



Updated March 22, 2024

CONSULT-III plus Reprogramming for Engine or TRANSMISSION Control MODULE (ECM or TCM)

A symptom based TSB or campaign bulletin is required before using this procedure.

HINT: This procedure does not apply to all Nissan/Infiniti vehicles. Use this procedure only if there is a link to it from a symptom based TSB or a campaign bulletin.

IMPORTANT: Before starting, 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.**

HINT: The CONSULT PC automatically gets applicable ECM and TCM reprogramming data during ASIST synchronization.

- **The CONSULT PC is connected to the internet via Wi-Fi.**
 - o You will be required to enter your User Name and Password.
 - o If you do not know your User Name and Password, contact your Service Manager.
- **No DTCs stored.**
 - o Use C-III plus to perform Self Diagnosis for all systems.
 - o If there are any DTCs other than those listed in the accompanying symptom based TSB or campaign bulletin; diagnose, perform repairs, and erase DTCs **before** continuing.

HINT: While still connected to the vehicle with the CONSULT PC, a **Screen Capture** can be saved for Warranty documentation at the end of this process.

- **For gasoline powered vehicles** – If reprogramming the **ECM**, take the vehicle for a 10 minute drive in order to meet the following conditions:

- o Hybrid only: Li-ion battery charging status: 50% or more
- o Engine coolant temperature: 70 – 100°C (158 – 212°F)
- o Battery voltage: More than 12.9V (At idle)
- o Transmission: Warmed up



Figure A

HINT:

- After reprogramming is complete, you will be required to perform:
 - **Throttle Valve Closed Position**
 - **Idle Air Volume Learning (IAVL)**
 - ❖ The above conditions are required for the IAVL to complete.
 - **Accelerator Pedal Close Position**
 - **Erase All DTCs**

Reprogramming Procedure

1. Set the parking Brake.
2. Connect the Vehicle Interface (VI) to the vehicle.
 - Make sure to use the correct VI for the CONSULT being used.

NOTICE

Make sure the VI is securely connected. If the VI connection is loose during reprogramming, the process will be interrupted and the **ECM/TCM may be damaged**.

3. Connect the AC Adapter to the CONSULT PC.

NOTICE

Be sure to connect the AC Adapter. If the CONSULT PC battery voltage drops during reprogramming, the process will be interrupted and the **ECM/TCM may be damaged**.

4. Connect a battery maintainer or smart charger to the vehicle's 12 volt battery.
 - Set to reflash mode or a similar setting.

NOTICE

DO NOT use a standard battery charger for Hybrid vehicles. Make sure to connect the battery maintainer or smart charger securely to the 12V battery. Make sure the battery voltage stays between 12.0V and 13.5V during reprogramming. If the battery voltage goes out of this range during reprogramming, the **ECM/TCM may be damaged**.

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

NOTICE

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 **ECM/TCM may be damaged**.

6. Turn the hazard warning lamps ON.

NOTICE

Make sure to turn ON the hazard warning lamps. If the hazard warning lamps are not turned ON the BCM may enter battery saver mode, and the **ECM/TCM may be damaged**.

7. Turn the ignition ON with the engine OFF or “not ready”.

- The engine must not start or run during the reprogramming procedure.
- For hybrid vehicles, make sure the dash warning lights are ON and:

- o The “READY” light is OFF (not illuminated).

OR

- o The ready to drive indicator light is OFF (not illuminated).

Ready to drive indicator light
(make sure it is **OFF**)



Figure B

Ready to drive indicator light
(make sure it is **OFF**)



Figure C

8. Turn OFF all other vehicle electrical loads such as exterior lights, interior lights, HVAC, blower, rear defogger, audio, NAVI, seat heater, steering wheel heater, etc.

NOTICE

Make sure to turn OFF all electrical loads. If electrical loads remain ON, the **ECM/TCM may be damaged**.

9. Confirm that the CONSULT PC is connected to Wi-Fi.

10. Connect the Vehicle Interface (VI) to the vehicle.

11. Start C-III plus on the CONSULT PC.

12. If prompted, select **USA/CANADA Dealers** from the drop-down menu, and then select **OK**.

13. Login using your NNAnet credentials.

IMPORTANT: If not prompted to enter your username and password, the CONSULT PC may not be connected to Wi-Fi. Close C-III plus, confirm the CONSULT PC is connected to Wi-Fi, and then reopen C-III plus.

14. Wait for the VI to be recognized.

- The “Serial No.” will display when the VI is recognized.

