



SERVICE BULLETIN

Classification: AT15-003c	Reference: NTB15-037c	Date: September 13, 2017
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VERSA AND SENTRA; CVT VALVE BODY REPLACEMENT WITH CONFIRMED DTC

This bulletin has been amended throughout. Discard all previous versions of this bulletin.

APPLIED VEHICLES: 2012 and 2017 Versa Sedan (N17)
 2017 Versa NOTE (E12)
 2014 - 2017 Sentra (B17)

APPLIED TRANSMISSION: CVT (RE0F11A)

NOTE: Does not apply to 2017 Sentra equipped with MR16DDT turbo engine.

IF YOU CONFIRM

- If one or more of the DTCs listed in the DTC Chart on page 2 are present in the Transmission Control Module (TCM).
- And
- No other DTCs are present other than what are listed in the DTC Chart.

ACTION

1. Go to Repair Overview on page 3 to determine which repairs to perform to the applied vehicle being worked on.

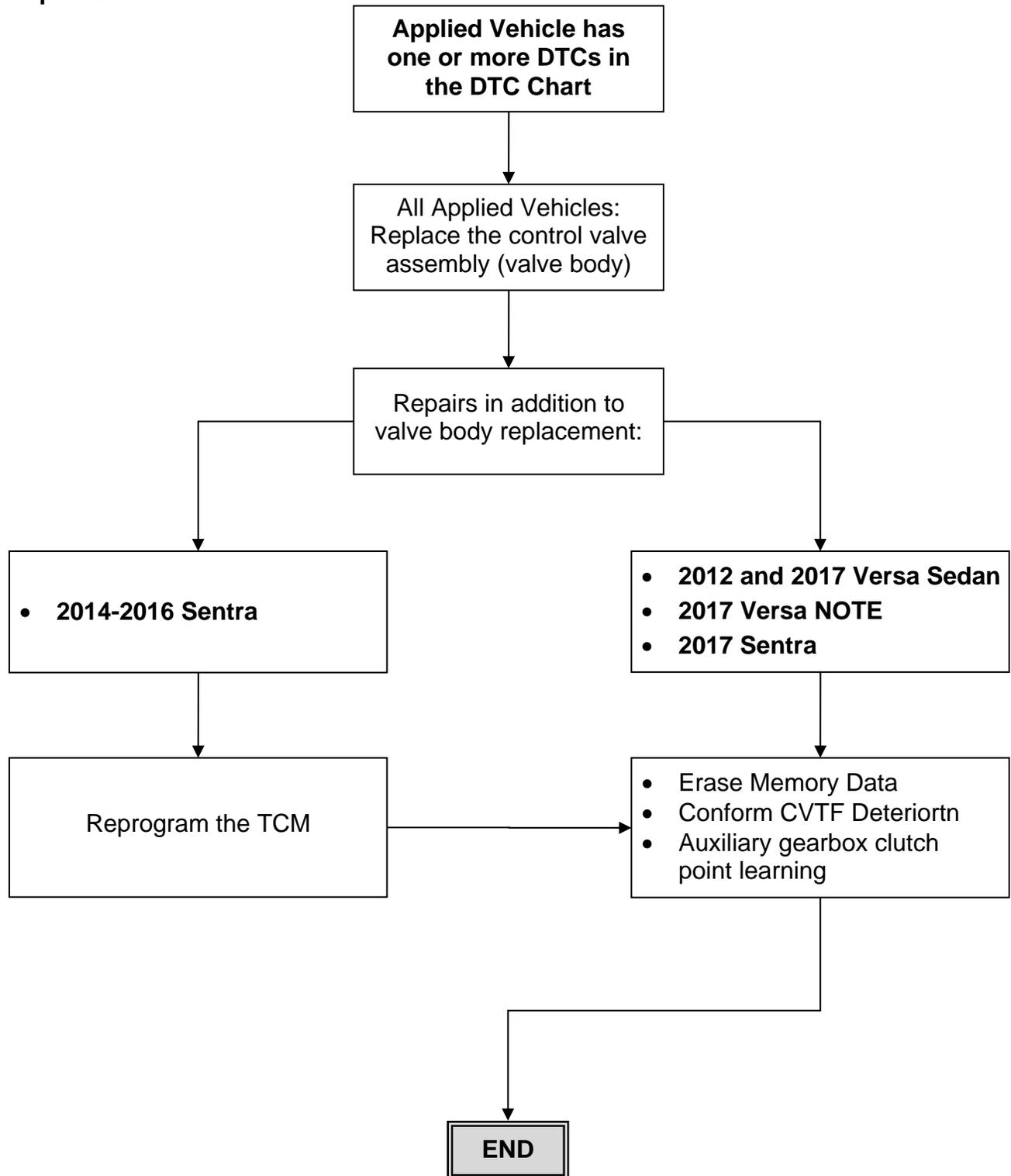
IMPORTANT: The purpose of “ACTION” (above) is to give you a quick idea of the work you will be performing. You **MUST** closely follow the entire Service Procedure as it contains information that is essential to successfully completing the repair.

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.

DTC Chart

DTC CODE	DTC/CIRCUIT DIAGNOSIS
P0711	TRANSMISSION FLUID TEMPERATURE SENSOR A
P0712	TRANSMISSION FLUID TEMPERATURE SENSOR A
P0713	TRANSMISSION FLUID TEMPERATURE SENSOR A
P0740	TORQUE CONVERTER
P0743	TORQUE CONVERTER
P0846	TRANSMISSION FLUID PRESSURE SEN/SW B
P0847	TRANSMISSION FLUID PRESSURE SEN/SW B
P0848	TRANSMISSION FLUID PRESSURE SEN/SW B
P0962	PRESSURE CONTROL SOLENOID A
P0963	PRESSURE CONTROL SOLENOID A
P0998	SHIFT SOLENOID F
P0999	SHIFT SOLENOID F
P0966	PRESSURE CONTROL SOLENOID B
P0967	PRESSURE CONTROL SOLENOID B
P099B	SHIFT SOLENOID G
P099C	SHIFT SOLENOID G

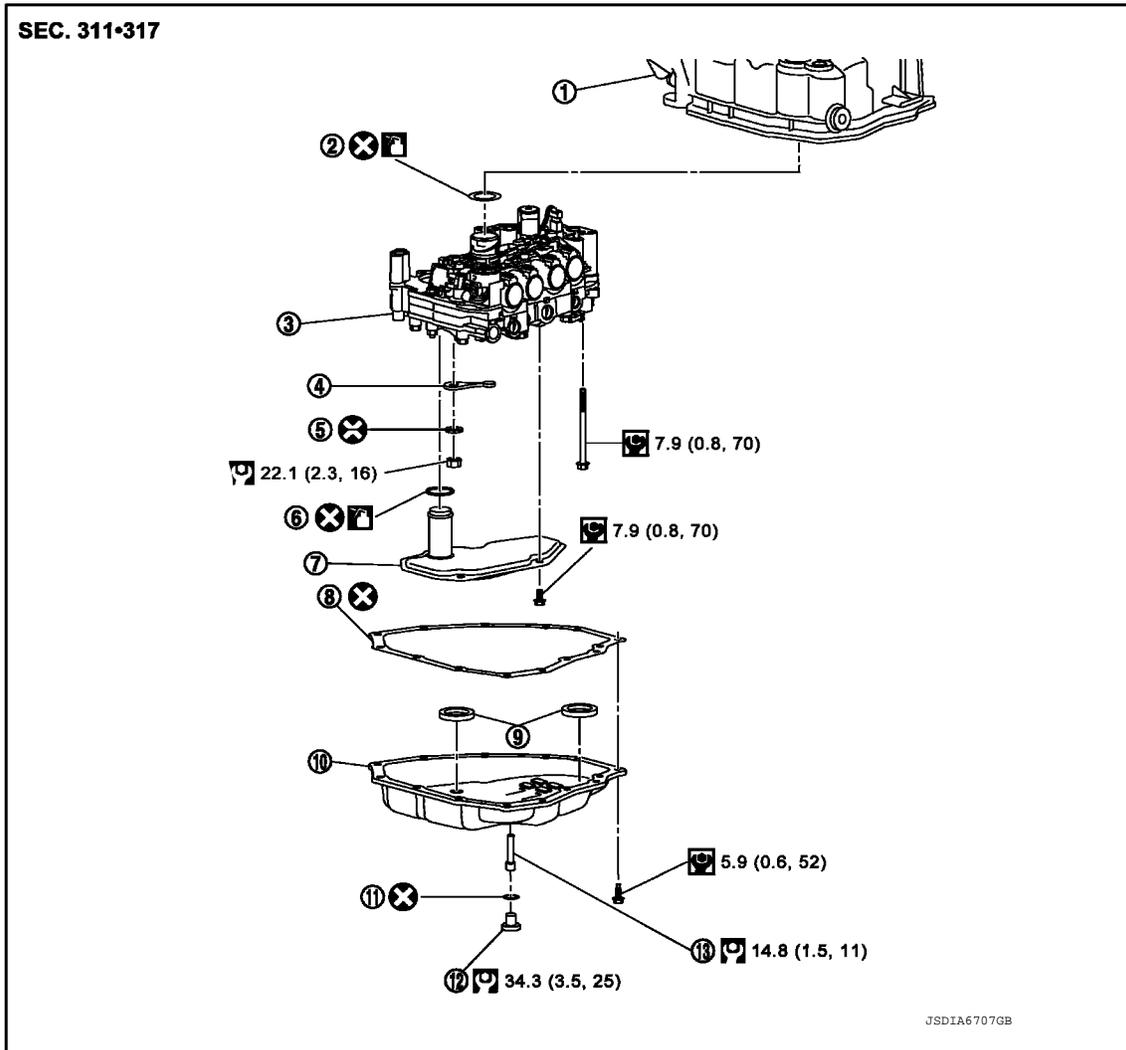
Repair Overview



SERVICE PROCEDURE

OIL PAN, CONTROL VALVE (Valve Body)

Exploded View



- | | | |
|-----------------------|-----------------------|------------------|
| 1. Transaxle assembly | 2. O-ring | 3. Control valve |
| 4. Manual plate | 5. Washer | 6. O-ring |
| 7. Strainer | 8. Oil pan gasket | 9. Magnet |
| 10. Oil pan | 11. Drain plug gasket | 12. Drain plug |
| 13. Overflow tube | | |

: Apply petroleum jelly

: Always replace after every disassembly.

: Apply CVT fluid

: N·m (kg-m, ft-lb)

: N·m (kg-m, in-lb.)

Valve Body: Removal and Installation

REMOVAL

1. Disconnect battery negative terminal.
2. Remove engine under cover.

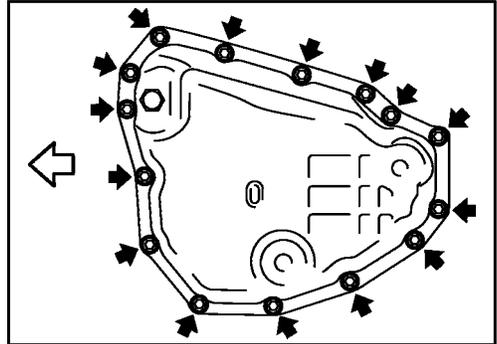
3. Disconnect the CVT unit harness connector.
4. Remove the drain plug and overflow tube, and then drain the CVT fluid.

CAUTION:

Use caution when looking into the drain hole as there is the risk of fluid entering the eye.

5. Remove the drain plug gasket from the drain plug.
6. Remove the oil pan mounting bolts (←), and then remove the oil pan and oil pan gasket.

← : Vehicle front

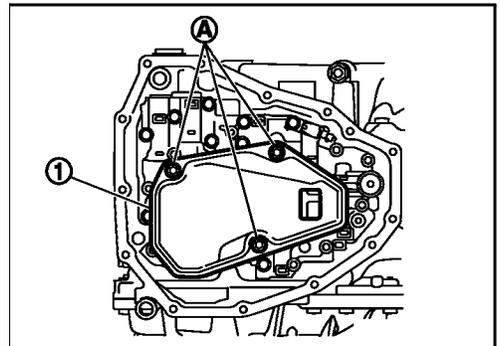


7. Remove the magnets from the oil pan.

- Clean magnets.
- Clean CVT oil pan.
- Reinstall magnets to the oil pan.

8. Remove the strainer bolts (A), and then remove the strainer (1) from the control valve.

- Discard the strainer. A new one will be used during assembly.



9. Remove the nut (A) and washer (2), and then remove manual plate (1).

CAUTION:

To remove nut, fix manual plate with flat-blade screwdriver (B).

10. Press the CVT unit harness connector into the transaxle case.

CAUTION:

Never damage the CVT unit harness connector.

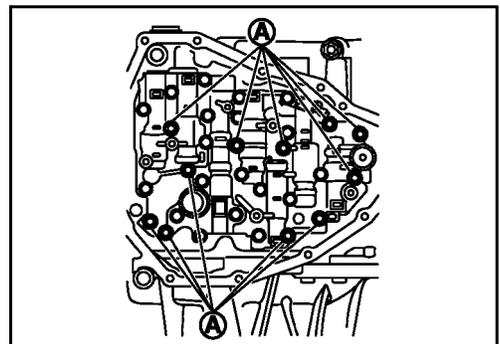
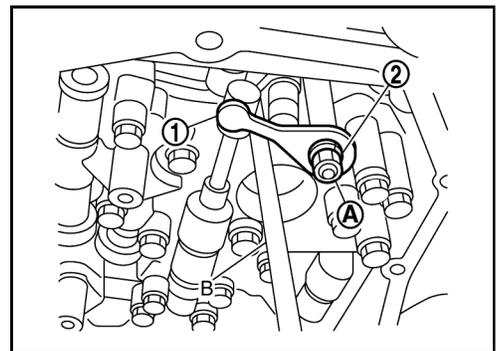
NOTE:

Clean around the CVT unit harness connector to prevent foreign materials from entering into the transaxle case.

11. Remove the control valve bolts (A), and then remove the control valve from the transaxle case.

CAUTION:

- **Never drop the control valve and manual valve.**

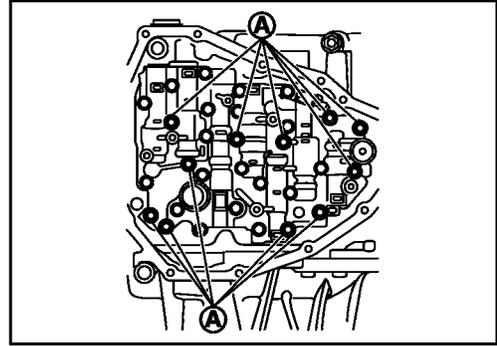


INSTALLATION

1. Install the control valve, and then tighten control valve bolts ④ to the specified torque.

CAUTION:

- Never pinch the harness between the control valve and the transaxle case.
- Never drop the control valve and manual valve.



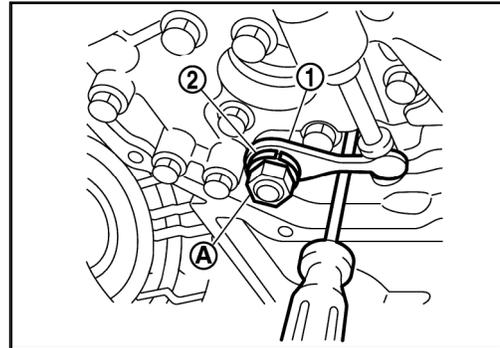
2. Install the manual plate ① and washer ②, and then tighten nut ③ to the specified torque.

CAUTION:

To tighten nut, fix manual plate with flat-blade screwdriver.

