transmission Auxiliary Fluid Cooler.

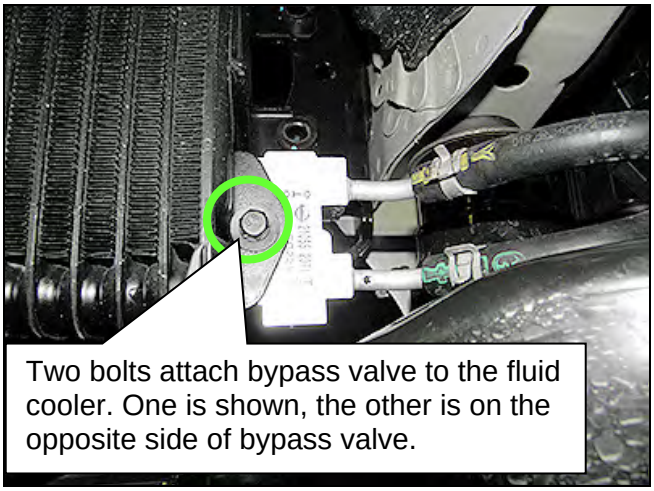
1. Place the vehicle on a lift.

2. Remove the left front wheel and then partially remove the left front fender protector to gain access to the external CVT fluid cooler.

   - If needed, refer to the Electronic Service Manual (ESM), section **EXT – Exterior** for fender protector removal information.

3. Place an oil drain pan under the external CVT fluid cooler.

4. Unbolt and disconnect the external CVT fluid cooler bypass valve from the external CVT fluid cooler.



Two bolts attach bypass valve to the fluid cooler. One is shown, the other is on the opposite side of bypass valve.

Figure 1E

5. Place an oil drain pan under the CVT warmer.

6. Disconnect the CVT fluid inlet and outlet rubber hoses from the CVT fluid warmer (Figure 2E) and discard the spring clamps.

   NOTE: If rubber material from a cooler hose remains on a steel tube or fitting, replace the rubber hose and clean rubber material off of the steel tube.

7. Allow any transmission fluid that remains in the CVT fluid cooler hoses to drain into the oil drain pan.

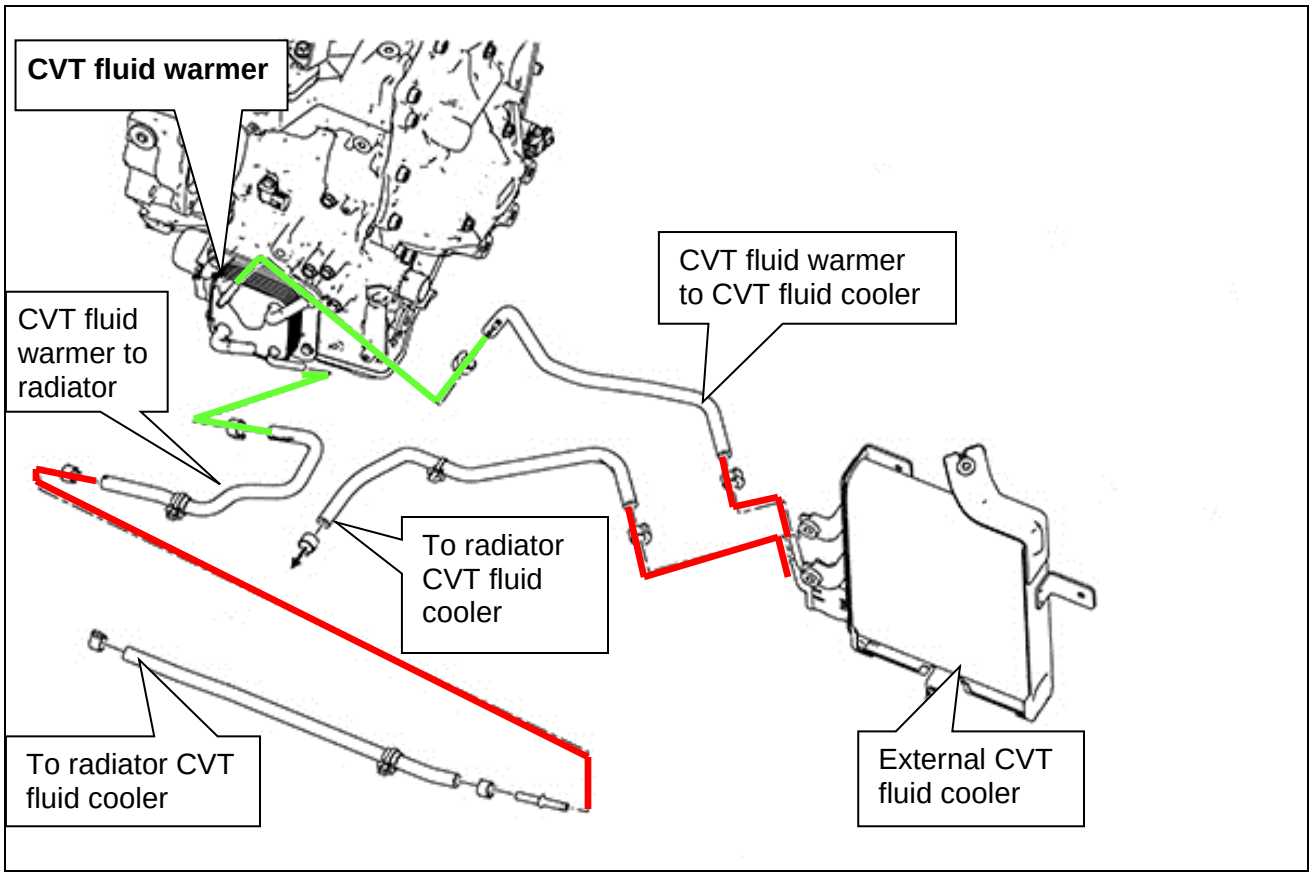


Figure 2E

NOTE: The two hoses that have been removed from the CVT fluid warmer will be used to flush the radiator based cooler; first in one direction and then the other.

CAUTION:

- Wear safety glasses and rubber gloves when spraying the Transmission Cooler Cleaner.
- Spray Cooler Cleaner only in areas with adequate ventilation.
- Avoid contact with eyes and skin.
- Do not breathe vapors or mist from spray.

8. Insert the “extension adapter hose”, from a can of Cooler Cleaner (Nissan P/N 999MP-AM006P), into one or the other of the disconnected CVT fluid cooler hoses (Figure 3E).
9. Flush cooler and hoses as follows:
   a. Hold the hose and can of cleaner as high as possible.
      - Block the CVT fluid cooler bypass valve (Figure 3E) with thumb.
   b. Spray Transmission Cooler Cleaner, in a continuous stream, into the CVT fluid cooler inlet hose.
   c. Spray fluid until it flows out of the other hose for 5 seconds.
10. Slide a piece of 5/8 inch hose (16 mm) over the end of the CVT fluid cooler hose (Figure 4E) that was used as the flush inlet.
11. Insert the tip of an air gun into the end of 5/8 inch (16 mm) hose (Figure 4E).
    - Block the CVT fluid cooler bypass valve fluid passage (Figure 3E) with thumb.
12. Blow compressed air, regulated to 5-9 kg/cm2 (70 – 130 PSI), through the CVT fluid cooler hose for 10 seconds to force out any remaining fluid.