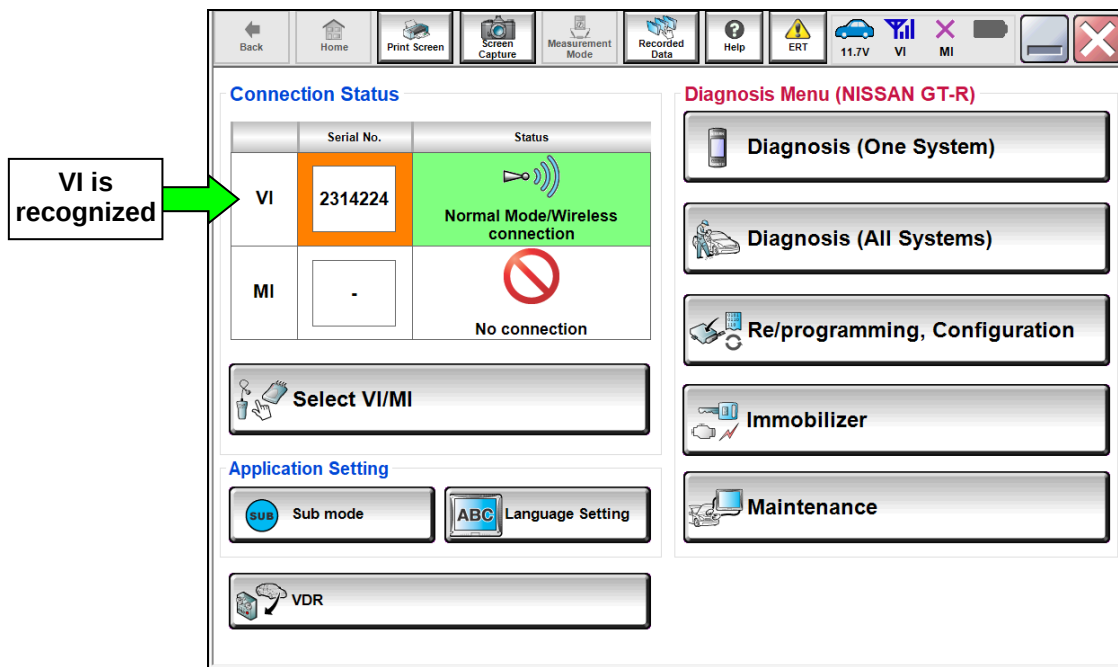


Figure 1

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

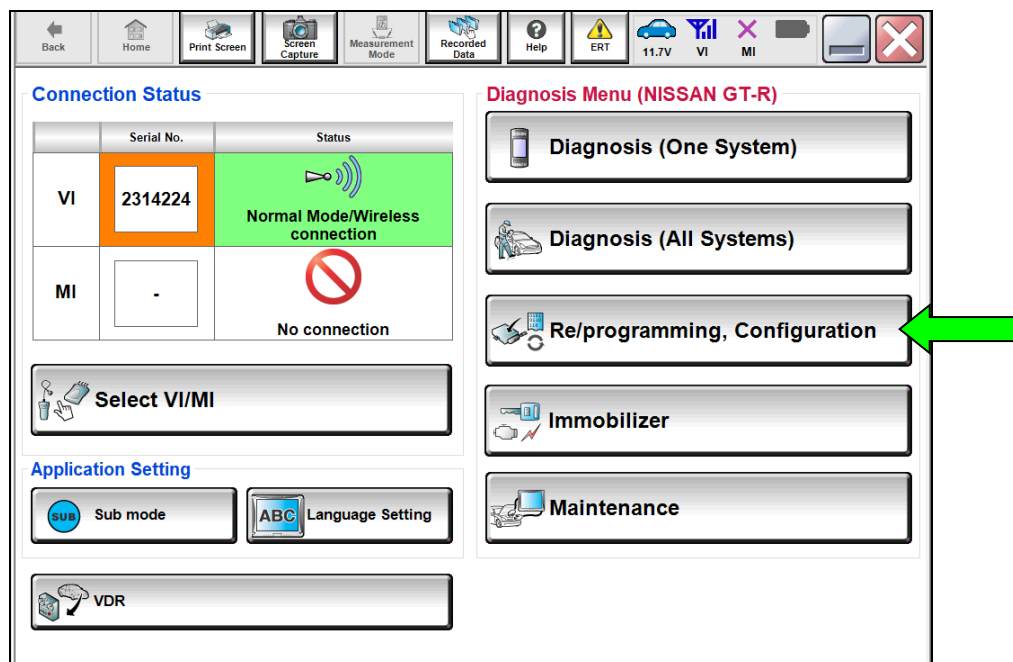


Figure 2

16. Select the “Confirmed instructions” box (check mark) after reading all of the precautions.

17. Select **Next**.

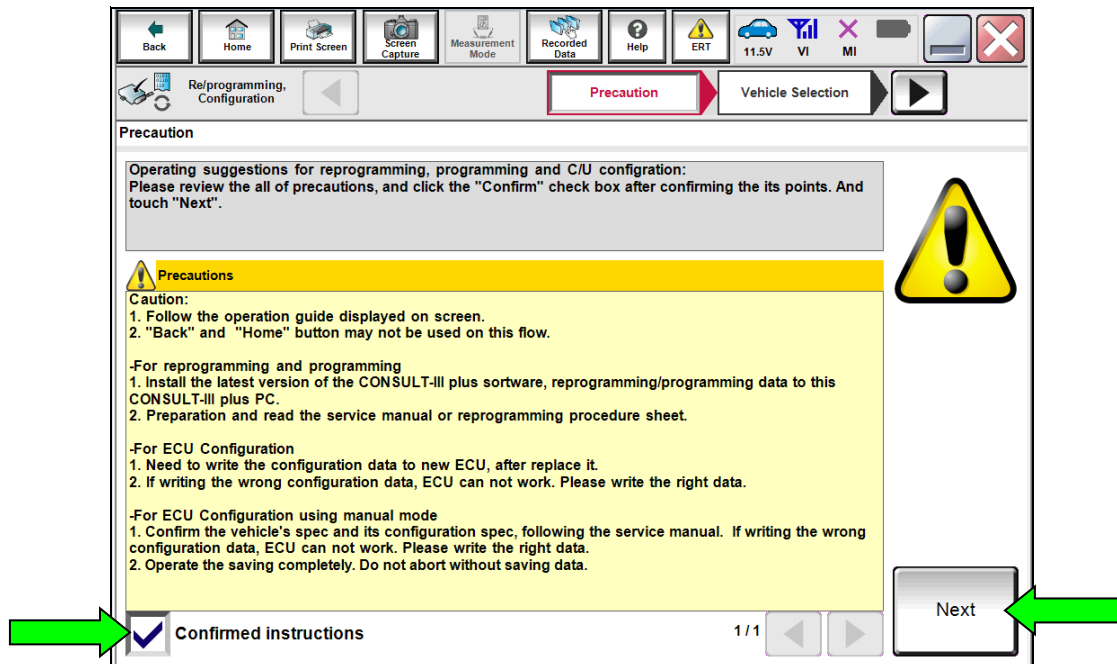


Figure 3

18. Select **Automatic Selection(VIN)**.

- If the screen in Figure 4 does not display, skip to step 20.