- Reassembly Torque: 22.1 N•m (2.3 kg-m, 16 ft-lb)

3. Install the new strainer ①, and then tighten the strainer bolts ④ to the specified torque.

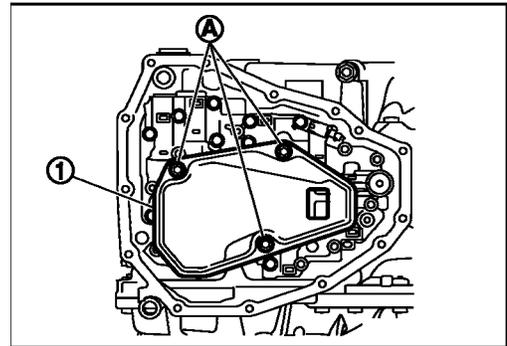


4. Install oil pan (with oil pan gasket) to transaxle case and temporarily tighten oil pan bolts (←).

CAUTION:

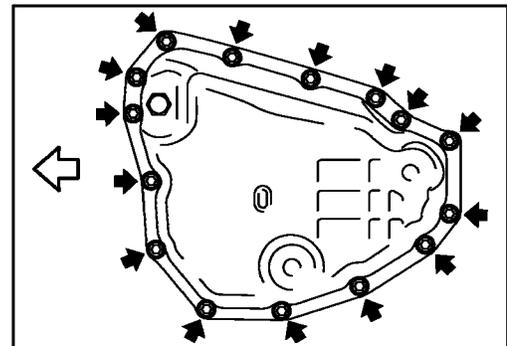
Never reuse oil pan gasket.

← : Vehicle front



5. Tighten the oil pan bolts to specification in the order shown.

← : Vehicle front



6. Tighten the overflow tube to the specified torque.

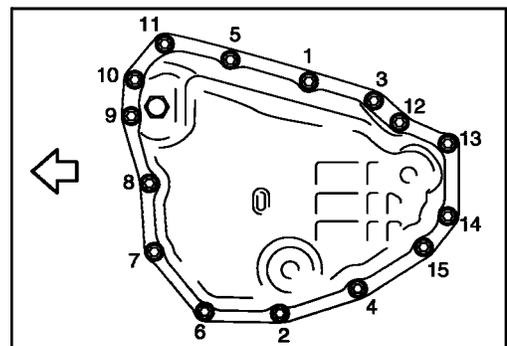
CAUTION:

If it is not tightened to the specified torque, the tube may be damaged.

7. Connect the CVT unit harness connector.
8. Connect battery negative terminal.
9. Fill with CVT fluid from overflow tube to the specified level. Refer to ESM for further information.
10. Install the drain plug and drain plug gasket to oil pan.

CAUTION:

Never reuse drain plug gasket.



11. Reinstall engine under cover.

TCM Reprogramming

IMPORTANT: Before starting the TCM reprogram procedure, make sure:

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

NOTE: TCM reprogramming applies to 2014-2016 Sentra only. For more information, see Repair Overview on page 3.

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 12.0V and 15.5V 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 12.0V and 15.5V 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/open C-III plus.

9. Wait for the plus VI to be recognized.

- Serial number will display when the plus VI is recognized.

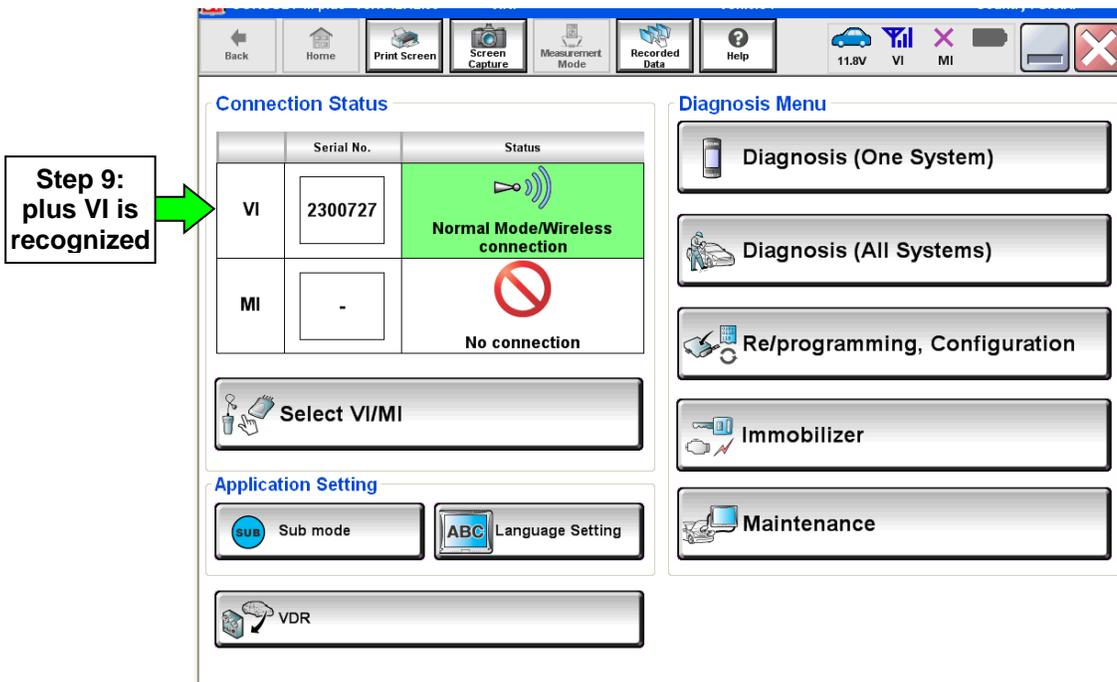


Figure 1

10. Select **Re/programming, Configuration**.

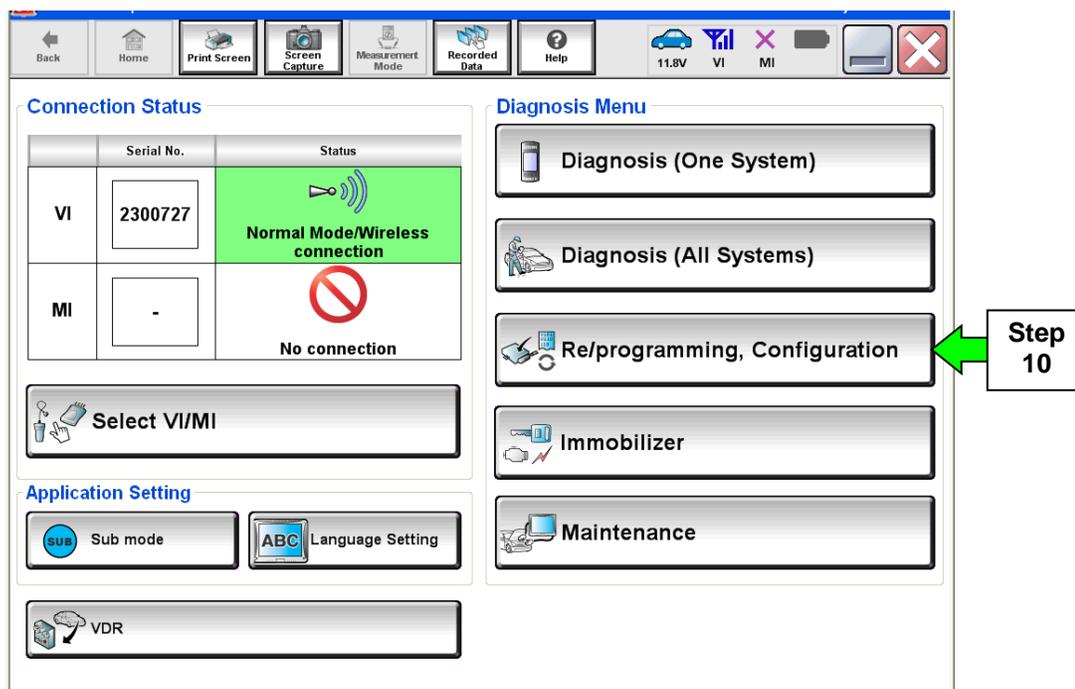


Figure 2

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

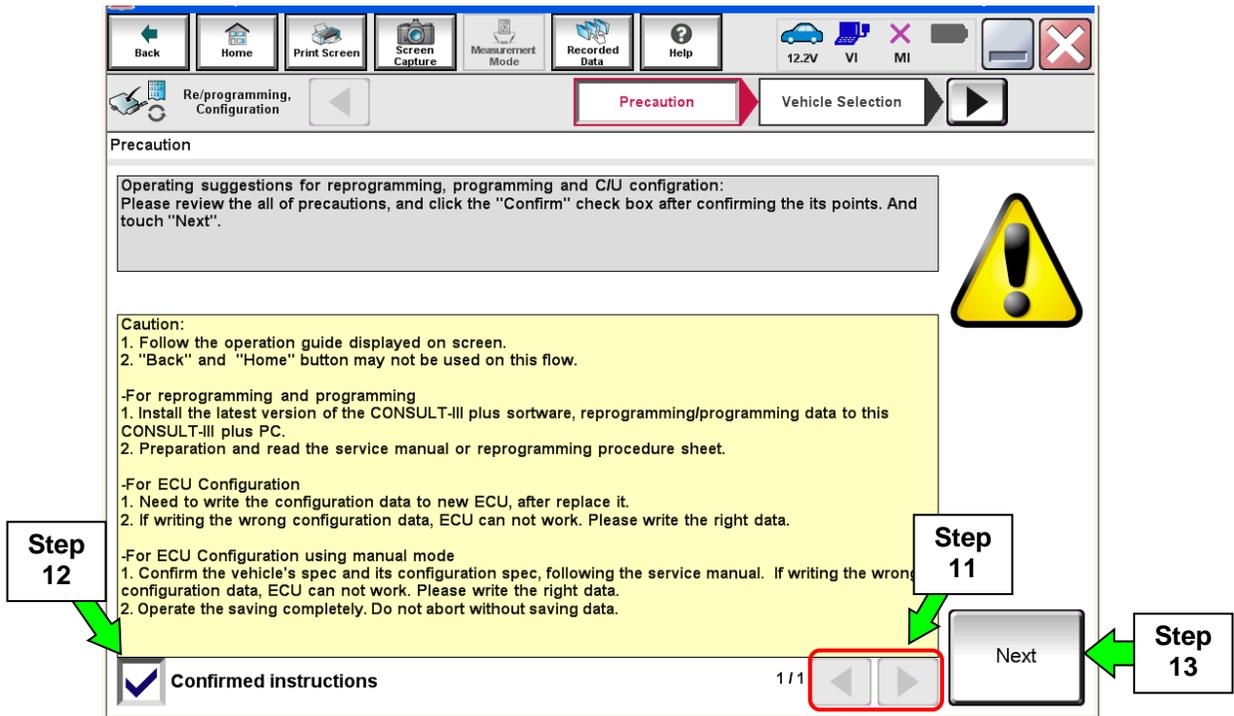


Figure 3

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.