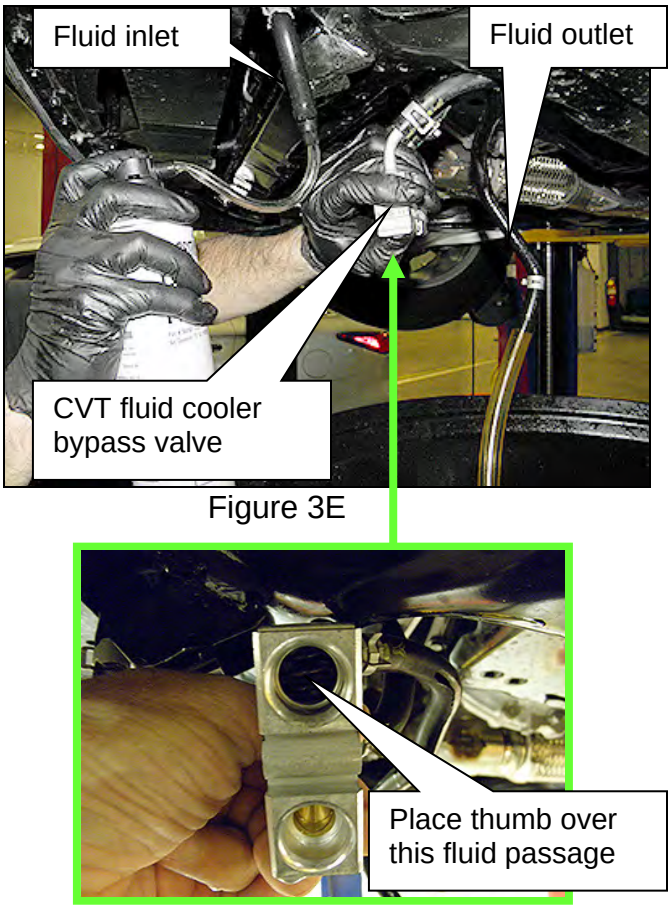


Figure 3E

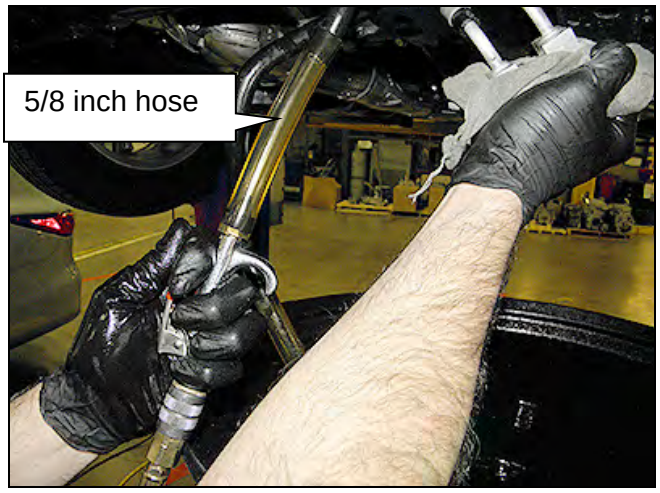


Figure 4E

13. Repeat steps 8 through 12 one additional time and then proceed to step 14.

14. Now reverse the direction that the hoses are being flushed (Figure 3E) and repeat steps 8 through 12 twice (total of 3 times).
    - When complete proceed to step 15.

15. Reassemble the CVT fluid cooler hoses to the CVT warmer with new spring clamps.
    - Spring clamps are listed in the PARTS INFORMATION.
    - If needed, refer to the ESM, section **TM – Transaxle & Transmission** for correct hose assembly and alignment.

16. Remove the external CVT fluid cooler (auxiliary fluid cooler) from the vehicle.
    - If needed, refer to the ESM, section **TM – Transaxle & Transmission** for removal information.

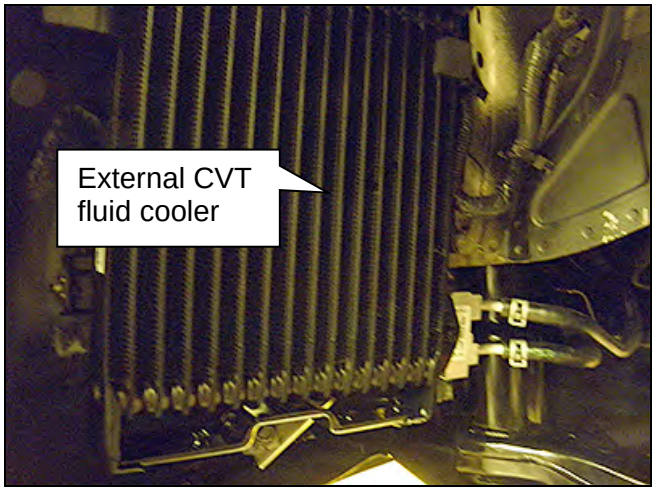


Figure 5E

17. Remove the O-rings from the auxiliary fluid cooler.

18. Install a 4 inch long hose with an inside diameter of 5/8 inch (16 mm) onto the inlet side of the auxiliary fluid cooler.

19. Install a 6 inch long hose with inside diameter of 5/8 inch (16 mm) onto outlet of the auxiliary fluid cooler and place the opposite end into a suitable container to catch used fluid.

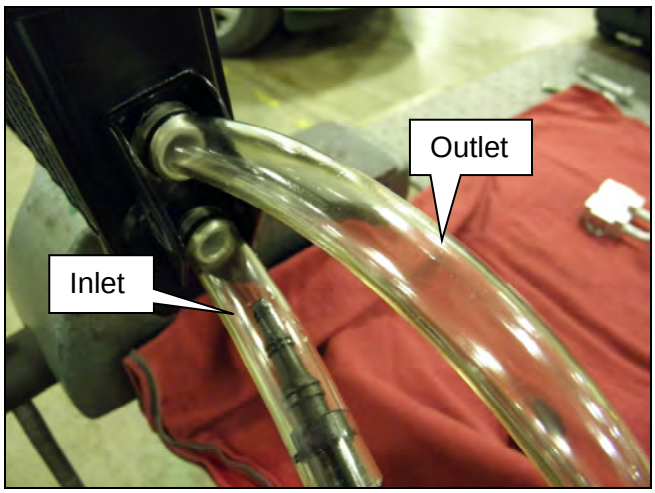


Figure 6E

20. Insert the “extension adapter hose” from a can of Transmission Cooler Cleaner (Nissan P/N 999MP-AM006P) into the cooler inlet.

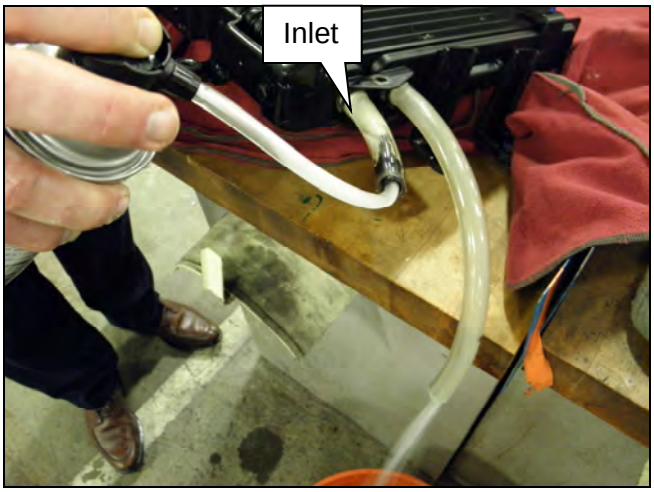


Figure 7E

21. Spray one full can of Transmission Cooler Cleaner through the inlet of cooler, letting cleaner drain through the outlet and into the catch container.

22. Allow the remaining fluid in the auxiliary fluid cooler to drain out.

23. Insert the tip of an air gun into the end of the cooler inlet.


Figure 8E

24. Wrap a shop rag around the air gun tip and end of the cooler inlet to reduce blowback.

25. Blow compressed air, regulated to 5-9 kg/cm2 (70 – 130 PSI), through the inlet side of the auxiliary fluid cooler for 10 seconds to force out any remaining fluid.

26. While holding the hoses securely to the fluid cooler, flush 2 full quarts of NS-3 (or equivalent) with a 1 pint suction gun.
    - Flush from the inlet side of the auxiliary fluid cooler through to the outlet.