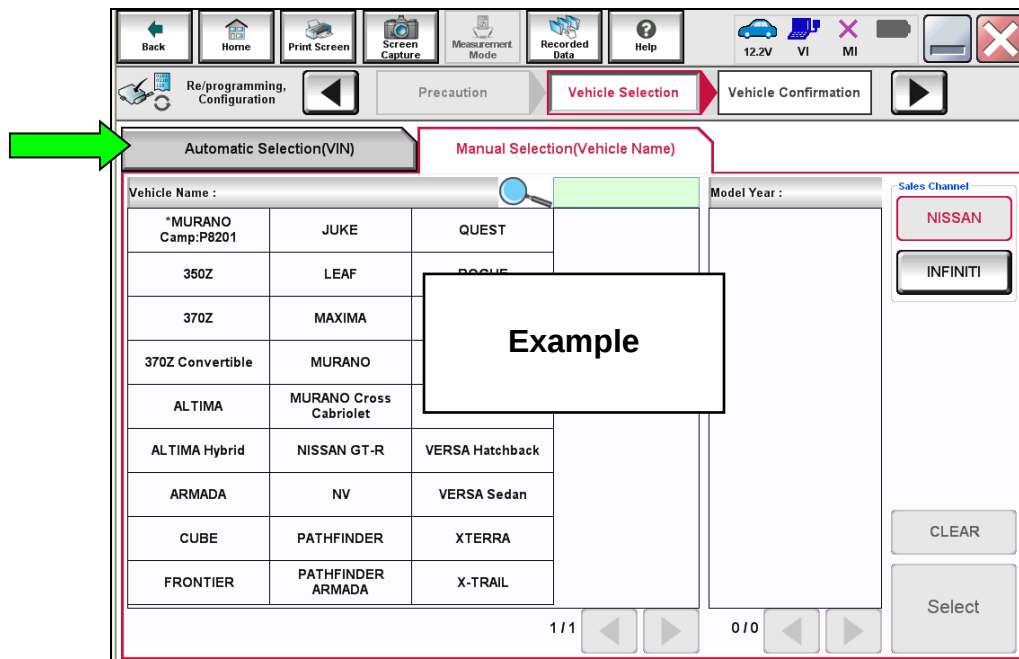


Figure 4

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

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

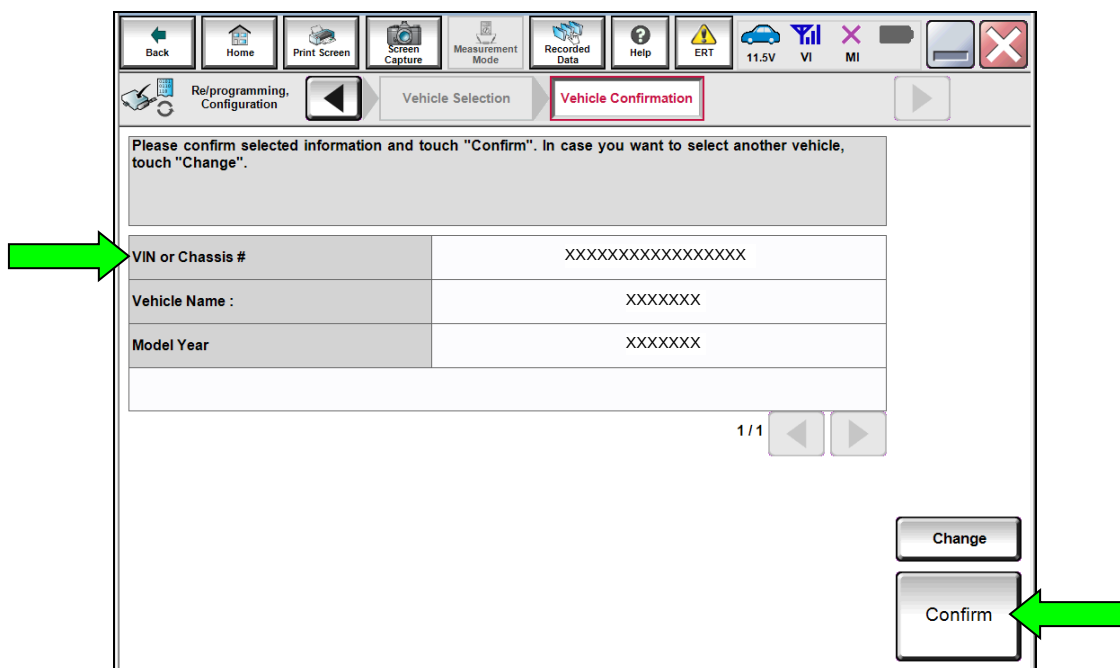


Figure 5

21. Select **Confirm**.

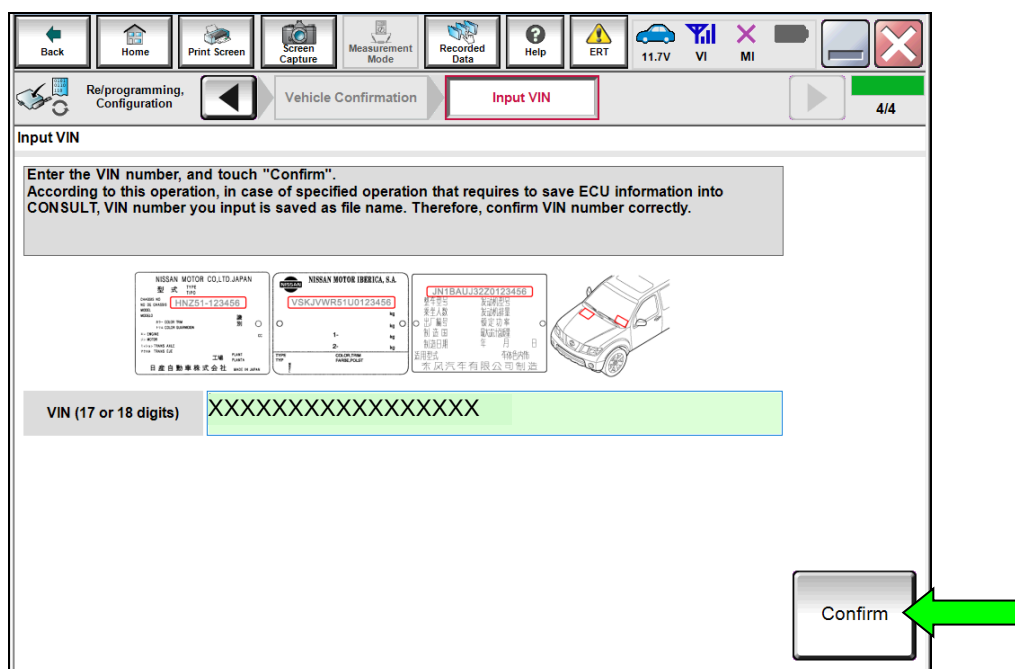


Figure 6

22. Select **ENGINE** or **TRANSMISSION**.

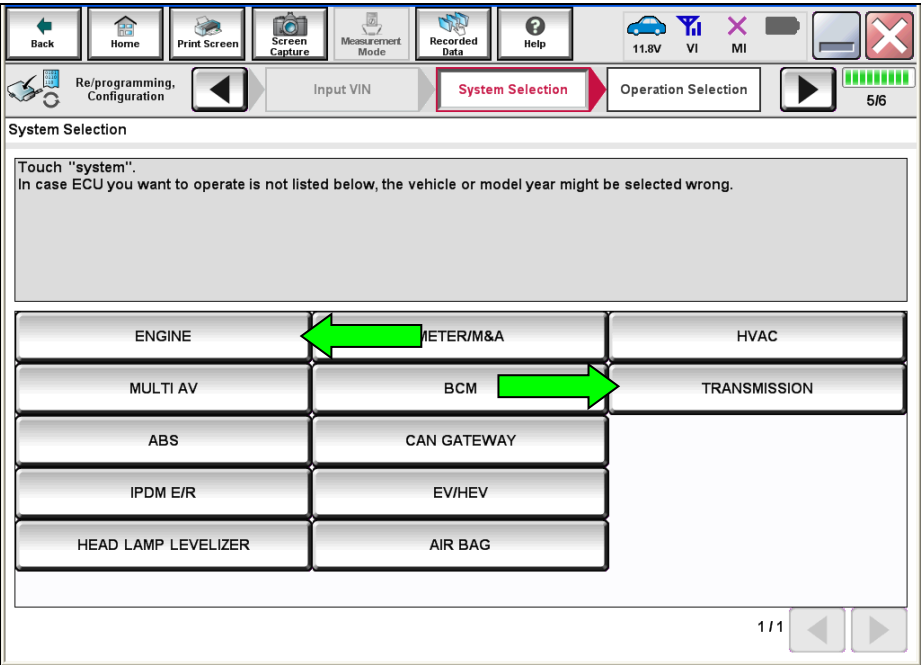


Figure 7

23. Select **Reprogramming**.

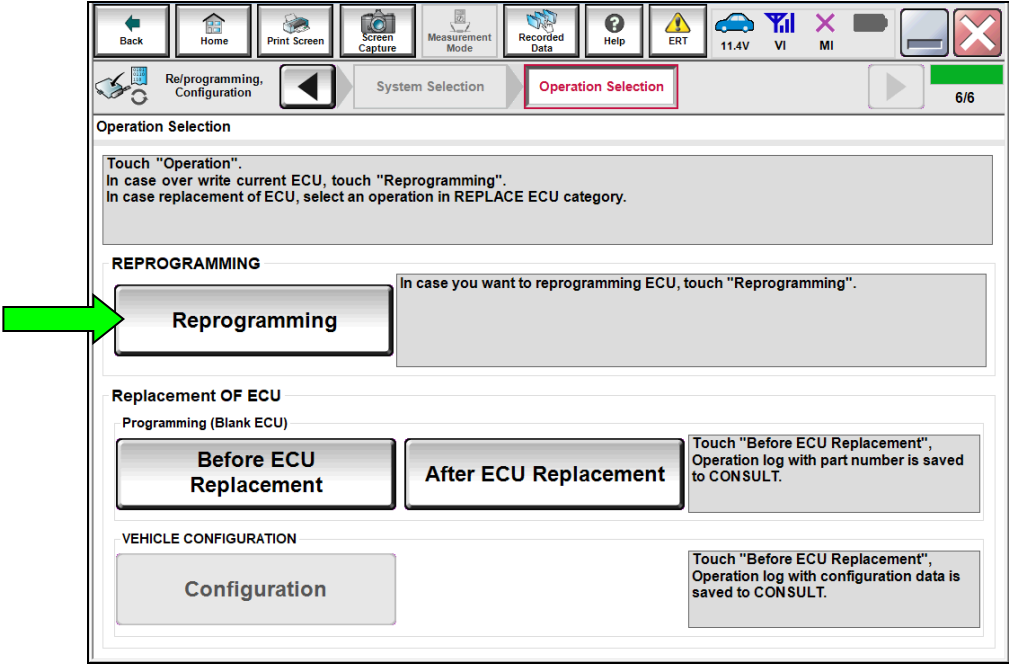


Figure 8

24. Find the ECM or TCM **Part Number** (Figure 9) and write it on the repair order.

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

Touch "Save" to save operation log and the current part number as listed below to CONSULT. Operation log helps to restart next operation by selecting suitable operation log. Operation log is erased after operation has completely finished.

File Label	XXXXXXXXXXXXXXXXXX
Operation	REPROGRAMMING
System	XXXXXXX
Part Number	XXXXXXXXXX
Vehicle	XXXXXXXXXXXXXXXXXX
VIN	XXXXXXXXXXXXXXXXXX
Date	XXXXXXXXXXXXXXXXXX

Save

Figure 9

25. Refer to the symptom based TSB or campaign bulletin that directed you to reprogram the ECM or TCM.

- A symptom based TSB or campaign bulletin is required in order to determine if reprogramming applies to the vehicle you are working on.
- If the symptom based TSB or campaign bulletin indicates that reprogramming applies, continue with the procedure.

