Technical Bulletin



SERVICE BULLETIN

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ADDITIONAL SERVICE WHEN REPLACING CONTROL VALVE OR TRANSAXLE ASSEMBLY

This bulletin has been amended. Changes have been made throughout. It is necessary for you to read this revised procedure to properly perform this action. Please discard all previous versions of this bulletin.

APPLIED VEHICLES: 2013-2017 Sentra (B17)

2014-2017 Versa Note (E12) 2013-2017 Versa Sedan(N17)

APPLIED TRANSMISSION: CVT

SERVICE INFORMATION

After a CVT assembly or control valve replacement, additional service must be completed with CONSULT-III plus (C-III plus).

 If all additional services are not performed, the vehicle can experience drivability concerns which may result in a CVT issue.

Additional Service when Replacing Control Valve or Transaxle Assembly

- ➤ The following procedures, starting on the next page, <u>must be</u> performed in this order.
- Check off procedure as they are performed in the order listed below.

CHECK OFF	PROCEDURE	PAGE
	TCM REPROGRAMMING	2
	ERASE MEMORY DATA	22
	CONFORM CVTF DETERIORTN	24
	Auxiliary gearbox clutch point learning	27
	Erase DTCs	29

Nissan Bulletins are intended for use by qualified technicians, not 'do-it-yourselfers'. Qualified technicians are properly trained individuals who have the equipment, tools, safety instruction, and know-how to do a job properly and safely. NOTE: If you believe that a described condition may apply to a particular vehicle, DO NOT assume that it does. See your Nissan dealer to determine if this applies to your vehicle.

SERVICE PROCEDURE

TCM REPROGRAMMING

IMPORTANT: Before starting, make sure:

- ASIST on the CONSULT PC has been synchronized (updated) to the current date.
- All C-III plus software updates (if any) have been installed.
- The CONSULT PC is connected to the internet (Wi-Fi, or cable).
- 1. Connect the plus Vehicle Interface (plus VI) to the vehicle.

CAUTION: Make sure the plus VI is securely connected. If the plus VI connection is loose during reprogramming, the process will be interrupted and the TCM may be damaged.

2. Connect the AC Adapter to the CONSULT PC.

CAUTION: 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.

3. Connect the GR8, set to "Power Supply" mode, to the vehicle battery.

CAUTION: Be sure the GR8 is connected securely to the battery. Make sure the battery voltage stays between <u>12.0V and 15.5V</u> during reprogramming. If the battery voltage goes out of this range during reprogramming, the TCM may be damaged.

4. Turn OFF all external Bluetooth® devices (e.g., cell phones, printers, etc.) within range of the CONSULT PC and the VI.

CAUTION: Make sure to turn OFF all external Bluetooth® devices. If Bluetooth® signal waves are within range of the CONSULT PC and the VI during reprogramming, reprogramming may be interrupted and the TCM may be damaged.

- 5. Turn the ignition ON with the engine OFF.
 - The engine must not start or run during the reprogramming procedure.
- 6. Turn OFF all vehicle electrical loads such as exterior lights, interior lights, HVAC, blower, rear defogger, audio, NAVI, seat heater, steering wheel heater, etc.

IMPORTANT: Make sure to turn OFF all vehicle electrical loads. Make sure the battery voltage stays between <u>12.0V and 15.5V</u> during reprogramming. If the battery voltage goes out of this range during reprogramming, the TCM may be damaged.

- 7. Turn ON the CONSULT PC.
- 8. Select CONSULT-III plus (open C-III plus).

- 9. Wait for the plus VI to be recognized.
 - Serial number will display when the plus VI is recognized.

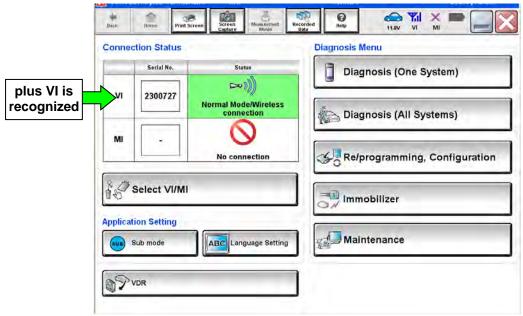


Figure 1

10. Select Re/programming, Configuration.

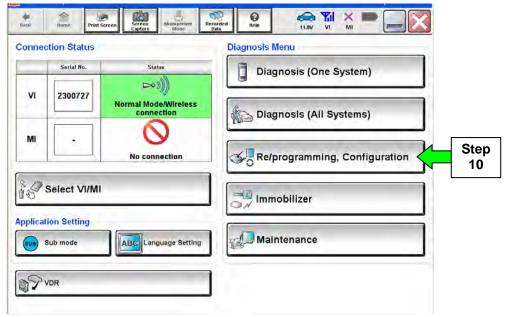


Figure 2

- 11. Use arrows (if needed) to view and read all precautions.
- 12. Check the box confirming the precautions have been read.
- 13. Select Next.