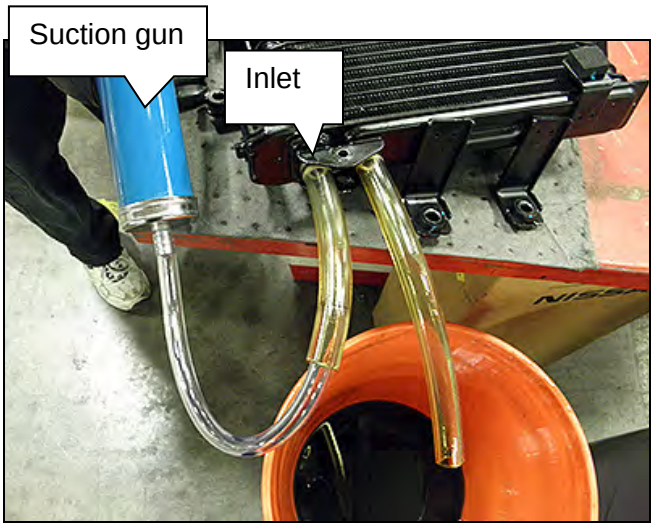


Figure 9E

27. Allow the remaining fluid in the auxiliary fluid cooler to drain into the catch container.

28. To complete the flush, insert the tip of an air gun again into the end of the fluid cooler inlet (Figure 8E).

29. Wrap a shop rag around the air gun tip and end of the cooler inlet (Figure 8E).

30. Blow compressed air, regulated to 5-9 kg/cm2 (70 – 130 PSI), through the inlet of the auxiliary fluid cooler for 10 seconds to force out any remaining CVT fluid.

31. Reassemble the auxiliary fluid cooler and CVT fluid cooler bypass valve in the reverse order of disassembly with new O-rings.

    - New O-rings are listed in the **PARTS INFORMATION**.

    - If needed, refer to the ESM, section **TM – Transaxle & Transmission** for correct hose assembly and alignment.

ERASE / WRITE CALIBRATION DATA WHEN REPLACING CVT or VALVE BODY

NOTE: Use the following steps when a complete CVT, or valve body is replaced.

Before starting, make sure:

- ASIST on the CONSULT PC has been synchronized to the current date.
- All C-III plus software updates (if any) have been installed.

1. Obtain the calibration file disk (**provided with the new CVT or valve body**).

2. Match the numbers on the disk with the new CVT or new valve body and QR label.

    - See the next 2 pages 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.

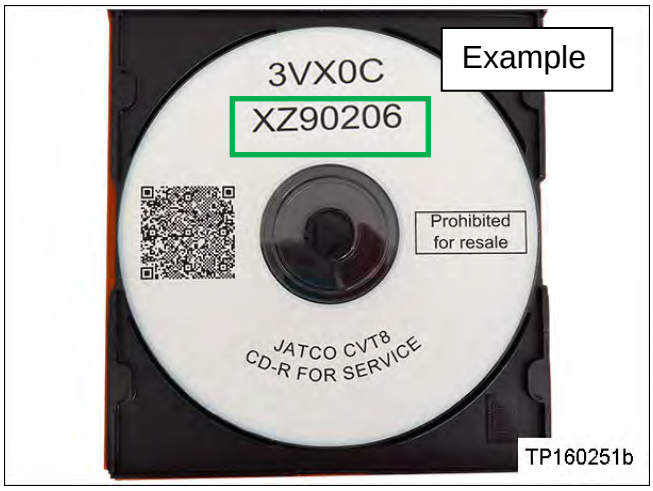


Figure A

- QR label on the new CVT.

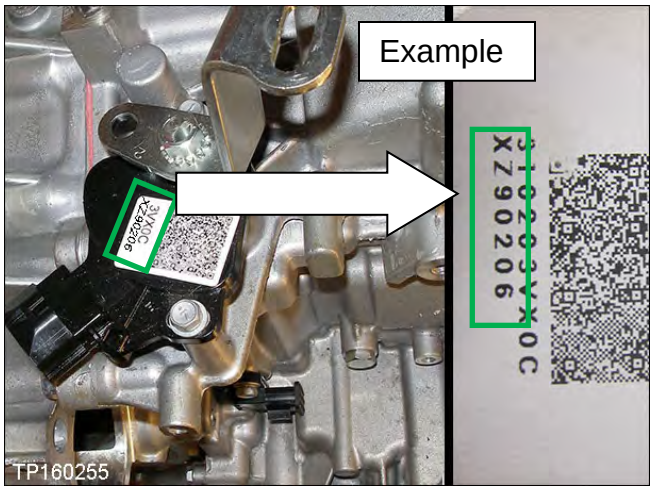


Figure B

- Calibration file number on the CVT case or label.

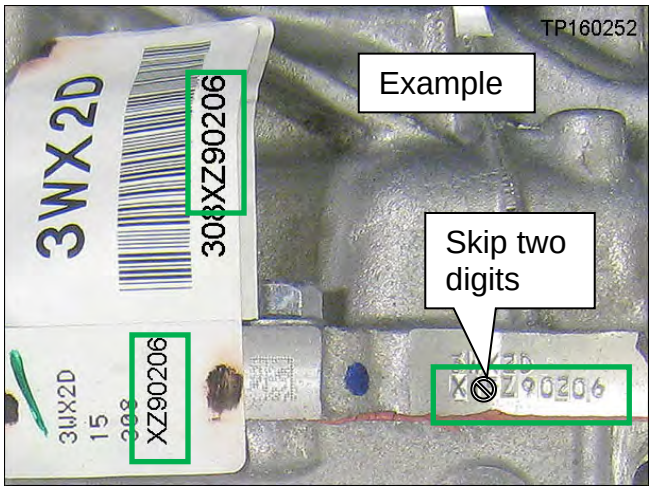


Figure C

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

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

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

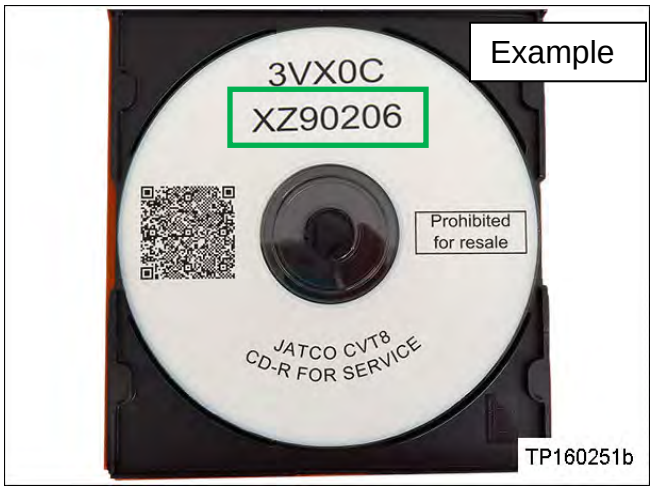


Figure D

- QR label provided with the new valve body.

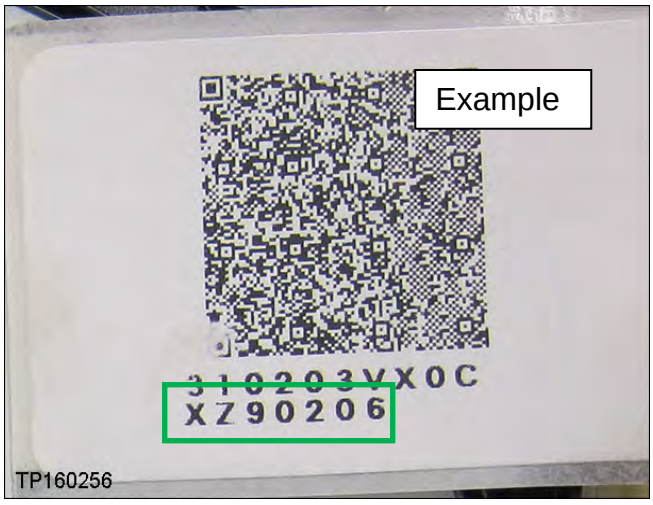


Figure E

- Calibration file number on the valve body.

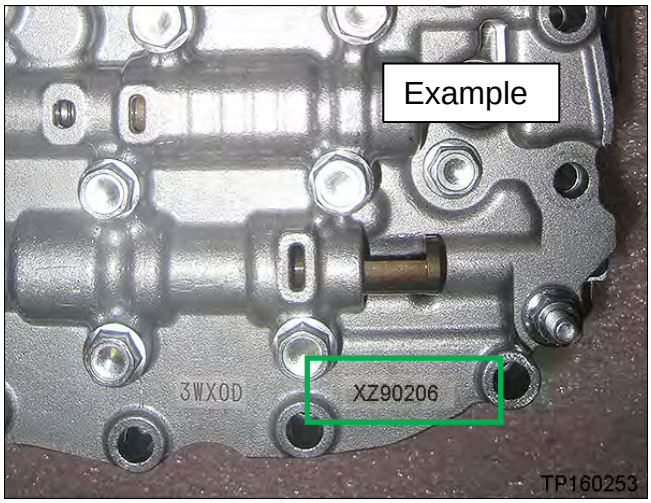


Figure F

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 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)**.