26. Select **Save**.

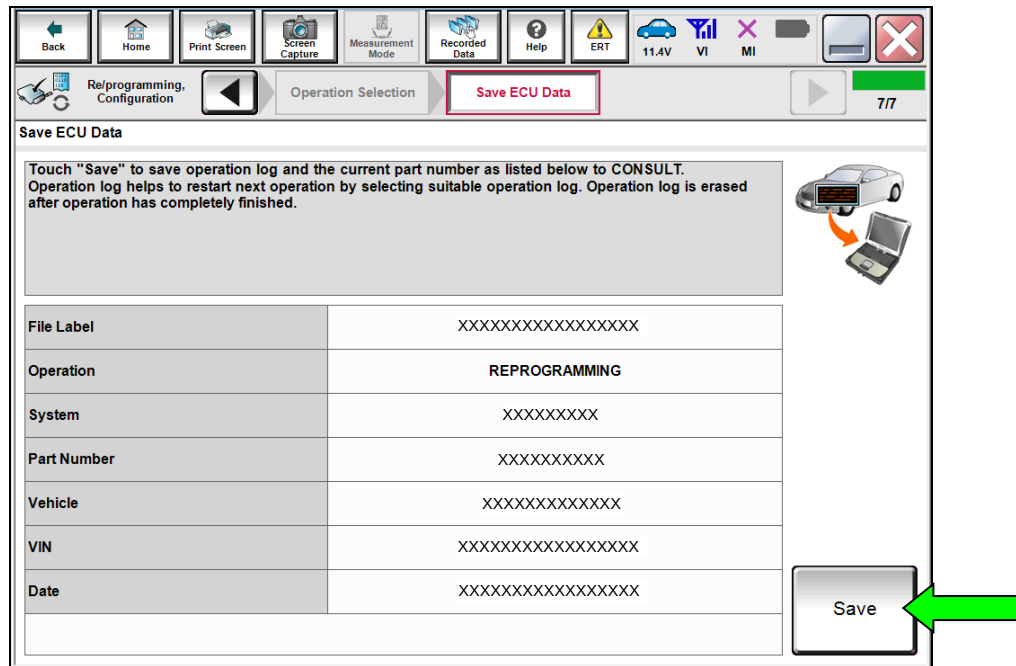


Figure 10

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

28. Select the "Confirmed instructions" box (check mark) after reading all of the precautions.

29. Select **Next**.

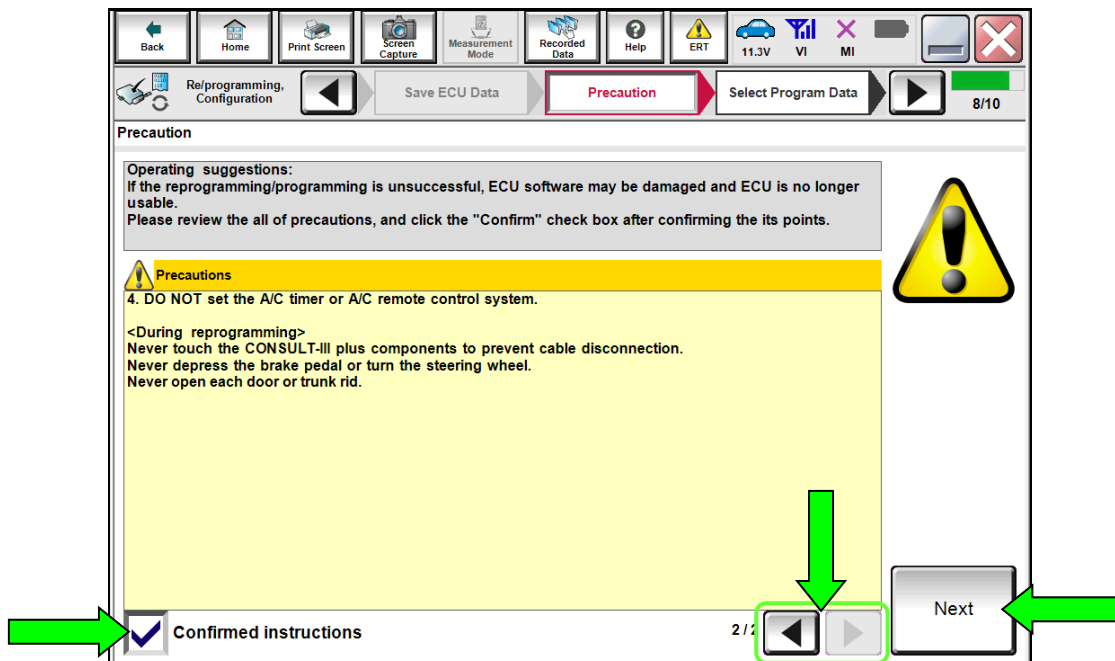


Figure 11

30. Read the **Current Part Number** and **Part Number After Repro/programming**. They should be different.

31. Select **Next**.

Back Home Print Screen Screen Capture Measurement Mode Recorded Data Help ERT 11.3V VI MI

Re/programming, Configuration Precaution **Select Program Data** Confirm Vehicle Condition 9/10

Select Program Data

Confirm the detail listed below, and touch "Next" if OK.
-In case the screen to select reprog/programming data is NOT displayed, only one data is available for this vehicle.
-In case the part number after reprogramming is wrong, touch "Re-select", and confirm the vehicle selection, VIN and reprog/programming data in CONSULT.

Part Number After Repro/programming	XXXXXXXXXX
Current Part Number	XXXXXXXXXX
Vehicle	XXXXXXXXXX
VIN	XXXXXXXXXXXXXXXXXX
System	XXXXXXXXXX
Other Information	XXXXXXXXXXXXXXXXXX
Expected time to finish re/programming	10min

Re-select

Next

These numbers should be different

Figure 12

HINT:

- o In some cases, more than one new part number for reprogramming is available.
 - If there is more than one new P/N, the screen in Figure 13 displays.
- o Use the symptom based TSB or campaign bulletin to choose the correct reprogramming.
 - If you get this screen and it is blank (no reprogramming listed), it means there is no ECM/TCM reprogramming available for the vehicle you are working on.

Back Home Print Screen Screen Capture Measurement Mode Recorded Data Help 11.8V VI MI

Re/programming, Configuration Precaution **Select Program Data** Confirm Vehicle Condition 9/11

Select Program Data

Touch and select the reprog/programming data listed below.
In case no reprog/programming data is listed below, confirm the vehicle selection, VIN and reprog/programming data in CONSULT.

System	XXXXXXXXXX
--------	------------

Current Part Number	Part Number After Repro/programming	Other Information
XXXXX-XXXXX	XXXXX-XXXXX	XXXXXXXXXXXXXXXXXXXXX
XXXXX-XXXXX	XXXXX-XXXXX	XXXXXXXXXXXXXXXXXXXXX

Next

Figure 13

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

33. Select **Next**.

NOTICE

Battery voltage must stay between **12.0 and 13.5 Volts** during reprogramming or ECM/TCM reprogramming may be interrupted and the ECM/TCM may be damaged.