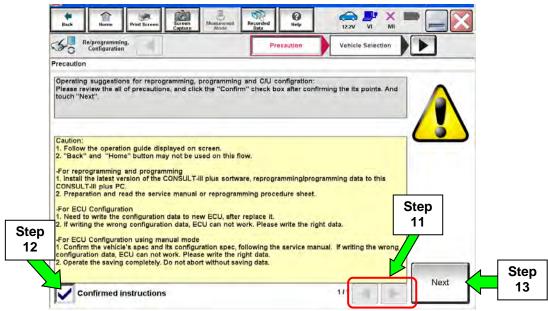


Figure 3

- 14. If the screen in Figure 4 displays, select Automatic Selection(VIN).
 - If the screen in Figure 4 does not display, skip to step 15.

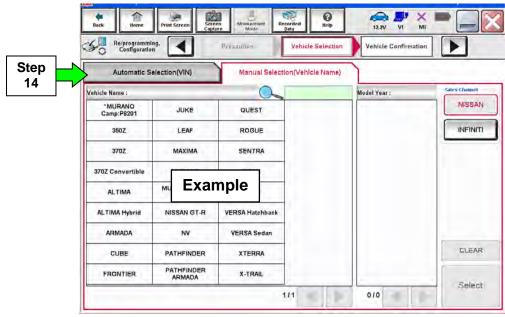


Figure 4

15. Make sure VIN or Chassis # matches the vehicle's VIN.

16. If the correct VIN is displayed, select **Confirm**.

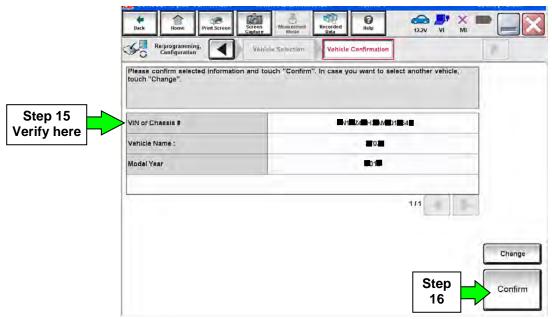


Figure 5

17. Select Confirm.

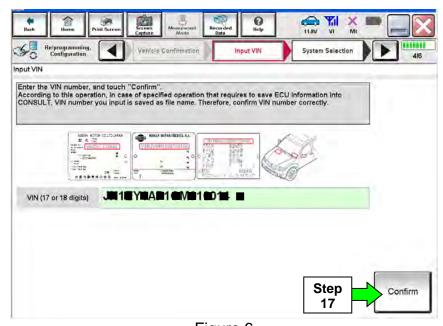


Figure 6

18. Select TRANSMISSION.

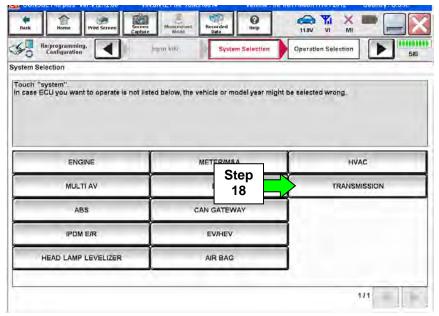


Figure 7

19. Select Reprogramming.

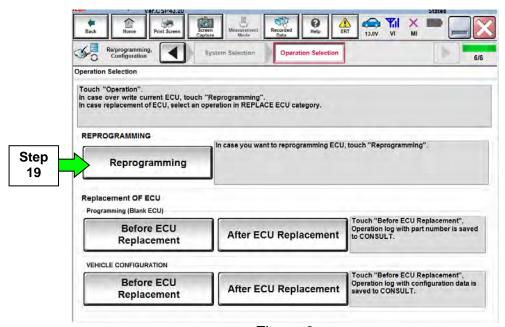


Figure 8

- 20. Follow the on-screen instructions; maintain the following conditions:
 - a. Ignition ON, with the engine OFF.
 - b. Press the Brake.
 - c. Press accelerator between 1/4 and 1/2.
 - d. Put shift selector in R.

