

Classification:

AT14-004b

Reference:

ITB14-021b

Date:

May 10, 2016

INFINITI; PROGRAMMING BLANK TCM

This bulletin has been amended. The Applied Vehicles have been updated and information/steps for obtaining a TCM software part number have been changed. Please discard all previous versions of this bulletin.

APPLIED VEHICLES:

2004-2010 QX56 (JA60)	2008-2010 EX35 (J50)
2005-2006 Q45 (F50)	2003-2008 FX (S50)
2007-2008 G35 Sedan (V36)	2006-2008 M35 (Y50)
2008 G37 Coupe (V36)	2009-2010 M35 AWD Only (Y50)
2005-2006 G35 Sedan (V35)	2006-2010 M45 (Y50)
2005-2007 G35 Coupe (V35)	
2004 G35 Coupe (V35) built after JNKCV54E(*)4M800001	
2004 G35 Sedan (V35) built after JNKCV51E(*)4M600001, or JNKCV51F(*)4M700001	

APPLIED TRANSMISSION: RWD 5 speed A/T

SERVICE INFORMATION

Replacement 5-speed rear wheel drive Automatic Transmission (A/T) assemblies and replacement control valves (valve bodies) now come with "blank" Transmission Control Modules (TCMs).

Blank TCMs come without software and must be programmed (not reprogrammed) and then configured after they are installed.

When ordering a replacement A/T or control valve, use the Infiniti electronic parts information systems to obtain the correct software program part number.

This bulletin contains details for:

- Saving and copying information from the old (current) TCM and applying it to the new (replacement) A/T assembly or valve body blank TCM
- Obtaining and installing program information into the new A/T assembly or new control valve blank TCM when it cannot be copied from the old TCM

Infiniti 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 Infiniti dealer to determine if this applies to your vehicle.

Blank TCM Programming Procedure (summary)

Below is a summary of the steps for blank TCM programming. For details, go to page 3.

NOTE: Erase any stored DTCs and perform DTC related repairs before starting the programming procedure in this bulletin. Refer to ASIST and the ESM as needed.

For vehicles where the old/current TCM can be accessed (TCM P/N can be read) with C-III plus:

- a. Connect and launch C-III plus:
 - From the C-III plus home page, Select **Re/Programming, Configuration**.
 - Proceed to Re/programming.
 - Select **Programming** (not reprogramming).
- b. Select **Before Replace ECU**.
- c. Save the current TCM P/N and Vehicle Identification Number (VIN).
- d. Replace the 5-speed rear wheel drive A/T assembly or control valve with a new one that contains a blank TCM.
- e. Select vehicle model and year, and then select **Confirm**.
- f. Select **After Replace ECU**.
- g. Select **Start** (to begin programming).
- h. Once programming has completed, configure the new TCM and erase DTCs.
- i. Close C-III plus.

For vehicles where the old/current TCM cannot be accessed (TCM P/N cannot be read) with C-III plus:

- a. Replace the 5-speed rear wheel drive A/T assembly or control valve with a new one that contains a blank TCM.
- b. Use the Infiniti electronic parts information systems to obtain the correct software program part number.
- c. Connect C-III plus, navigate to the screen that shows the selection **Programming**, and then select **Programming**.
- d. Select **After Replace ECU**.
- e. Select the P/N from the list that matches the one obtained from the electronic parts information systems.
 - Double-check and make sure the correct P/N has been selected.
- f. Select **Start** (to begin programming).
- g. Once programming has completed, configure the new TCM and erase DTCs.
- h. Close C-III plus.

Blank TCM Programming Procedure (details)

NOTE:

- **Always** enter the VIN into the electronic parts catalog (FAST or equivalent), when ordering (looking up) a replacement A/T assembly or control valve.
- Do not replace/install the new A/T or control valve, with blank TCM, until told to do so in the SERVICE PROCEDURE.

Can the old TCM (the one that will be replaced) be accessed with C-III plus?

NOTE: To determine if the old TCM can be accessed with C-III plus: Select **Diagnosis (One System)** > **Transmission**, and then read the TCM P/N. Can the TCM P/N be accessed and read?

YES – go to **PROGRAM BLANK TCM** (when old TCM is accessible with C-III plus) on the next page.

If the vehicle's old/current TCM can be accessed with C-III plus, its current internal P/N can be saved and then applied to the new blank TCM.

NO – go to **PROGRAM BLANK TCM** (when old TCM is NOT accessible with C-III plus) on page 22.

If the old/current TCM **cannot** be accessed with C-III plus, the software program P/N to be programmed into the blank TCM will need to be obtained using the Infiniti electronic parts information systems.

SERVICE PROCEDURE

PROGRAM BLANK TCM (when old TCM is accessible with C-III plus)

NOTE:

- Do not remove the old A/T or control valve until told to do so in the SERVICE PROCEDURE.
- Use this procedure if the vehicle's old/current TCM can be accessed with CONSULT-III plus.

IMPORTANT: Before starting the program procedure, make sure:

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

NOTE: The CONSULT PC automatically gets applicable TCM programming data during ASIST synchronization.

- A screen print for Warranty documentation can be done from the CONSULT PC during this process while still connected to the vehicle.

NOTE: After programming is complete, you will be required to perform A/T write configuration and DTC erase.

1. Connect the C-III plus Vehicle Interface (plus VI) to the vehicle.

- Make sure to use the correct VI for C-III plus (plus VI).

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

3. Connect a battery charger to the vehicle battery:

- GR-8 (Battery and Electrical Diagnostic Station) set to ECM power supply.

CAUTION: Be sure the battery charger is connected securely to the battery. Make sure the battery voltage stays between 12.0V and 15.5V during programming. If the battery voltage goes out of this range during programming, 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 plus VI.

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

5. Turn the ignition ON (engine OFF).

- The engine must not start or run during the programming procedure.

6. Turn OFF all vehicle electrical loads such as exterior lights, interior lights, HVAC, blower fan, 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 programming. If the battery voltage goes out of this range during programming, the TCM may be damaged.

7. Open / start C-III plus.

- You will be accessing the vehicle's old TCM.

NOTE: All C-III plus screens throughout this bulletin are examples. Actual C-III plus screens on your CONSULT PC may vary slightly.

8. Wait for the plus VI to be recognized.

- The serial number will display when the plus VI is recognized.

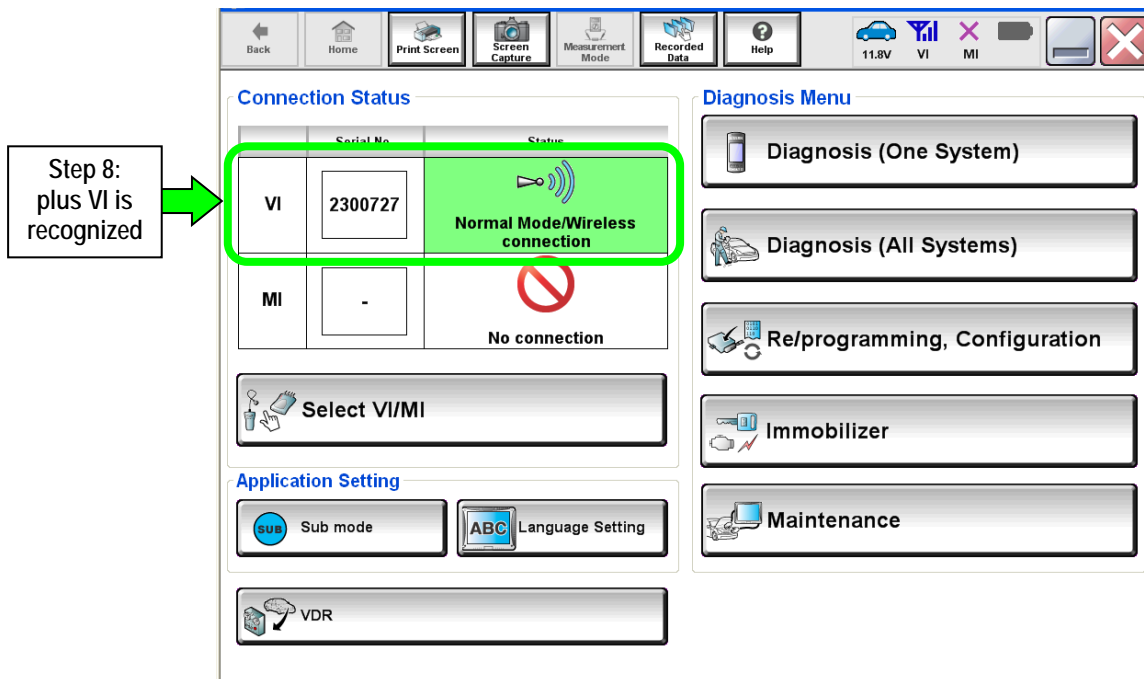


Figure 1

9. Select Re/programming, Configuration.

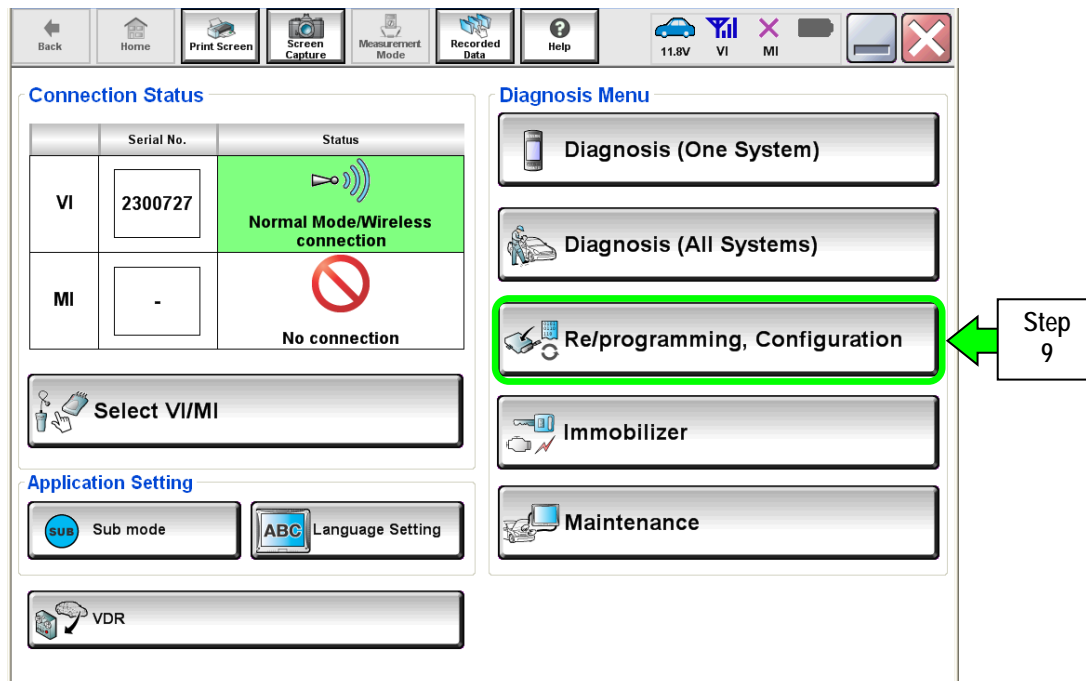


Figure 2

10. Use arrows (if needed) to view and read all precautions.
11. Check the box confirming the precautions have been read.
 NOTE: The box cannot be checked until all precautions in step 10 have been viewed and read.
12. Select Next.

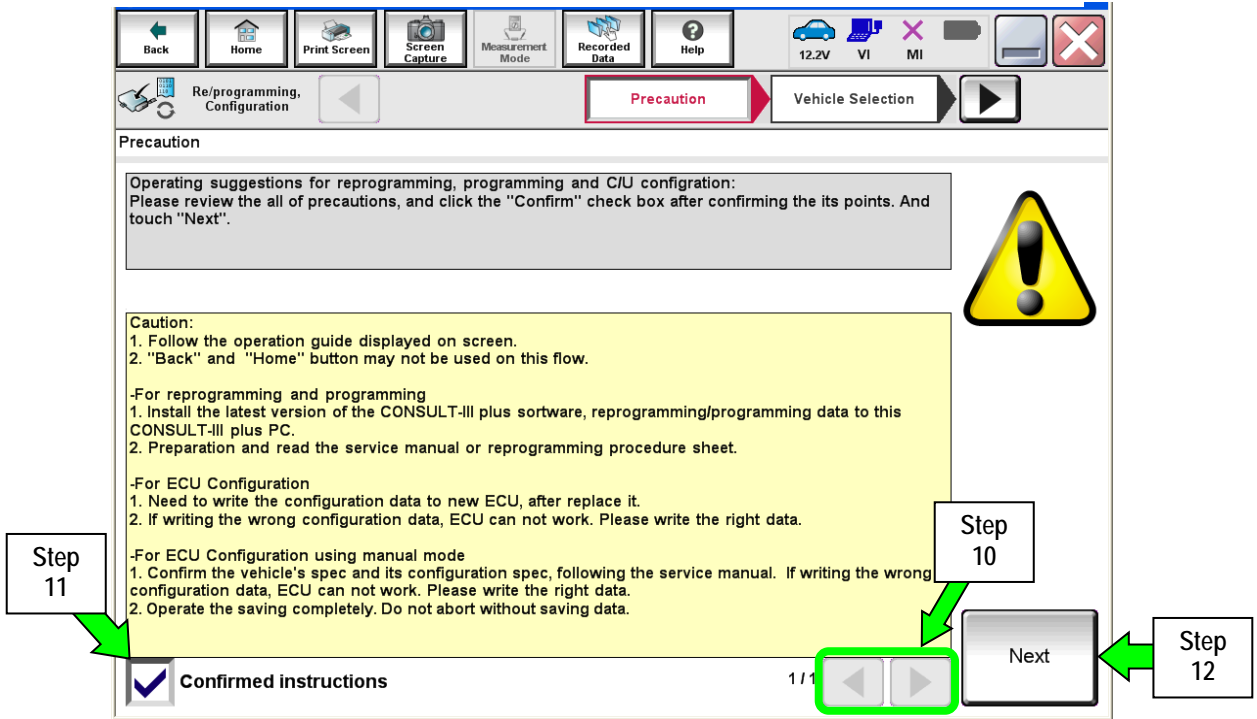


Figure 3

13. Select Infiniti, Vehicle Name, Model Year, and then Select.
 - If the screen in Figure 4 does not display, skip to step 14.