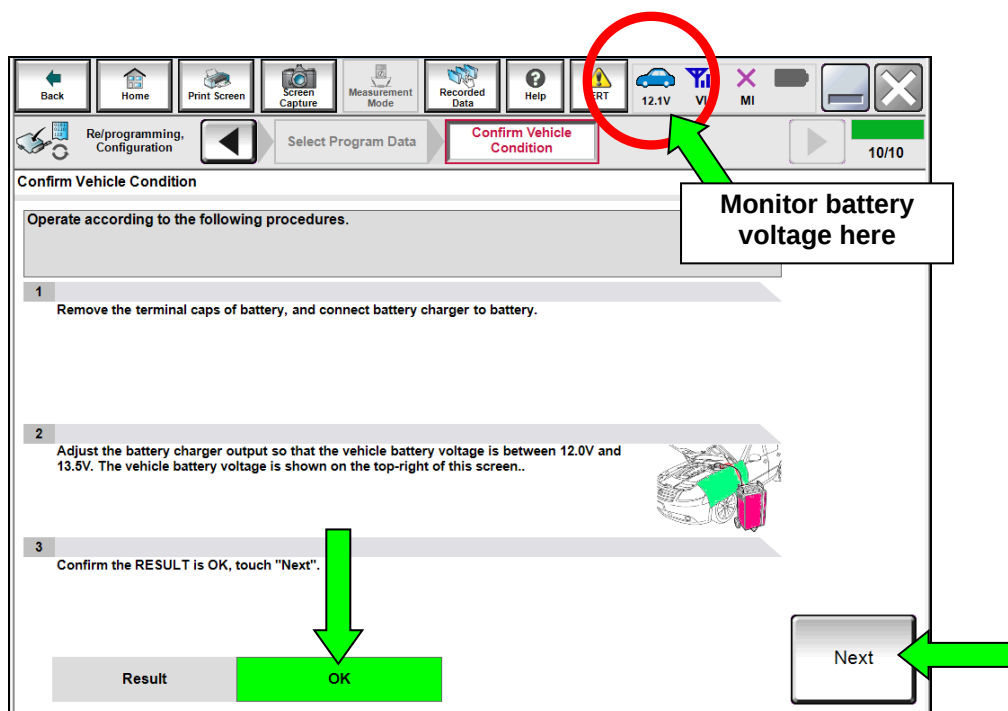


Figure 14

34. Confirm all **Judgment** items are "OK", and then select **Start**.

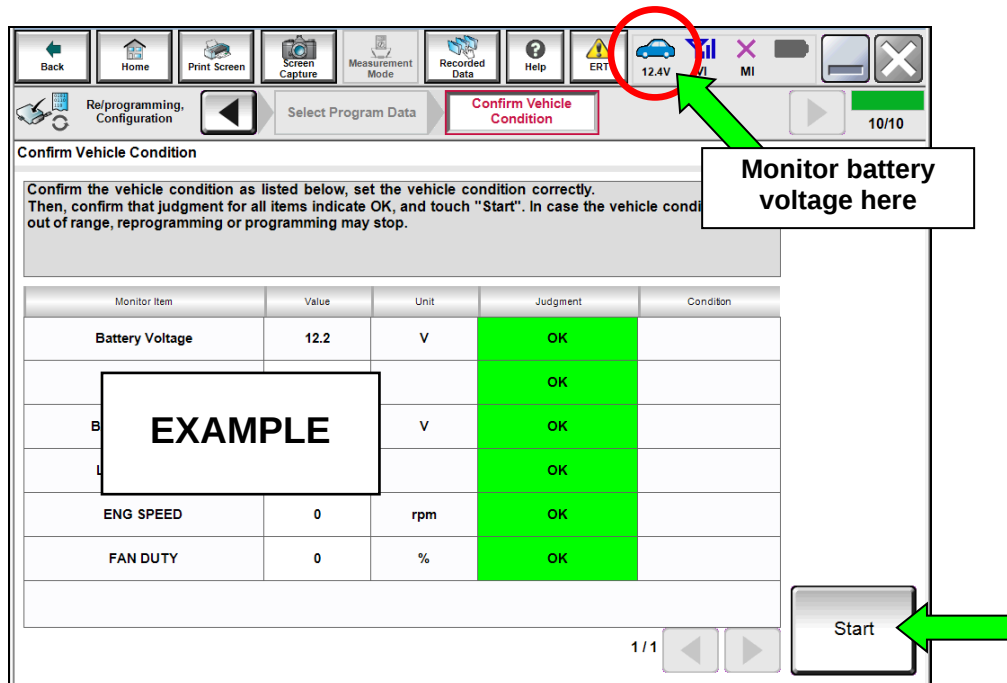


Figure 15

35. Wait for both progress bars to complete.

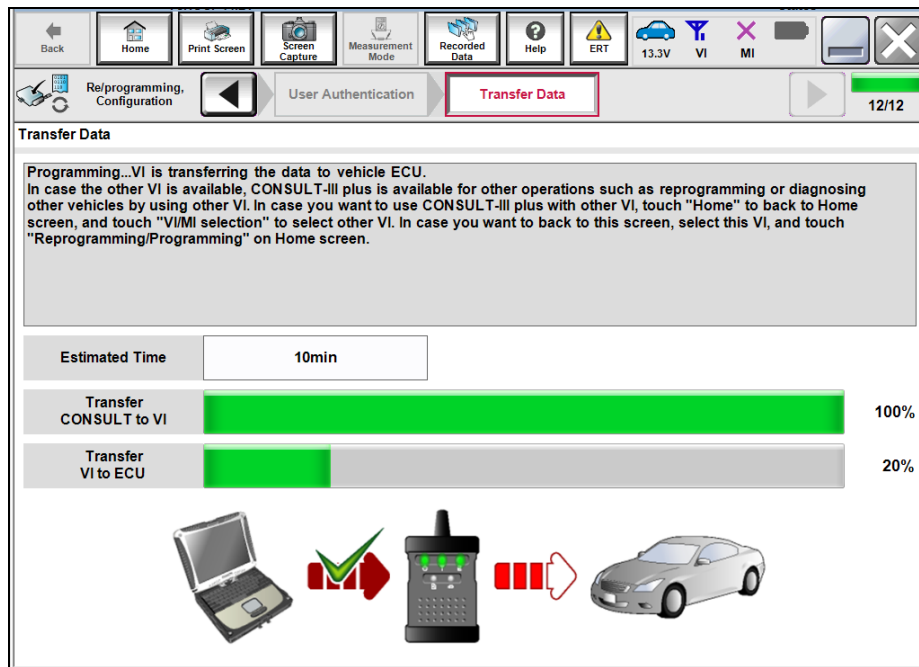


Figure 16

36. When the screen in Figure 17 displays, the reprogramming is complete.

HINT: If the screen in Figure 17 does not display (indicating that reprogramming did not complete), refer to the information on page 14.

37. Disconnect the battery maintainer/smart charger from the vehicle.

38. Select **Next**.

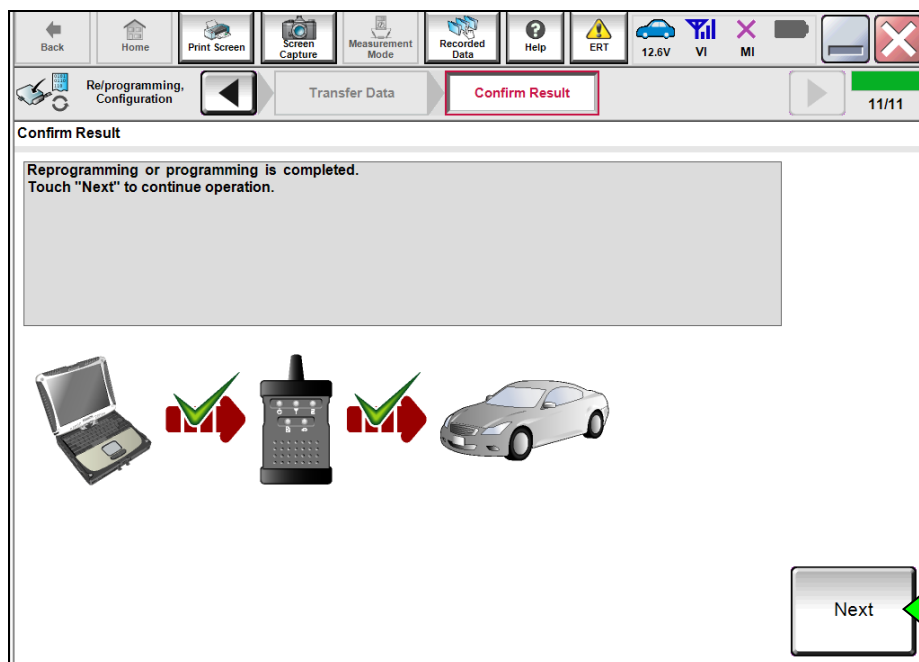


Figure 17

HINT: Additional steps/operations are required before C-III plus will provide the final reprogramming confirmation report. Continue with the reprogramming procedure on page 15.