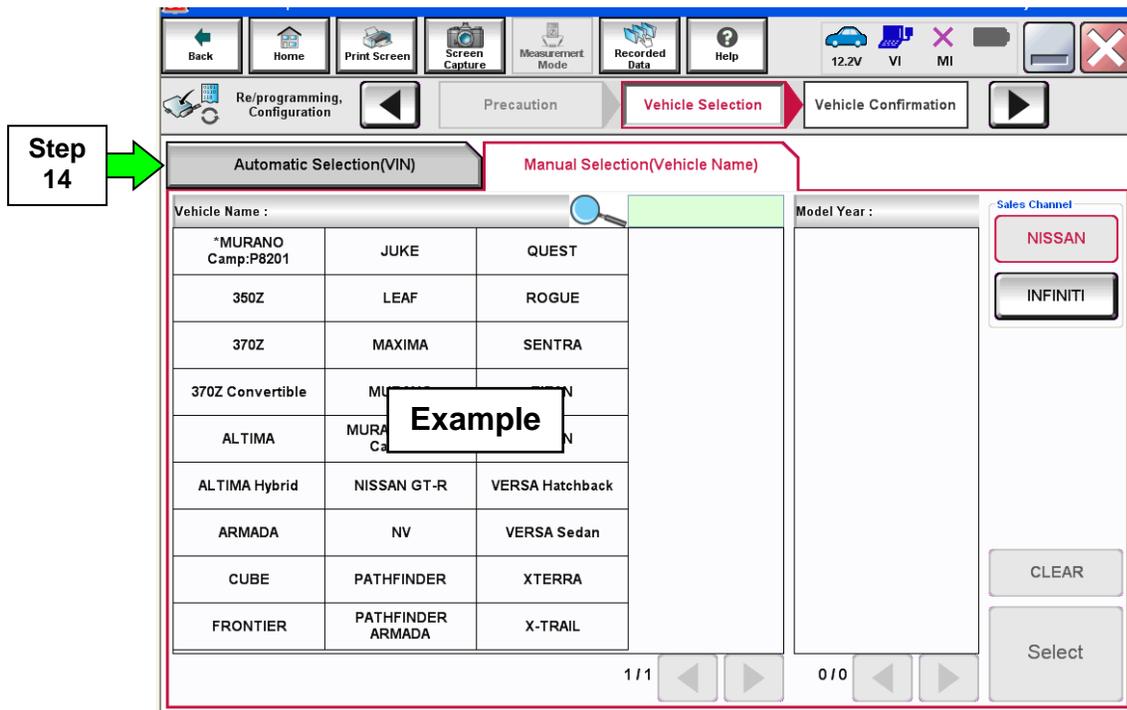


Figure 4

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

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

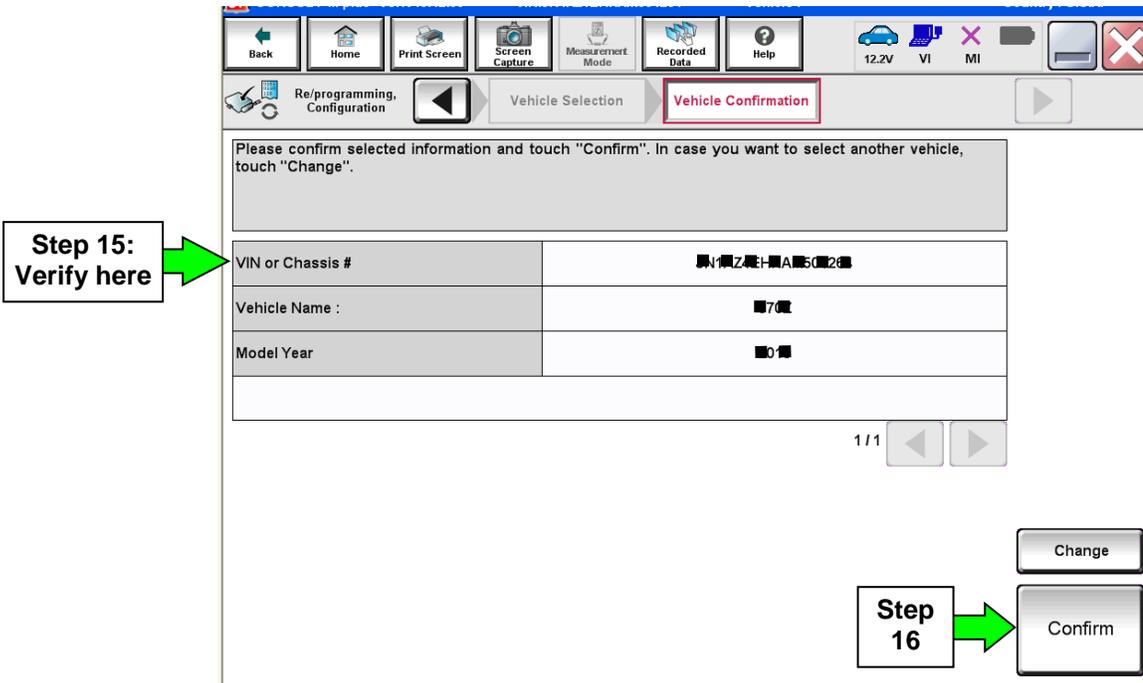


Figure 5

17. Select **Confirm**.

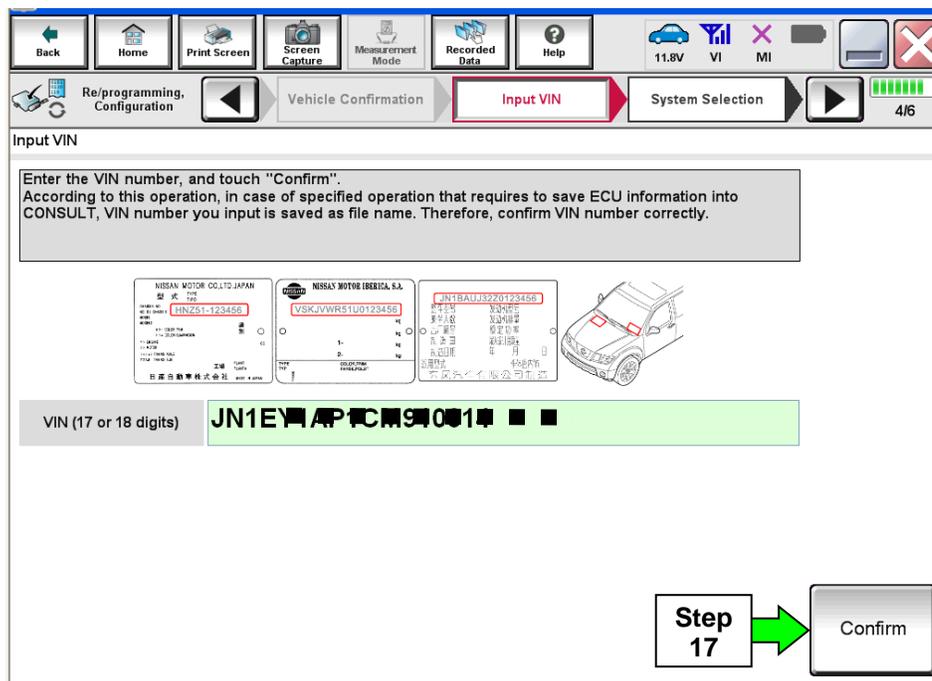


Figure 6

18. Select TRANSMISSION.

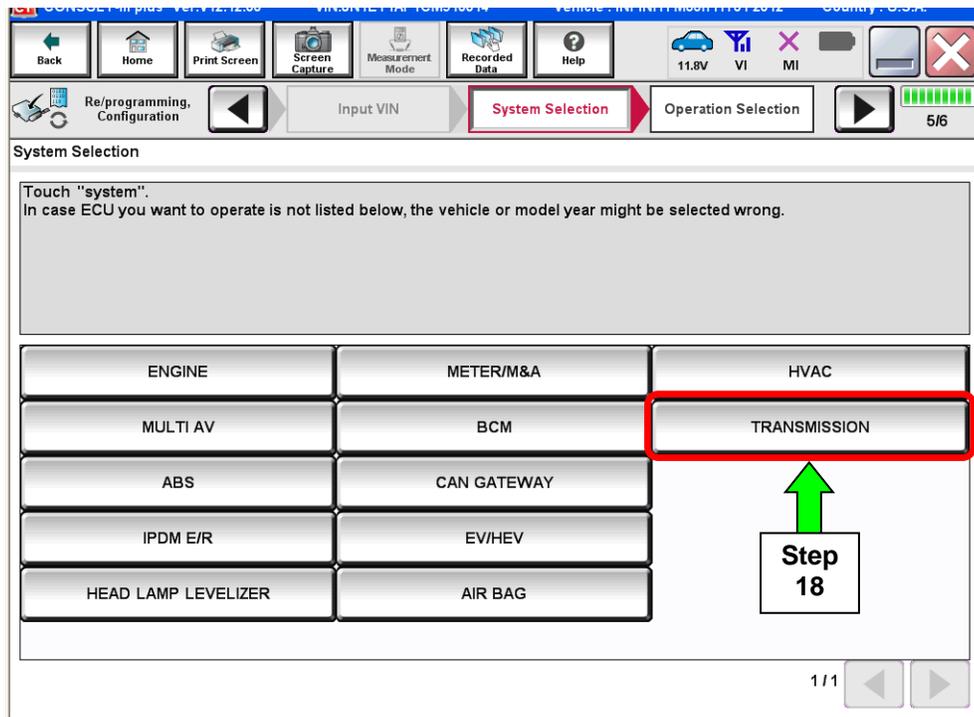


Figure 7

19. Select Reprogramming.

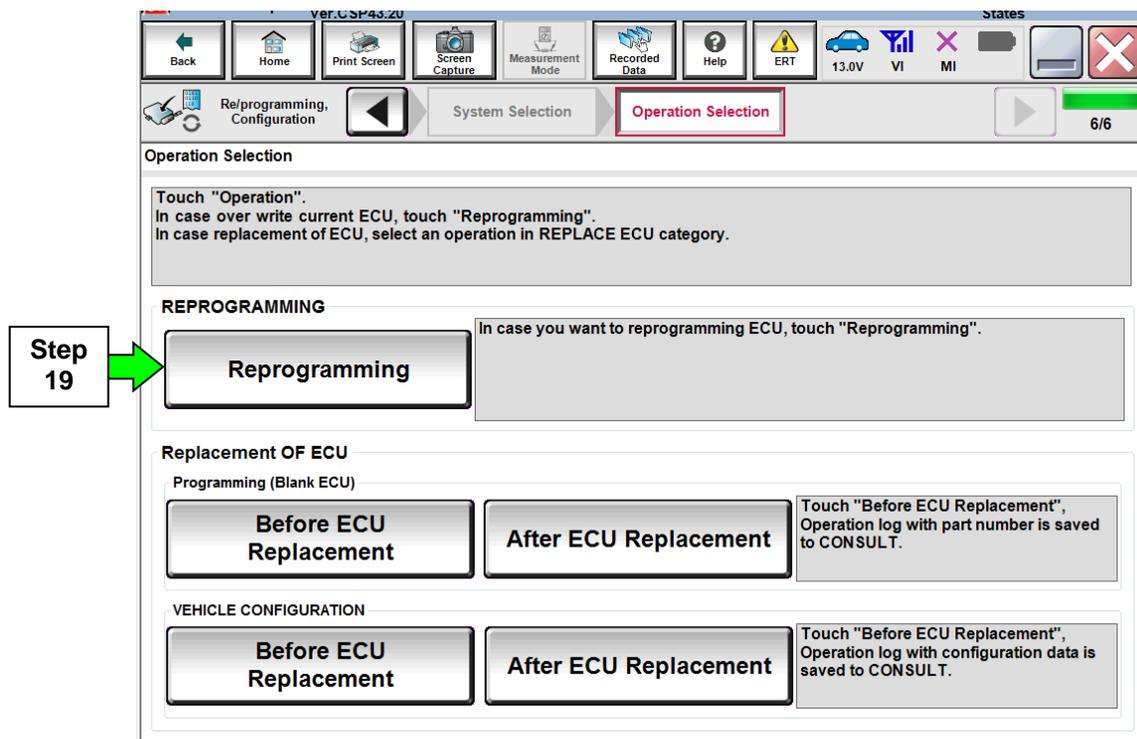


Figure 8

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 $\frac{1}{4}$ and $\frac{1}{2}$.
- d. Put shift selector in R.