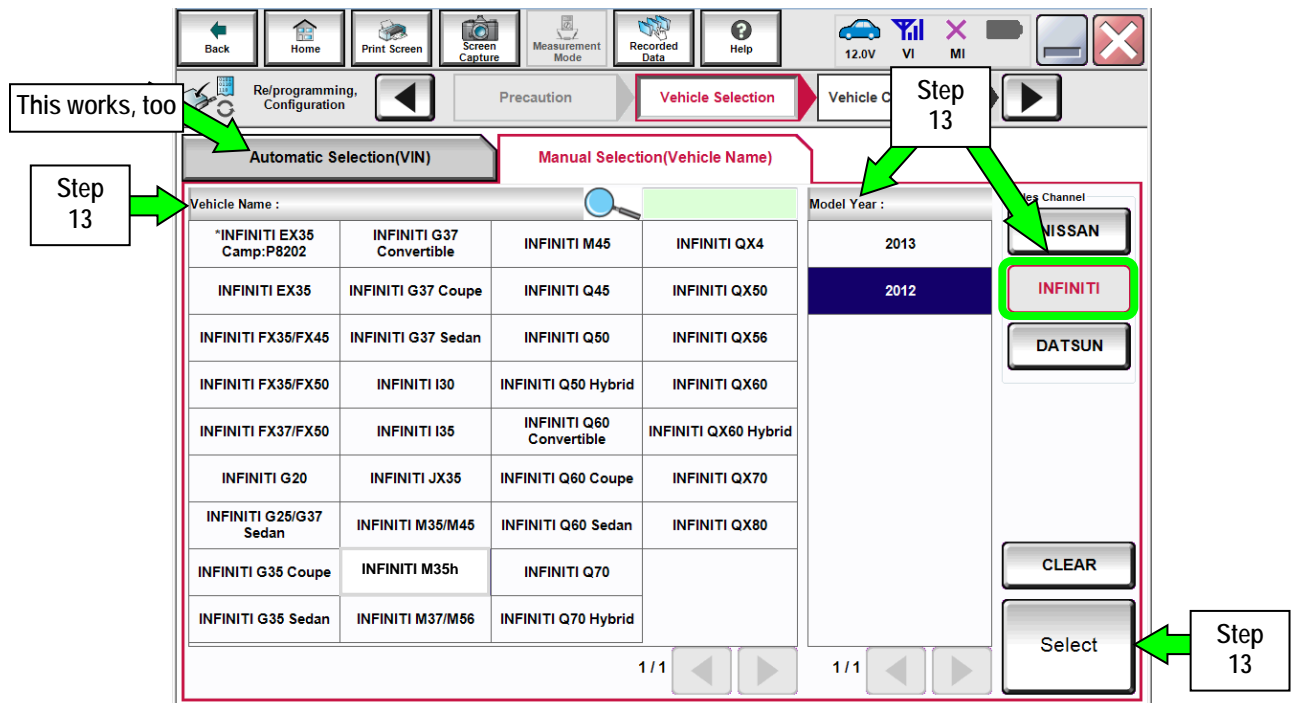


Figure 4

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

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

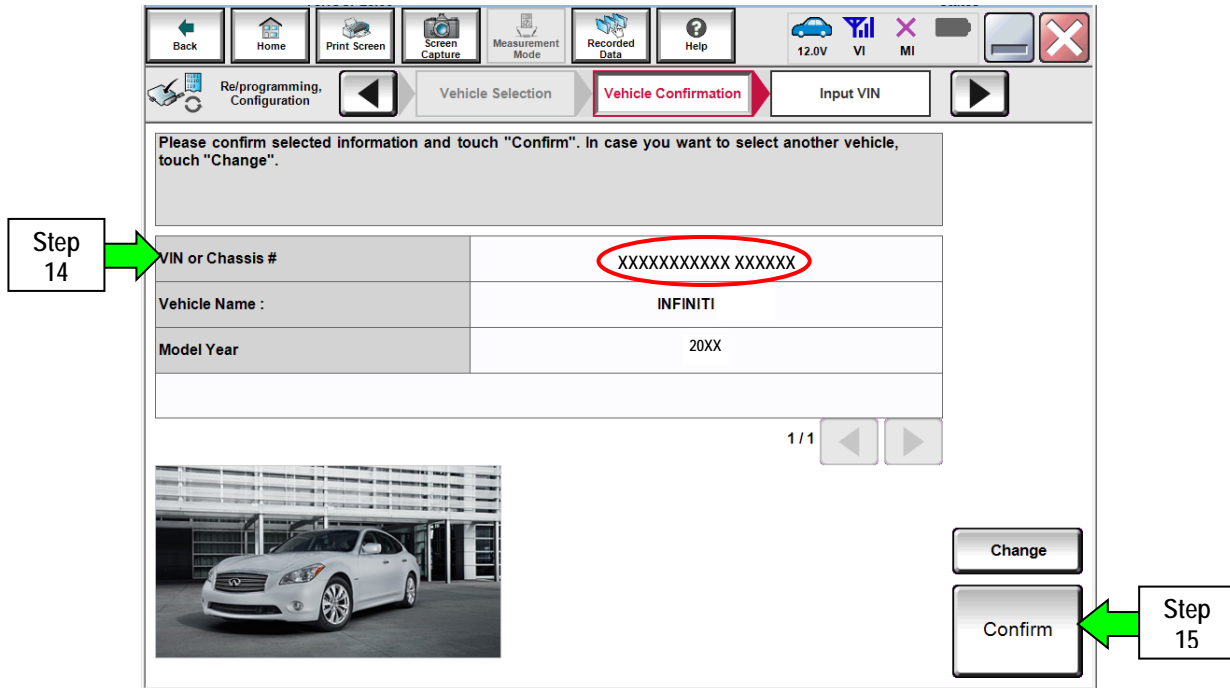


Figure 5

16. Select **Confirm**.

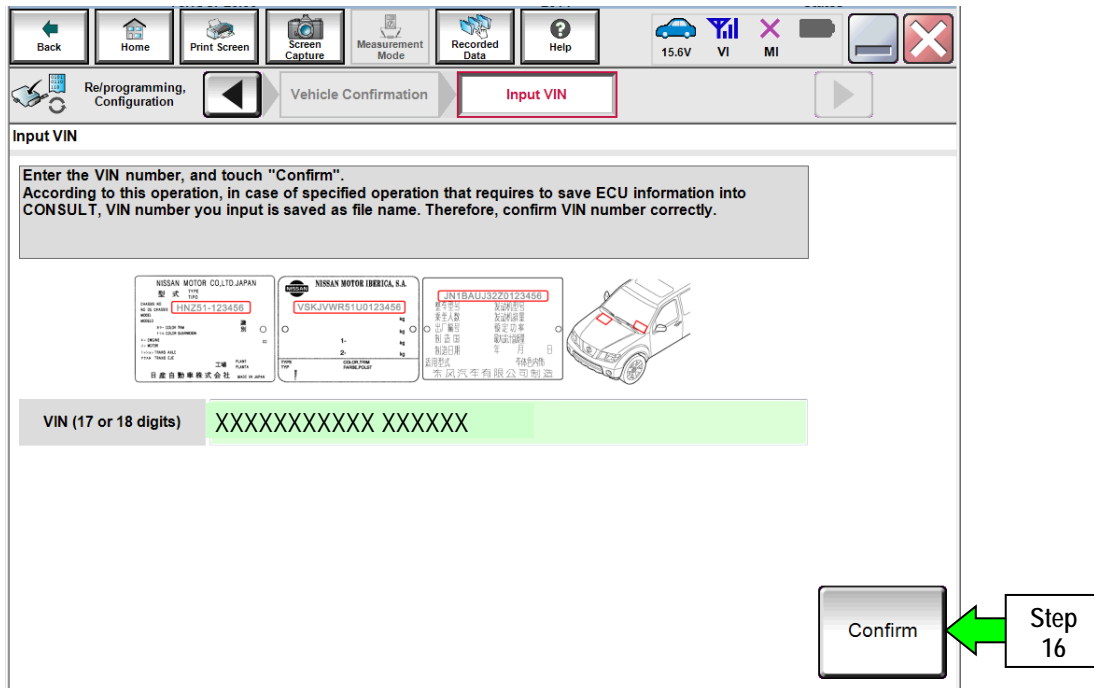


Figure 6

17. Select TRANSMISSION.

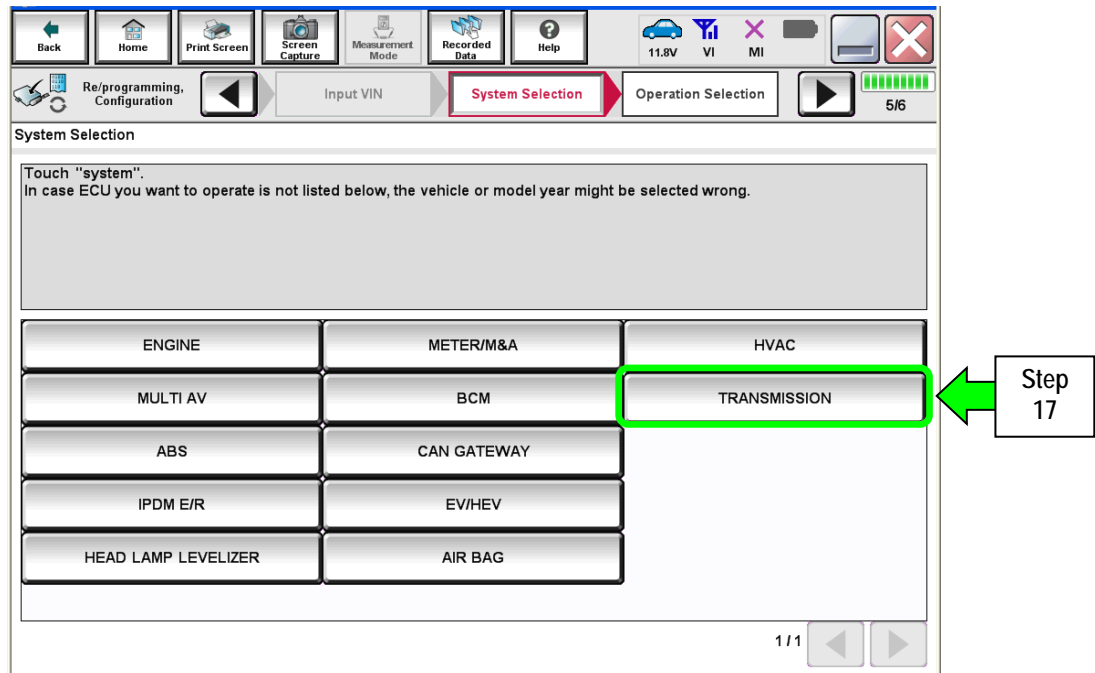


Figure 7

NOTE: If the old TCM cannot be accessed with C-III plus, go to page 22, Program Blank ECM (When ECM is NOT Accessible With C-III plus).

18. Select **Programming**. Do not select Reprogramming.

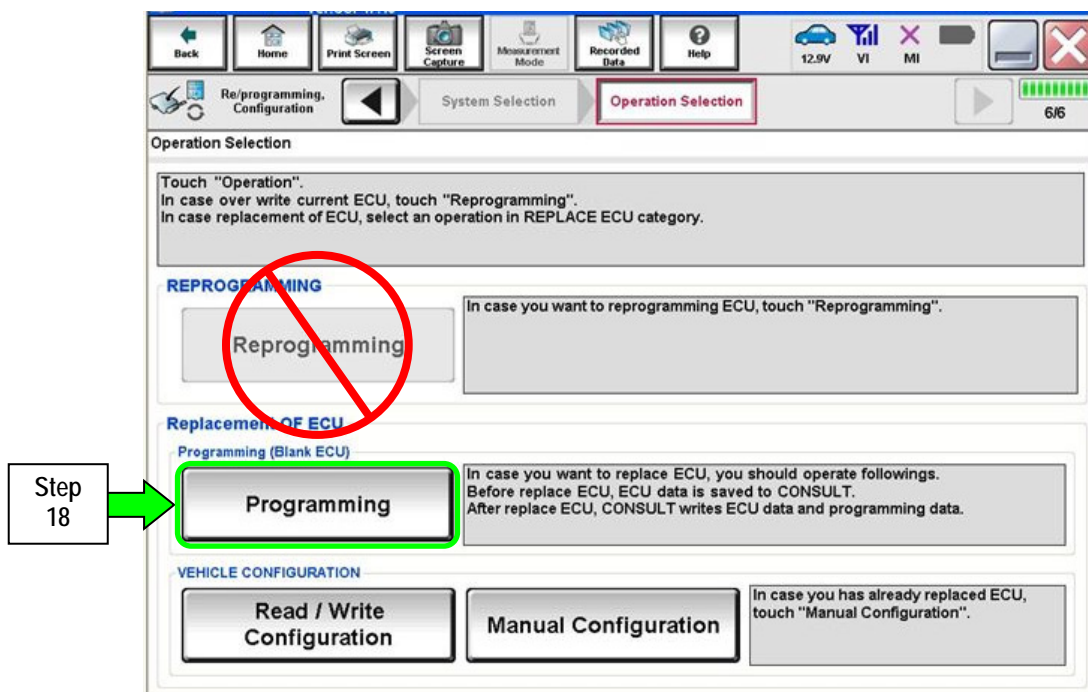


Figure 8

- If the screen in Figure 9 appears, select **Next**.