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

- Check battery voltage (12.0 – 13.5V).
- Ignition is ON, Ready Mode is OFF.
- External Bluetooth® devices are OFF.
- All electrical loads are OFF.
- Select **Retry** and follow the on screen instructions.

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

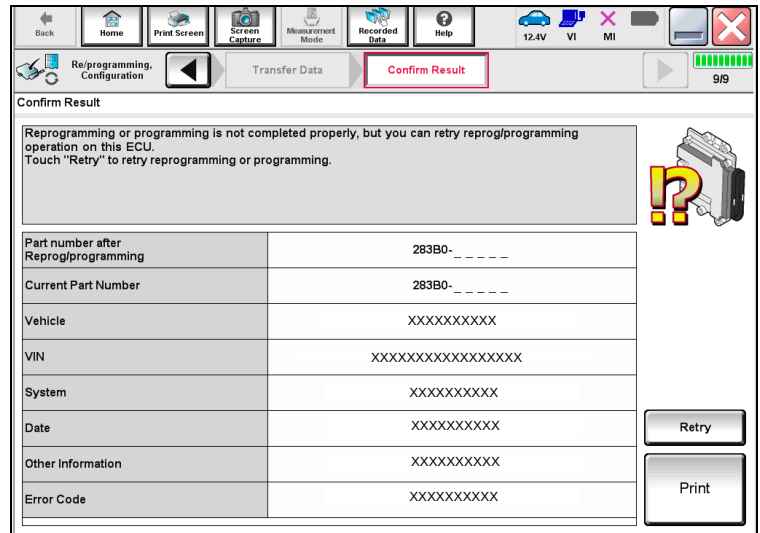


Figure 18

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

- Do not disconnect the VI or shut down C-III plus if reprogramming does not complete.
- Check battery voltage (12.0 – 13.5V).
- CONSULT A/C adapter is plugged in.
- Ignition is ON, Ready Mode is OFF.
- Transmission in Park.
- All C-III plus / VI cables are securely connected.
- All C-III plus updates are installed.
- Select **Home**, and then restart the reprogram procedure from the beginning.

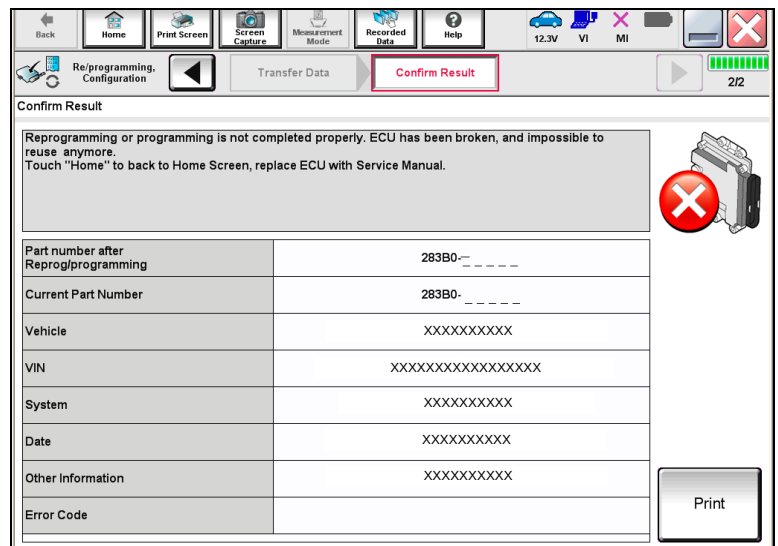


Figure 19

39. For TCM reprogramming, perform **Confirm Shift Lever Position Display** if instructed.

- Follow the C-III plus on-screen instructions (example in Figure 20); move the shift lever to each position and confirm the correct gear is indicated in the vehicle information display.

40. Select **Next**.

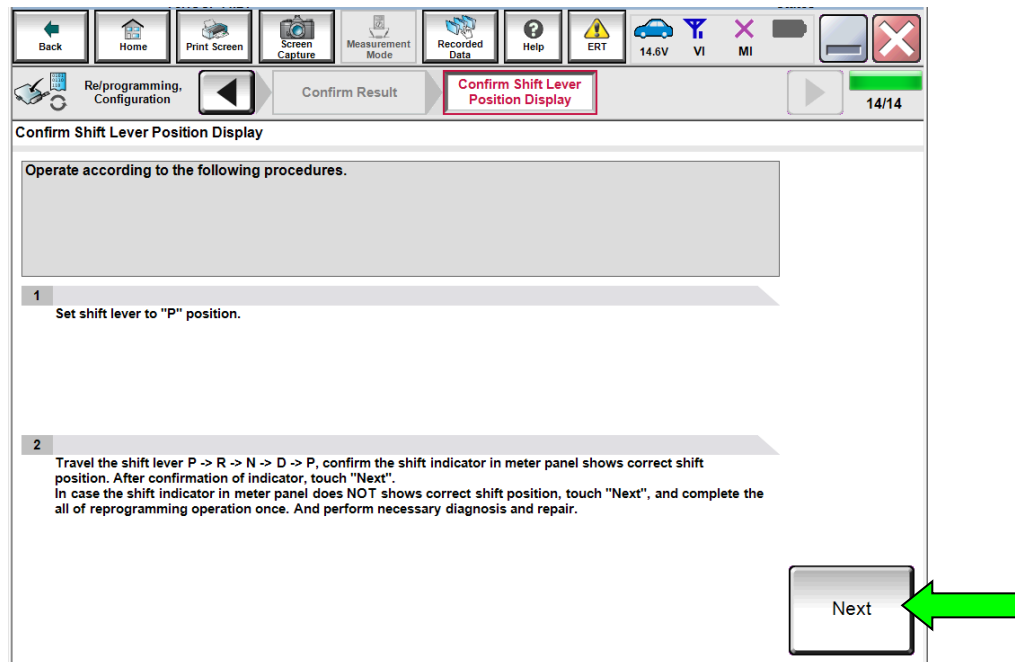


Figure 20

- For **TCM** reprogramming, skip to step 47 on page 19.
- For **Diesel ECM** reprogramming, skip to step 47 on page 19.
- For **Gasoline ECM** reprogramming, continue with step 42 on page 16.

41. For **Gasoline ECM** reprogramming, perform **Throttle Valve Closed Position** procedure.

- Follow the on-screen instructions (**1**, **2**, and **3**) to complete the procedure.

The screenshot shows the 'Throttle Valve Closed Position' procedure screen. The top navigation bar includes icons for Back, Home, Print Screen, Screen Capture, Measurement Mode, Recorded Data, Help, 12.8V, VI, MI, and a battery status icon. The main menu shows 'Reprogramming, Configuration', 'Confirm Result', 'Throttle Valve Closed Position' (highlighted in red), 'Idle Air Volume Learning', and a progress bar at 13/16.

Throttle Valve Closed Position

Operate according to the following procedures.

- 1** Make sure that accelerator pedal is fully released, turn ignition ON, and turn ignition OFF. And then the count down of 10 seconds starts.

Current status of ignition switch	ON
Time	
- 2** Make sure that throttle valve moves during count down of 10 seconds by confirming the operating sound.
- 3** Touch "Next" to go to next operation.

Next

Figure 21

42. For **Gasoline ECM** reprogramming, perform **Idle Air Volume Learning (IAVL)**.

- Turn the ignition ON (engine running or "ready to drive" position).
 - For conventional vehicles, start the engine and let it idle.
 - For Hybrid vehicles, make sure the "ready" or "ready to drive" indicator light is ON (illuminated). The engine will start automatically as needed.
- Select **Next**.

The screenshot shows the 'Idle Air Volume Learning' procedure screen. The top navigation bar includes icons for Back, Home, Print Screen, Screen Capture, Measurement Mode, Recorded Data, Help, ERT, 14.3V, VI, MI, and a battery status icon. The main menu shows 'Reprogramming, Configuration', 'Throttle Valve Closed Position', 'Idle Air Volume Learning' (highlighted in red), 'Accelerator Pedal Closed Position', and a progress bar at 15/17.