21. Select **Start**.

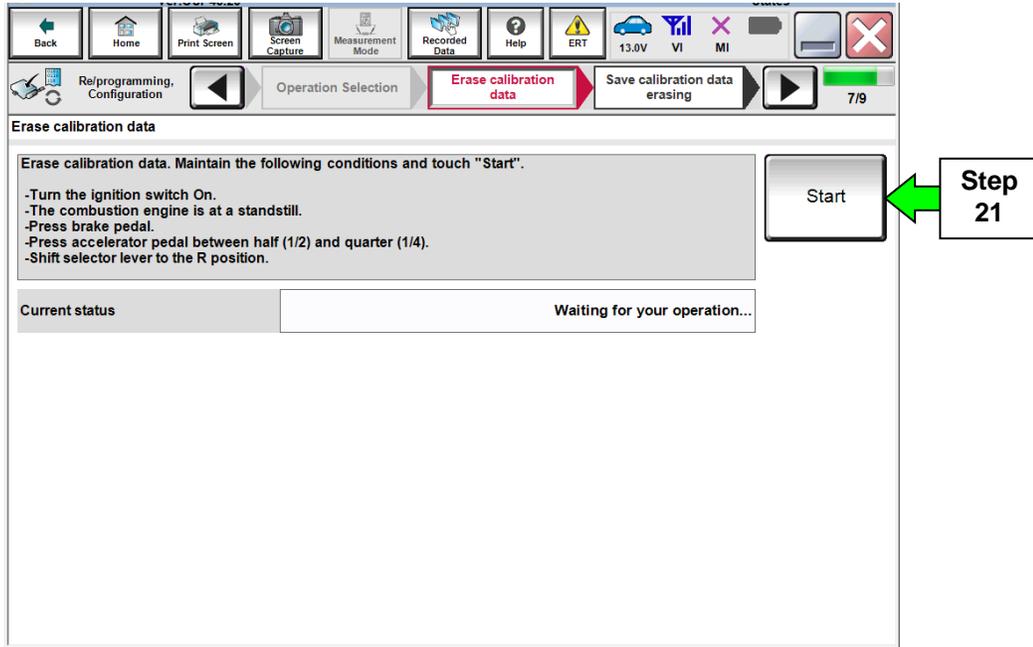


Figure 9

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

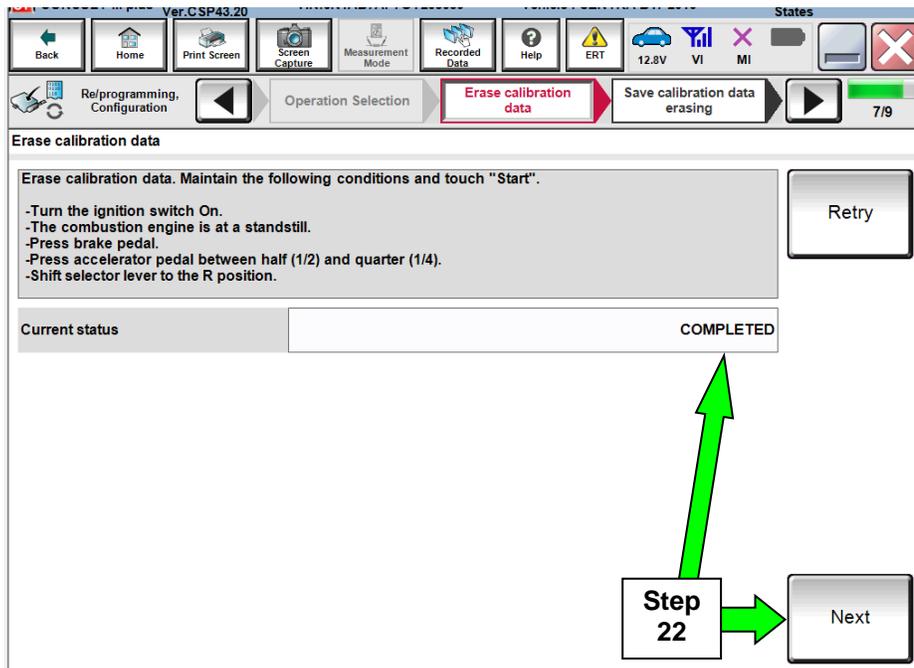


Figure 10

23. Operate the ignition per the on screen instructions.

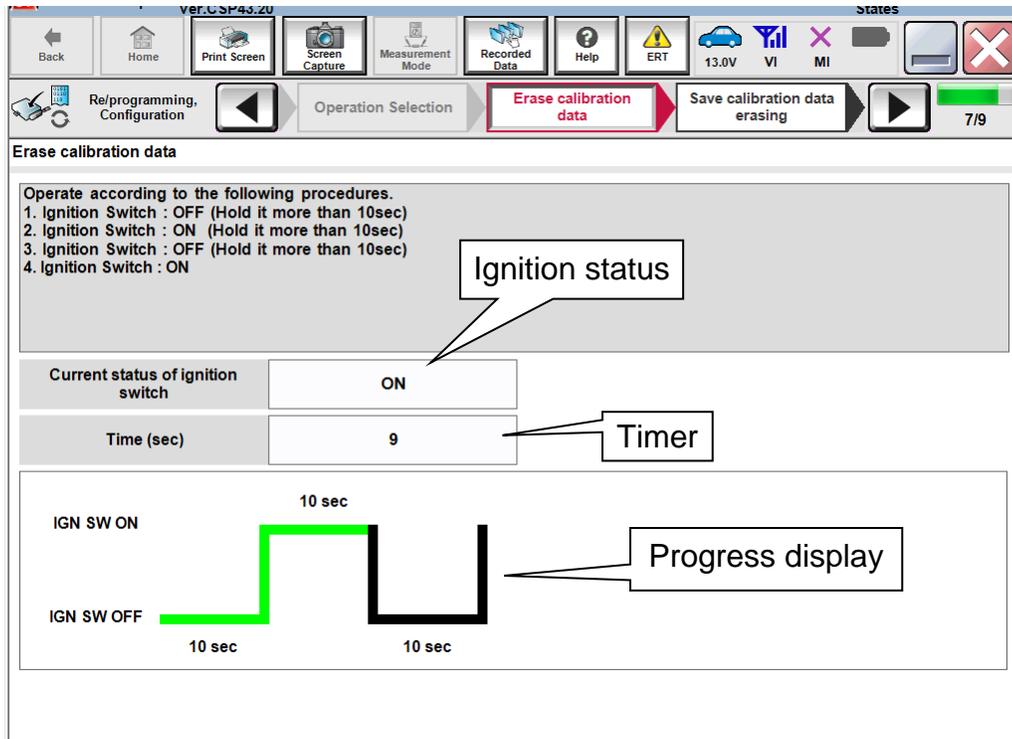


Figure 11

24. When OK is displayed, select **Next**.

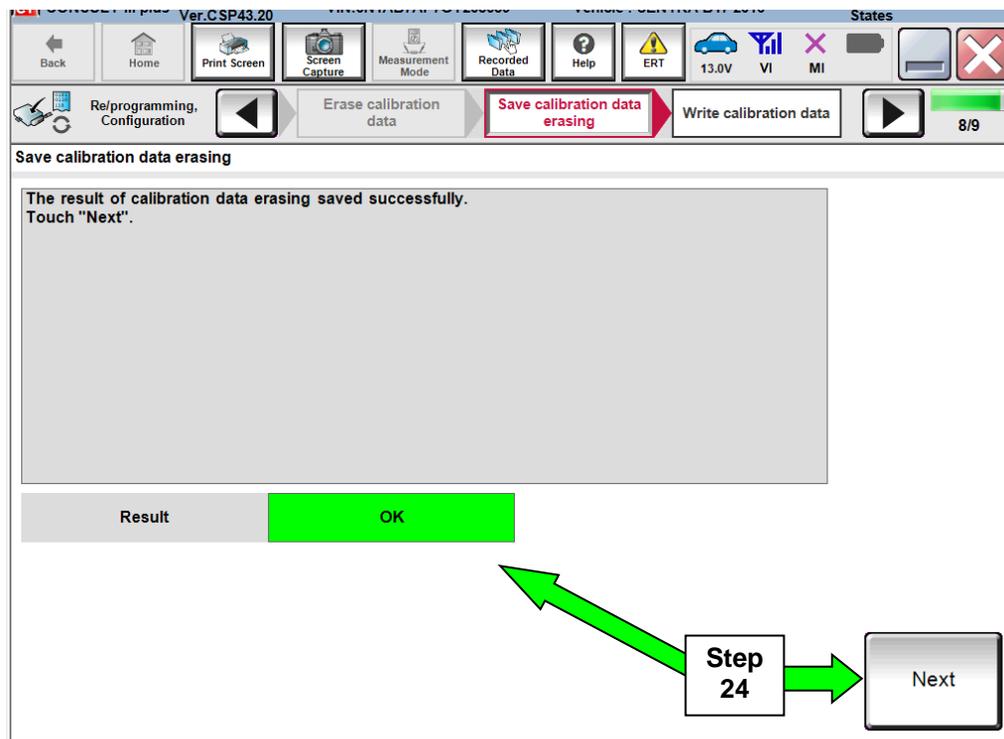


Figure 12

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

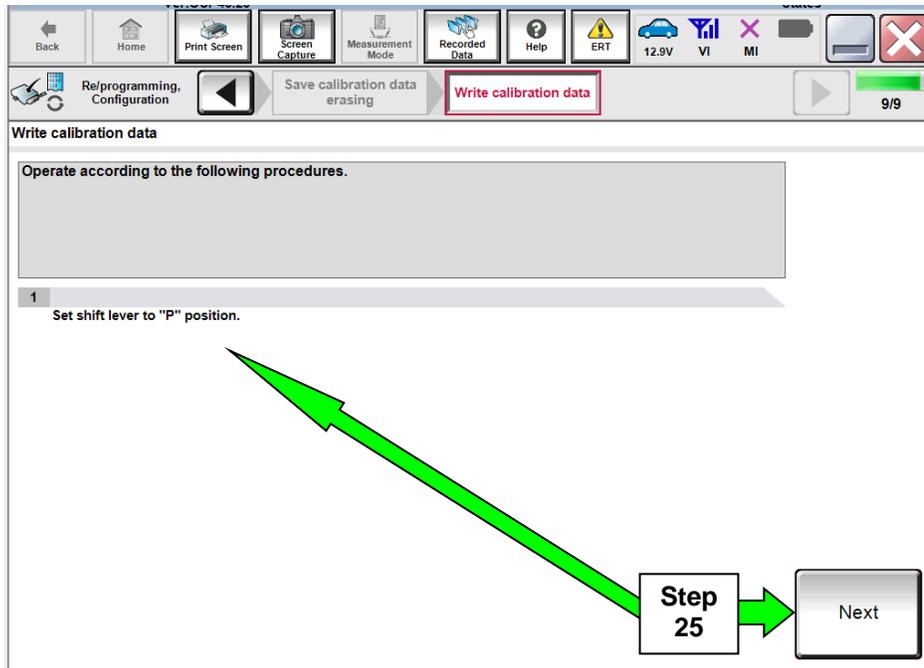


Figure 13

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**.

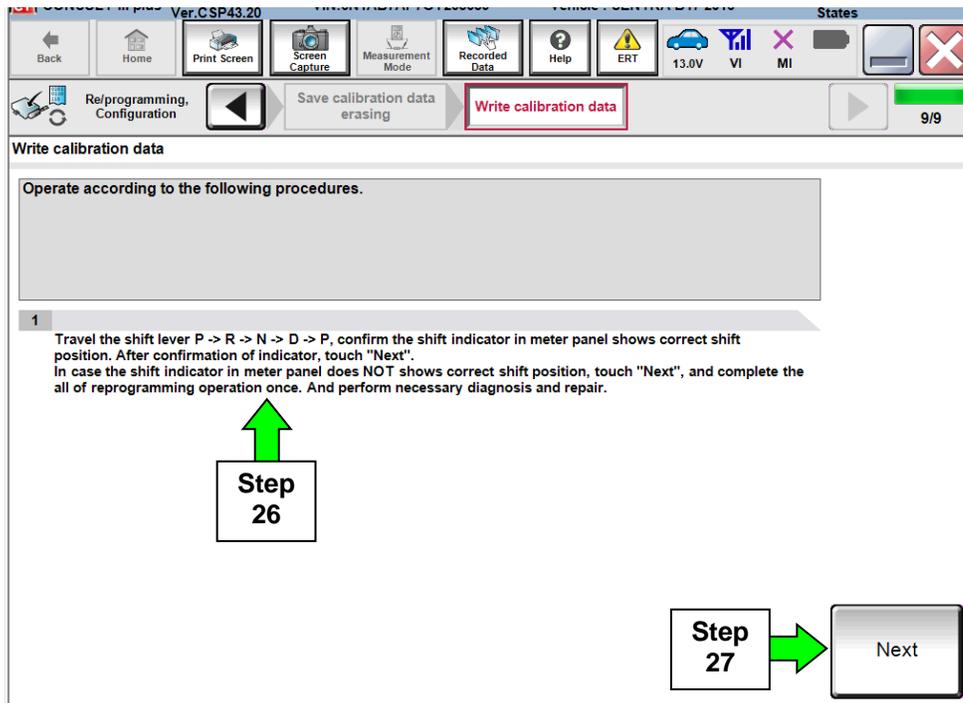


Figure 14

28. Find the TCM **Part Number** (see Figure 15) and write it on the repair order.

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

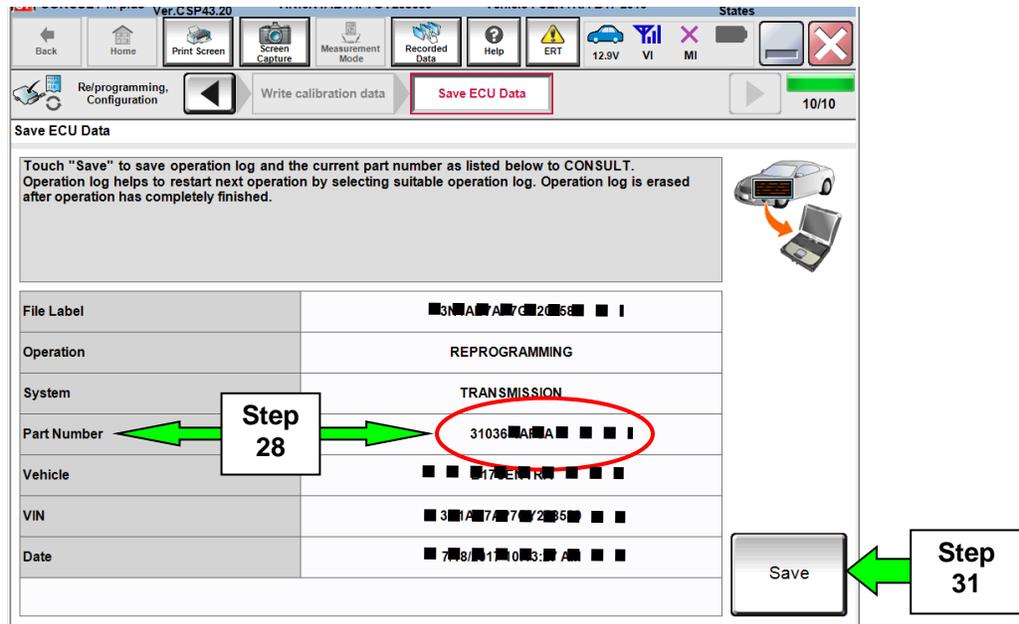


Figure 15

29 Compare the P/N you wrote down to the numbers in the **Current TCM Part Number** column in **Table A** below.

30. Comparison results:

- If there is a match, continue with the reprogramming procedure.
- If there is not a match, reprogramming is not needed. Skip to **ERASE MEMORY DATA** on page 27.

Table A

MODEL	MODEL YEAR	CURRENT TCM PART NUMBER: 31036 -
Sentra	2014	9AM2A, 9AM2B, 9AM2C, 9AM9E, 9AM9D
	2015	4AT0A, 4AT0B, 4AT0C, 4AT0D, 4AT9D, 4AT9E
	2016	4AF6A, 4AF6B

31. Select **Save**.

32. Use arrows (if needed) to view and read all precautions.
33. Check the box confirming the precautions have been read.
34. Select **Next**.

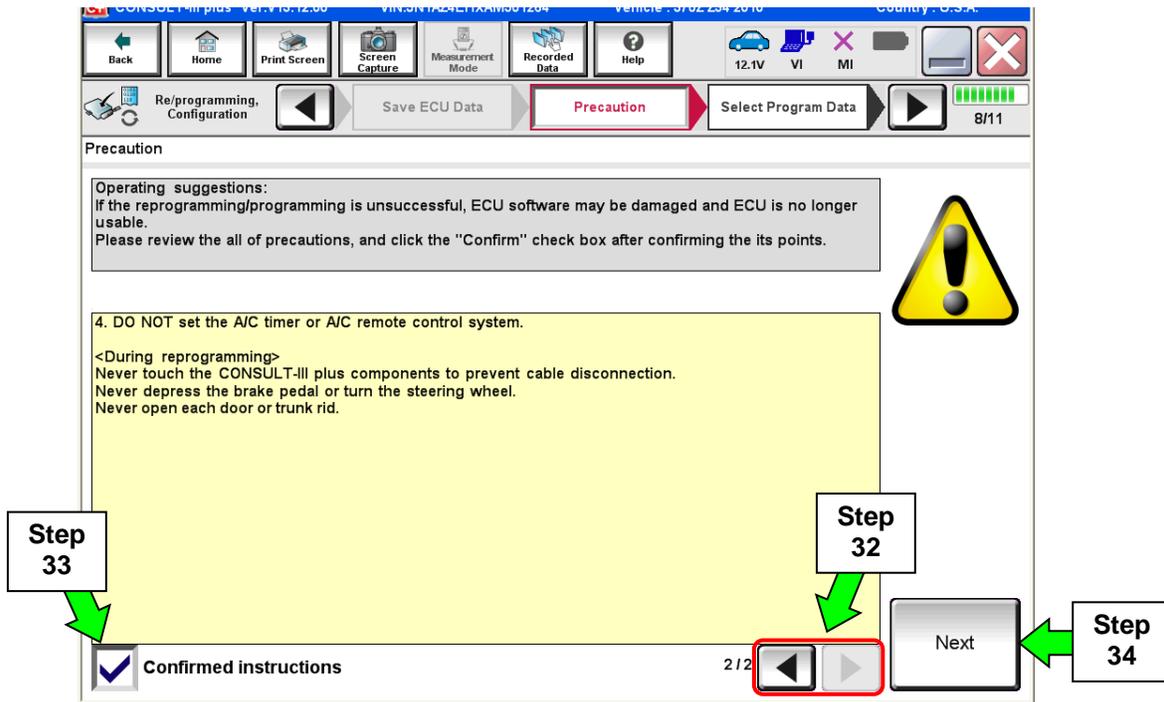


Figure 16

NOTE: If you get the screen in Figure 17 and it is blank (no reprogramming listed), it means there is no reprogramming available for this vehicle. Close C-III plus and refer back to ASIST for further diagnosis.

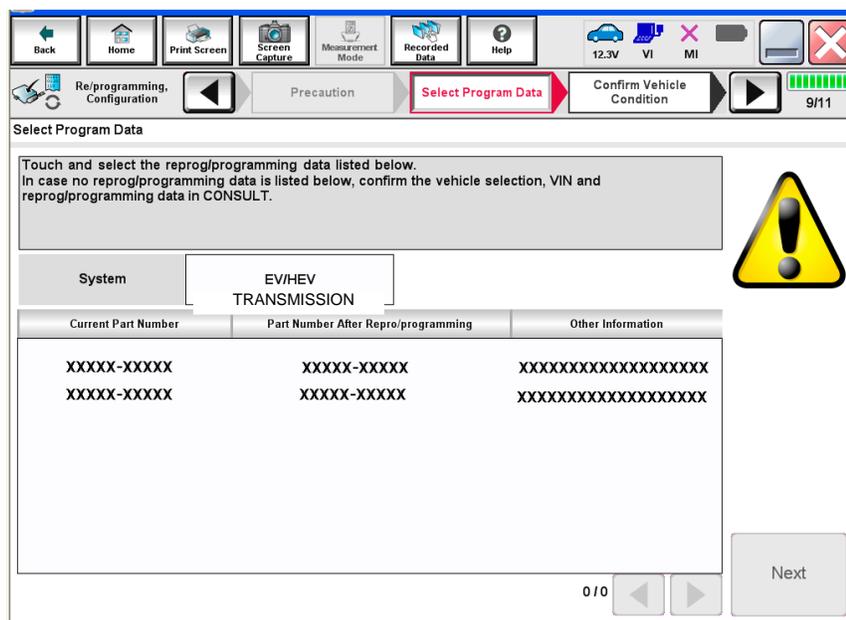


Figure 17

35. Read the **Current Part Number** and **Part Number After Reprogramming**. They should be different.

36. Select **Next**.

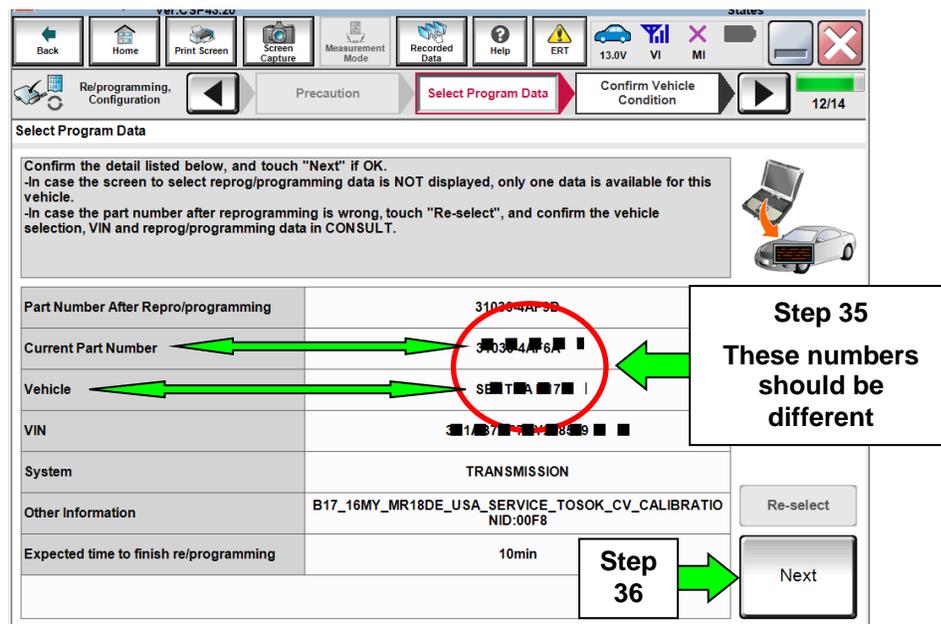


Figure 17a

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

38. 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.