21. Select Start.

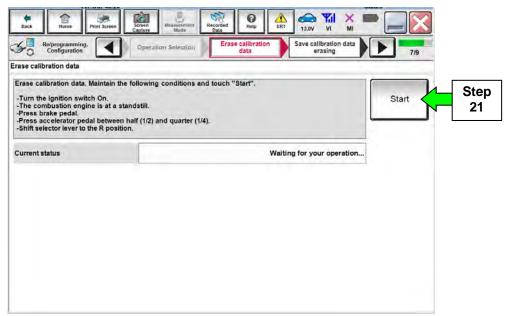
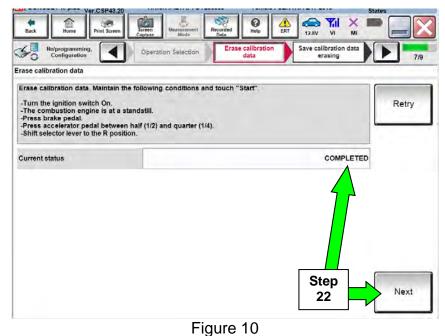


Figure 9

22. When **COMPLETED** is displayed, select **Next**.



23. Operate the ignition per the on screen instructions.

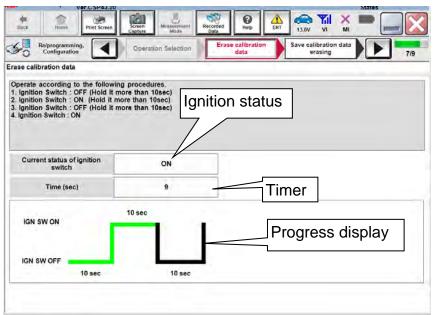
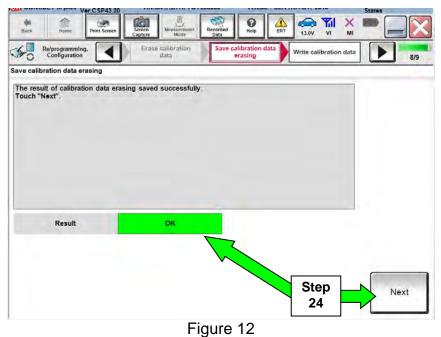


Figure 11

24. When OK is displayed, select Next.



25. Move the shift selector to P, then select Next.

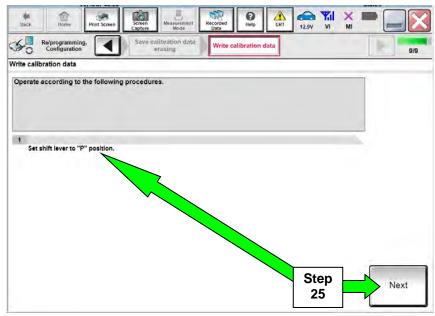


Figure 13

- 26. Operate the shift selector per the on-screen instructions.
 - a. Move the shift selector; P>R>N>D>P
 - b. Confirm the center display meter indicates the correct selector position.

27. Select Next.

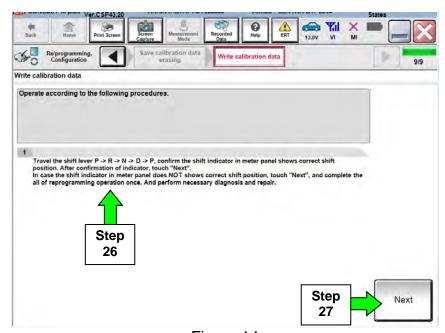


Figure 14

28. Select Save.

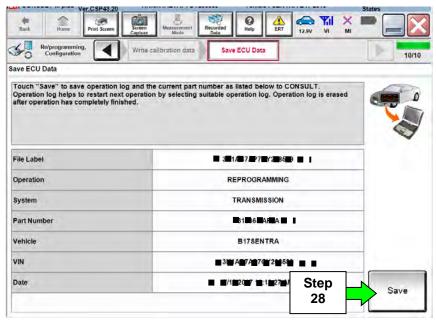


Figure 15

- 29. Use arrows (if needed) to view and read all precautions.
- 30. Check the box confirming the precautions have been read.
- 31. Select Next.

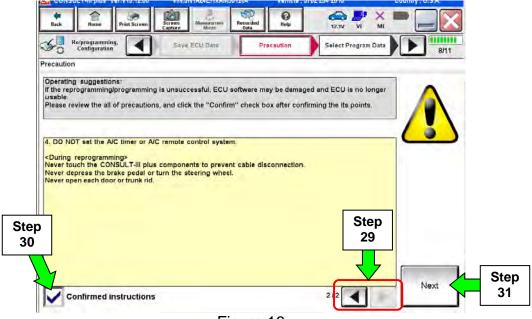


Figure 16

IMPORTANT: For step 32 to be accurate:

- ASIST on the CONSULT PC must be synchronized (updated) to the current date.
- All C-III plus software updates (if any) must be installed.

32. Confirm reprogramming is required for this vehicle:

- Read / compare the Current Part Number and Part Number After Reprogramming (see Figure 17).
- They should be <u>different</u>.