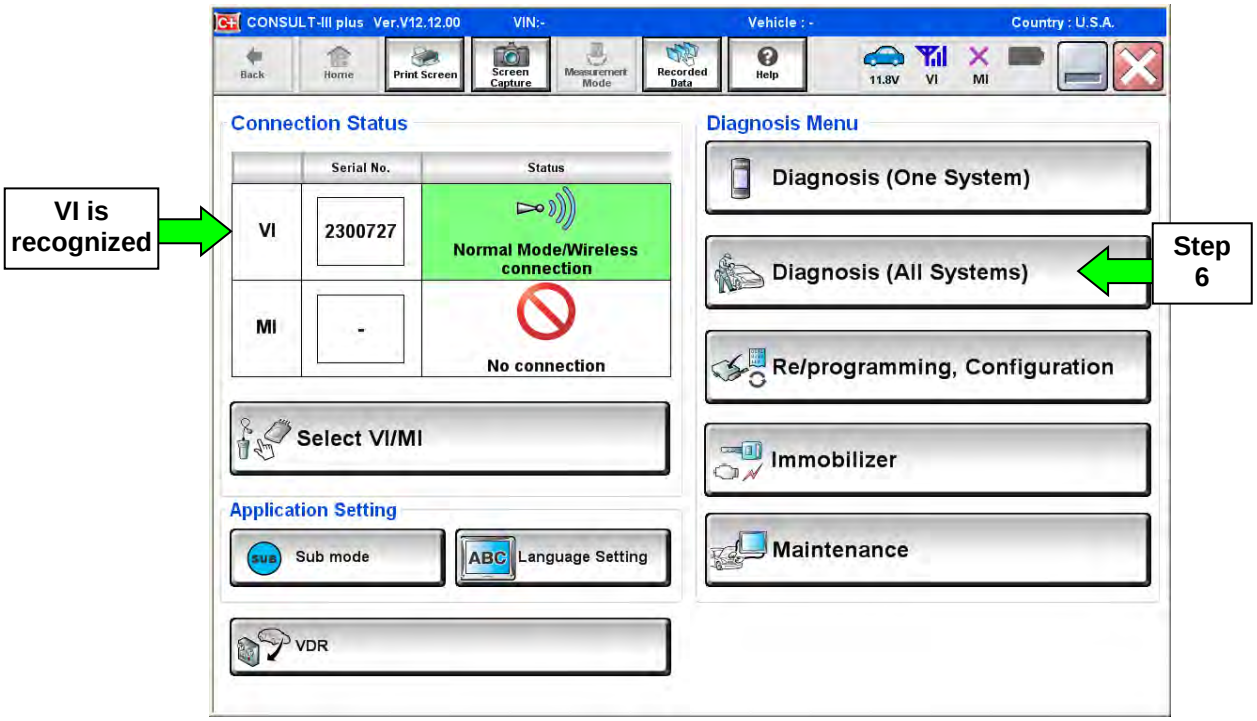


Figure 1F

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

8. Select the scroll arrow shown in Figure 2F.

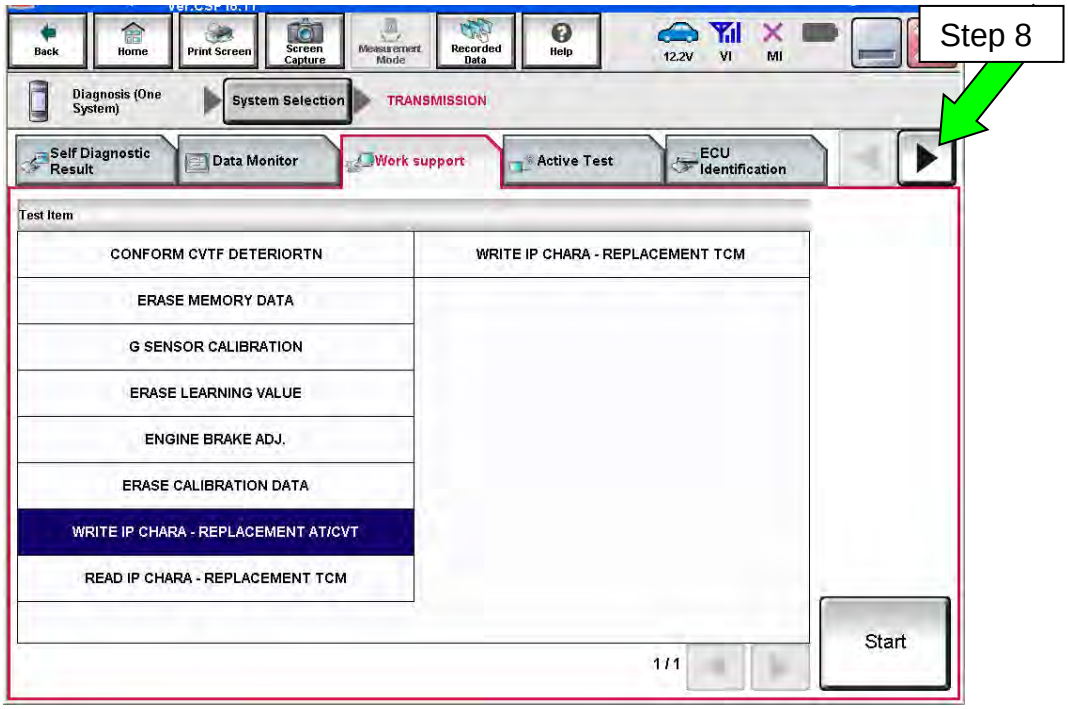


Figure 2F

9. Print a copy of the screen shown in Figure 3F 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 3F.

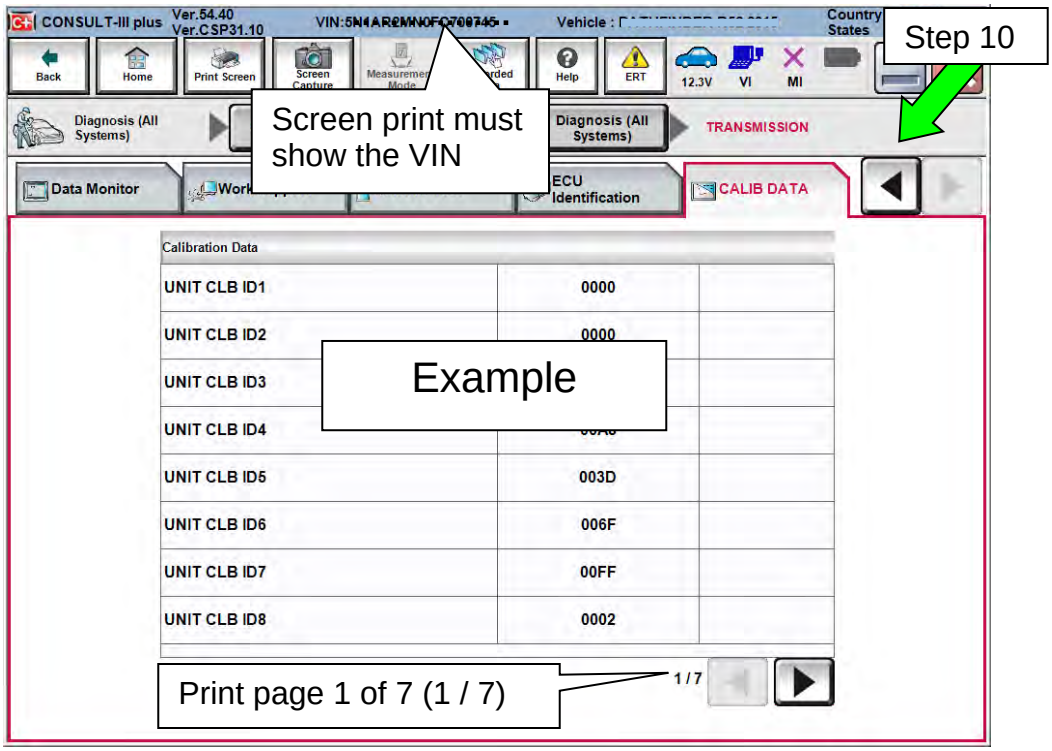


Figure 3F

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

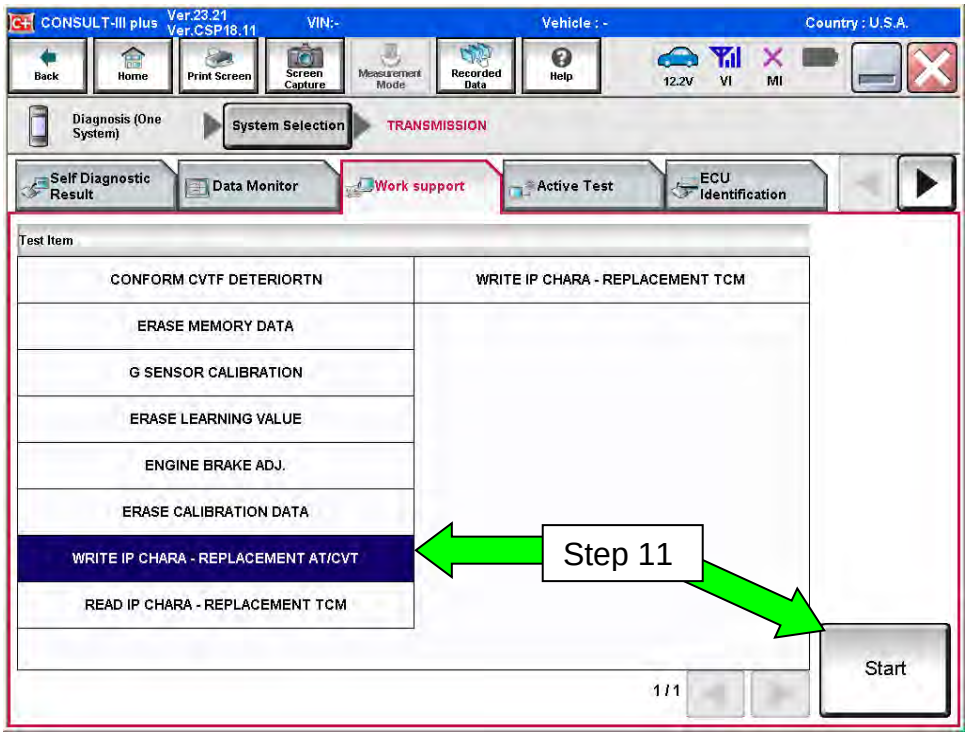


Figure 4F

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**.