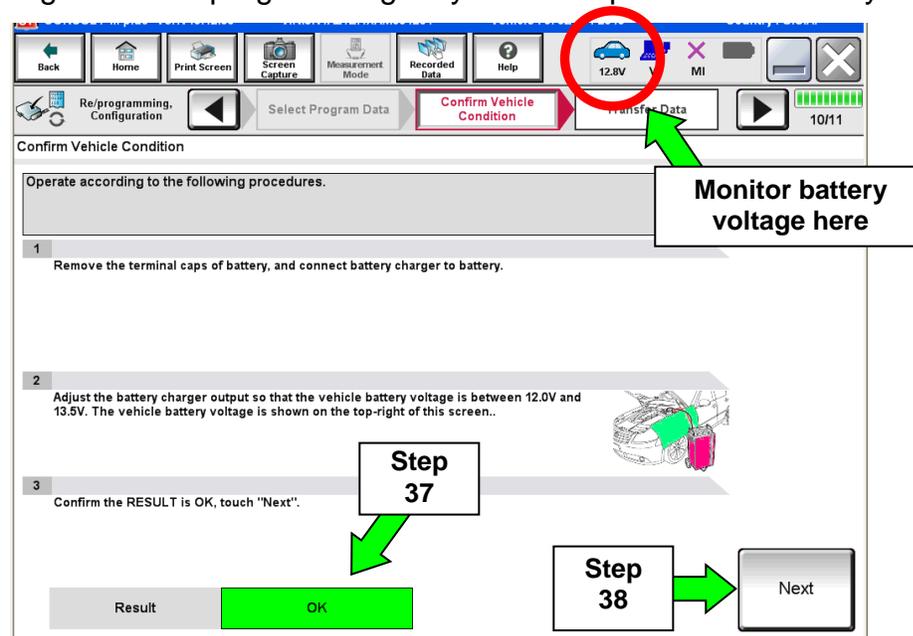


Figure 18

NOTE: In the next step, the reprogramming process will begin when **Start** is selected.

39. Select **Start**.

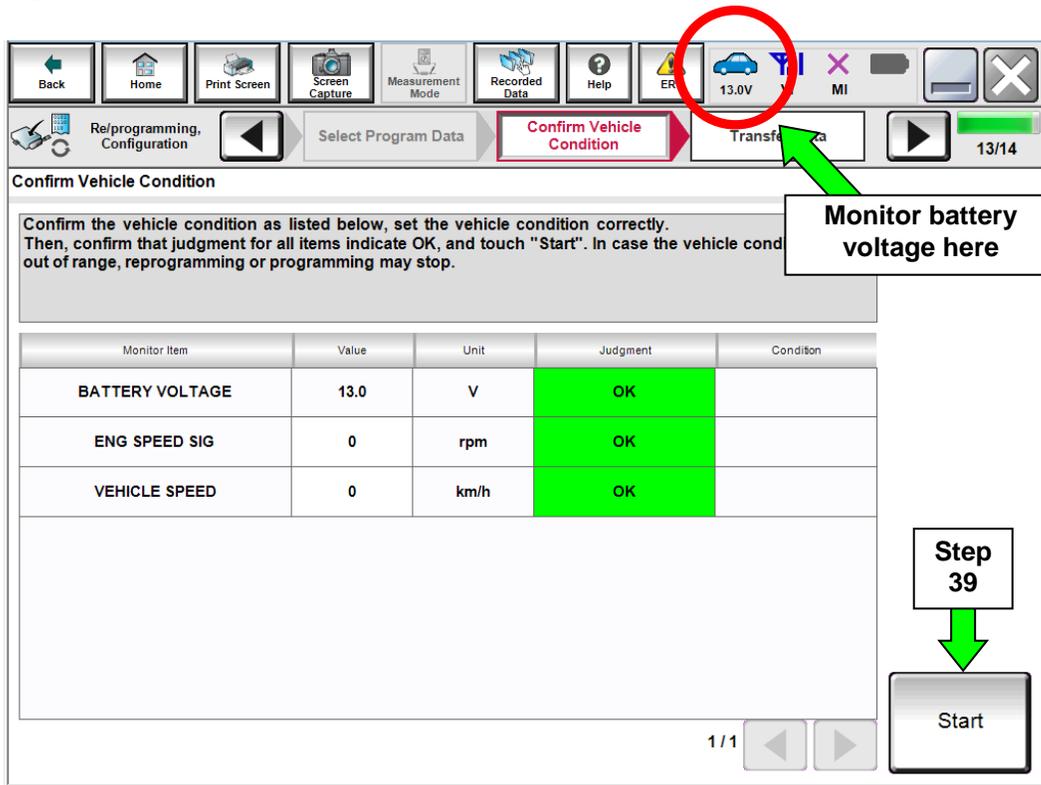


Figure 19

40. Wait for both progress bars to complete.

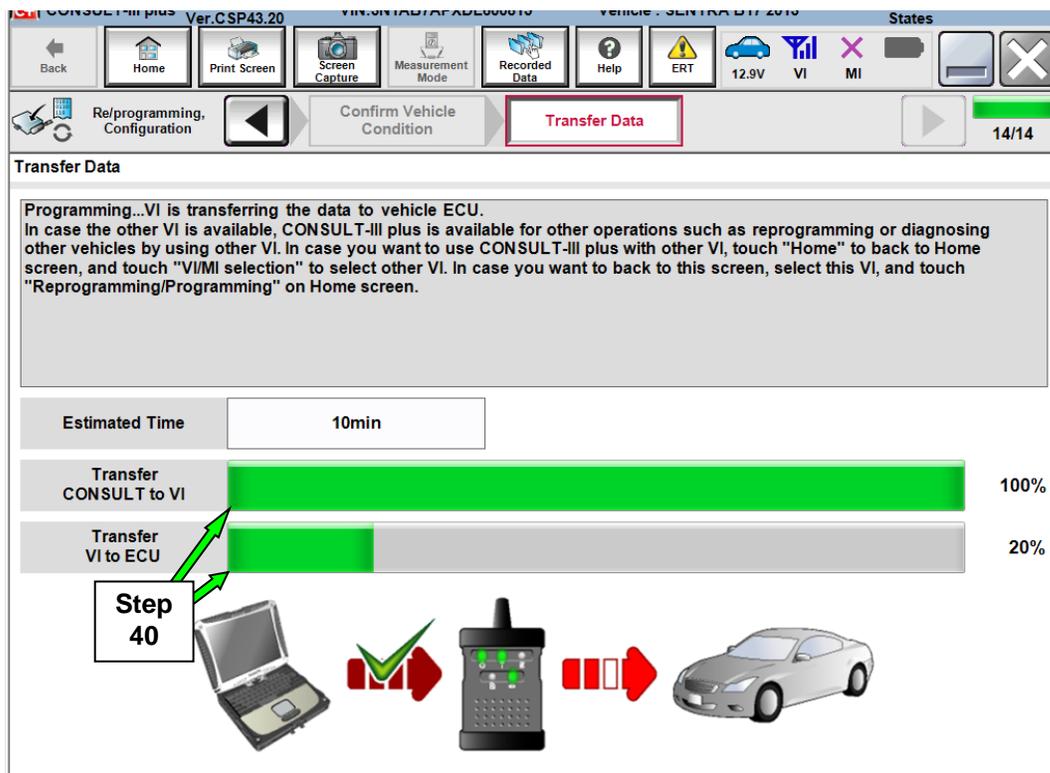


Figure 20

41. When the screen in Figure 21 displays, the reprogramming is complete.

NOTE: If the screen in Figure 21 does not display (which indicates reprogramming did not complete), refer to the information on the next page.

42. Disconnect the battery charger (GR8) from the vehicle.

43. Select **Next**.

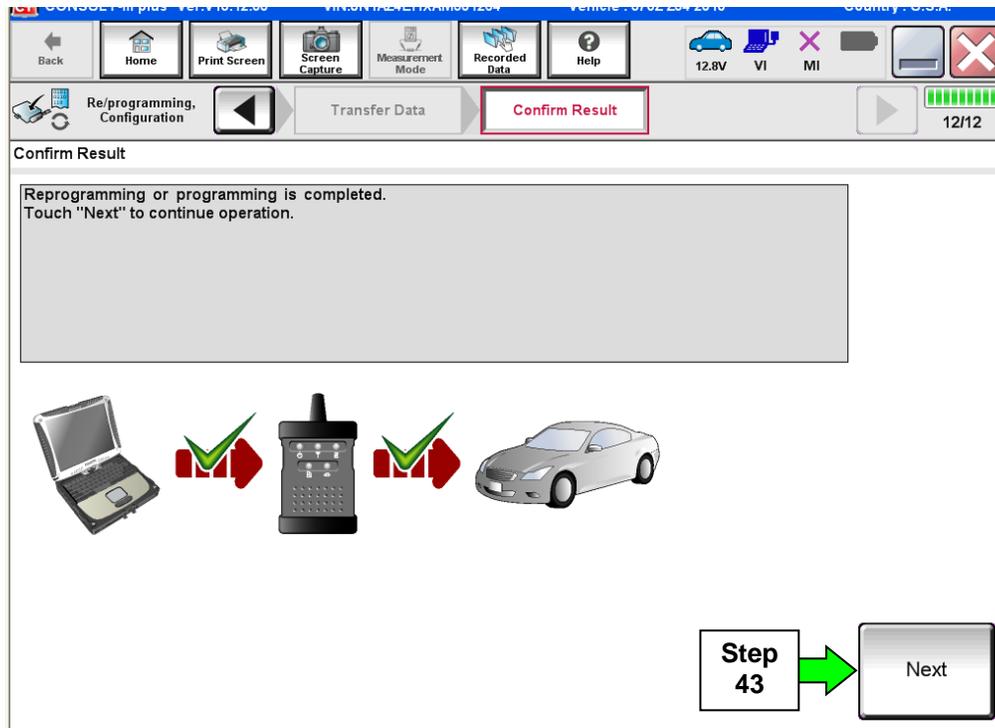


Figure 21

NOTE: Additional steps/operations are required before C-III plus will provide the final reprogramming confirmation report. Continue with the reprogramming procedure on page 21.

If reprogramming does not complete and the “!” symbol displays as shown in Figure 22:

- Check battery voltage (12.0 – 15.5V).
- Ignition ON, engine OFF.
- External Bluetooth® devices are OFF.
- All electrical loads are OFF.
- **Select Retry and follow the on screen instructions.**

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

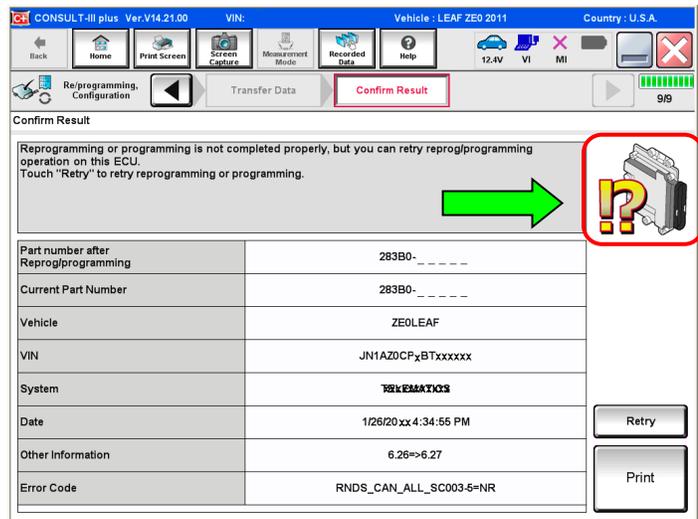


Figure 22

If reprogramming does not complete and the “X” symbol displays as shown in Figure 23:

- **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 Home, and then restart the reprogram procedure from the beginning.**

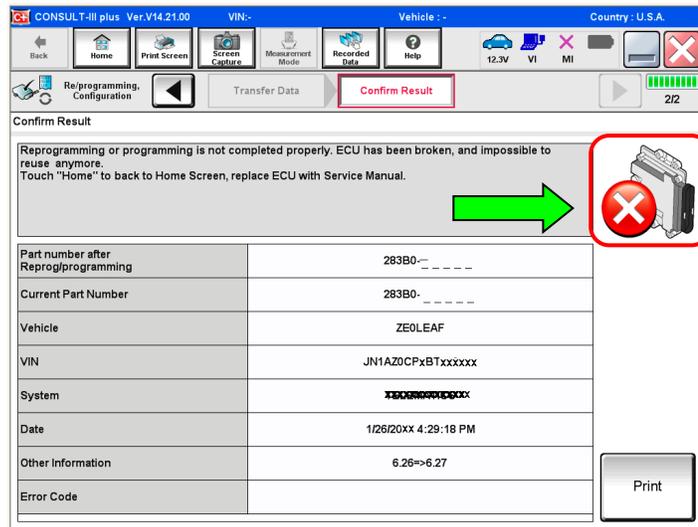


Figure 23

44. 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.

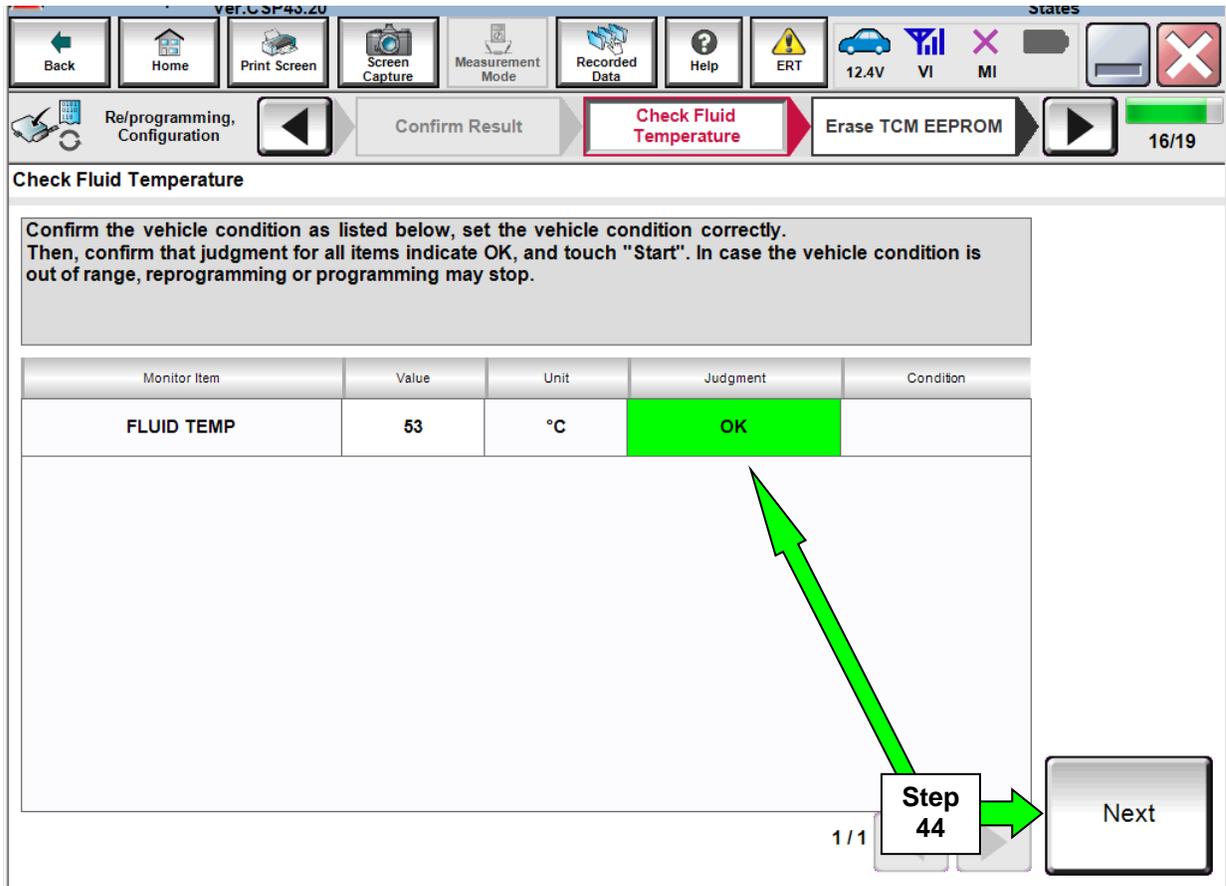


Figure 24

45. 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 $\frac{1}{4}$ and $\frac{1}{2}$.
- e. Put shift selector in R.