33. Comparison results:

- If they are <u>different</u>, continue with the reprogramming procedure.
- If they <u>are the same</u>, reprogramming is <u>not needed</u>. Skip to ERASE MEMORY DATA on page 22.

34. Select Next.

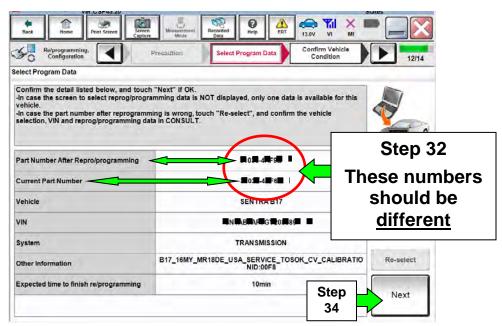


Figure 17

35. Make sure **OK** is highlighted **green** (battery voltage must be between **12.0** and **15.5 Volts**).

36. Select Next.

IMPORTANT: Battery voltage must stay between **12.0 and 15.5 Volts** during reprogramming or TCM reprogramming may be interrupted and TCM may be damaged.

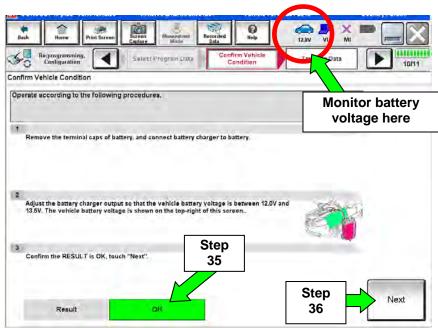


Figure 18

37. Select Start.

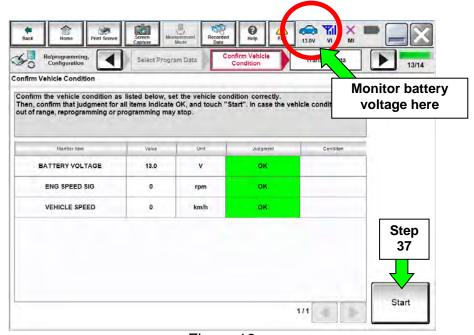


Figure 19

- If a screen displays asking for "Please select your user group"; select USA/CANADA Dealers.
- Before reprogramming will start, you will be required to enter your User Name and Password.
- > The CONSULT PC must be connected to the Internet (Wi-Fi or cable).
- > If you do not know your User Name and Password, contact your Service Manager.

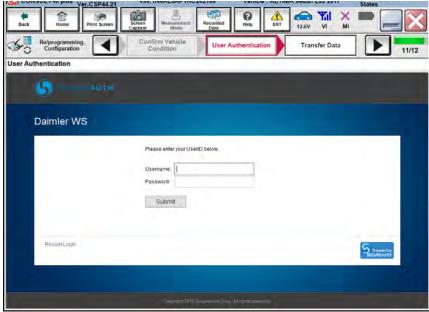


Figure 20

38. Wait for both progress bars to complete.

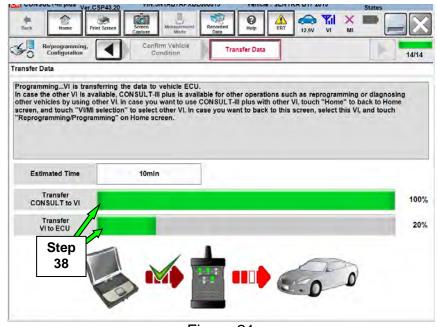


Figure 21

39. When the screen in Figure 22 displays, the reprogramming is complete.

NOTE: If the screen in Figure 22 does <u>not</u> display (which indicates reprogramming did <u>not</u> complete), refer to the information on the next page.

- 40. Disconnect the battery charger (GR8) from the vehicle.
- 41. Select Next.

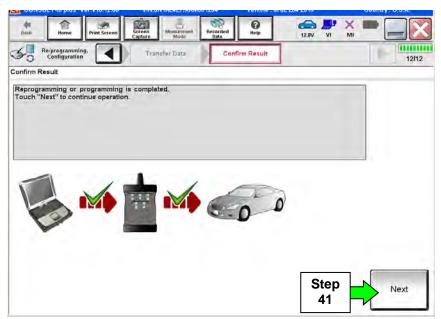


Figure 22

NOTE: Additional steps/operations are required before C-III plus will provide the final reprogramming confirmation report. Continue with the reprogramming procedure on page 16.

If reprogramming does not complete and the "!?" symbol displays as shown in Figure 23:

- Check battery voltage (12.0 15.5V).
- Ignition ON, engine OFF.
- External Bluetooth[®] devices are OFF.
- All electrical loads are OFF.
- Select <u>Retry</u> and follow the on screen instructions.

NOTE: Retry may not go through on first attempt and can be selected more than once.