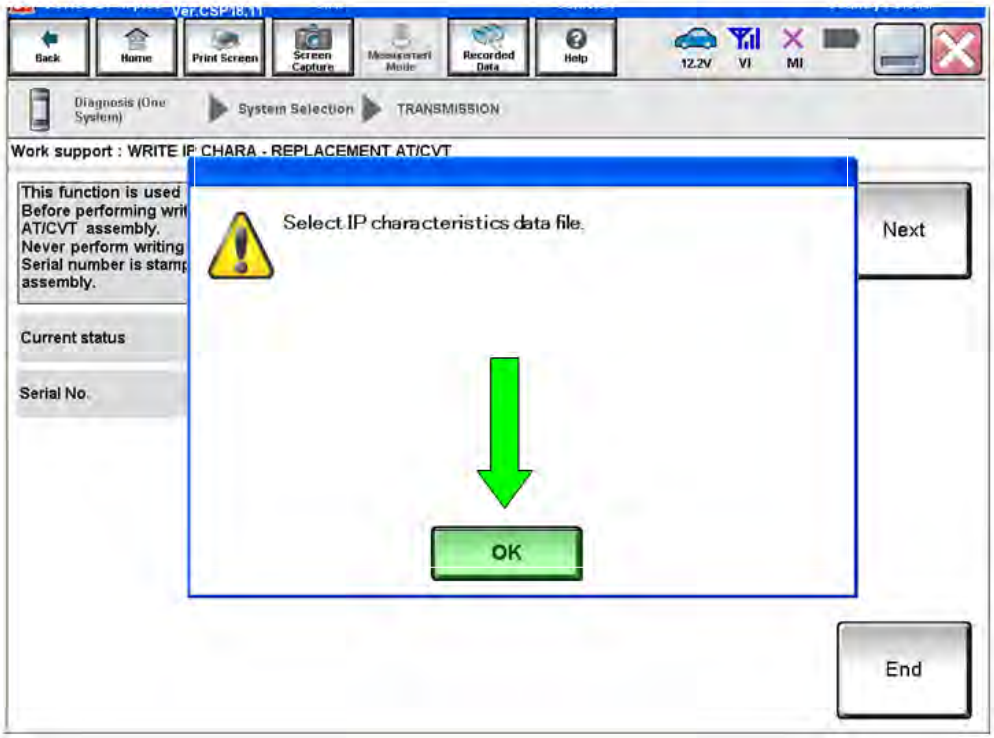


Figure 5F

13. Select **My Computer**.

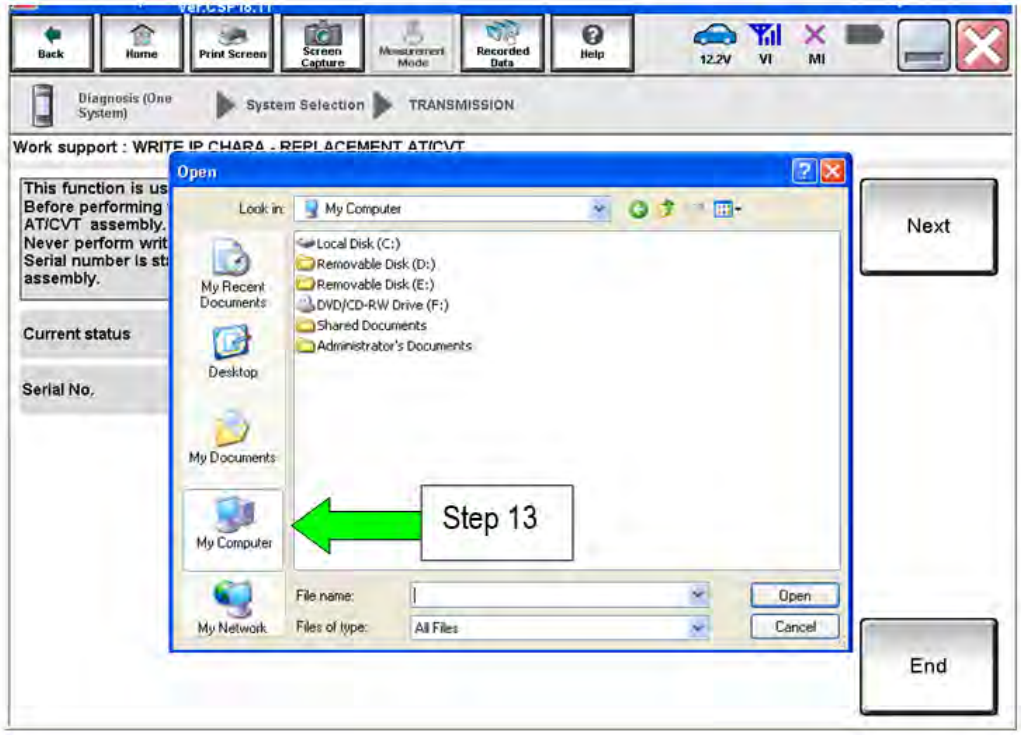


Figure 6F

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

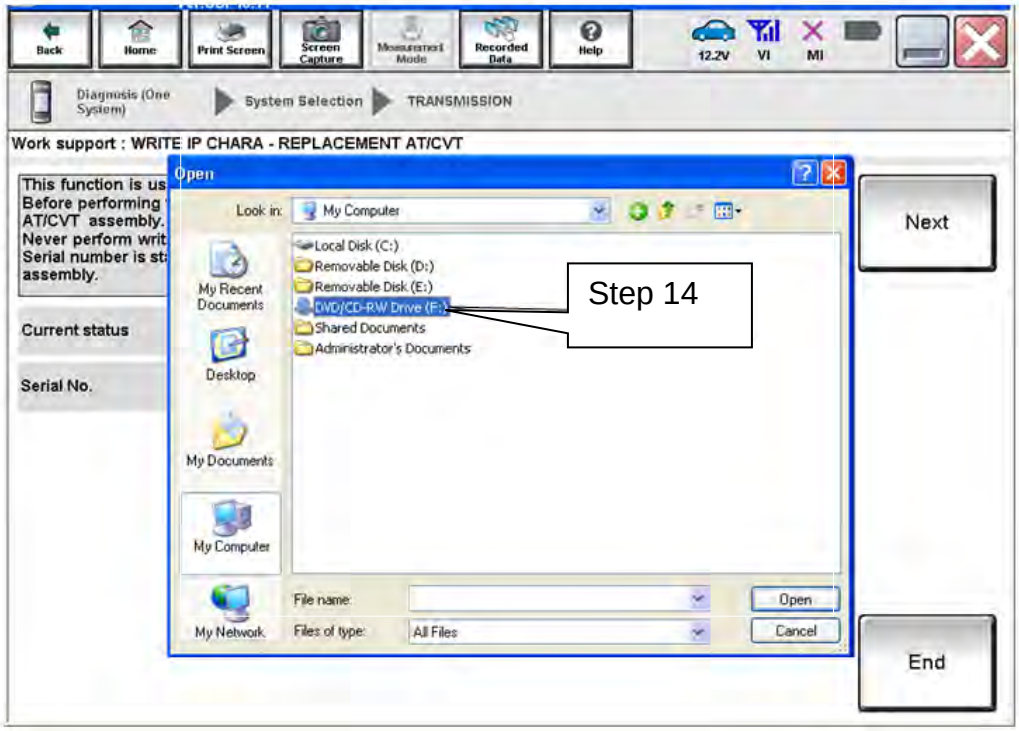


Figure 7F

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

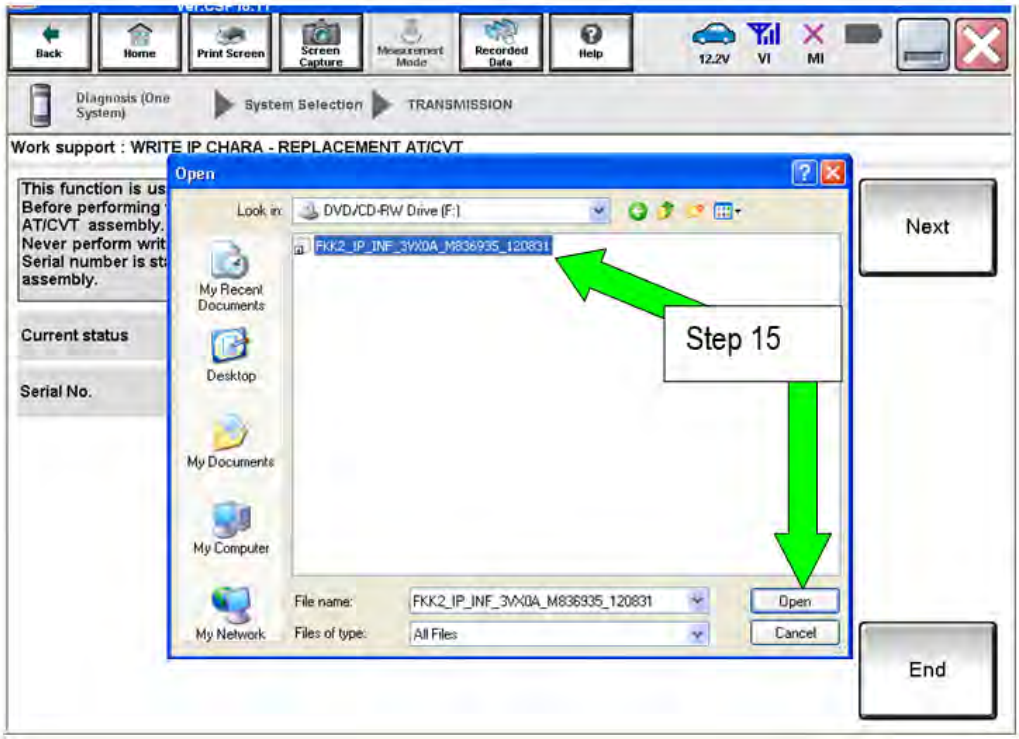


Figure 8F

16. Verify that the serial number (calibration file number) matches the numbers from step 2 on page 38 (see Figures on pages 39 and 40).
    - If the numbers do not match, call TECH LINE.