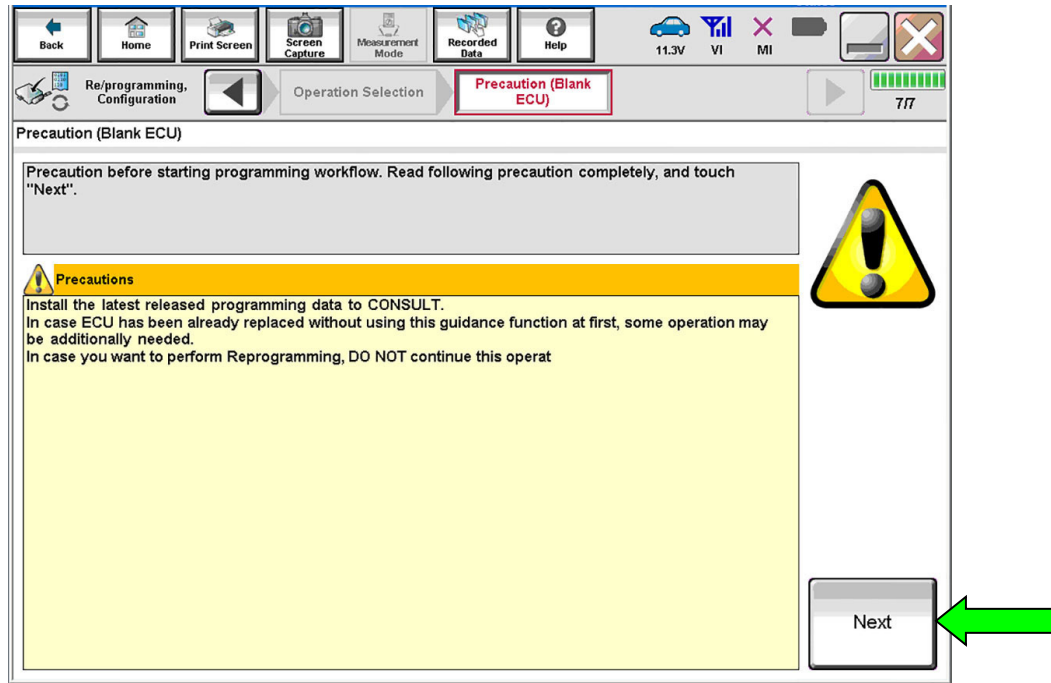


Figure 9

19. Select **Before Replace ECU**.

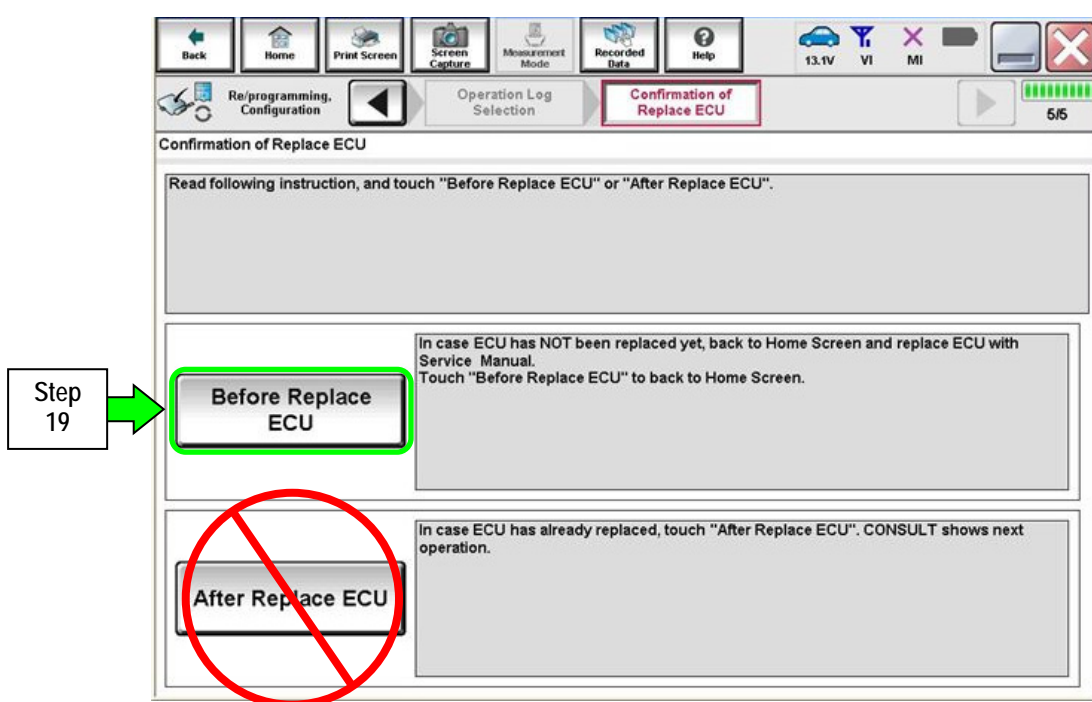


Figure 10

20. Select Save.

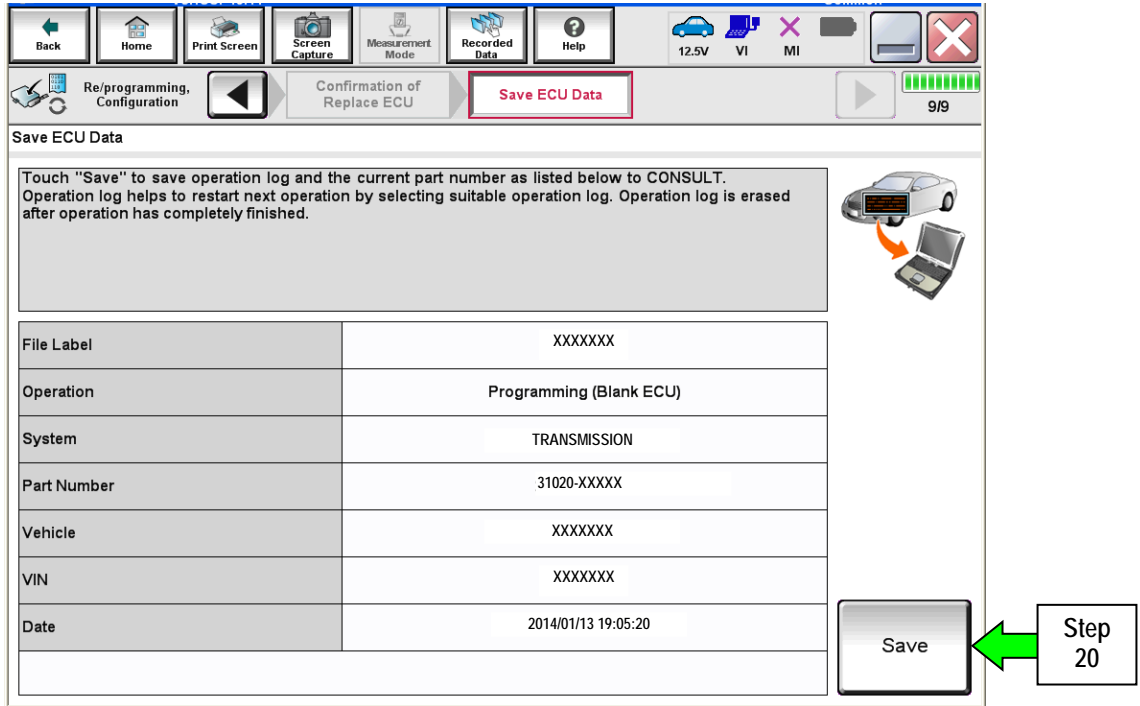


Figure 11

21. Select Next.

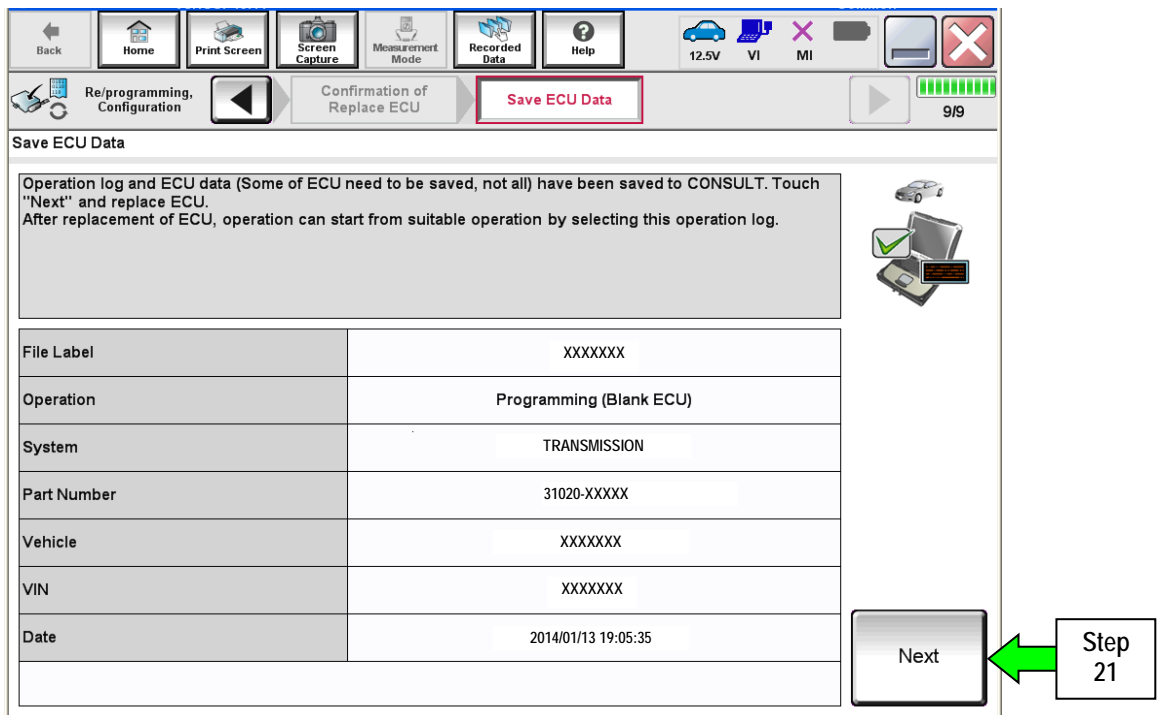


Figure 12

22. Make sure the VIN in the **Saved Data List** (Figure 13) matches the vehicle's VIN.
 - If the VIN is not correct, select **Delete**, and then start over from the C-III plus Home screen.
23. If the VIN is correct, select **Confirm**.
 - This step will save the vehicle's existing TCM information.

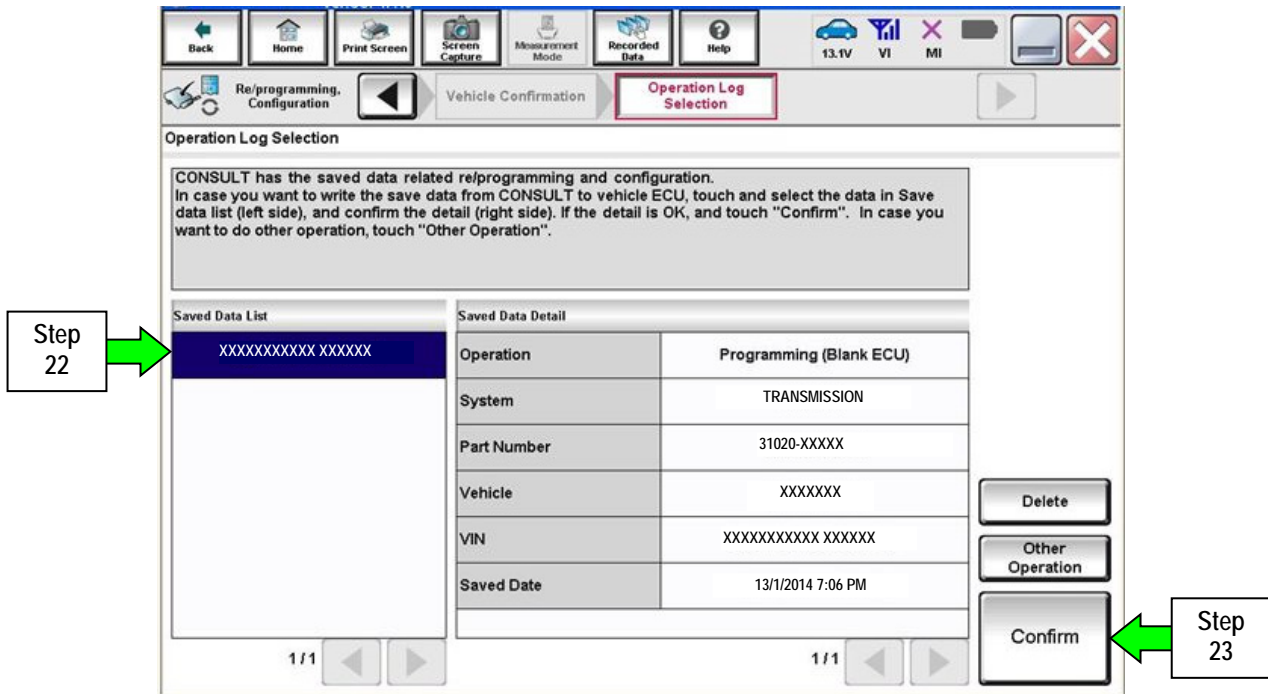


Figure 13

24. After **Confirm** is selected in step 23, the screen in Figure 14 will display. Select **Home**.

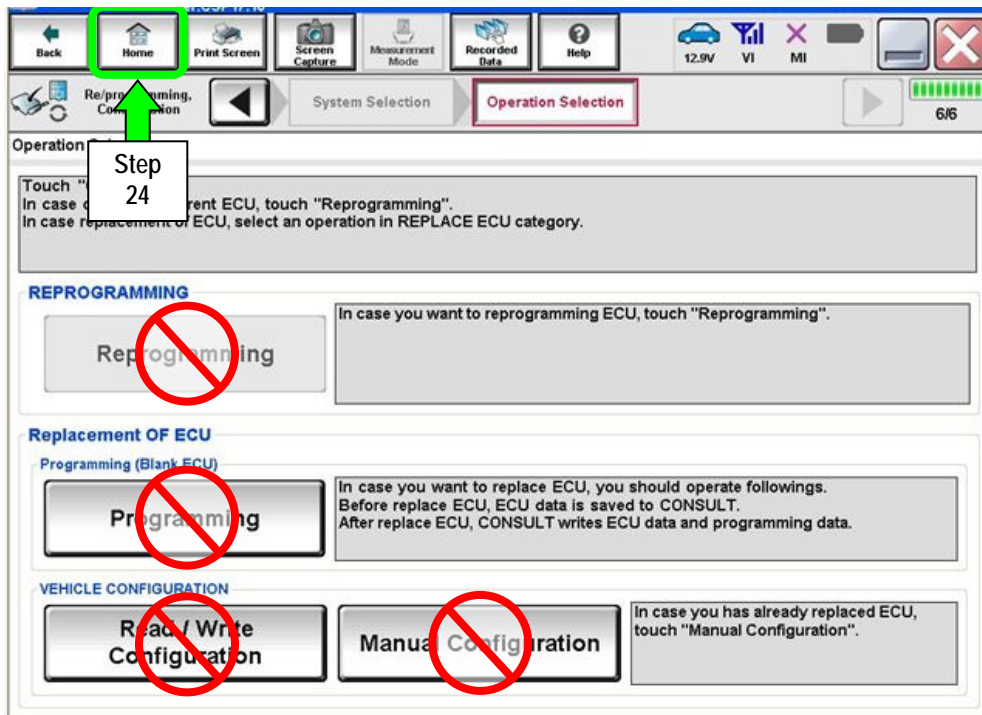


Figure 14

25. Replace the old A/T assembly or control valve with a new one (with blank TCM) now:

- Refer to the appropriate section in the ESM for A/T or control valve removal and installation.
- If the CONSULT PC is removed from the vehicle for any reason, make sure the saved data is not erased.

26. After the A/T or control valve has been replaced:

- a. Open / start C-III plus.
- b. Make sure the ignition is ON (engine OFF).
 - **The engine must not start during the programming procedure.**
- c. Make sure the GR8 / battery charger is connected.

NOTE: All C-III plus screens throughout this bulletin are examples. Actual C-III plus screens on your CONSULT PC may vary slightly.

27. Wait for the plus VI to be recognized.

- The serial number will display when the plus VI is recognized.

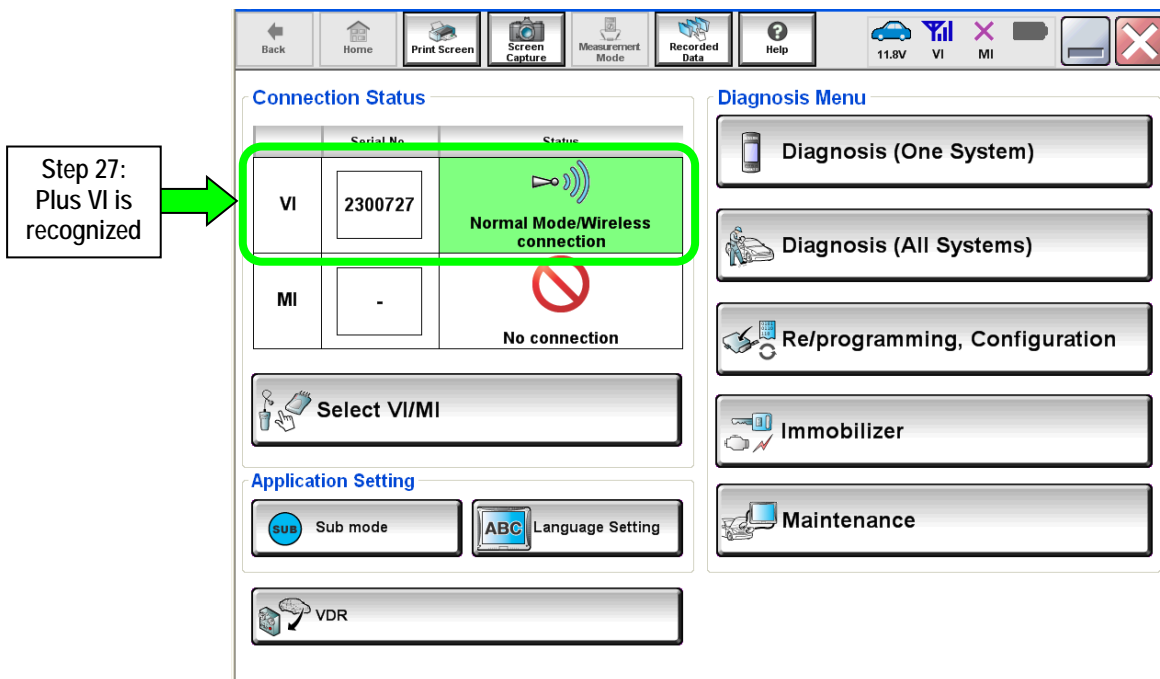


Figure 15

28. Select Re/programming, Configuration.

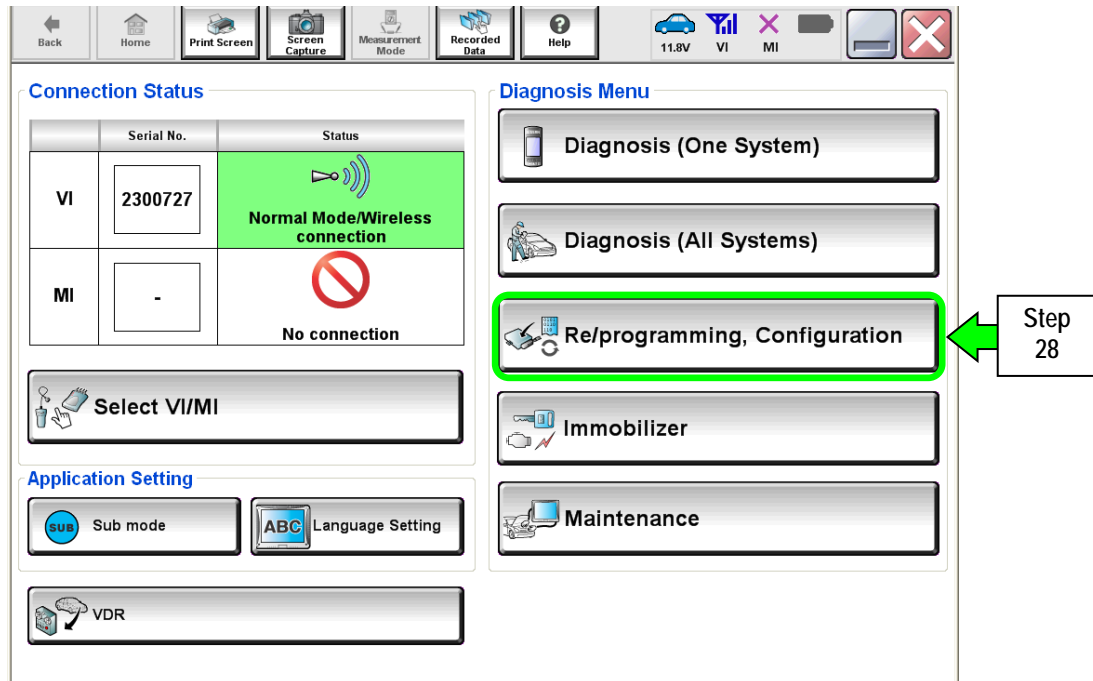


Figure 16

29. Use arrows (if needed) to view and read all precautions.

30. Check the box confirming the precautions have been read.

31. Select Next.

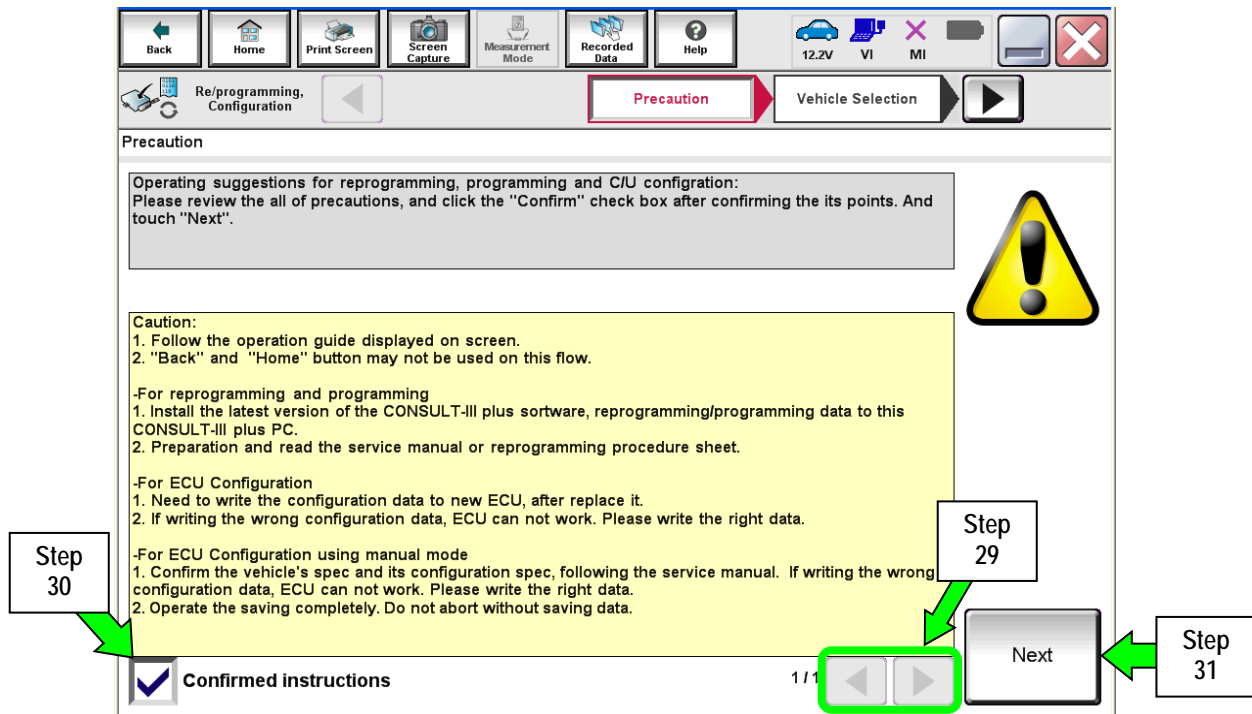


Figure 17

32. Select **Infiniti**, **Vehicle Name**, **Model Year**, and then **Select**.
- If the screen in Figure 18 does not display, skip to step 33.