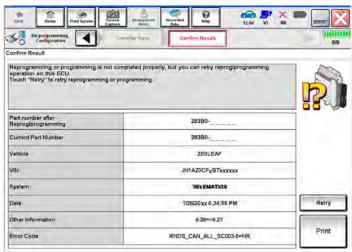


Figure 23

If reprogramming does <u>not</u> complete and the "X" symbol displays as shown in Figure 24:

- Do not disconnect the plus VI or shut down C-III plus if reprogramming does not complete.
- Check battery voltage (12.0 15.5V).
- CONSULT A/C adapter is plugged in.
- Ignition ON, engine OFF.
- Transmission in Park.
- All C-III plus / plus VI cables are securely connected.
- All C-III plus updates are installed.
- Select <u>Home</u>, and then restart the reprogram procedure from the beginning.

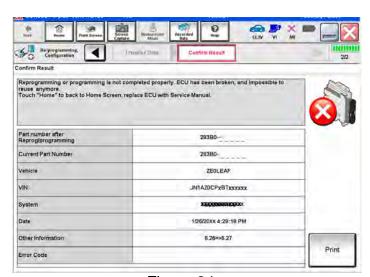


Figure 24

- 42. Confirm the Transmission Fluid temperature judgment is **OK**, then select **Next**.
 - If the judgment is NG, drive the vehicle to warm the transmission until the judgment changes to OK.

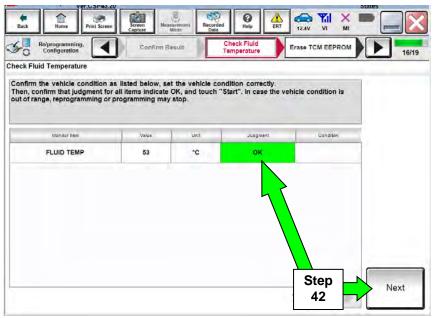


Figure 25

- 43. Follow the on-screen instructions; maintain the following conditions:
 - a. Parking brake set.
 - b. Ignition ON, with the engine OFF.
 - c. Press the Brake.
 - d. Press accelerator between ¼ and ½.
 - e. Put shift selector in R.
- 44. Select Erase DTC.

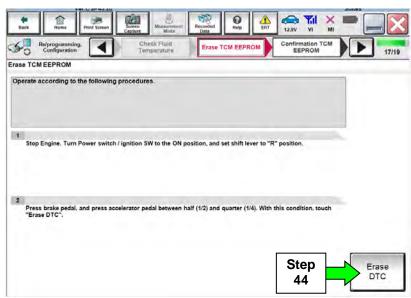


Figure 26

- 45. Follow the on-screen instructions; maintain the following conditions:
 - a. Parking brake set.
 - b. Ignition ON, with the engine OFF.
 - c. Fully depress the accelerator.
 - d. Put shift selector in R.
- 46. Select Start.

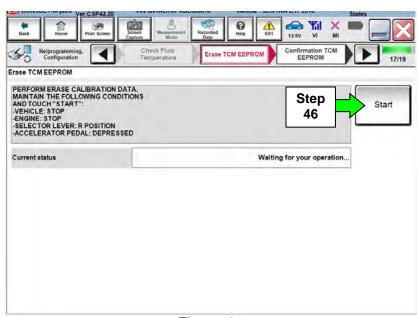


Figure 27

47. When <u>COMPLETED</u> is displayed, select **Next**.

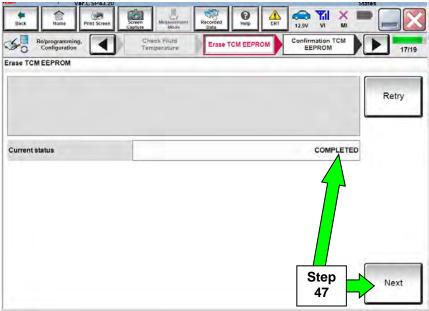


Figure 28

48. Operate the ignition per the on-screen instructions.

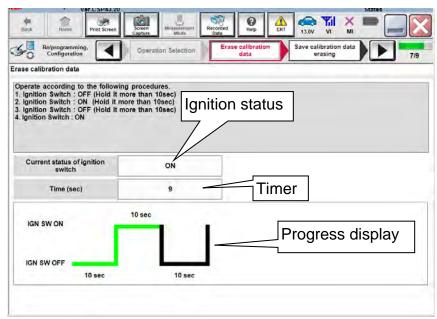


Figure 29

49. When OK is displayed, select Next.

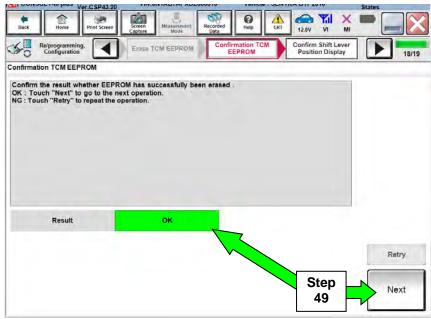


Figure 30

- 50. Operate the shift selector per the on-screen instructions.
 - a. Move the shift selector to P; then move P>R>N>D>P.
 - b. Confirm the center display meter indicates the correct selector position.