17. Select **Next**.

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

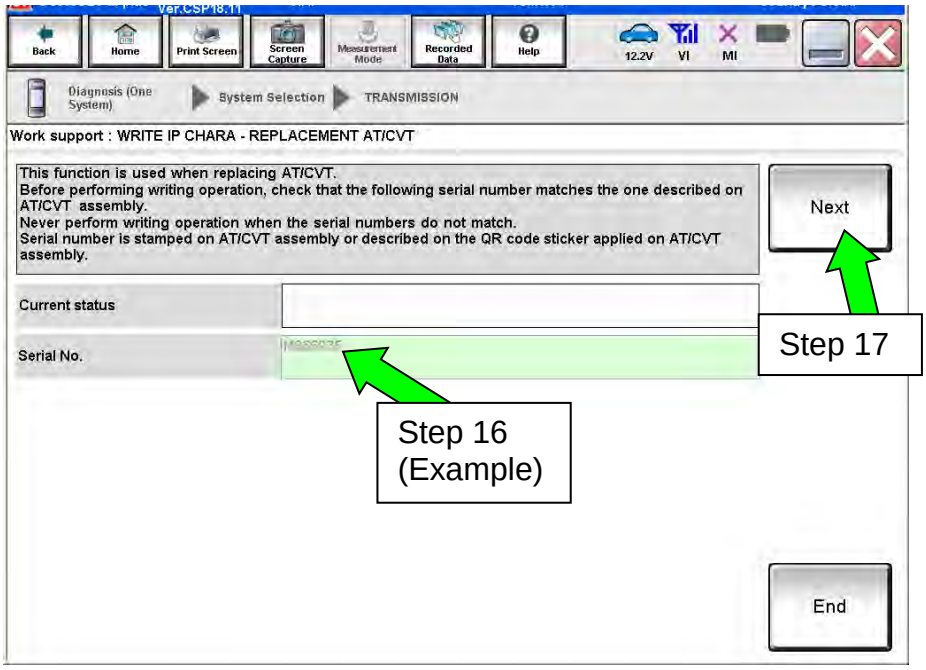


Figure 9F

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

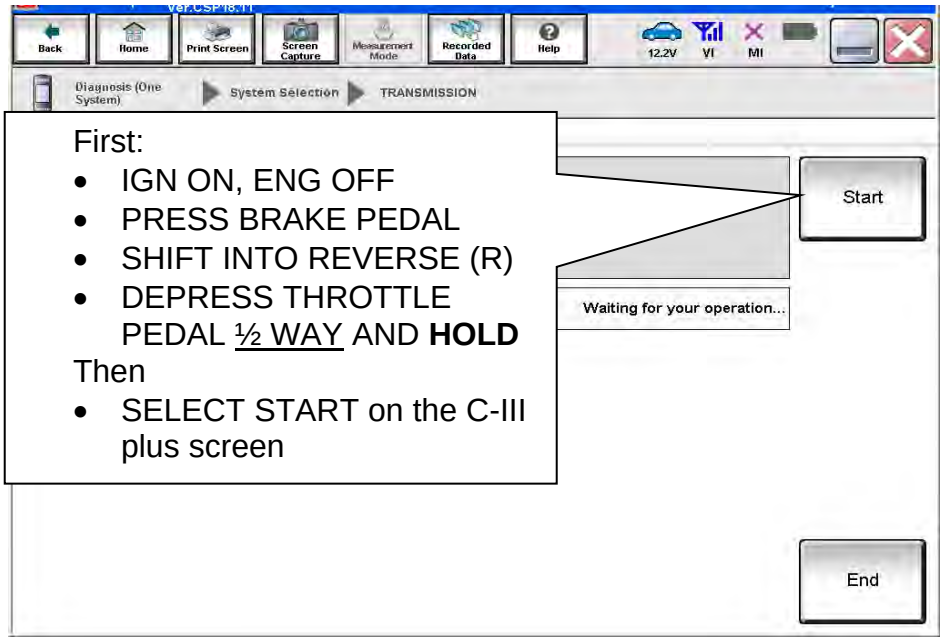


Figure 10F

19. Follow the on screen instructions.

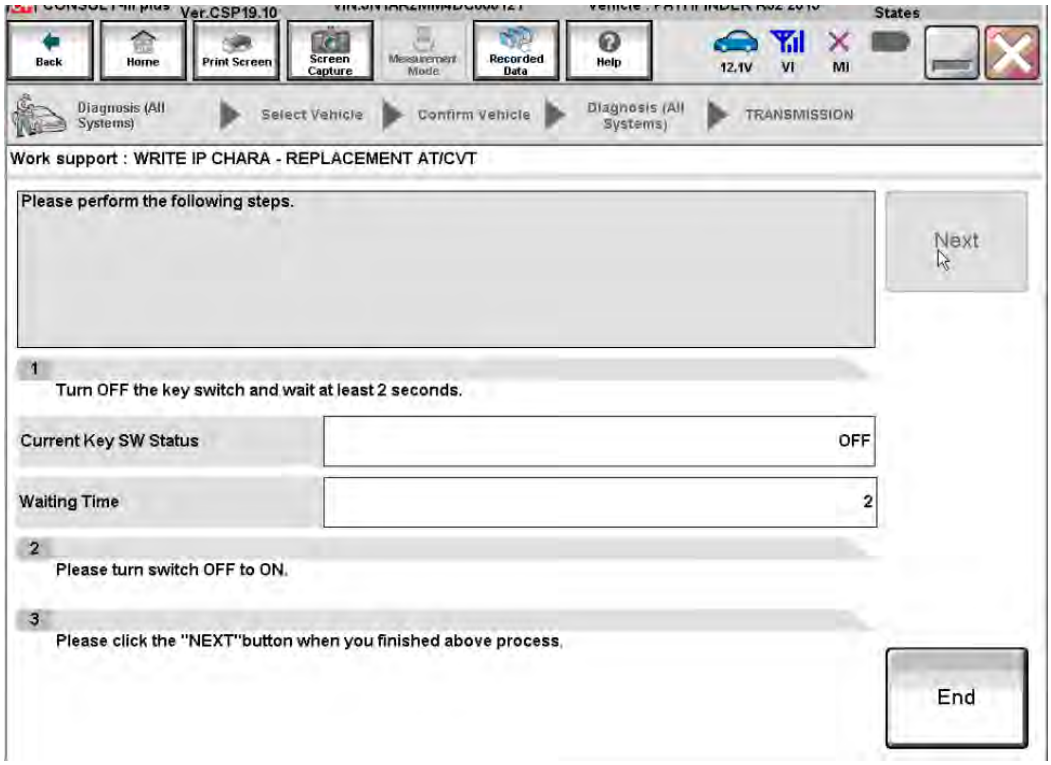


Figure 11F

20. Follow the on screen instructions.