Idle Air Volume Learning

This function allows the ECM to learn the position of the IACV-AAC which maintains proper engine speed at idle. Always perform this mode after replacement of IACV-AAC valve, throttle body, ECM or when idle speed or ignition timing is out of specification. To confirm the vehicle condition such as coolant temperature to perform this operation, service manual

1 / 2

Current status Waiting for your operation...

Monitor Item		
LOAD SIGNAL		
AIR COND SIG		
PW/ST SIGNAL		
P/N POSI SW		
HEATER FAN SW		
CLOSED LOOP		
COOLANT TEMP/S		°C

1 / 2

Next

Figure 22

- c. Select **Start**.
- d. Wait for IAVL to complete.

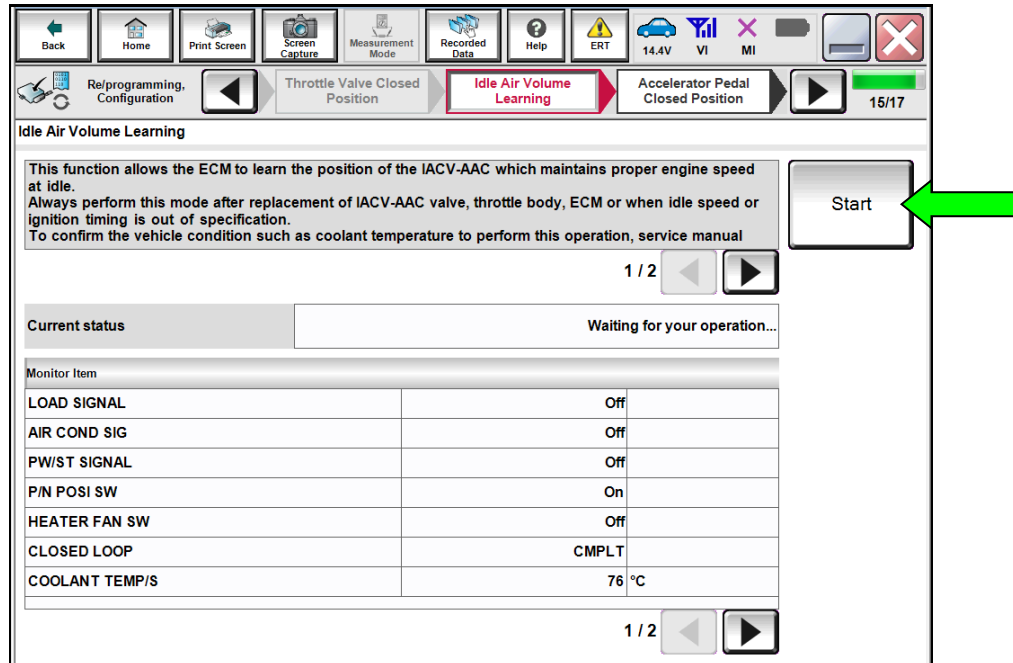


Figure 23

HINT:

- o Listed below are common required conditions for IAVL to complete.
- o If IAVL does not complete within a few minutes, a condition may be out of range.
- o Refer to the appropriate Electronic Service Manual (ESM) for specific conditions required for the vehicle you are working on.
 - Hybrid only – Li-ion battery charging status: 50% or more
 - Engine coolant temperature: 70 – 100° C (**158 – 212°F**)
 - Battery voltage: More than 12.9V (At idle)
 - Selector lever: **P** or **N**
 - Electric load switch: OFF (Air conditioner, headlamp, rear window defogger, etc.)
 - Steering wheel: Neutral (Straight-ahead position)
 - Vehicle speed: Stopped
 - Transmission: Warmed up

e. Select **Next**.

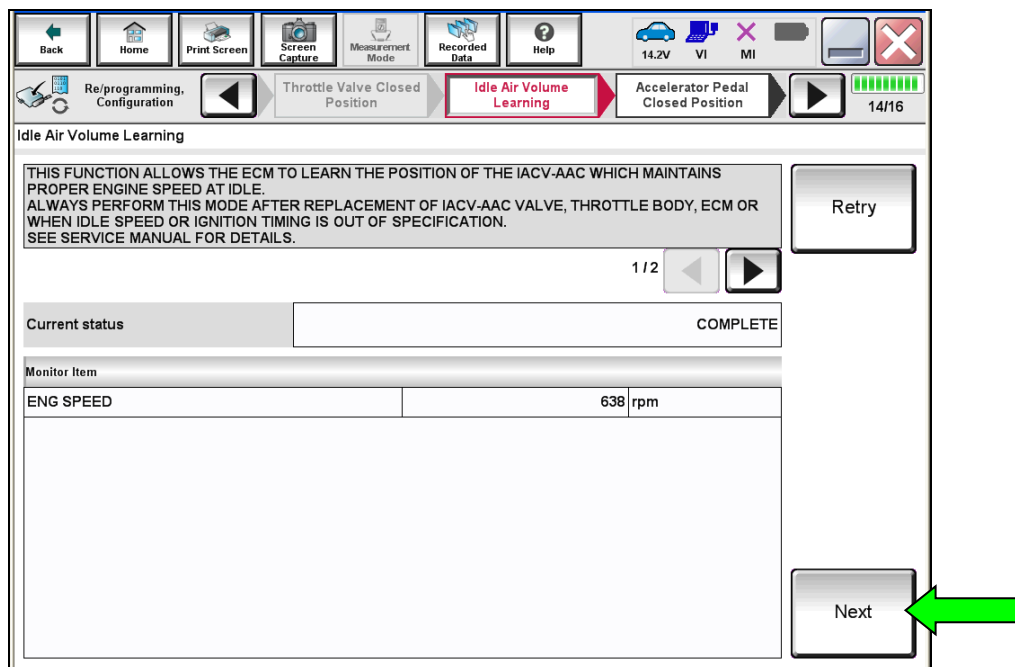


Figure 24

43. For **Gasoline ECM** reprogramming, follow the on screen instructions to complete the **Accelerator Pedal Closed Position** learning procedure.