51. Select Next.

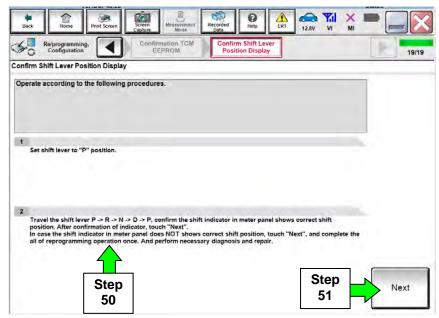


Figure 31

52. Erase all DTCs as follows:

- a. Turn the ignition OFF.
- b. Turn the ignition ON.
- c. Wait for DTC erase to complete.

53. Select Next.

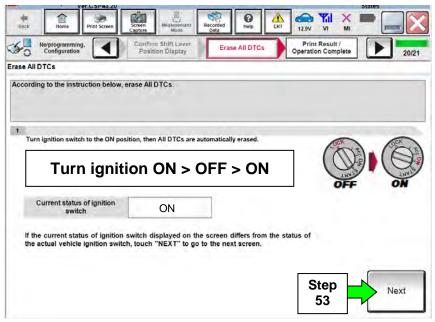


Figure 32

- 54. Verify the before and after part numbers are different.
- 55. Print a copy of this screen (Figure 33) and attach it to the repair order.

56. Select Confirm.

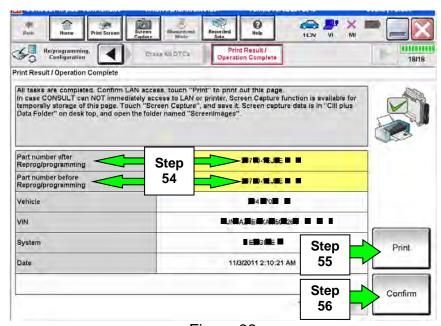


Figure 33

NOTE: If you cannot print the above screen:

- a. Select Screen Capture.
- b. Name the file.
- c. Save the file in My Documents.
 - A copy of the screen is now saved in the CONSULT PC. It can be retrieved and printed at a later time.

ERASE MEMORY DATA

- 57. Navigate C-III plus to the screen shown in Figure 34.
 - Diagnosis (All Systems) > TRANSMISSION > Work support
- 58. Select **ERASE MEMORY DATA**.

NOTE: ERASE MEMORY DATA function will perform the ERASE CALIBRATION DATA and ERASE LEARNING VALUE functions.

59. Select Start.

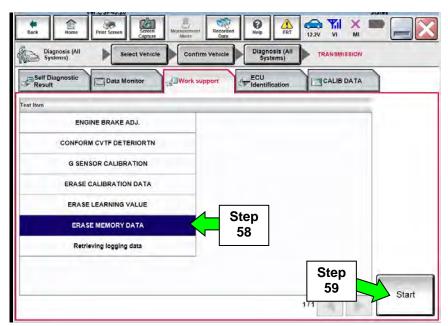


Figure 34

- 60. Follow the on-screen instructions; maintain the following conditions:
 - a. Parking brake set.
 - b. Ignition ON, with the engine OFF.
 - c. Fully depress the accelerator.
 - d. Put shift selector in R.
- 61. Select Start.

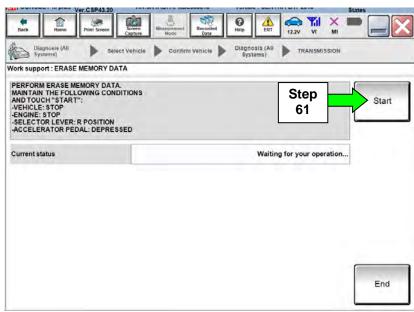
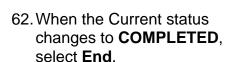


Figure 35



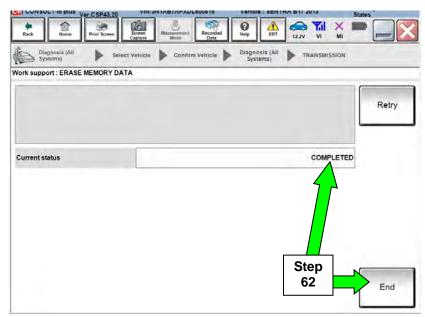


Figure 36

- 63. Move the shift selector to P and then turn the ignition OFF.
- 64. Turn the ignition ON and move the shift selector to P > N > P. Confirm the center display meter indicates the correct selector position.