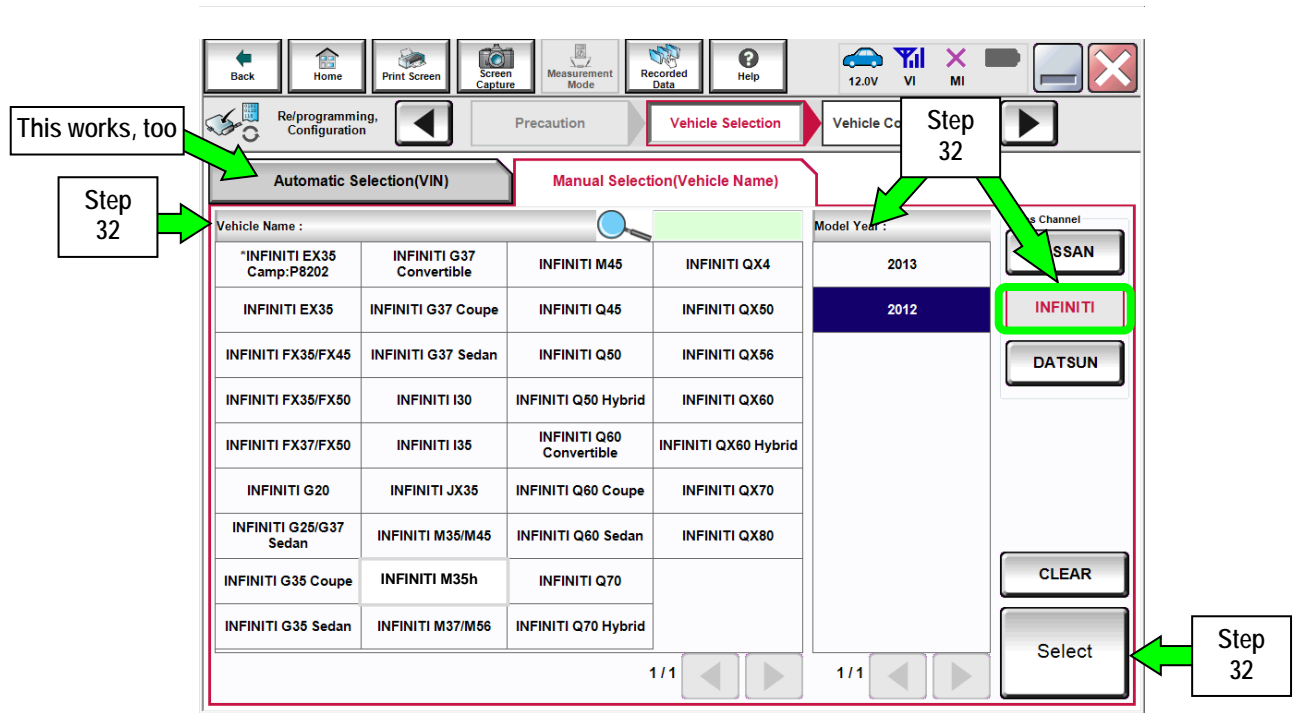


Figure 18

33. Make sure **VIN or Chassis #** matches the vehicle's VIN.
34. If the correct VIN is displayed, select **Confirm**.

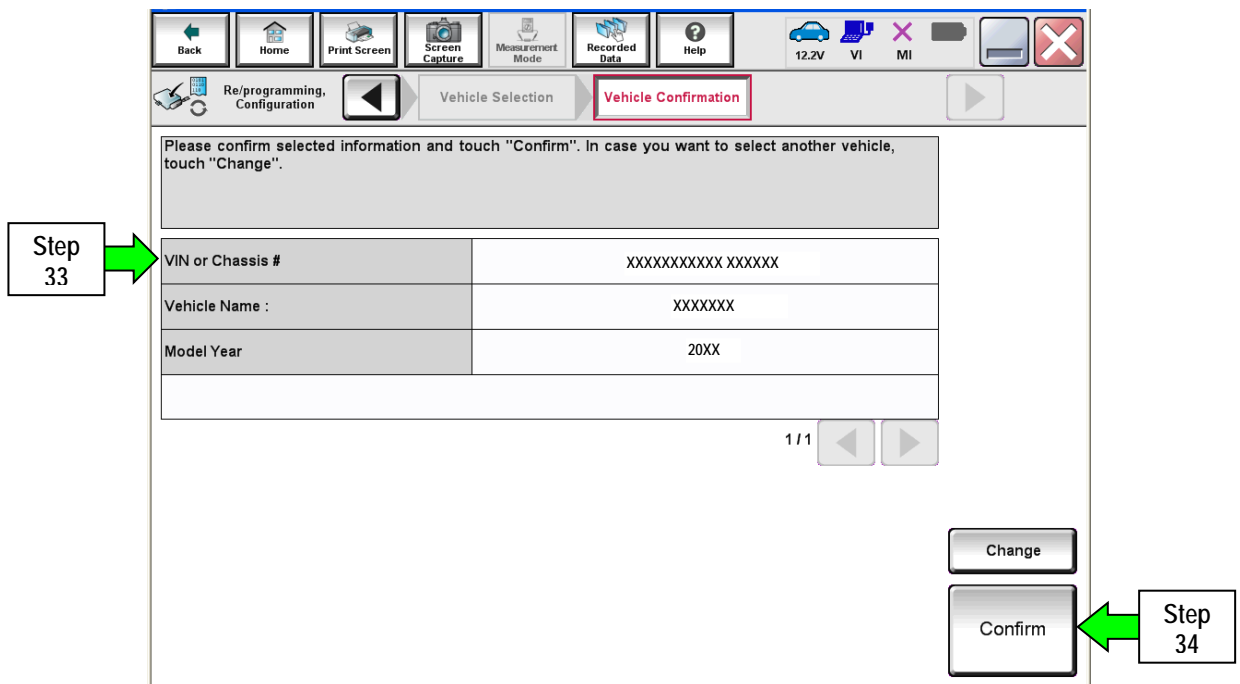


Figure 19

35. Select **Confirm**.

NOTE: If there is only one data file saved on C-III plus, it will automatically be selected. If there is more than one, select the data file for your vehicle, and then select **Confirm**.

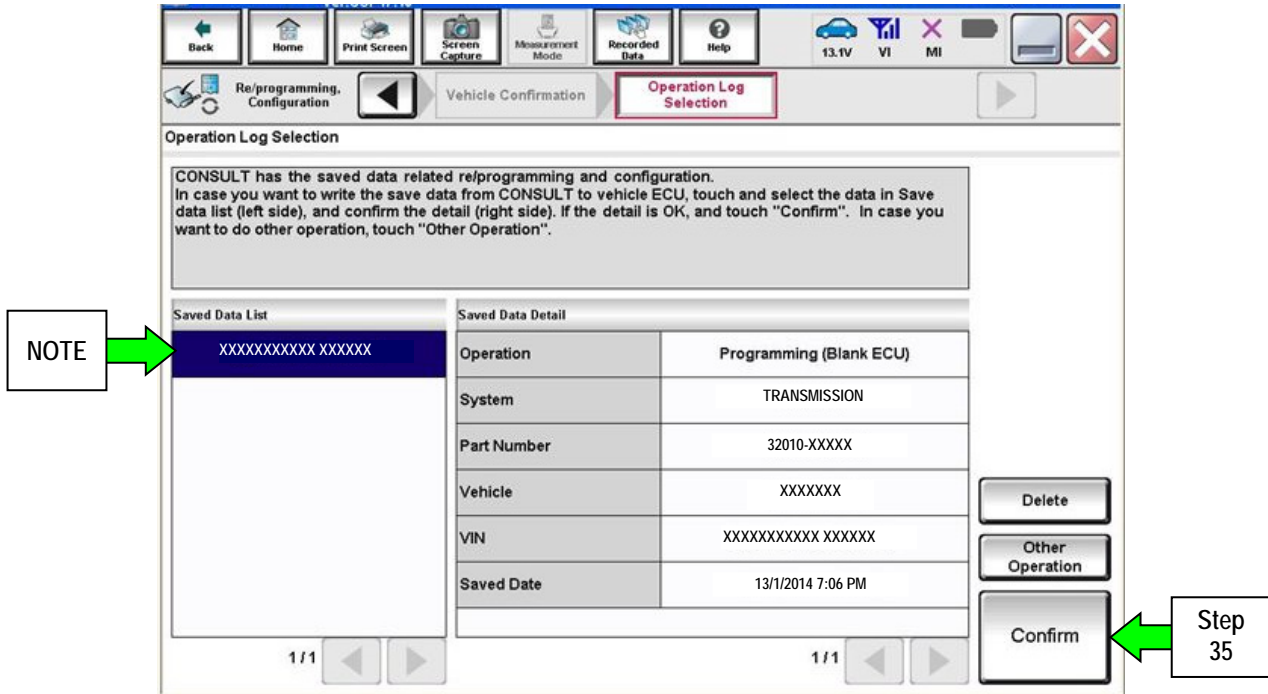


Figure 20

36. Select **After Replace ECU**.

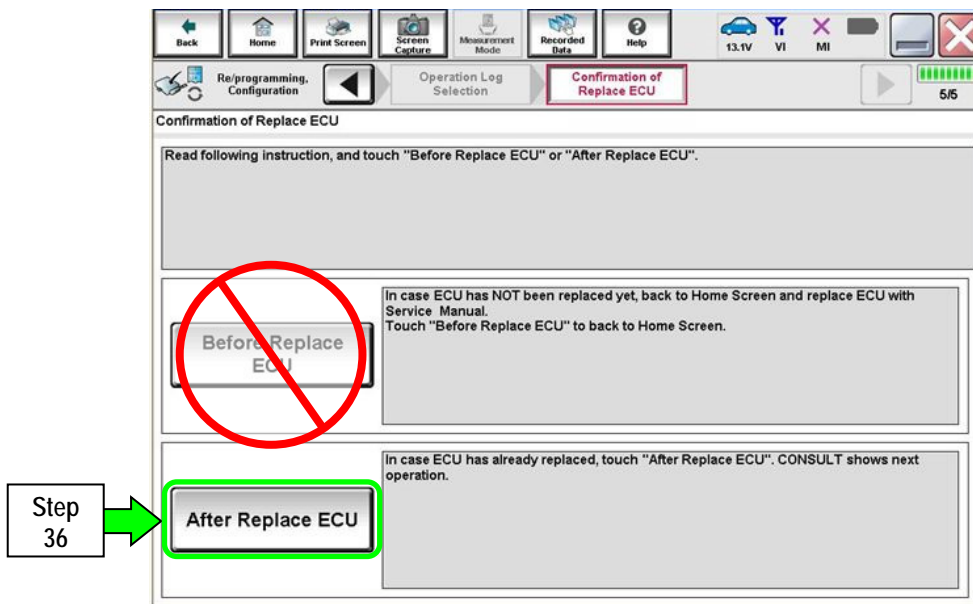


Figure 21

- 37. Use arrows to view and read all precautions.
- 38. Check the box confirming the precautions have been read.
- 39. Select Next.

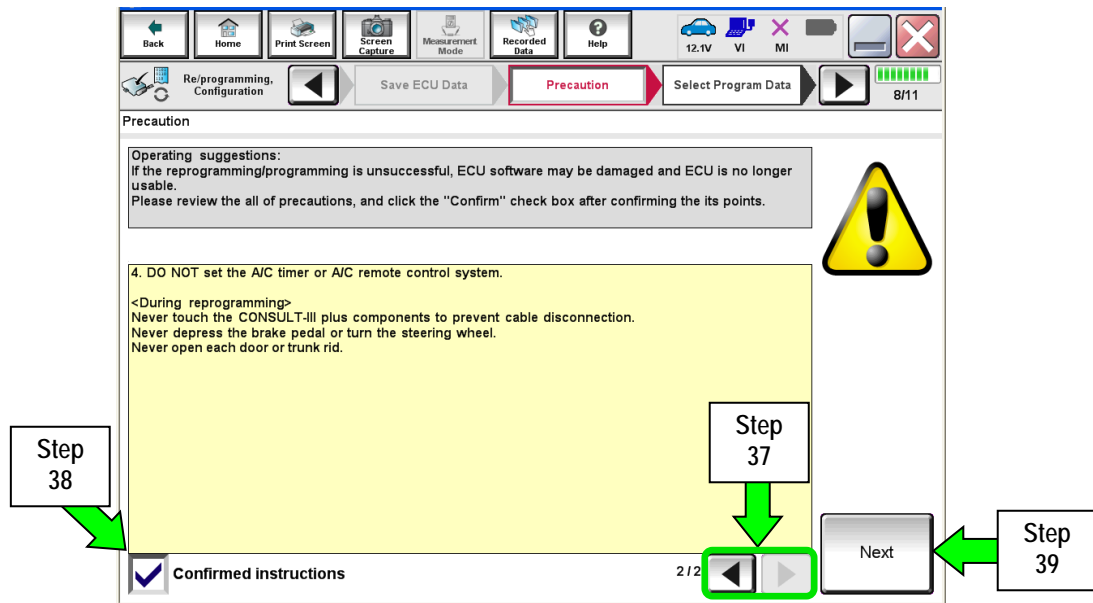


Figure 22

- 40. Select Next.

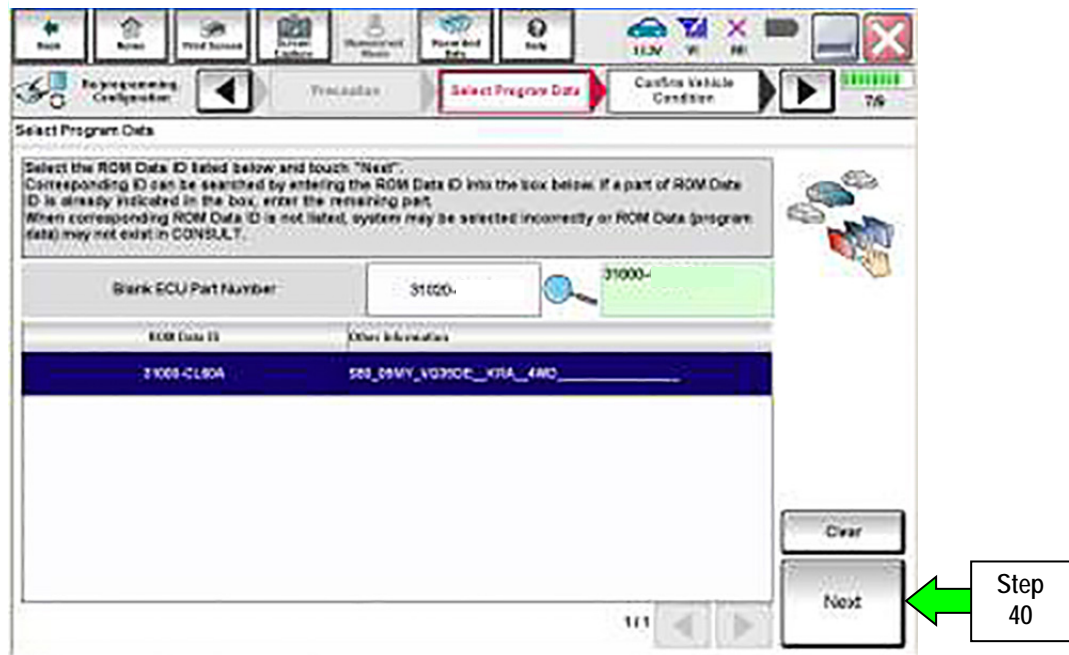


Figure 23

41. Select Next.

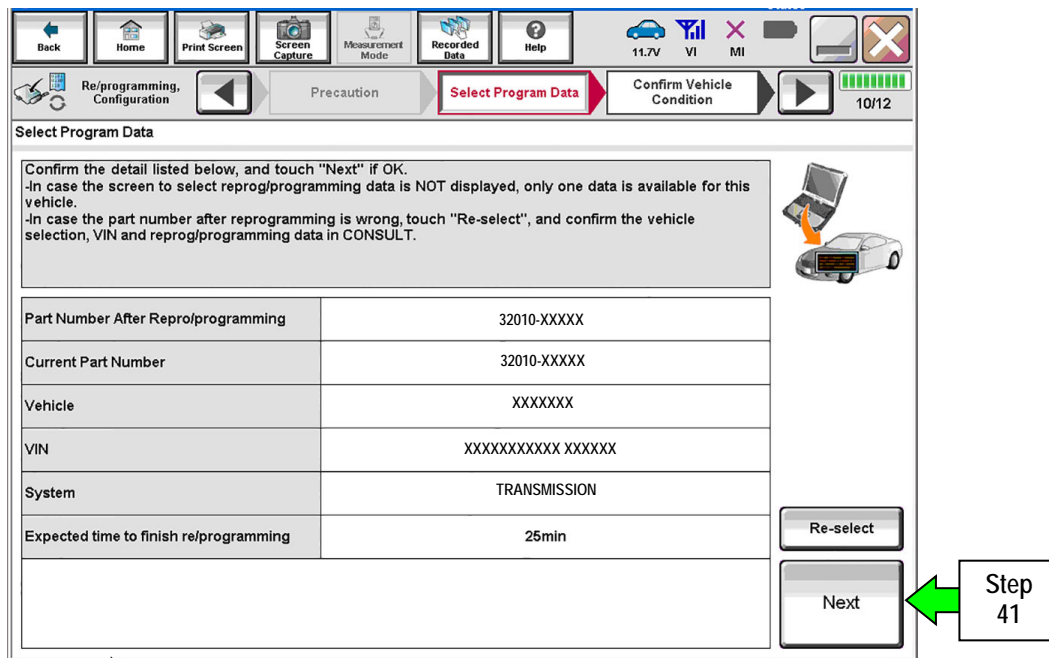


Figure 24

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

43. Select Next.

IMPORTANT: Optimum battery voltage operating range for programming is 12.0-13.5V. Battery voltage must stay between 12.0 and 15.5 Volts during programming or TCM programming may be interrupted and the TCM may be damaged.