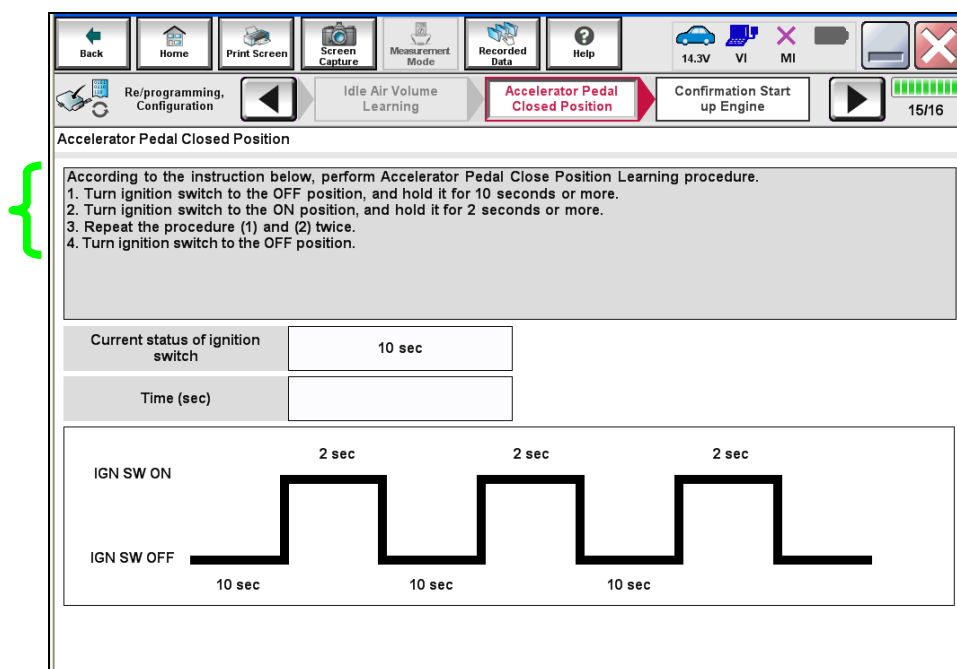


Figure 25

44. For **Gasoline ECM** reprogramming, start the engine and confirm normal idle per the on-screen instructions.

45. Select **Next**.

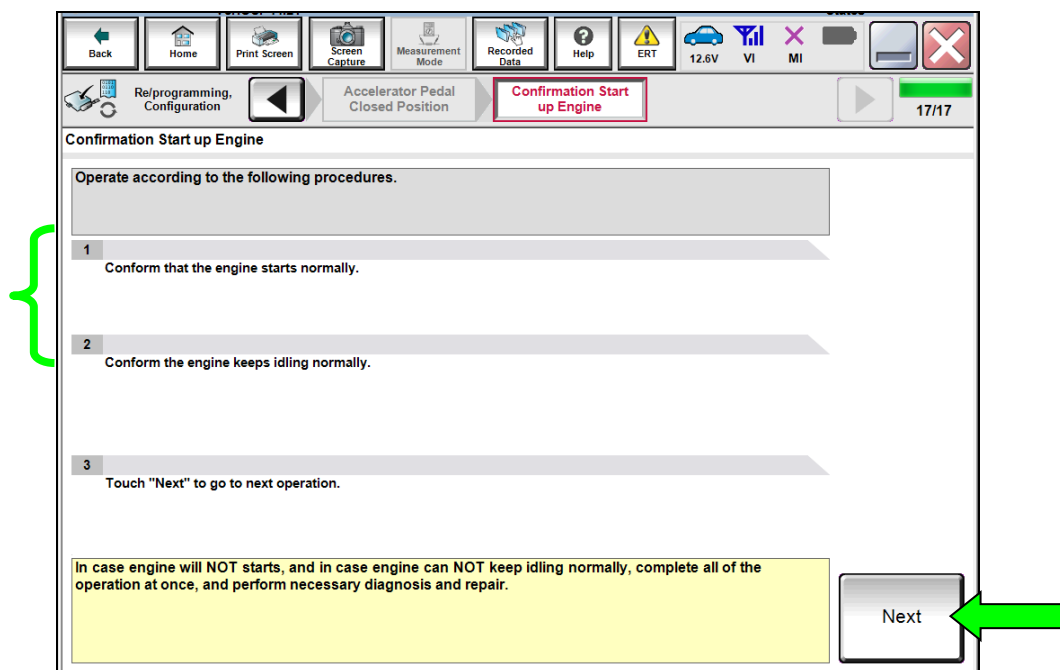


Figure 26

46. Perform **Erase All DTCs** as follows:

a. Turn the ignition OFF.

HINT: If the ignition will not turn OFF, depress the brake pedal and push the Start/Stop button to start the vehicle. Select the Start/Stop button again to turn the vehicle OFF, and then proceed to step 47b.

b. Turn the ignition ON.

c. Wait for **Erase All DTCs** to complete.

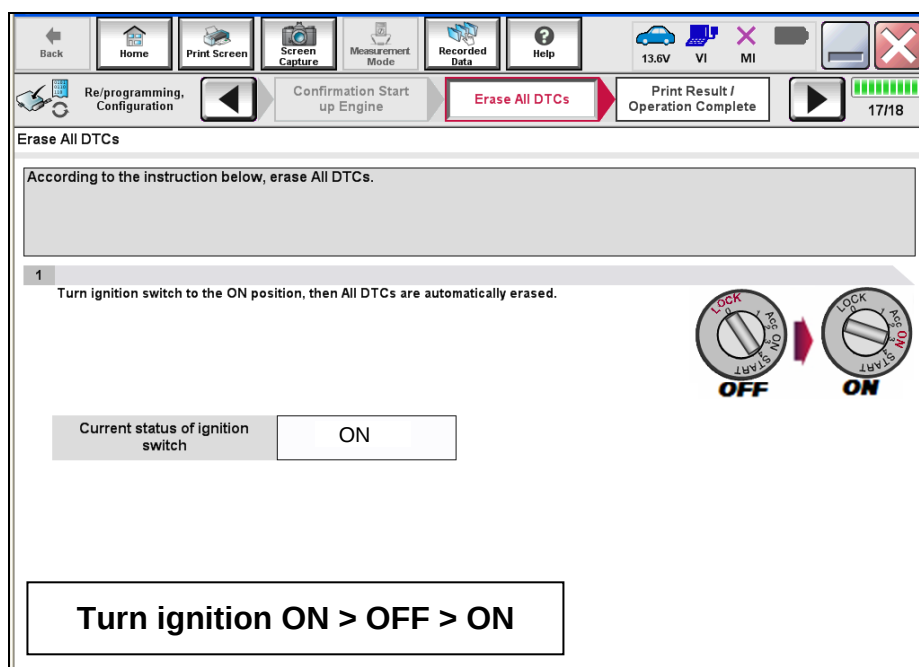


Figure 27

47. Verify the before and after part numbers are different (Figure 28).

48. Print a copy of Figure 28, and then attach it to the repair order.

HINT: If you cannot print the screen:

- a. Select **Screen Capture** (camera icon).
 - 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.

49. Select **Confirm**.

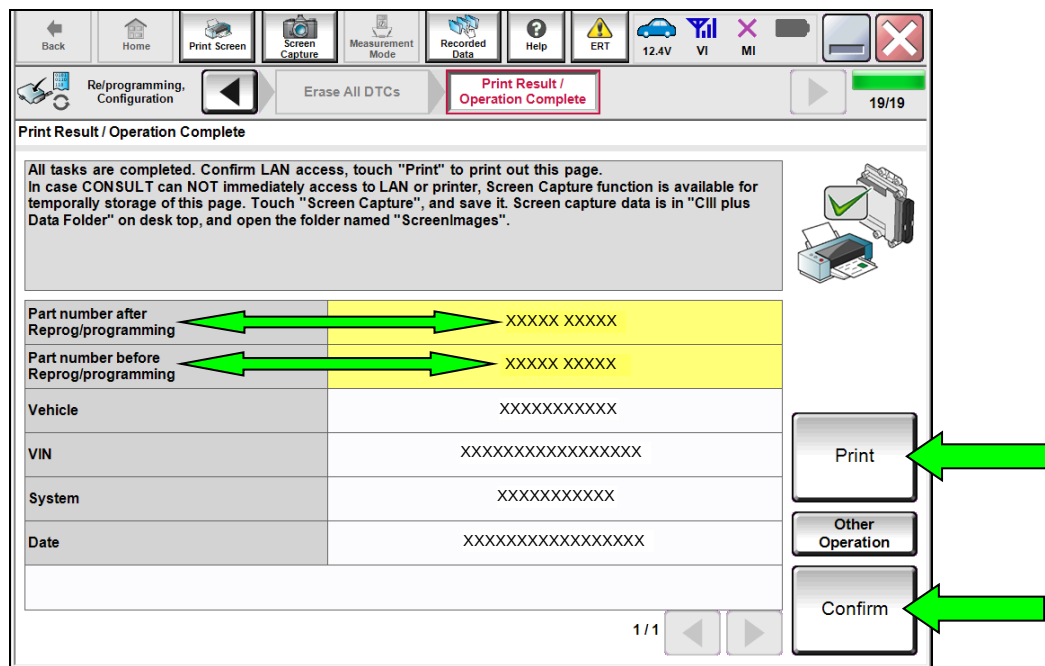


Figure 28

50. Close C-III plus.

51. Turn the ignition OFF.

52. Disconnect the VI from the vehicle.

AMENDMENT HISTORY

PUBLISHED DATE	DESCRIPTION
January 6, 2012	Original bulletin published
October 30, 2013	Updated to included TCM reprogramming
January 31, 2018	Update to add Wi-Fi log in
February 8, 2022	Updated Random # to a Reference # by request of IDT administrator. Document template updated.
February 9, 2023	Reference number updated to GIB (General Information Bulletin). Figures updated and Wi-Fi log in relocated.
March 22, 2024	Voltage ranges updated to match C-III plus. Minor changes made throughout.