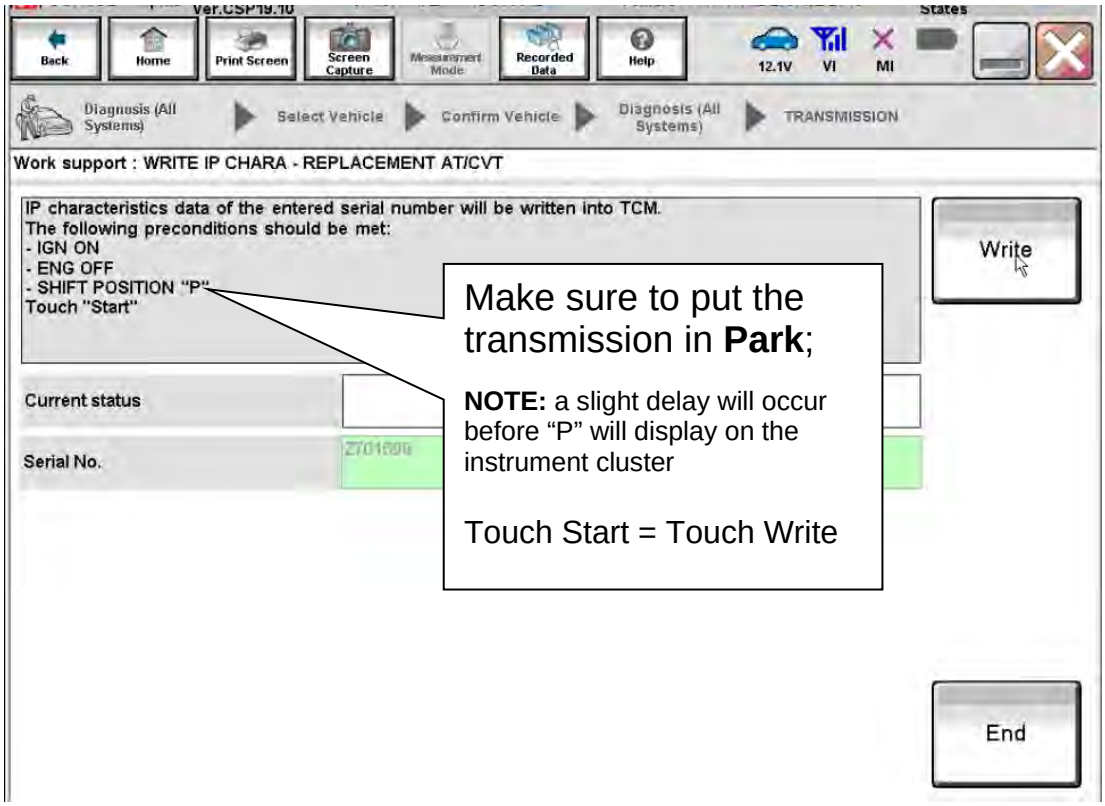


Figure 12F

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

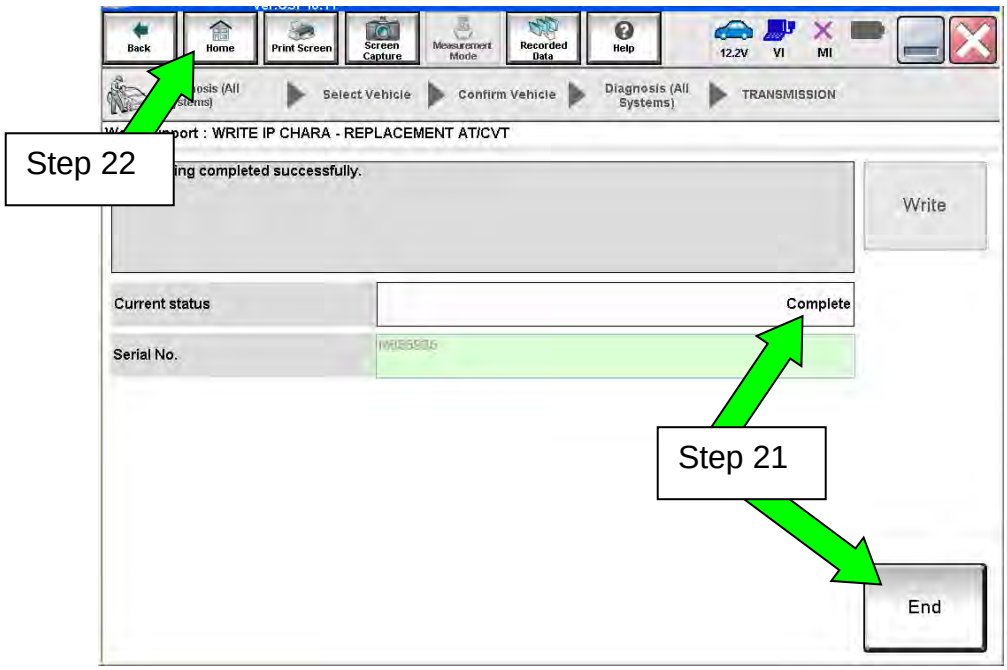


Figure 13F

22. Select **Home** to return to the C-III plus home screen.

23. Perform steps 6 – 9, starting on page 41.

24. Attach the second screen print to the repair order.

    NOTE: Screen prints are used for warranty documentation.