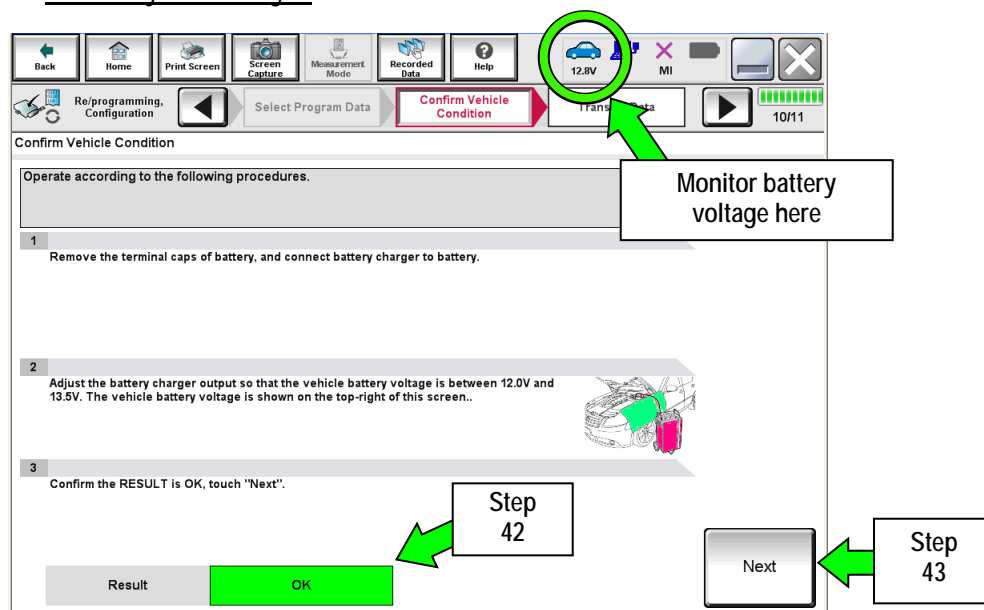


Figure 25

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

CAUTION: DO NOT stop programming after selecting "Start". Doing so may damage the TCM. Allow programming to complete.

44. Select **Start**.

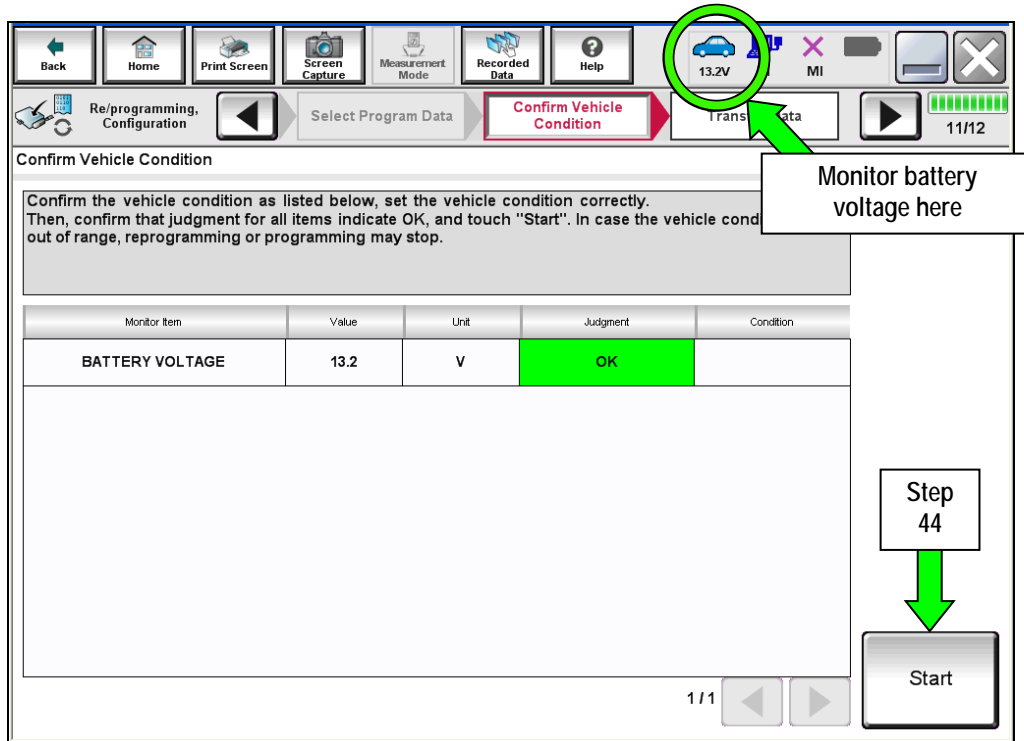


Figure 26

45. Wait for both progress bars to complete.

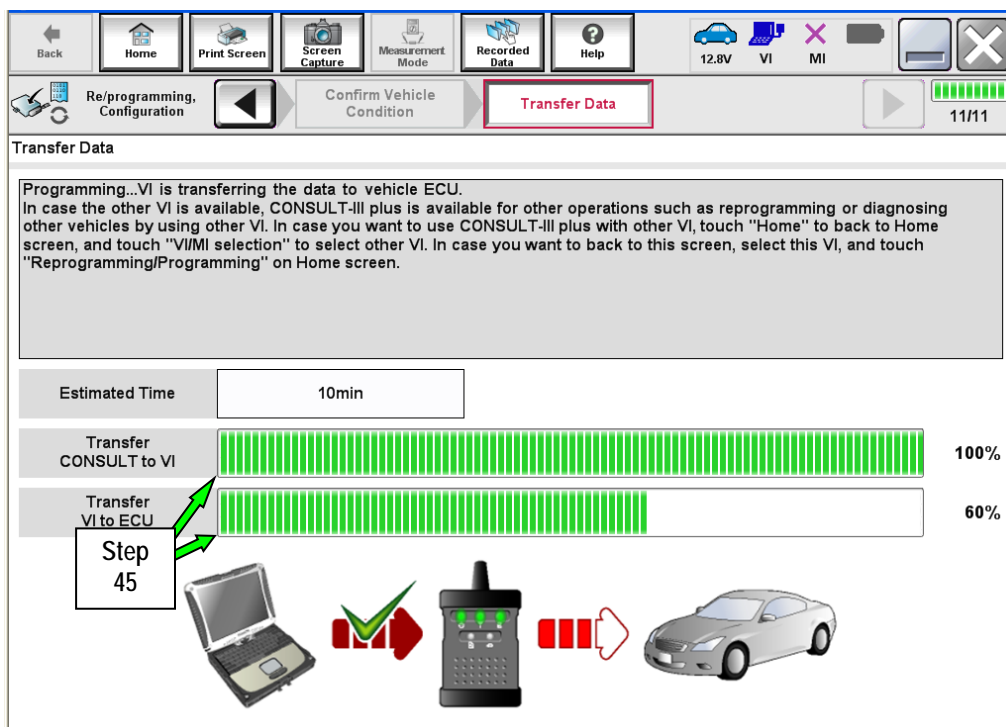


Figure 27

46. When the screen in Figure 28 displays, programming is complete.

NOTE: If the screen in Figure 28 does not display (indicating that programming did not complete), refer to the information on the next page.

47. Disconnect the GR8 / battery charger from the vehicle.

48. Select **Next**.

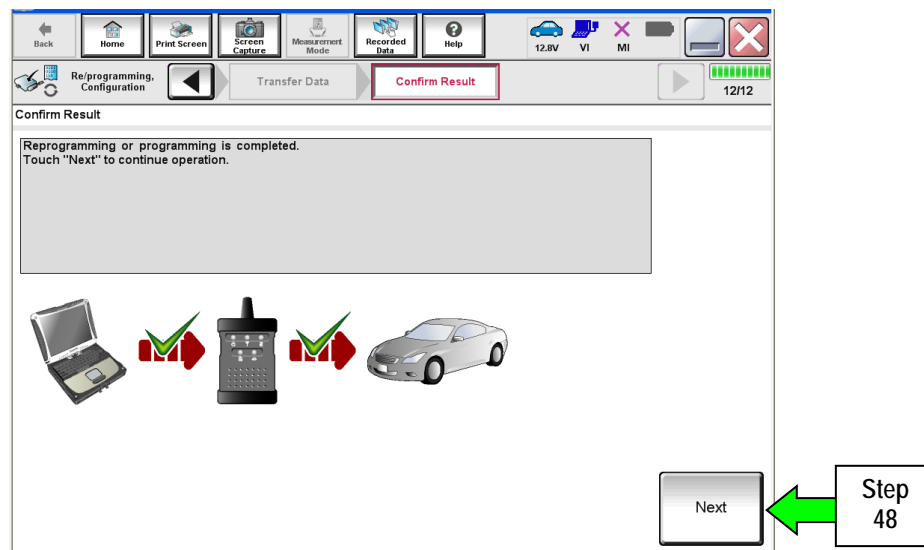


Figure 28

NOTE: Completing write configuration and erasing DTCs are required before C-III plus will provide the final programming confirmation report:

- Go to, "After Programming has Completed: Write Configuration and Erase DTCs" on page 34.

If programming does not complete and the “!?” symbol displays as shown in Figure 29:

- Check battery voltage (12.0 – 15.5V).
- The ignition is ON and the engine is 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 the first attempt. It can be selected more than once.

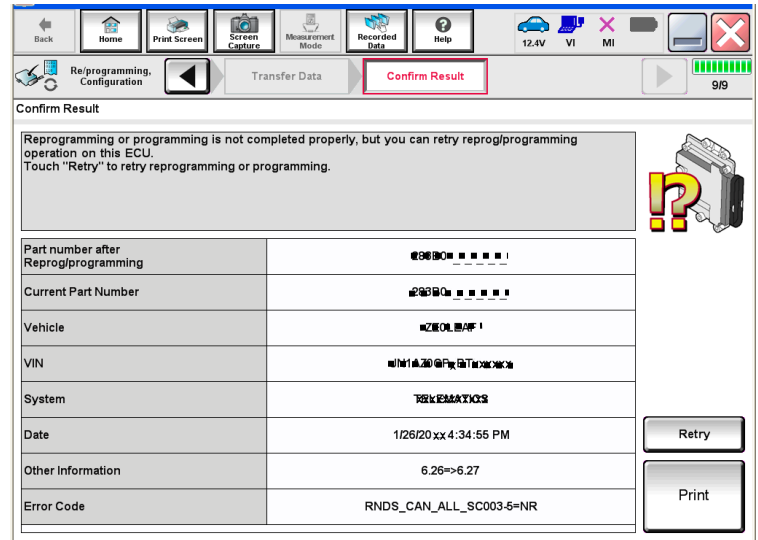


Figure 29

If programming does not complete and the “X” symbol displays as shown in Figure 30:

- Do not disconnect the plus VI or shut down C-III plus if reprogramming does not complete.
- Check battery voltage (12.0 – 15.5V).
- The CONSULT A/C adapter is plugged in.
- The ignition is ON and the engine is OFF.
- The transmission is 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 program procedure from the beginning.

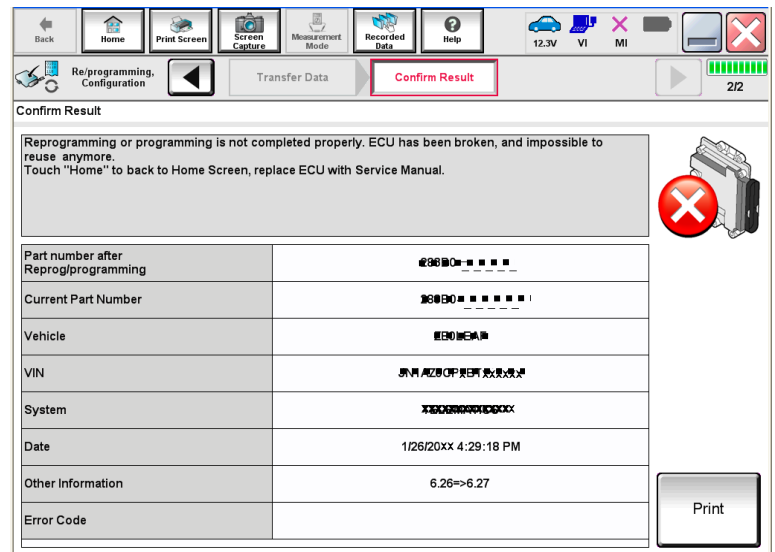


Figure 30

PROGRAM BLANK TCM (When TCM is NOT Accessible With C-III plus)

NOTE: Use this procedure if the vehicle's old/current TCM cannot be accessed with CONSULT-III plus.

IMPORTANT: Before starting the program procedure, make sure:

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

NOTE: The CONSULT PC automatically gets applicable TCM programming data during ASIST synchronization.

- A screen print for Warranty documentation can be done from the CONSULT PC during this process while still connected to the vehicle.

NOTE: After programming is complete, you will be required to perform "write configuration" and "DTC erase".

1. Install the new A/T assembly or Control Valve Assembly (valve body) now.

- Refer to the appropriate ESM for Transmission or Valve Body replacement information.

2. Use Infiniti electronic parts information systems to obtain the correct software program part number.

- Write the software part number on the repair order.

NOTE: If needed, instructions for using the Infiniti electronic parts information systems to obtain the correct software program part number can be found in ASIST under: TECH LINE Support > TECH LINE Method to identify blank TCM part number.

3. Connect the C-III plus Vehicle Interface (plus VI) to the vehicle.
 - Make sure to use the correct VI for C-III plus (plus VI).

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

4. Connect the AC Adapter to the CONSULT PC.

CAUTION: Be sure to connect the AC Adapter. If the CONSULT PC battery voltage drops during programming, the process will be interrupted and the TCM may be damaged.

5. Connect a battery charger to the vehicle battery:

- GR-8 (Battery and Electrical Diagnostic Station) set to "ECM power supply" mode.

CAUTION: Be sure the battery charger is connected securely to the battery. Make sure the battery voltage stays between 12.0V and 15.5V during programming. If the battery voltage goes out of this range during programming, the TCM may be damaged.

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

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

7. Turn the ignition ON (engine OFF).

- The engine must not start or run during the programming procedure.

8. 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 programming. If the battery voltage goes out of this range during programming, the TCM may be damaged.

9. Open / start C-III plus.

NOTE: All C-III plus screens throughout this bulletin are examples. Actual C-III plus screens on your CONSULT PC may vary slightly.

10. Wait for the plus VI to be recognized.

- The serial number will display when the plus VI is recognized.