CONFORM CVTF DETERIORTN

- 65. Navigate C-III plus to the screen shown in Figure 37.
 - Diagnosis (All Systems) > TRANSMISSION > Work support
- 66. Select CONFORM CVTF DETERIORTN.
- 67. Select Start.

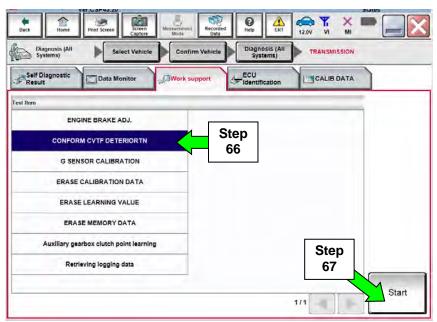


Figure 37

68. Select Start.

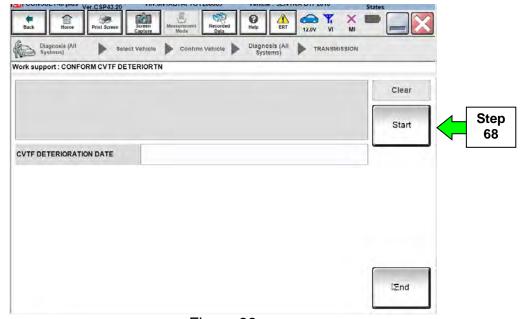


Figure 38

69. Select Clear.

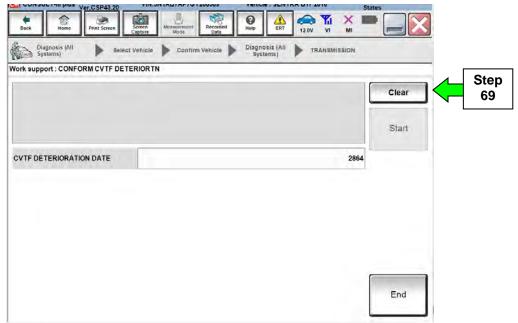


Figure 39

70. Select Yes.

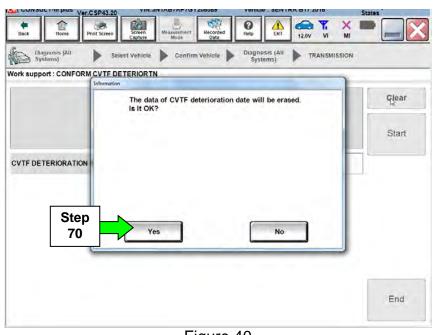


Figure 40

71. When **CVFT DETERIORATION DATE** changes to "0", select **End**.

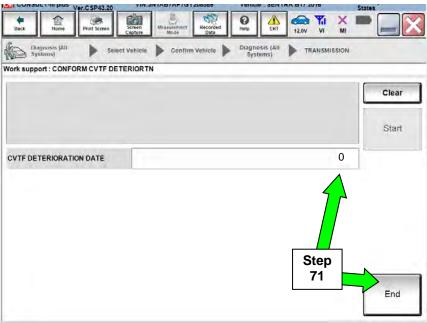


Figure 41

- 72. Start the engine.
- 73. Set the parking brake.
- 74. Turn OFF the A/C.
- 75. Bring the engine to normal operating temperature range.
- 76. Confirm the CVT fluid temperature is over 122°F (50°C).

AUXILIARY GEARBOX CLUTCH POINT LEARNING

NOTE: Please complete Auxiliary gearbox clutch point learning twice.

- 77. Start the engine.
- 78. Set the parking brake, turn OFF the A/C, and then bring the engine to normal operating temperature range with CVT fluid temperature over 122°F (50°C).
- 79. Select Auxiliary gearbox clutch point learning and then Start.

Or

• If this feature is not available in the vehicle that is being repaired, skip to **Manual Auxiliary gearbox clutch point learning on** page 30.

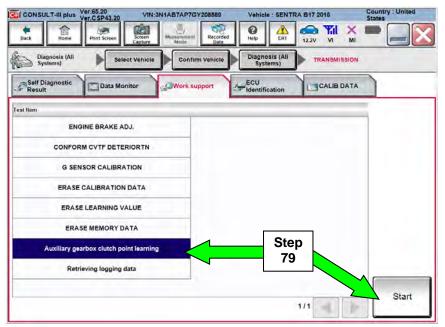


Figure 42

80. Follow the on screen instructions to meet all parameters displayed in Figure 43 and then select **Start**.

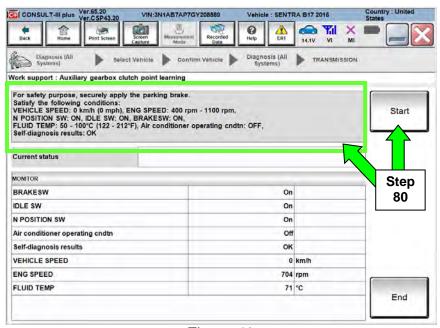


Figure 43

- 81. With brake pedal still applied, shift the CVT selector lever into the D position.
 - Figure 45 on the next page will be displayed after shifting into D position.