25. Go to the next page.

Clutch Point Learning (if valve body was replaced)

1. Start the engine.
2. With C-III plus, select TRANSMISSION > Work Support.
3. Select FWO CLUTCH POINT LEARNING.
4. Perform learning according to on screen instructions.
5. After completion in D position, perform in R position.

Select Learning (Drive Reverse Learning) Procedure (if valve body or CVT was replaced)

1. Set the parking brake.
2. Start the Engine.
3. Wait 5 seconds.
4. Shift to Neutral and wait more than 2 seconds.
5. Shift to Drive and wait for transmission engagement.
6. Repeat steps 4 and 5, ten (10) times.
7. Shift to Neutral and wait more than 2 seconds.
8. Shift to Reverse and wait for transmission engagement.
9. Repeat steps 7 and 8, ten (10) times.
10. Shift to Park and turn the ignition OFF.

Erase CVT Fluid Degradation Level Data

1. Turn the ignition ON.
2. With C-III plus, select TRANSMISSION > Work Support.
3. Select CONFORM CVTF DETERIORTN.
4. Touch Clear.
5. Clear any DTCs that may have set and then test drive the vehicle.

POWERTRAIN CALL CENTER (PCC) AUTHORIZATION

CVT Assembly Replacement Approval Procedures

- If P17F0 is stored for CVT replacement:

  a. Complete the Powertrain Call Center (PCC) CVT Preauthorization Form in ASIST.

  b. Attach the C-III plus screen printouts showing the VIN and DTC to the Preauthorization Form.

  c. Call the PCC for authorization at **800-973-9992 (opt 2)**.

- If P17F1 is stored and CVT chain inspection indicates **CVT assembly** replacement is required:

  a. Complete the PCC CVT Preauthorization Form in ASIST.

  b. Attach the C-III plus screen printouts showing the VIN and DTC to the Preauthorization Form.

  c. Attach the required video (15 seconds or less) to the CVT Preauthorization Form.

     - Failure to submit a continuous video showing evidence of chain slip and the VIN will cause immediate denial of request for CVT unit replacement.

  d. Call the PCC for authorization at **800-973-9992 (opt 2)**.

  IMPORTANT: Make sure the video has a clear image of the VIN on the F.M.V.S.S. certification label (VIN label).

PARTS INFORMATION

All of the parts listed below are only "**if needed**" per the details of this bulletin.

DESCRIPTION	PART NUMBER	QUANTITY
Remanufactured CVT Assembly	For 2WD 310CM-3WX0DRE	1
	For 4WD 310CM-3WX0ERE	
CONTROL VALVE (Valve Body) Kit (1)	3170E-29X9C	1
Kit Includes:		
VALVE ASSEMBLY-CONTROL (valve body) (1)		
STRAINER ASSY-OIL, AUTO TRANS		
GASKET-OIL PAN		
BRACKET (for temperature sensor)		
BAND (zip tie for sensor bracket)		
SEAL-LIP		
SEAL, O-RING (fluid filler plug gasket)		
O-RING; EXTERNAL OIL COOLER	22180-9NB0A	2
Hose spring clamp	16439-7S01D	2
Transmission Cooler Cleaner	999MP-AM006P (3)	As needed
WASHER-DRAIN	11026-JA00A	1
NS-3 CVT Fluid (2) (3)	999MP-NS300P	As needed

(1) Includes QR Label and CD-R.
(2) For warranty repairs, Nissan NS-3 CVT Fluid must be used. For customer pay repairs, Nissan NS-3 CVT Fluid or an equivalent is recommended.
(3) Order this item through the Nissan Maintenance Advantage program: Phone: 877-NIS-NMA1 (877-647-6621). Website order via link on dealer portal www.NNAnet.com and click on the "Maintenance Advantage" link

CLAIMS INFORMATION

Submit a Campaign (CM) line claim using the following claims coding:

CAMPAIGN (CM) I.D. #	DESCRIPTION	OP CODE	FRT
PC500	Check DTCs, Check TCM Part Number (ECM reprogram not needed)	PC5000	0.2 hrs.

CAMPAIGN (CM) I.D. #	DESCRIPTION	OP CODE	FRT
PC500	Check DTC's, Check TCM Part Number, Perform Test Drive-OK (FWD/AWD)	PC5001	0.4 hrs.
	Perform TCM Reprogramming (if needed)	PC500C	0.6 hrs.

CAMPAIGN (CM) I.D. #	DESCRIPTION	OP CODE	FRT
PC500	Check DTC's, Check TCM Part Number, and Replace CVT (FWD)	PC5002	10.2 hrs.
	Perform TCM Reprogramming (if needed)	PC500C	0.6 hrs.

CAMPAIGN (CM) I.D. #	DESCRIPTION	OP CODE	FRT
PC500	Check DTC's, Check TCM Part Number, and Replace CVT (AWD)	PC5003	11.0 hrs.
	Perform TCM Reprogramming (if needed)	PC500C	0.6 hrs.

CAMPAIGN (CM) I.D. #	DESCRIPTION	OP CODE	FRT
PC500	Check DTC's, Check TCM Part Number, Perform Chain Inspection, and Replace CVT (FWD)	PC5004	12.6 hrs.
	Perform TCM Reprogramming (if needed)	PC500C	0.6 hrs.

CAMPAIGN (CM) I.D. #	DESCRIPTION	OP CODE	FRT
PC500	Check DTC's, Check TCM Part Number, Perform Chain Inspection, and Replace CVT (AWD)	PC5005	13.4 hrs.
	Perform TCM Reprogramming (if needed)	PC500C	0.6 hrs.

CAMPAIGN (CM) I.D. #	DESCRIPTION	OP CODE	FRT
PC500	Check DTC's, Check TCM Part Number, Perform Chain Inspection, and Replace Valve Body (2WD/AWD)	PC5006	2.5 hrs.
	Perform TCM Reprogramming (if needed)	PC500C	0.6 hrs.

CLAIMS INFORMATION continued

CAMPAIGN (CM) I.D. #	DESCRIPTION	OP CODE	FRT
PC500	Check DTC's, Check TCM Part Number, Perform Test Drive, and Replace CVT (FWD)	PC5007	10.4 hrs.
	Perform TCM Reprogramming (if needed)	PC500C	0.6 hrs.

CAMPAIGN (CM) I.D. #	DESCRIPTION	OP CODE	FRT
PC500	Check DTC's, Check TCM Part Number, Perform Test Drive, and Replace CVT (AWD)	PC5008	11.2 hrs.
	Perform TCM Reprogramming (if needed)	PC500C	0.6 hrs.

CAMPAIGN (CM) I.D. #	DESCRIPTION	OP CODE	FRT
PC500	Check DTC's, Check TCM Part Number, Perform Test Drive, Perform Chain Inspection, and Replace CVT (FWD)	PC5009	12.8 hrs.
	Perform TCM Reprogramming (if needed)	PC500C	0.6 hrs.

CAMPAIGN (CM) I.D. #	DESCRIPTION	OP CODE	FRT
PC500	Check DTC's, Check TCM Part Number, Perform Test Drive, Perform Chain Inspection, and Replace CVT (AWD)	PC500A	13.6 hrs.
	Perform TCM Reprogramming (if needed)	PC500C	0.6 hrs.

CAMPAIGN (CM) I.D. #	DESCRIPTION	OP CODE	FRT
PC500	Check DTC's, Check TCM Part Number, Perform Test Drive, Perform Chain Inspection, and Replace Valve Body (2WD/AWD)	PC500B	2.7 hrs.
	Perform TCM Reprogramming (if needed)	PC500C	0.6 hrs.