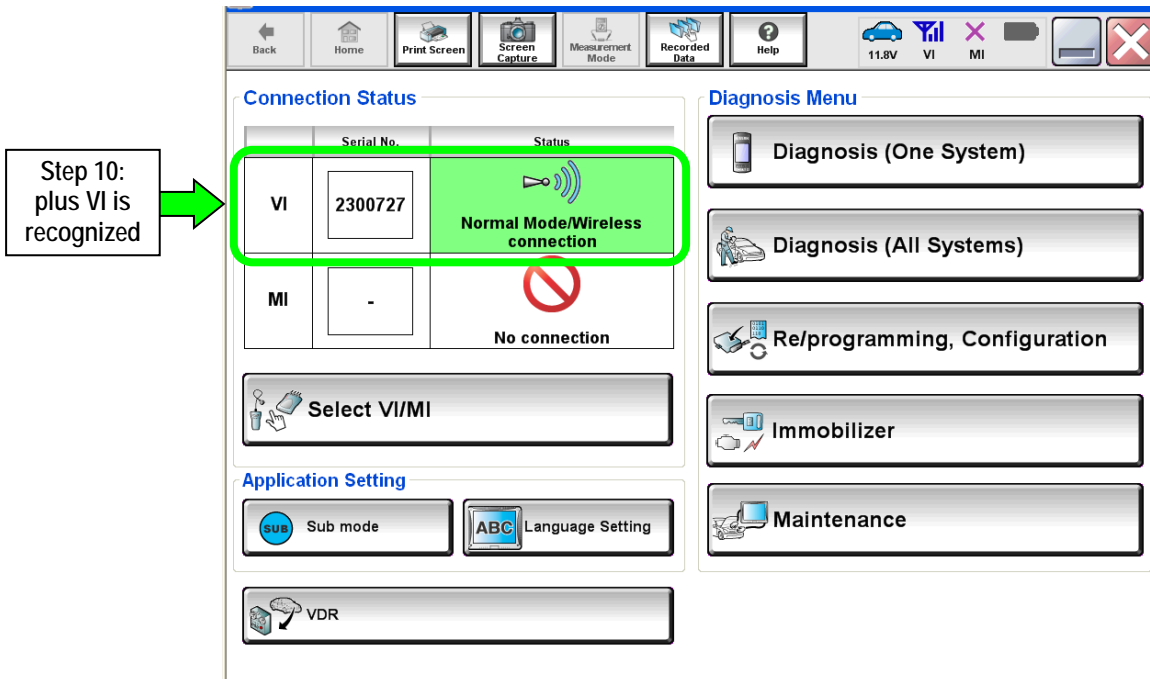


Figure 1a

11. Select Re/programming, Configuration.

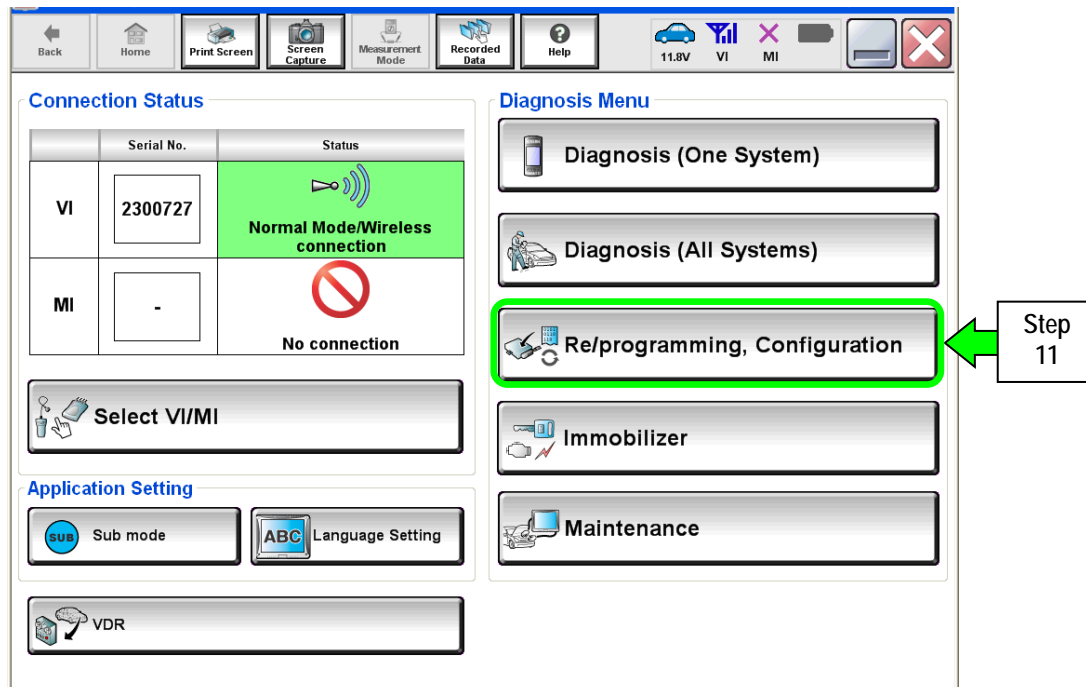


Figure 2a

12. Use arrows to view and read all precautions.

13. Check the box confirming the precautions have been read.

NOTE: The box cannot be checked until all precautions in step 12 have been viewed and read.

14. Select **Next**.

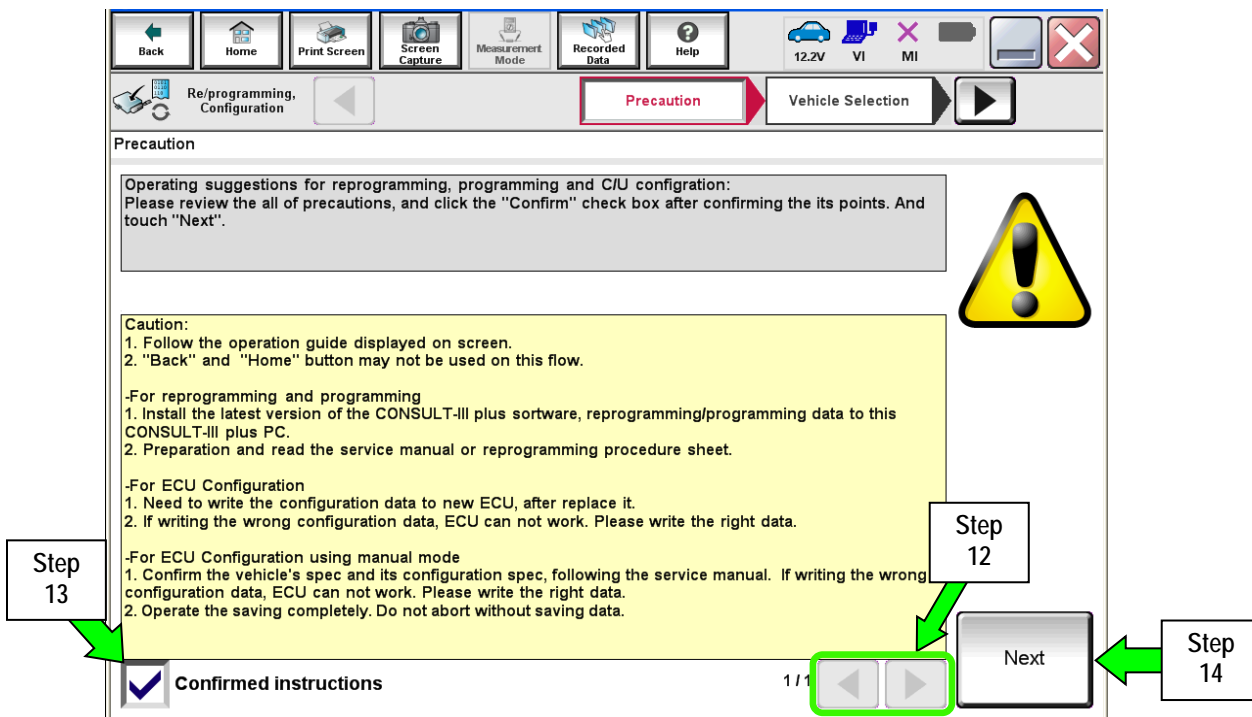


Figure 3a

15. Select **Infiniti**, **Vehicle Name**, the correct **Model Year**, and then **Select**.

- If the screen in Figure 4a does not display, skip to step 16.

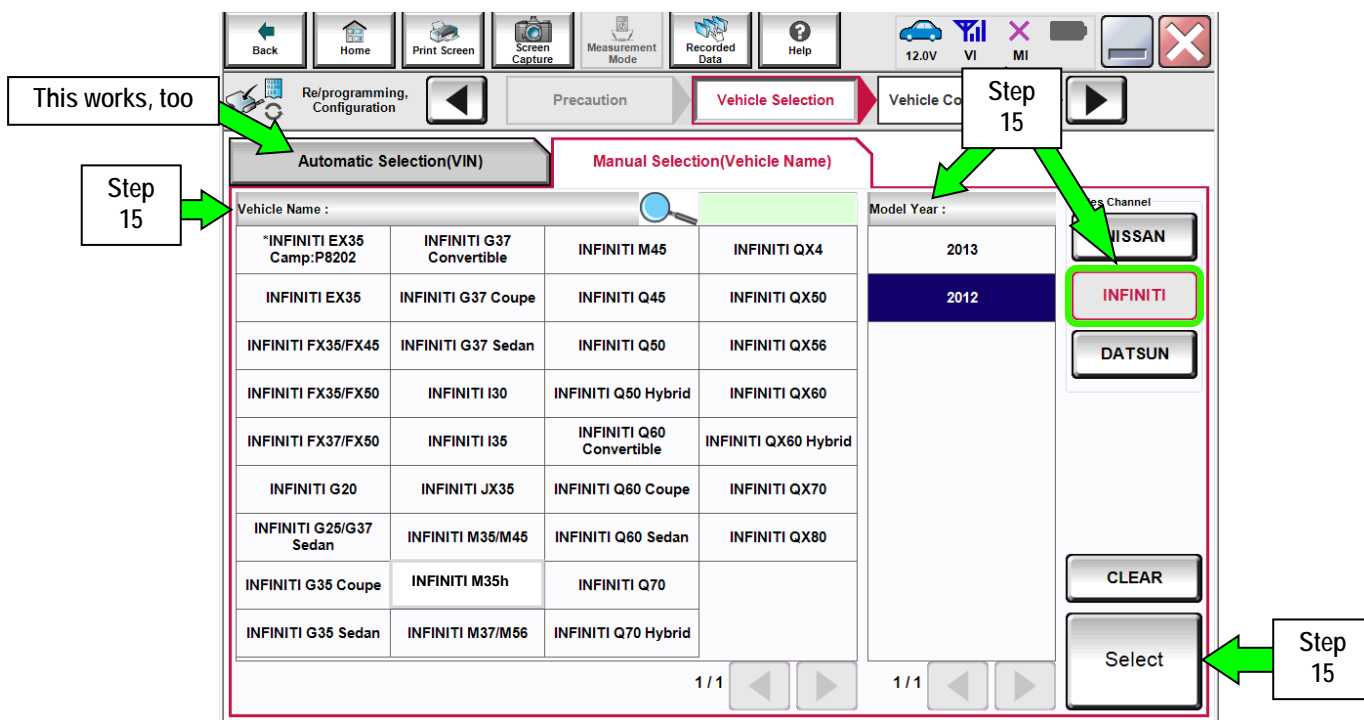


Figure 4a

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

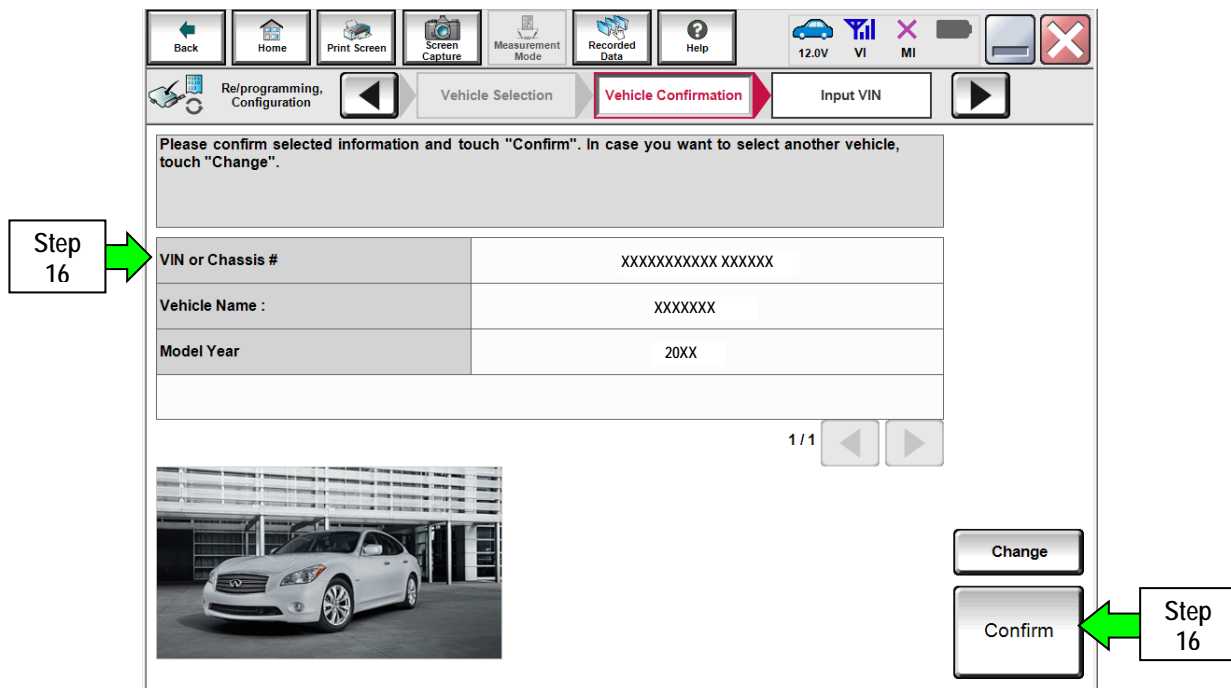


Figure 5a

17. Verify the correct VIN is displayed, and then select **Confirm** again.

- If the VIN is not correct, re-type the VIN and then select **Confirm**.