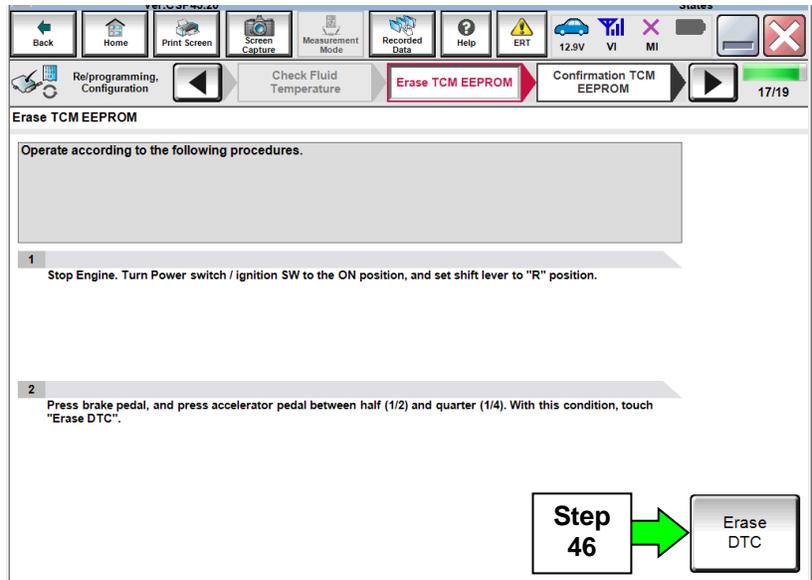


Figure 25

46. Select **Erase DTC**.

47. 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.

48. Select **Start**.

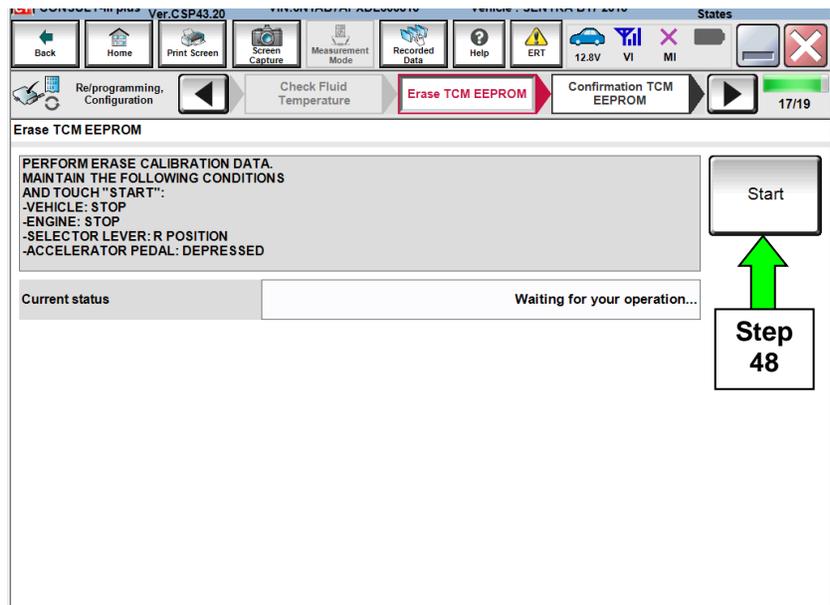


Figure 26

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

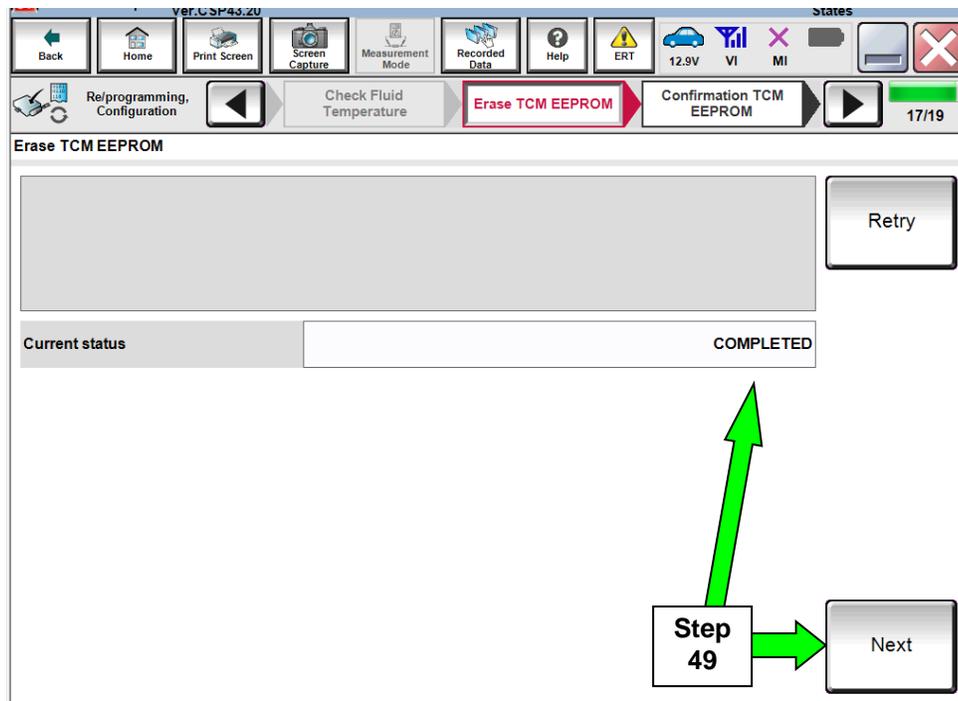


Figure 27

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

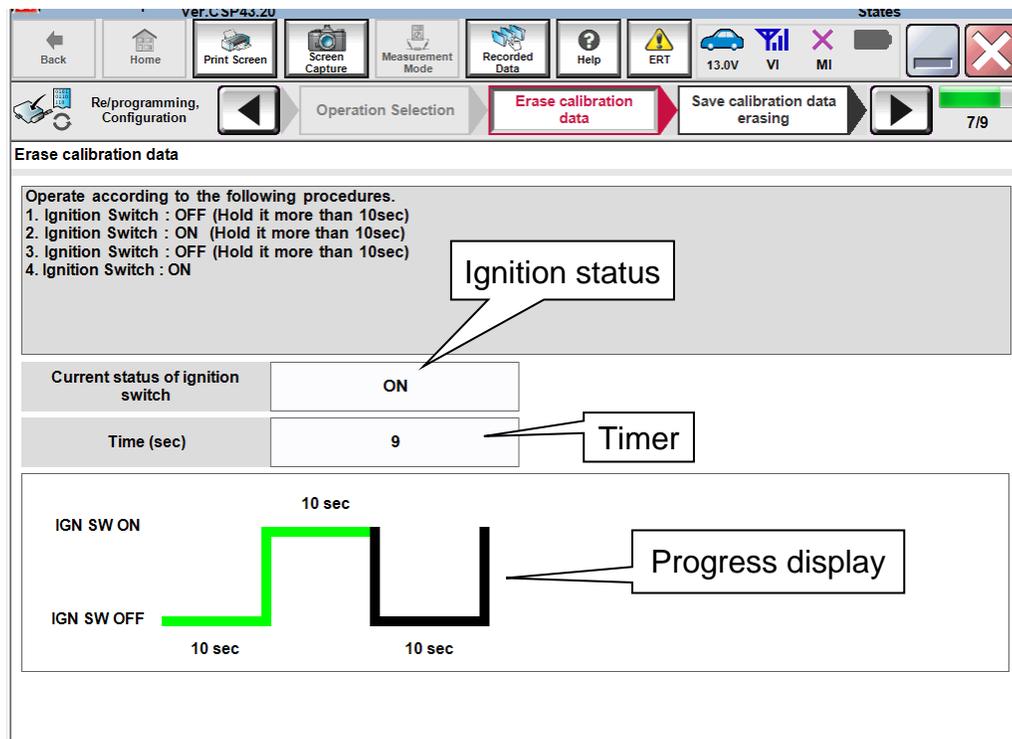


Figure 28

51. When **OK** is displayed, select **Next**.

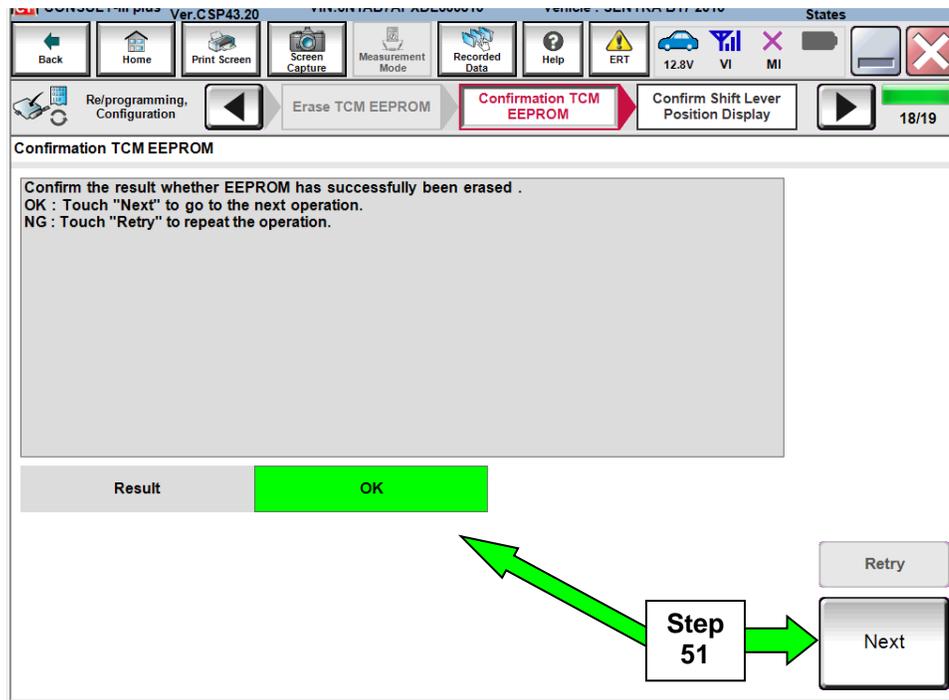


Figure 29

52. Operate the shift selector per the on-screen instructions.

- Move the shift selector to P; then move P>R>N>D>P
- Confirm the center display meter indicates the correct selector position.