NOTE: The Current status will show EXECUTING, but until the vehicle is shifted into the D position Auxiliary gearbox clutch point learning will not complete.

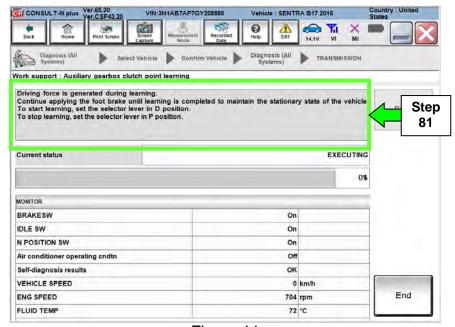


Figure 44

82. Continue to depress the brake pedal until the Current status shows "Completed" as shown in Figure 46.

NOTE: This may take several minutes to complete.

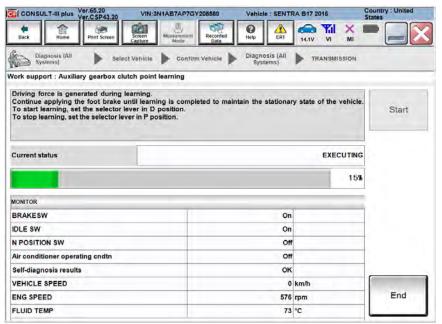


Figure 45

- 83. Select End.
- 84. Shift the vehicle into "P", turn ignition OFF and release the brake pedal.

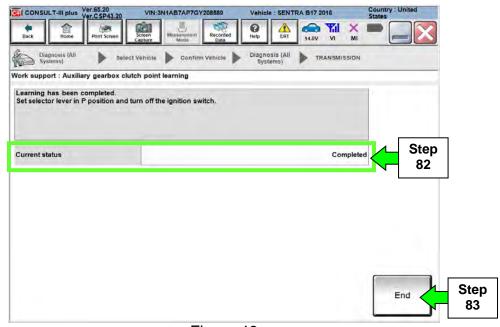


Figure 46

- 85. Perform step 79 to step 84 one additional time (Total: Two times).
- 86. Turn OFF C-III plus.
- 87. Disconnect C-III plus from the vehicle.
- 88. Verify the CVT operates normally and no abnormal noises are heard during a test drive.
- 89. Erase DTCs (this is in addition to erasing the DTCs during TCM reprogramming).

Procedure complete.

MANUAL AUXILIARY GEARBOX CLUTCH POINT LEARNING

CAUTION: If clutch touch point learning is not performed, you may feel shift shock when the auxiliary transmission shifts.

NOTE: This manual procedure is only needed if the auto procedure is not available in C-III plus.

a. Start the engine and warm up the CVT fluid to 50°C (122°F).

NOTE: Confirm the CVT fluid temperature by "FLUID TEMP" in "Data Monitor".

- b. Turn the air conditioner OFF.
- Shift the CVT selector lever to the P position, turn the ignition OFF and then wait for 5 seconds.
- d. Start the engine and allow it to idle for 5 seconds.
- e. Turn the ignition OFF and then wait for 30 seconds.
- f. Perform Step "e" to Step "f" two more times (Total: Three times).
- g. Start the engine.
- h. Allow engine to idle for 30 seconds.
- i. Shift the CVT selector lever to D position.
- j. Accelerate the vehicle from 0 km/h (0 MPH) to 65 km/h (40 MPH) at low throttle (0.5/8 - 1/8).
- k. Decelerate the vehicle to 30 km/h (18 MPH) or less without using brakes.
- I. Stop the vehicle and shift the selector lever to P position.
- m. Turn the ignition OFF and wait for 5 seconds or more.
- n. Restart the engine.
- o. Perform Step "j" to Step "o" four times (Total: Five times).
- p. Shift the selector lever to D position.
- q. Accelerate the vehicle from 0 km/h (0 MPH) to 45 km/h (28 MPH) at low throttle (0.5/8 1/8).
- r. Stop the vehicle and shift the selector lever to P position.
- Turn the ignition OFF for 5 seconds or more and then restart the engine.
- t. Perform Steps "q" to Step "t" four times (Total: Five times).
- u. Drive the vehicle and check that no shock occurs while shifting gears.