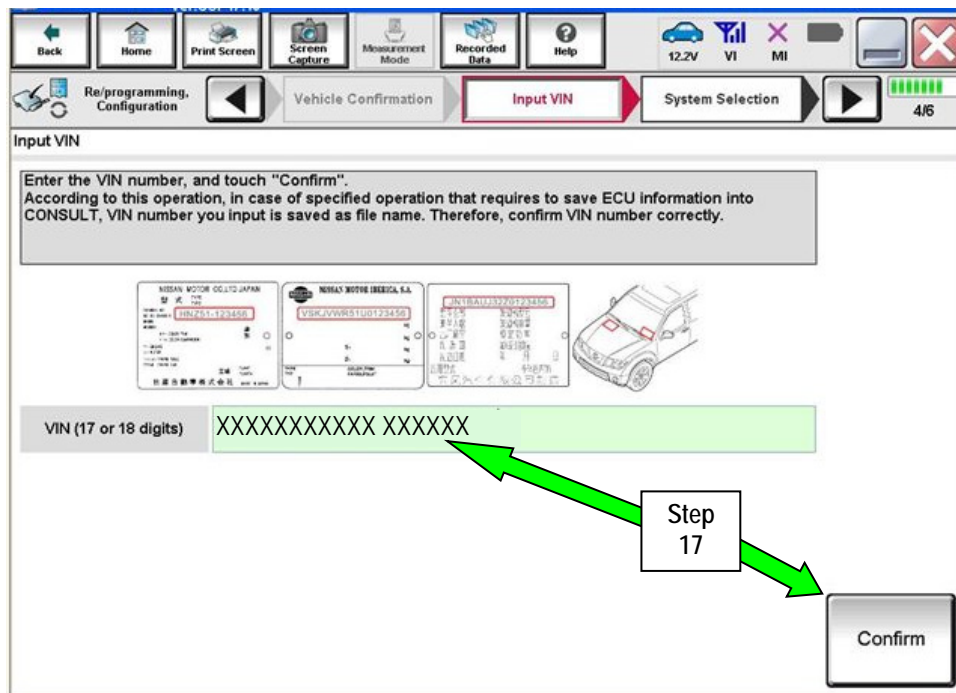


Figure 6a

18. Select Transmission.

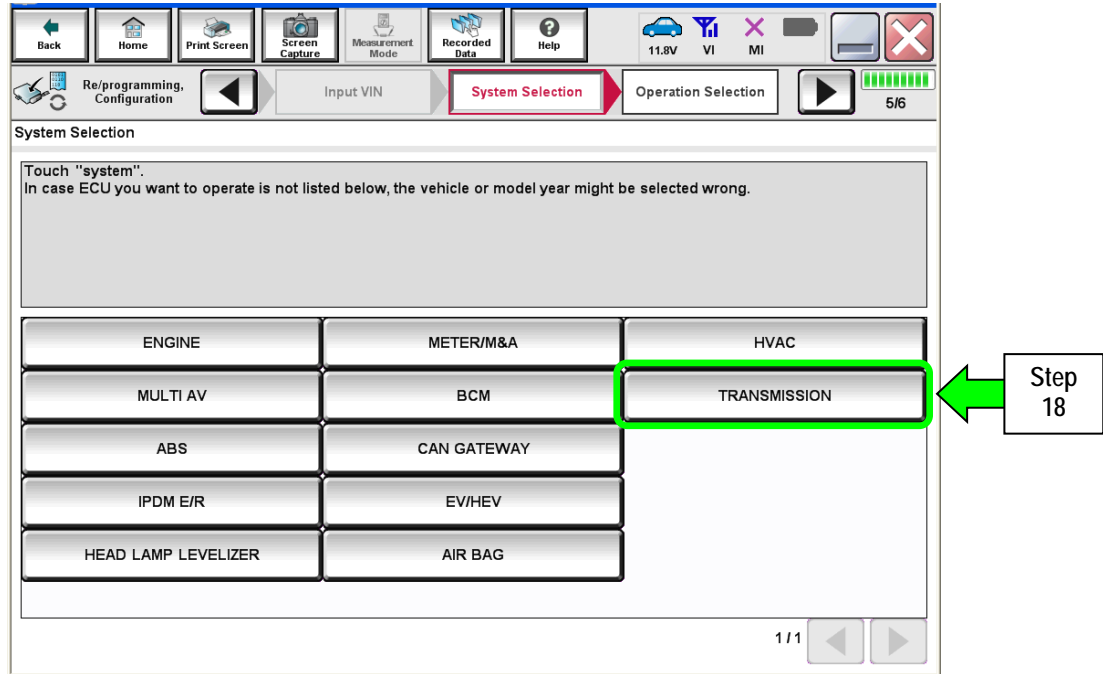


Figure 7a

19. Select **Programming**. Do not select Reprogramming.

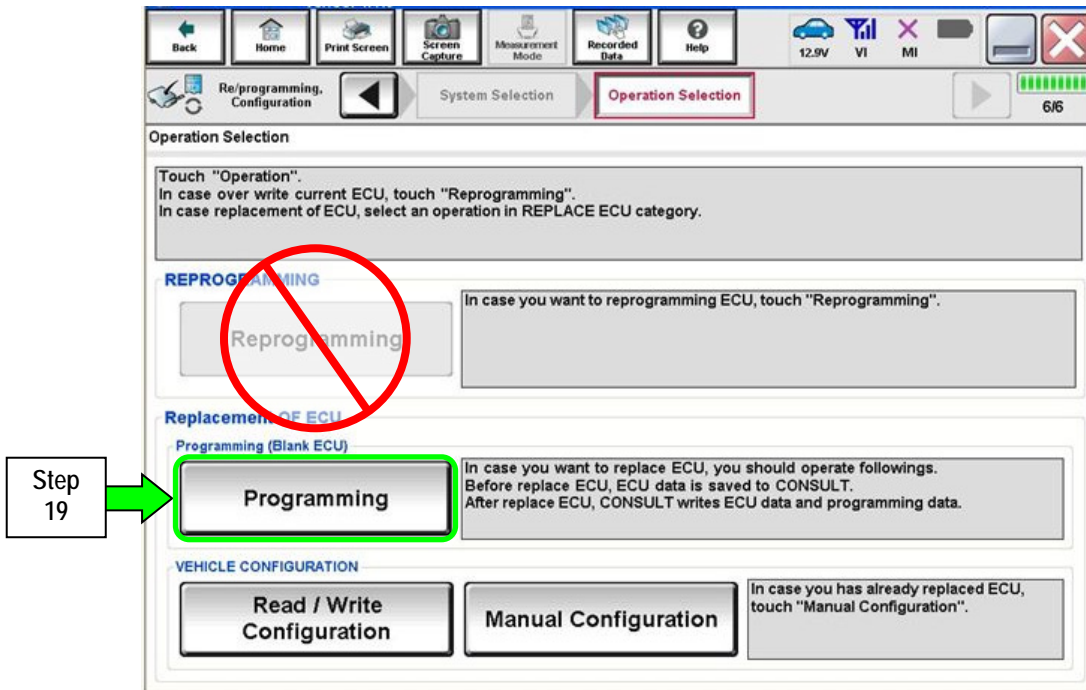


Figure 8a

20. Select Next.

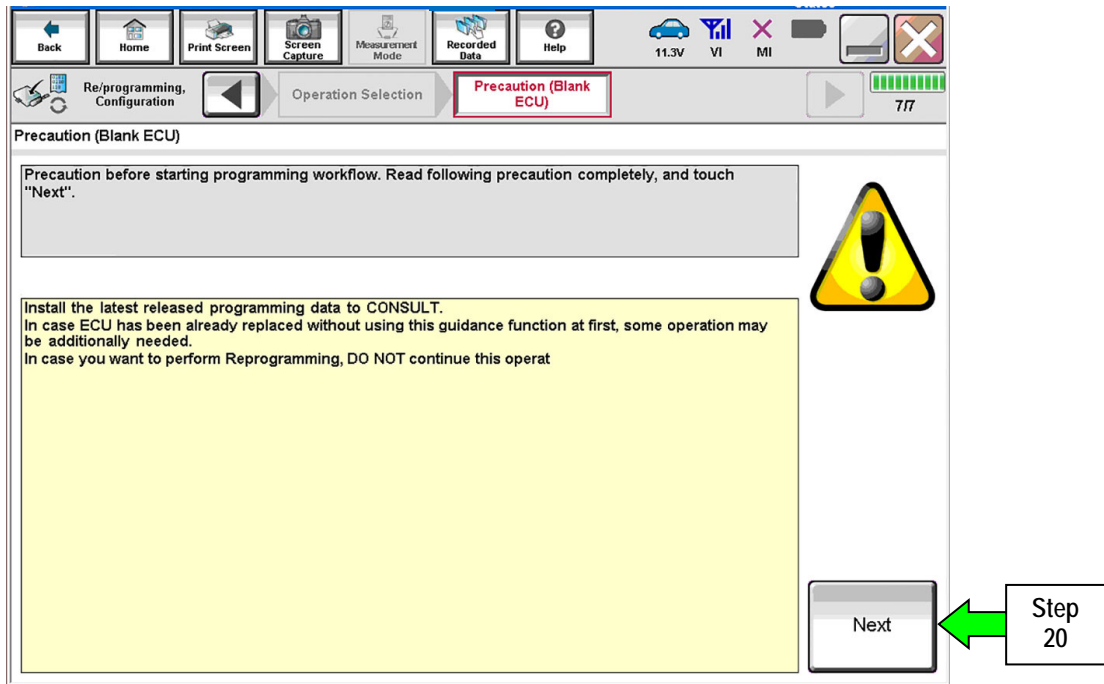


Figure 9a

21. Select After Replace ECU.

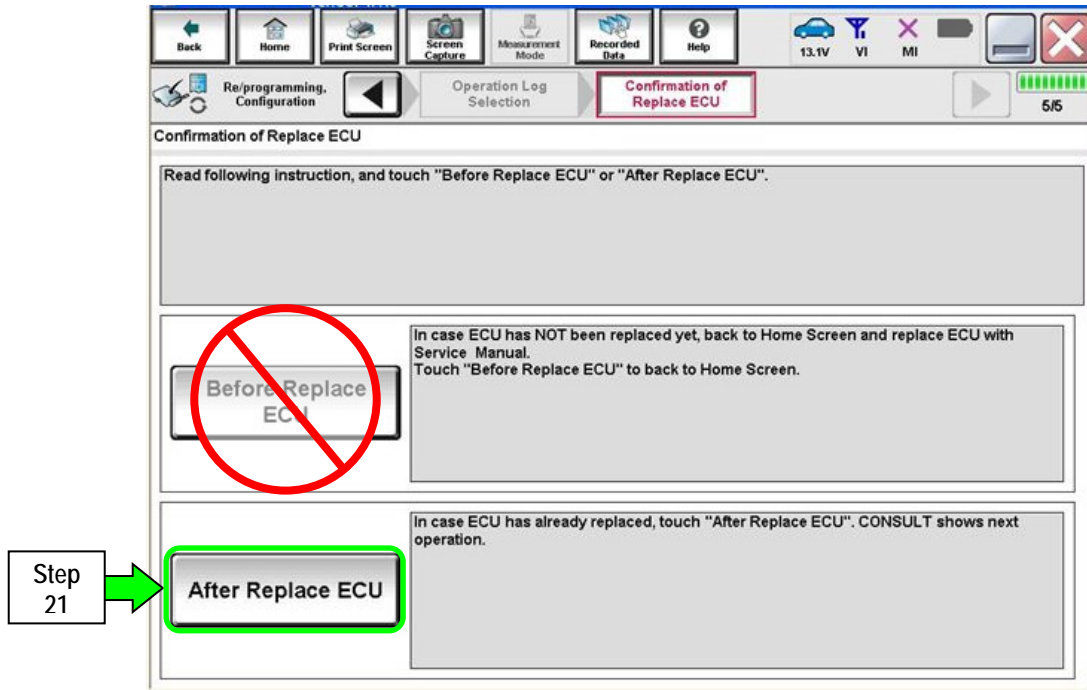


Figure 10a

22. Use arrows (if needed) to view and read all precautions.

23. Check the box confirming the precautions have been read.

NOTE: The box cannot be checked until all precautions in step 23 have been viewed and read.

24. Select **Next**.

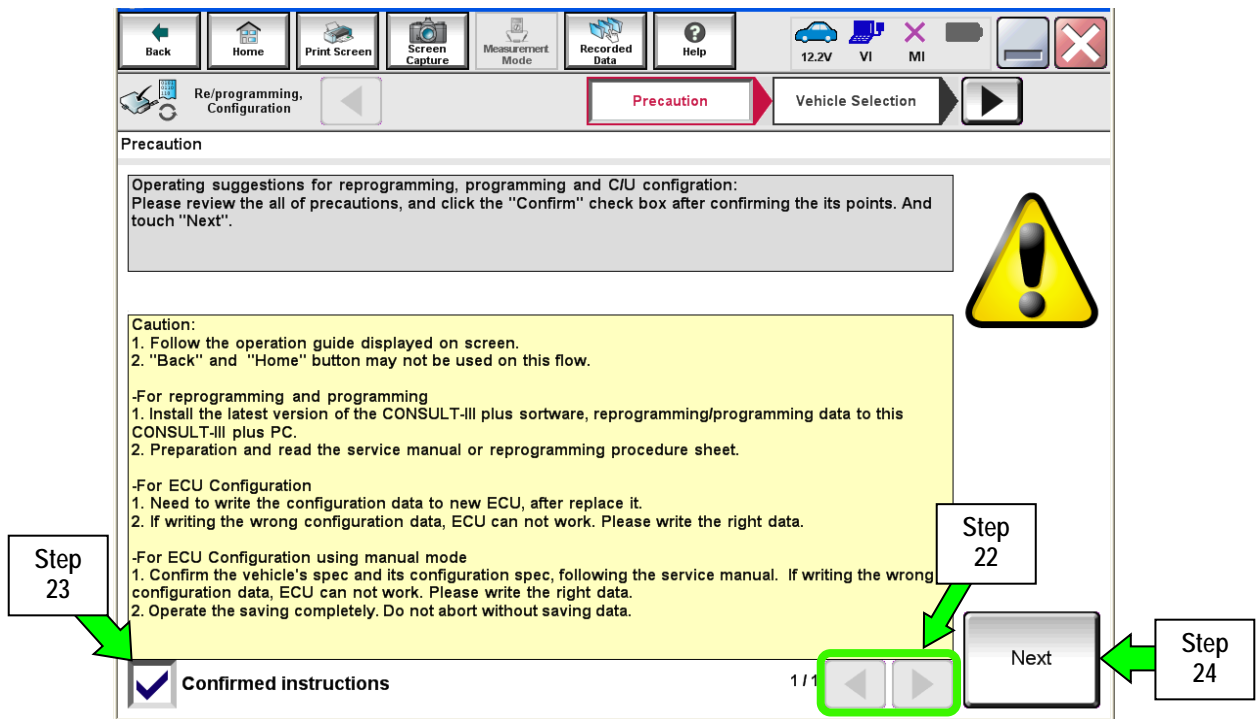


Figure 11a

25. Select the TCM software P/N that matches the P/N written down in step 2 on page 22, and then select **Next**.

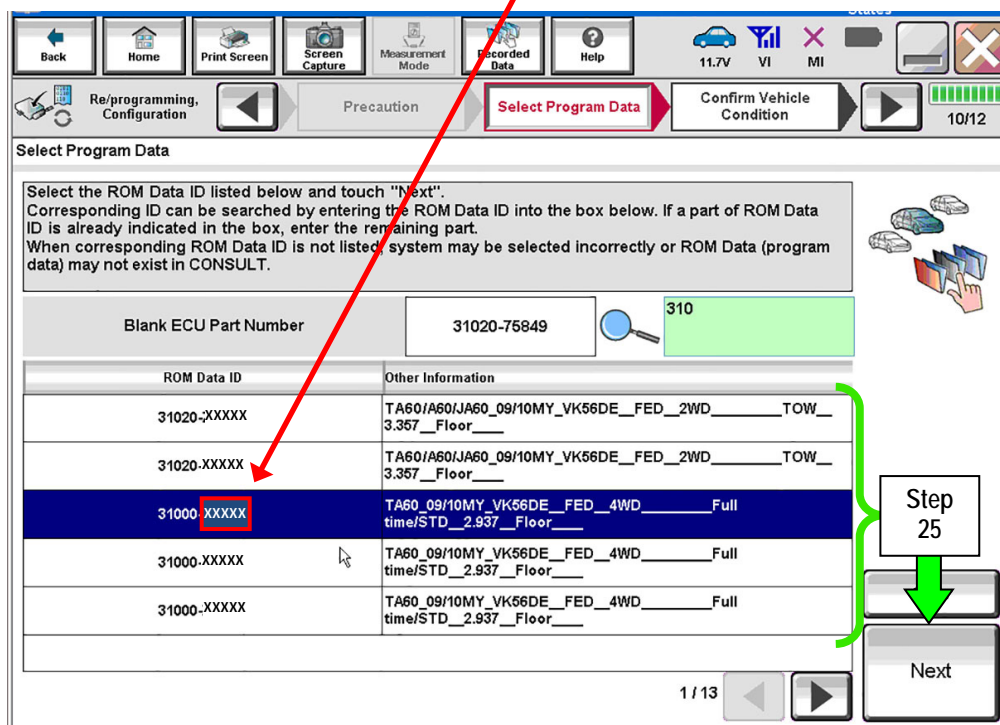


Figure 12a

26. Select Next.

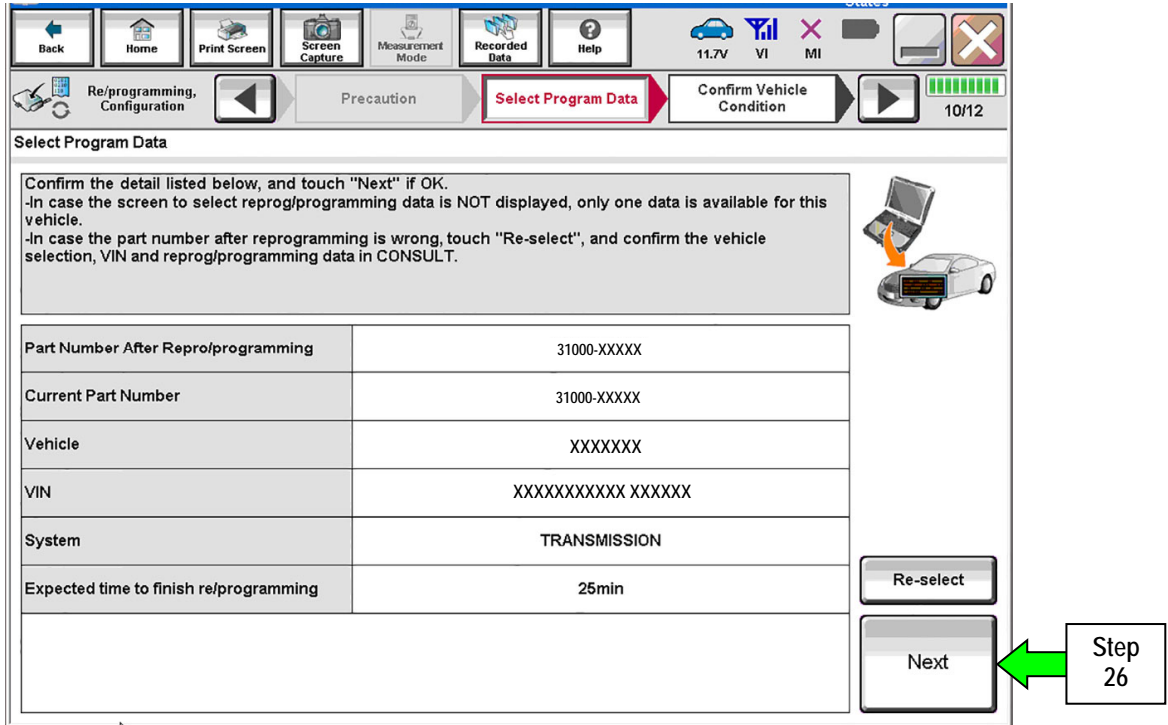


Figure 13a

27. Make sure OK is highlighted green (battery voltage must be between 12.0 and 13.5 Volts).

28. Select Next.

IMPORTANT: Optimum battery voltage operating range for programming is 12.0-13.5V. Battery voltage must stay between 12.0 and 15.5 Volts during programming or TCM programming may be interrupted and the TCM may be damaged.

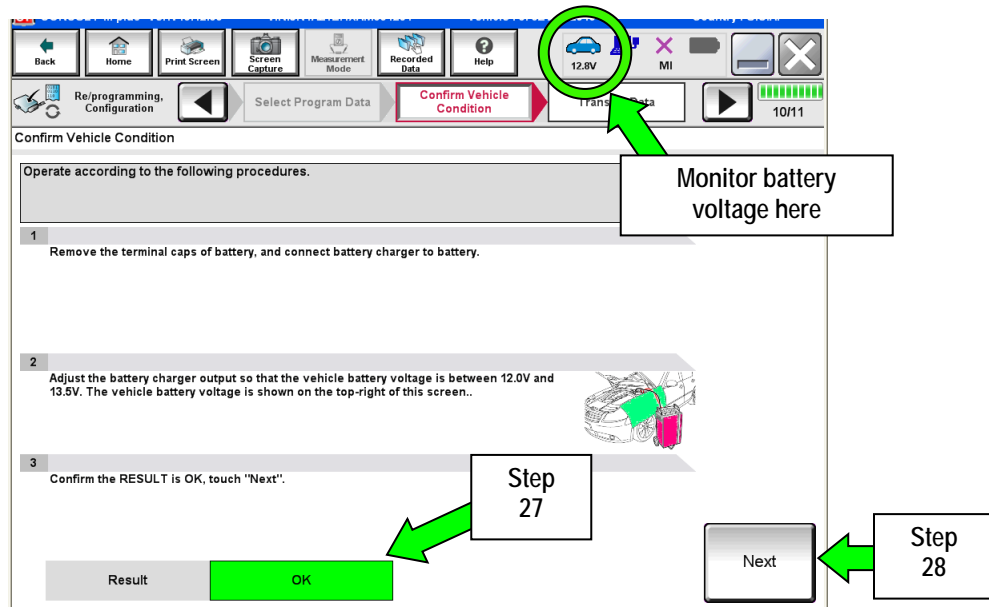


Figure 14a

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

CAUTION: DO NOT stop programming after selecting "Start". This may damage the TCM. Allow programming to complete.