53. Select **Next**.

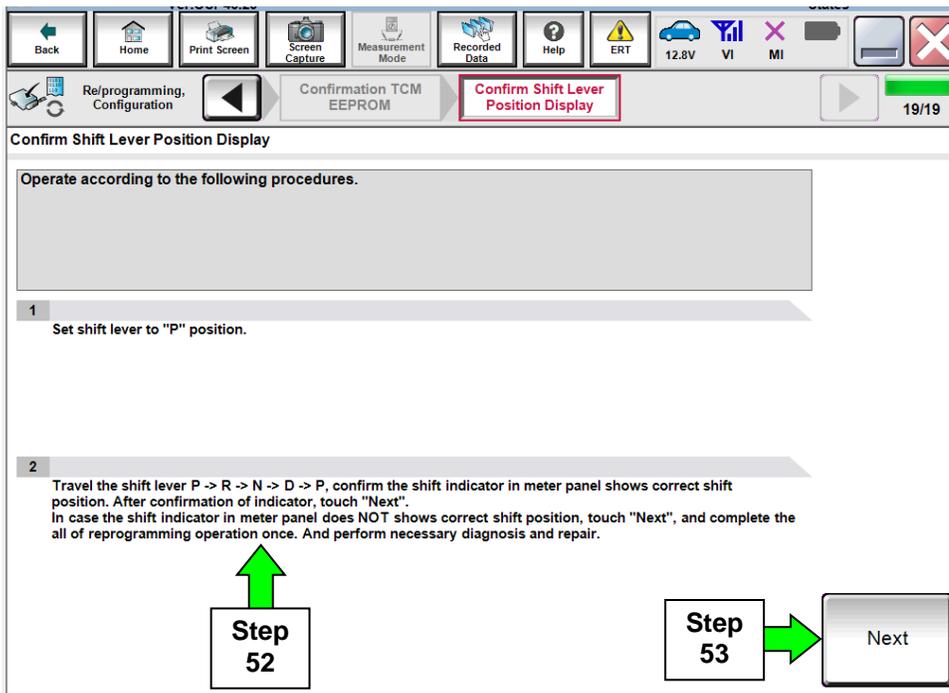


Figure 30

54. Erase all DTCs as follows:

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

55. Select **Next**.

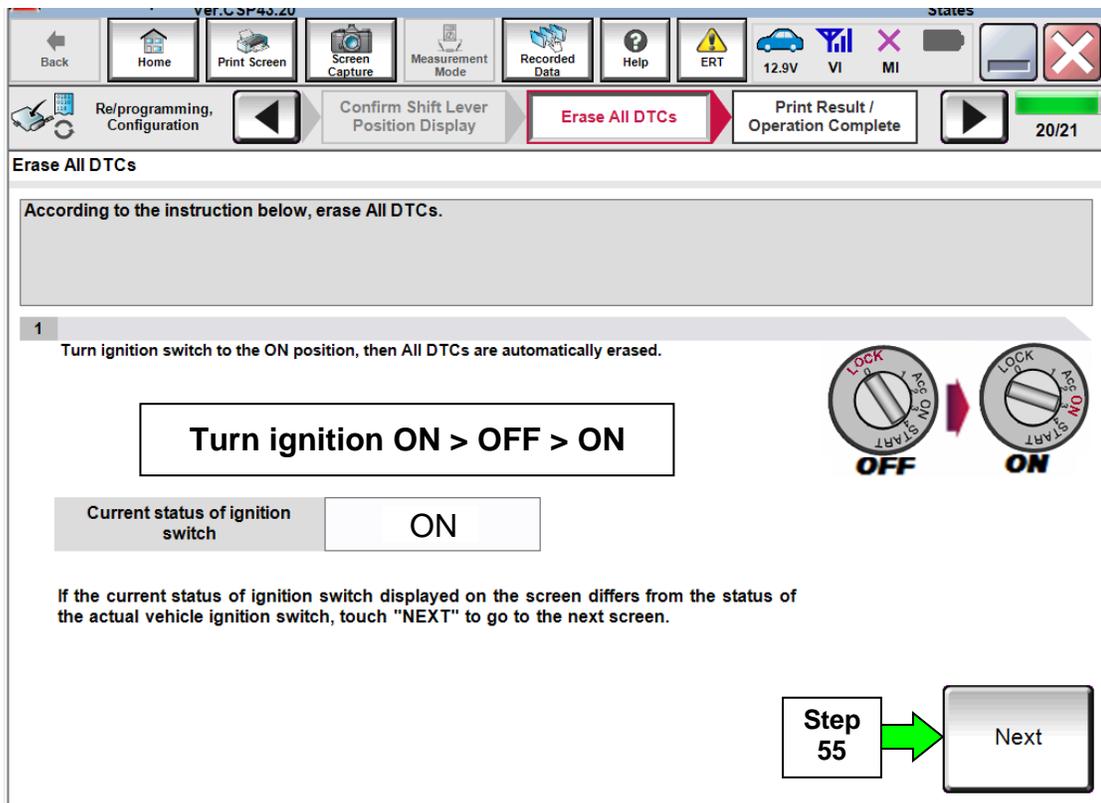


Figure 31

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

57. Print a copy of this screen (Figure 32) and attach it to the repair order.

58. Select **Confirm**.

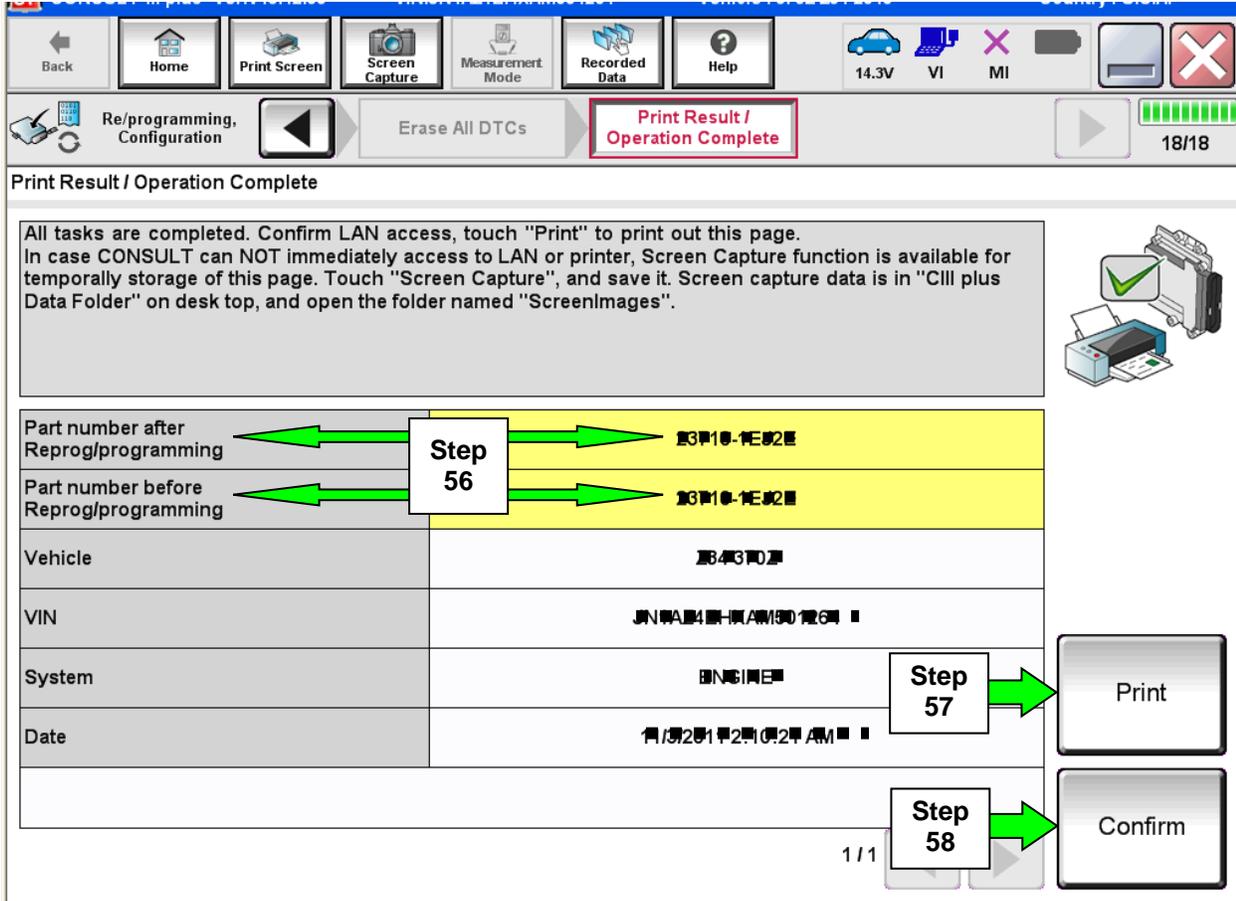


Figure 32

NOTE: If you cannot print the above screen:

- Select Screen Capture.
 - Name the file.
 - 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

NOTE: This procedure is for all Applied Vehicles.

59. Navigate C-III plus to the screen shown in Figure 33.

- **Diagnosis (All Systems) > TRANSMISSION > Work support**

60. Select **ERASE MEMORY DATA**.

61. Select **Start**.

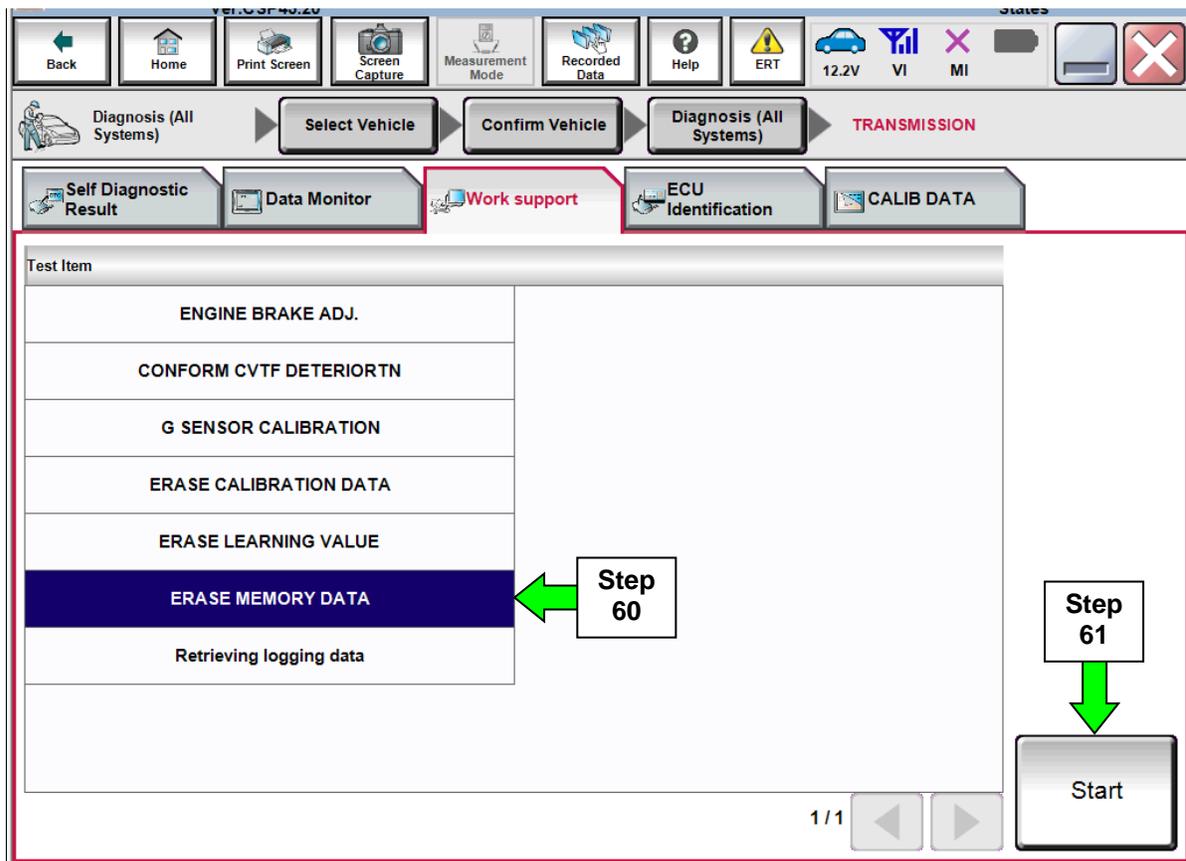


Figure 33

62. Follow the on-screen instructions; maintain the following conditions:
- Parking brake set.
 - Ignition ON, with the engine OFF.
 - Fully depress the accelerator.
 - Put shift selector in R.

63. Select **Start**.

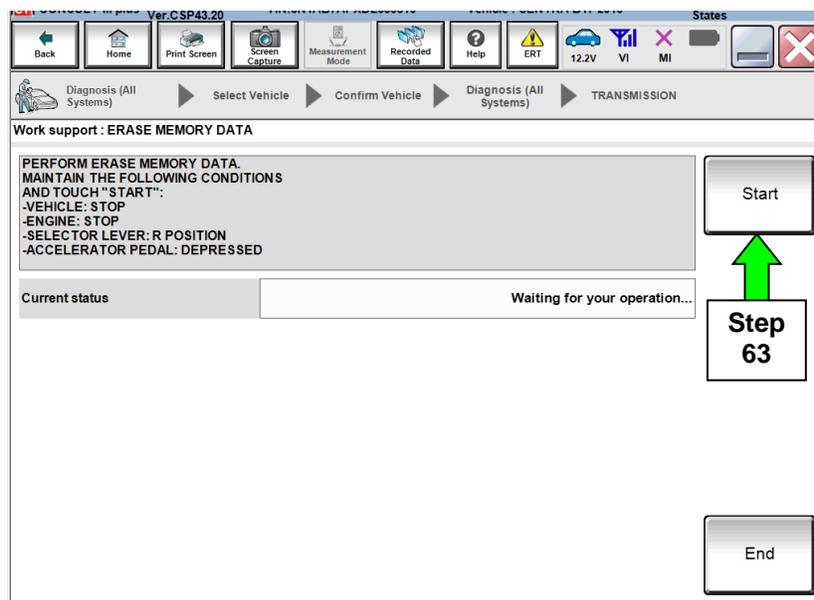


Figure 34

64. When the Current status changes to COMPLETED, select **End**.

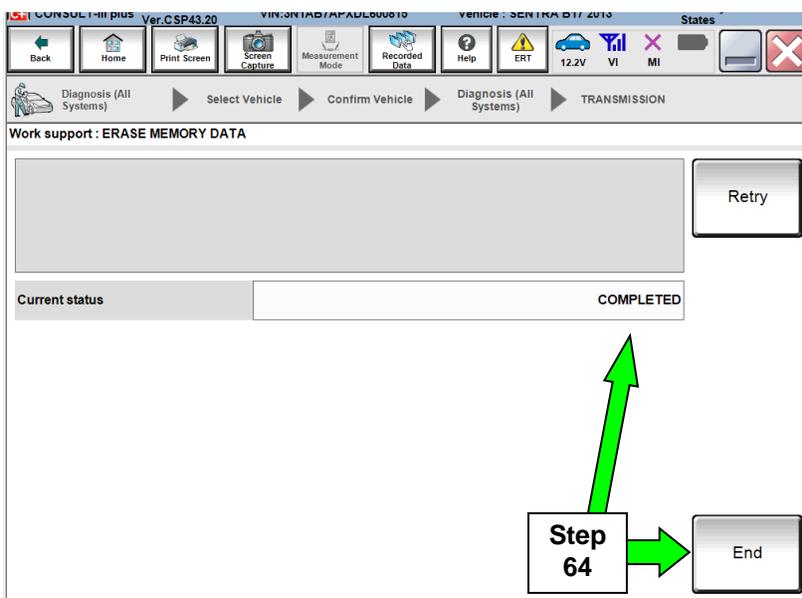


Figure 35

65. Move the shift selector to P, and then turn the ignition OFF.

66. Turn the ignition ON, and then confirm P and N display by moving the shift selector in those positions.

CONFORM CVTF DETERIORTN

NOTE: This procedure is for all Applied Vehicles.

67. Navigate C-III plus to the screen shown in Figure 36.

- **Diagnosis (All Systems) > TRANSMISSION > Work support**

68. Select **CONFORM CVTF DETERIORTN**.

69. Select **Start**.

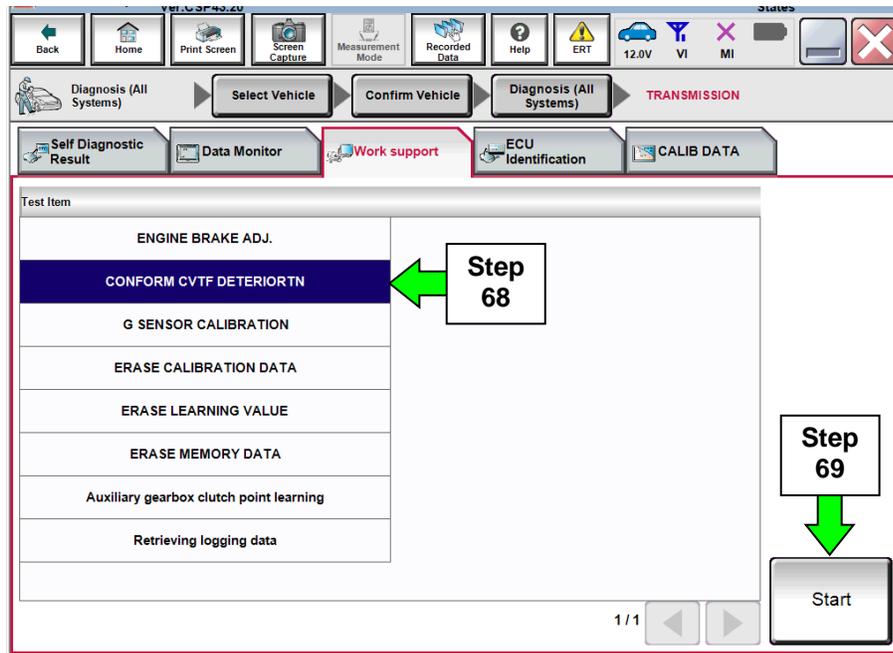


Figure 36

70. Select **Start**.

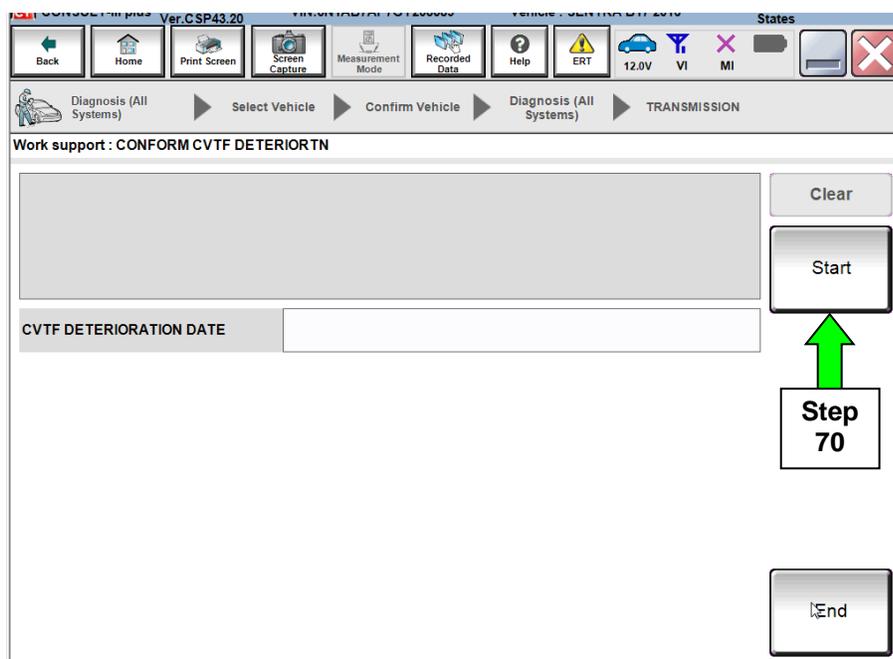


Figure 37

71. Select **Clear**.

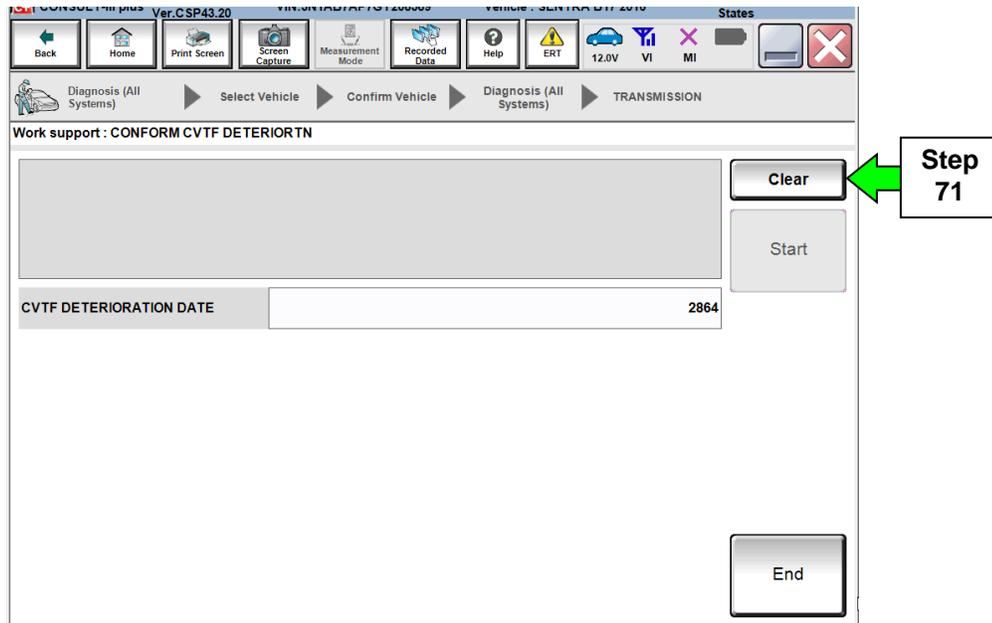


Figure 38

72. Select **Yes**.

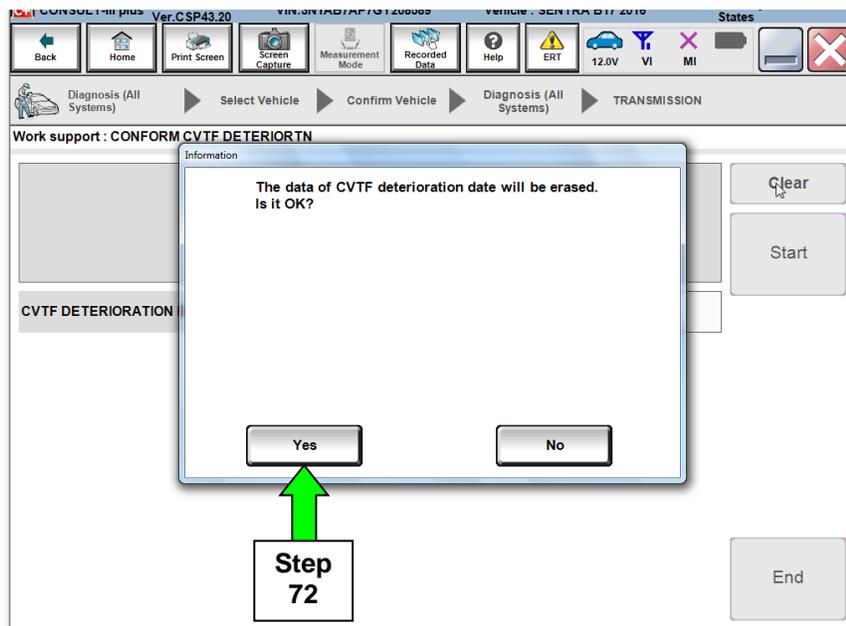


Figure 39

73. When **CVTF DETERIORATION DATE** changes to “0”, select **End**.

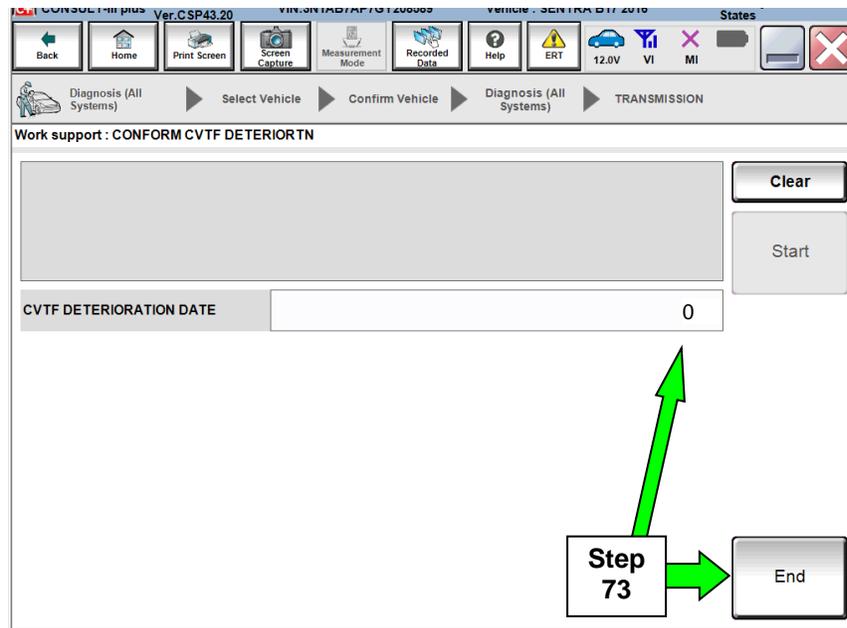


Figure 40

74. Start the engine.

75. Set the parking brake.

76. Turn OFF the A/C.

77. Bring the engine to normal operating temperature range.

78. Confirm the CVT fluid temperature is over 122°F (50°C).

Auxiliary gearbox clutch point learning

NOTE: This procedure is for all Applied Vehicles.

79. Navigate C-III plus to the screen shown in Figure 41.

- **Diagnosis (All Systems) > TRANSMISSION > Work support**

80. Select **Auxiliary gearbox clutch point learning**.

81. Select **Start**.

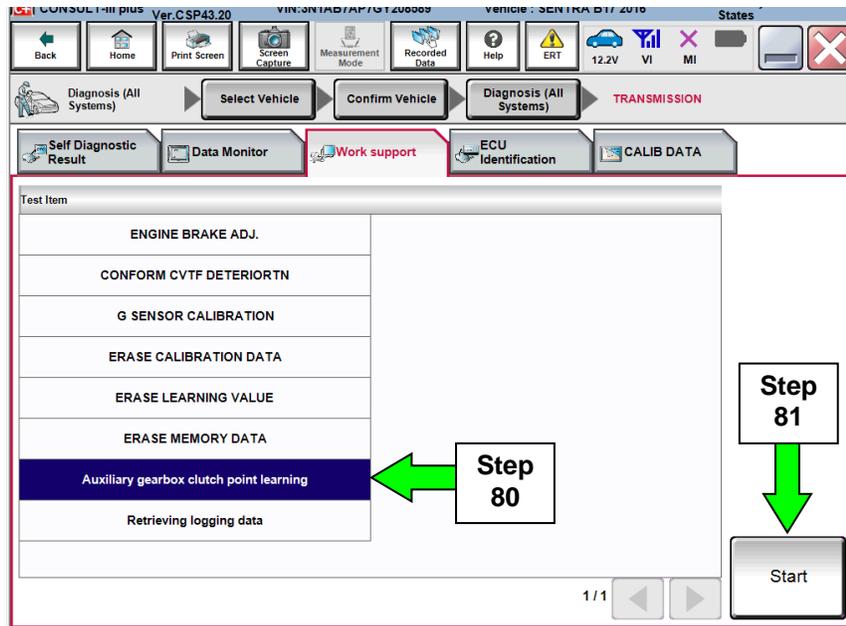


Figure 41

82. Follow the on-screen instructions in Figure 42, and then select **Start**.

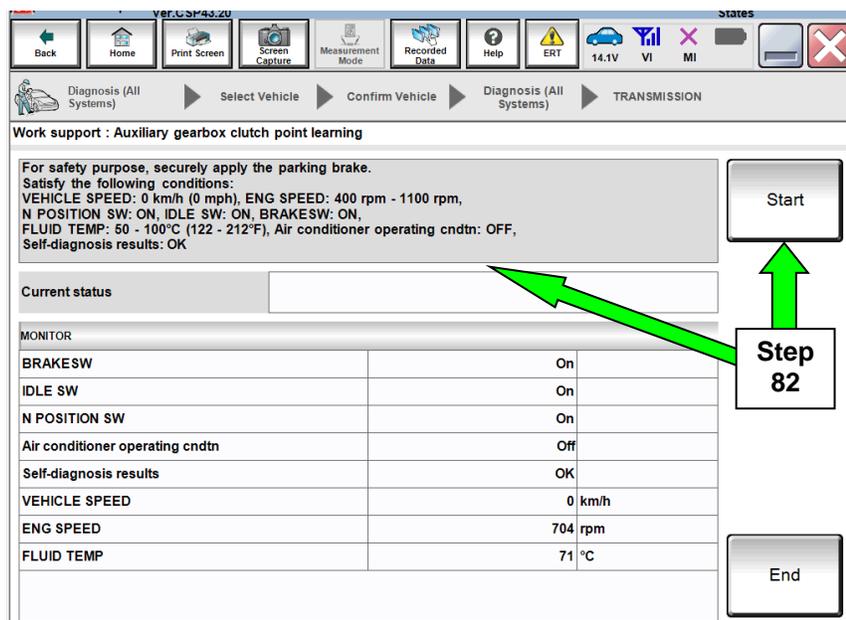


Figure 42

83. With the brake pedal still applied, shift the CVT selector lever into the D position.

- Figure 44 (located further below) will be displayed after shifting into D position.

NOTE: The Current status will show EXECUTING (Figure 43), but until the vehicle is shifted into the D position Auxiliary gearbox clutch point learning will not begin.

Step 83

➔

Work support : Auxiliary gearbox clutch point learning

Driving force is generated during learning.
Continue applying the foot brake until learning is completed to maintain the stationary state of the vehicle.
To start learning, set the selector lever in D position.
To stop learning, set the selector lever in P position.

Start

Current status EXECUTING

0%

MONITOR

BRAKESW	On
IDLE SW	On
N POSITION SW	On
Air conditioner operating cndtn	Off
Self-diagnosis results	OK
VEHICLE SPEED	0 km/h
ENG SPEED	704 rpm
FLUID TEMP	72 °C

End

Figure 43

84. Continue to depress the brake pedal until the **Current status** shows “Completed” as shown in Figure 45 on the next page.

NOTE: This may take several minutes to complete.

Work support : Auxiliary gearbox clutch point learning

Driving force is generated during learning.
Continue applying the foot brake until learning is completed to maintain the stationary state of the vehicle.
To start learning, set the selector lever in D position.
To stop learning, set the selector lever in P position.

Start

Current status EXECUTING

15%

MONITOR

BRAKESW	On
IDLE SW	On
N POSITION SW	Off
Air conditioner operating cndtn	Off
Self-diagnosis results	OK
VEHICLE SPEED	0 km/h
ENG SPEED	576 rpm
FLUID TEMP	73 °C

End

Figure 44

85. When **Completed** is displayed, select **End**.

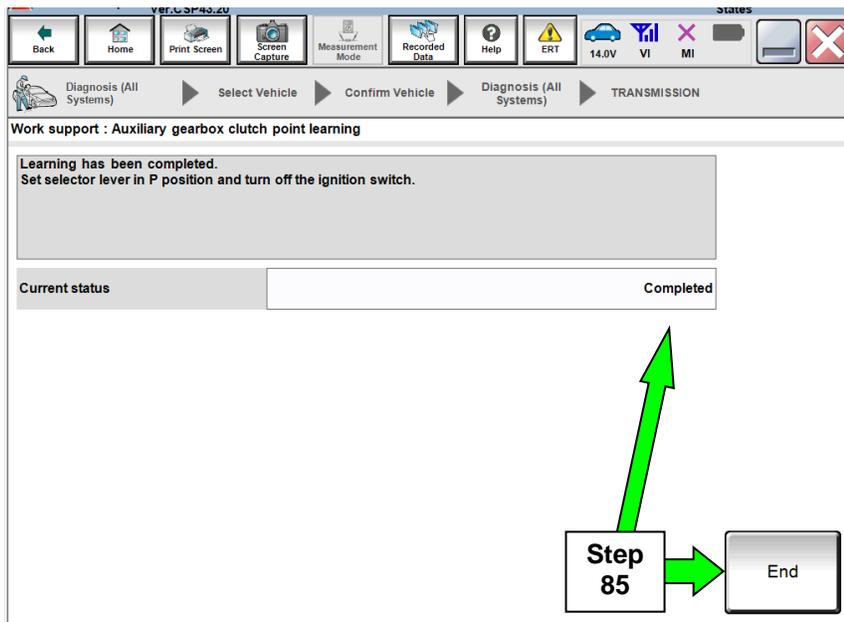


Figure 45

86. Shift the vehicle into “P”, turn ignition OFF and release the brake pedal.

87. Perform **Auxiliary Gearbox Clutch Point Learning** (steps 74 to 86) one additional time (a total of two times).

Erase DTCs

NOTE: This procedure is for all Applied Vehicles.

88. Use C-III plus to erase any transmission DTCs that may have stored.

89. Turn OFF C-III plus.

90. Disconnect C-III plus and the plus VI from the vehicle.

91. Verify the CVT operates normally and no abnormal noises are heard during a test drive.

PARTS INFORMATION

All Vehicles

DESCRIPTION	PART #	QUANTITY
GASKET (CVT drain plug)	11026-JA00A	1
NS-3 CVT Fluid (All vehicles listed below except 2012 MY Versa Sedan)	999MP-NS300P (1)	as needed
NS-2 CVT Fluid (2012 MY Versa Sedan only)	999MP - NS200P (1)	as needed

(1) NS-2 and NS-3 CVT Fluids can be ordered 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.

Versa Sedan/ Versa NOTE MY 2017

DESCRIPTION	PART #	QUANTITY
KIT-CONTROL VALVE	3170E-X428B	1
Kit Includes		
VALVE ASSY - CONTROL	--	1
GASKET-OIL PAN	--	1
STRAINER ASSY-OIL	--	1

Versa Sedan MY 2012

DESCRIPTION	PART #	QUANTITY
VALVE ASSY - CONTROL	31705-3JX8A	1
STRAINER ASSY-OIL	31728-3JX0B	1
GASKET-OIL PAN	31397-3JX0A	1

Sentra MY 2014-2017

DESCRIPTION	PART #	QUANTITY
KIT-CONTROL VALVE	3170E-X428C	1
Kit Includes		
VALVE ASSY - CONTROL	--	1
GASKET-OIL PAN	--	1
STRAINER ASSY-OIL	--	1

CLAIMS INFORMATION

Submit a Primary Part (PP) type line claim using the following claims coding:

OPERATION	PFP	OP CODE	SYM	DIAG	FRT
Replace Control Valve	(1)	JD48AA	HC	32	(2)

- (1) Refer to the Electronic Parts Catalog (FAST) and use the applicable Control Valve Assembly Part Number (31705-*****) as the Primary Failed Part.
- (2) Reference the current Nissan Warranty Flat Rate Manual and use the indicated flat rate time.

And if needed on the same line

OPERATION	OP CODE	FRT
Reprogram TCM	JE99AA	(1)

- (1) Reference the current Nissan Warranty Flat Rate Manual and use the indicated flat rate time.