29. Select **Start**.

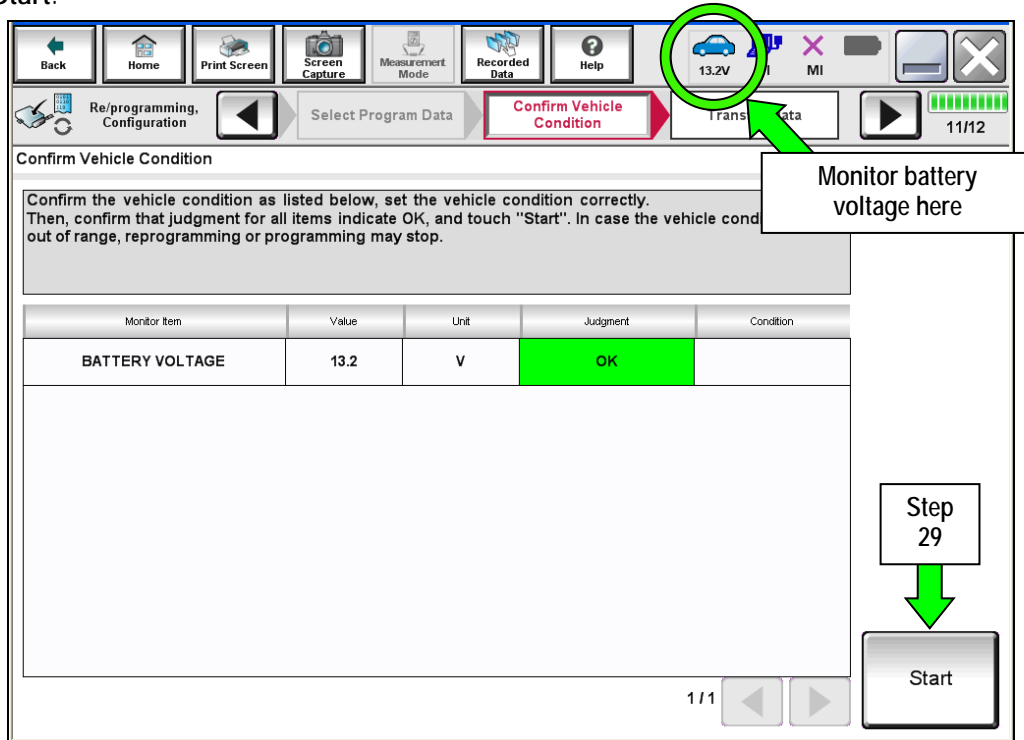


Figure 15a

30. Wait for both progress bars to complete.

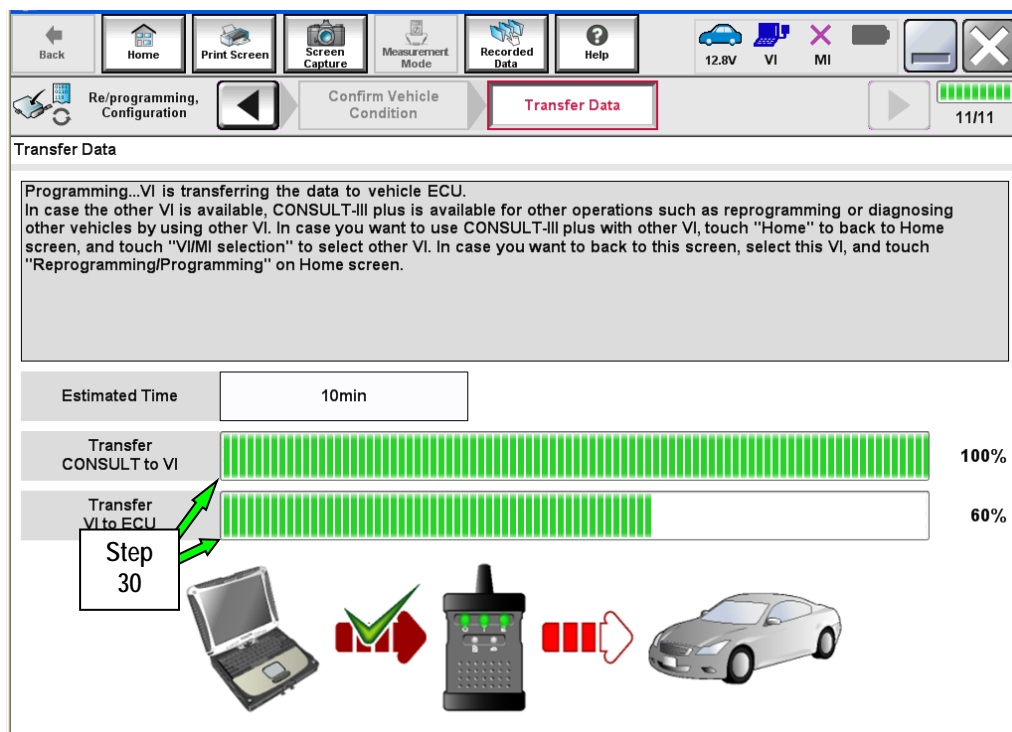


Figure 16a

31. When the screen in Figure 17a displays, programming is complete.

NOTE: If the screen in Figure 17a does not display (indicating that programming did not complete), refer to the information on the next page.

32. Disconnect the GR8 / battery charger from the vehicle.

33. Select **Next**.

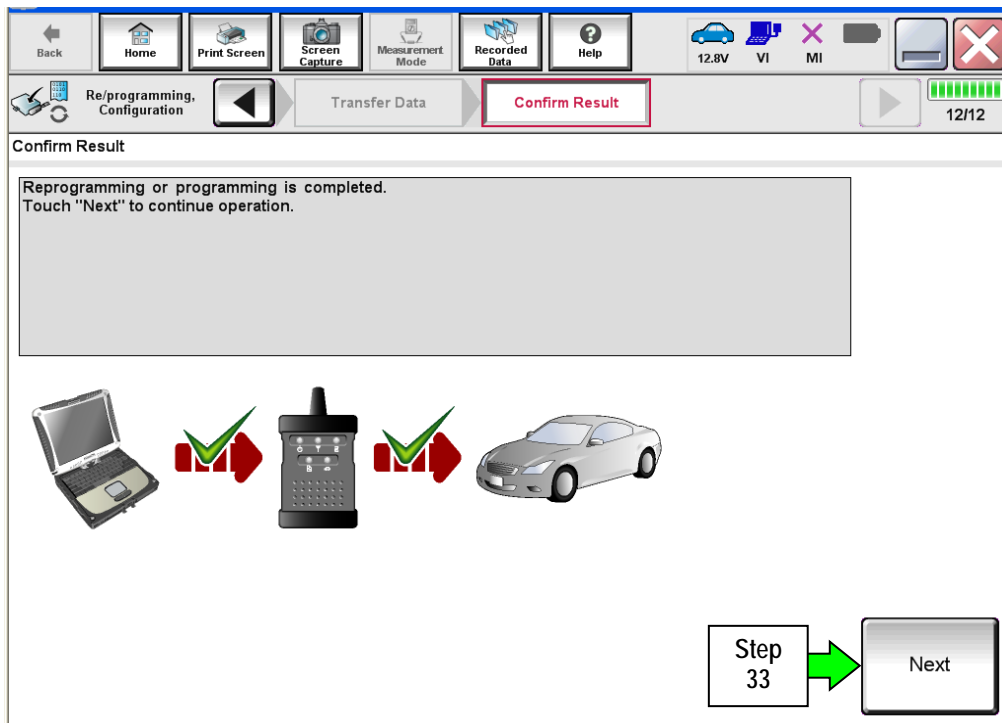


Figure 17a

NOTE: Completing write configuration and erasing DTCs are required before C-III plus will provide the final programming confirmation report:

- Go to, "After Programming has Completed: Write Configuration and Erase DTCs" on page 34.

If programming does not complete and the “!?” symbol displays as shown in Figure 18a:

- Check battery voltage (12.0 – 15.5V).
- The ignition is ON and the engine is 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 the first attempt. It can be selected more than once.

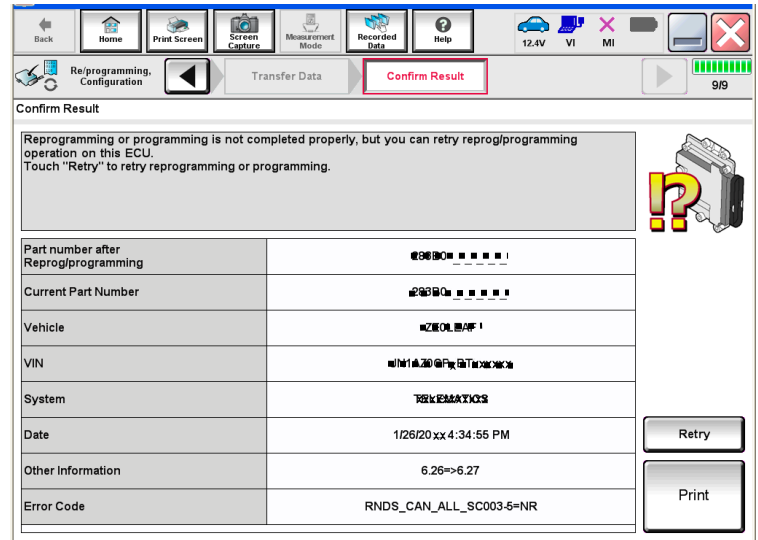


Figure 18a

If programming does not complete and the “X” symbol displays as shown in Figure 19a:

- Do not disconnect the plus VI or shut down C-III plus if reprogramming does not complete.
- Check battery voltage (12.0 – 15.5V).
- The CONSULT A/C adapter is plugged in.
- The ignition is ON and the engine is OFF.
- The transmission is 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 program procedure from the beginning.

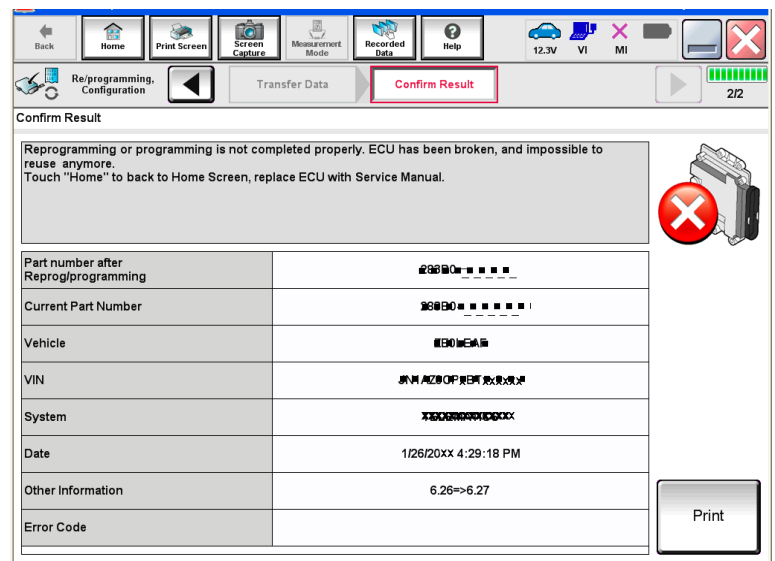


Figure 19a

After Programming has Completed: Write Configuration and Erase DTCs

1. Follow the instructions as stated on the next few screens (example in Figure 25a):
 - First screen: Turn the ignition OFF, and then ON,
 - (a window will then state System Call is being performed),
 - (the next screen will then state C-III plus is communicating with the ECU).
 - Next screen: Turn the ignition OFF, and then ON.
 - When "Complete" appears in the box, select **Next**.

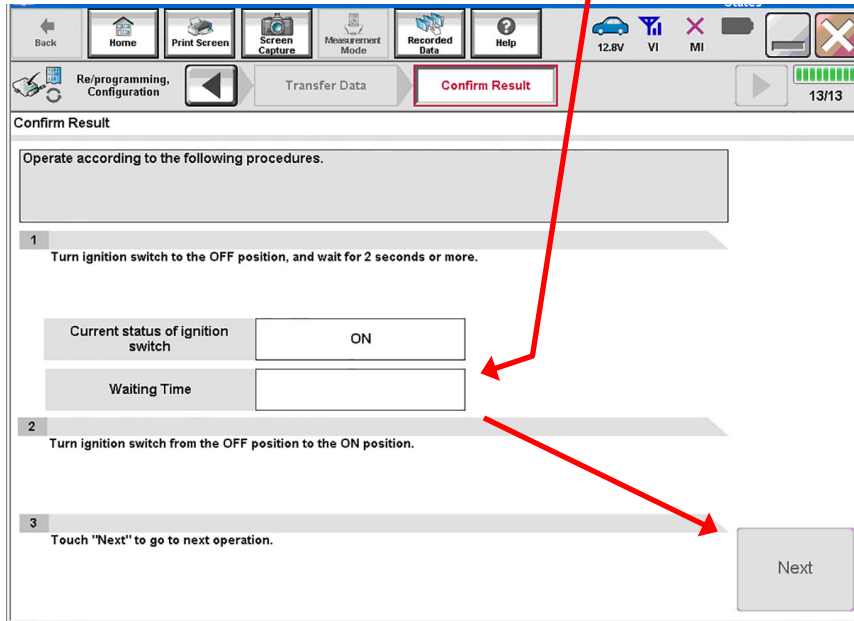


Figure 20a

2. Perform write configuration of the TCM.
 - a. Highlight the **Part Number After Configuration** and **Other Information** sections by clicking on them.
 - b. Select **Next**.

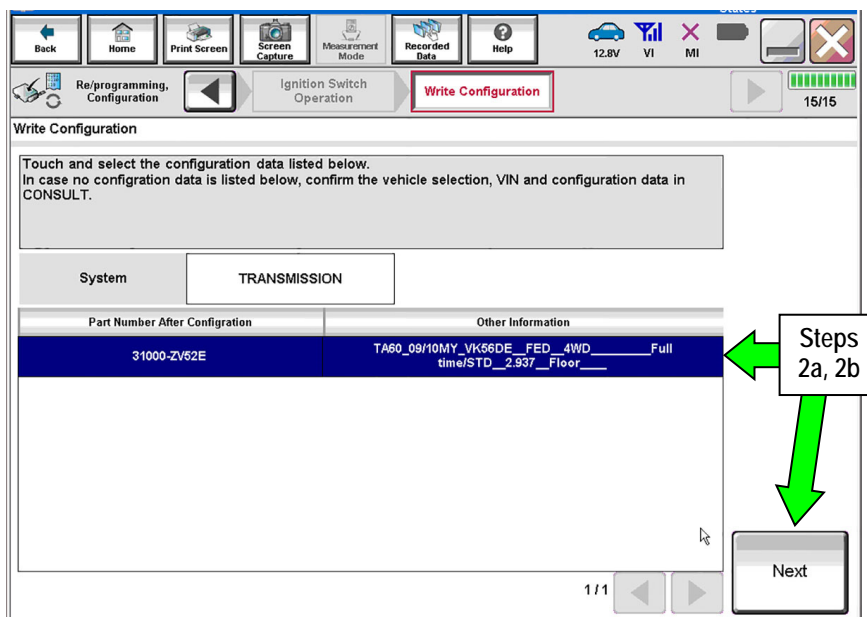


Figure 21a

3. Continue with write configuration and DTC erase by following the instructions on the next few screens:
 - Window in first screen: Writing data is being performed (it may have already past).
 - First screen (finishing write configuration): Turn the ignition OFF, then ON, and then select **Next**.
 - Next screen (**Erase All DTCs**): Turn the ignition OFF (a window will state **ERASE**).
 - When done, a screen similar to Figure 22a will appear.
4. Verify the before and after part numbers are different.
5. Select **Print** to print a copy of this screen (Figure 22a) and attach it to the repair order.
6. Select **Confirm**.

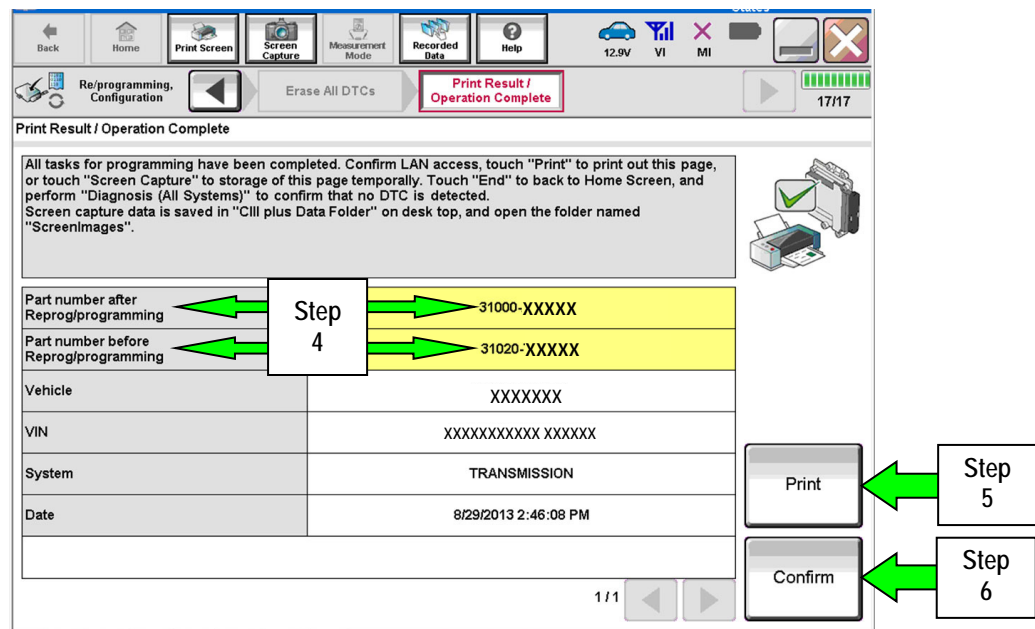


Figure 22a

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.
7. Select Home to return to the C-III plus home screen.
 8. Close C-III plus.
 9. Turn the ignition OFF.
 10. Disconnect the plus VI from the vehicle.
 11. Test drive the vehicle to make sure it operates correctly.