



Updated February 15, 2012

## **CONSULT-III PLUS (C-III PLUS) REPROGRAMMING FOR ENGINE OR TRANSMISSION CONTROL MODULE (ECM OR TCM)**

**A symptom based TSB is required before using this procedure.**

**NOTE:** This procedure does not apply to Nissan LEAF™.

**IMPORTANT: Before starting, 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 ECM and TCM reprogramming 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.
- **No DTCs stored.**
  - Use C-III plus to perform Self Diagnosis for all systems.
  - If there are any DTCs other than those listed in the accompanying Symptom based TSB, diagnose, perform repairs, and erase DTCs **before** continuing.

- **For conventional and hybrid vehicles;** if reprogramming the **ECM**, take the vehicle for a 10 minute drive in order to meet the following conditions:
  - 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)
  - Transmission: Warmed up



Figure A

**NOTE:**

- After reprogramming is complete, you will be required to perform Throttle Valve Closed Position, Idle Air Volume Learn (IAVL), Accelerator Closed Position, and DTC erase.
- The above conditions are required for the IAVL to complete.

## Reprogramming Procedure

1. Connect the 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. If the plus VI connection is loose during reprogramming, the process will be interrupted and the **ECM/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 **ECM/TCM may be damaged.**

3. Connect a battery charger to the vehicle battery:

### For Conventional Vehicles

- Set the battery charger at a low charge rate.

**NOTE:** The GR-8 (Battery and Electrical Diagnostic Station) set to “Power Supply” mode is recommended.

**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 reprogramming. If the battery voltage goes out of this range during reprogramming, the **ECM/TCM may be damaged.**

### For Hybrid Vehicles

- Use the GR-8 – Battery and Electrical Diagnostic Station.

**CAUTION :** DO NOT use a standard battery charger for Hybrid vehicles. Make sure to connect the GR-8 securely to the 12V 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 **ECM/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 **ECM/TCM may be damaged.**

5. 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:

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

**OR**

- 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

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 **ECM/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 / connected.

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

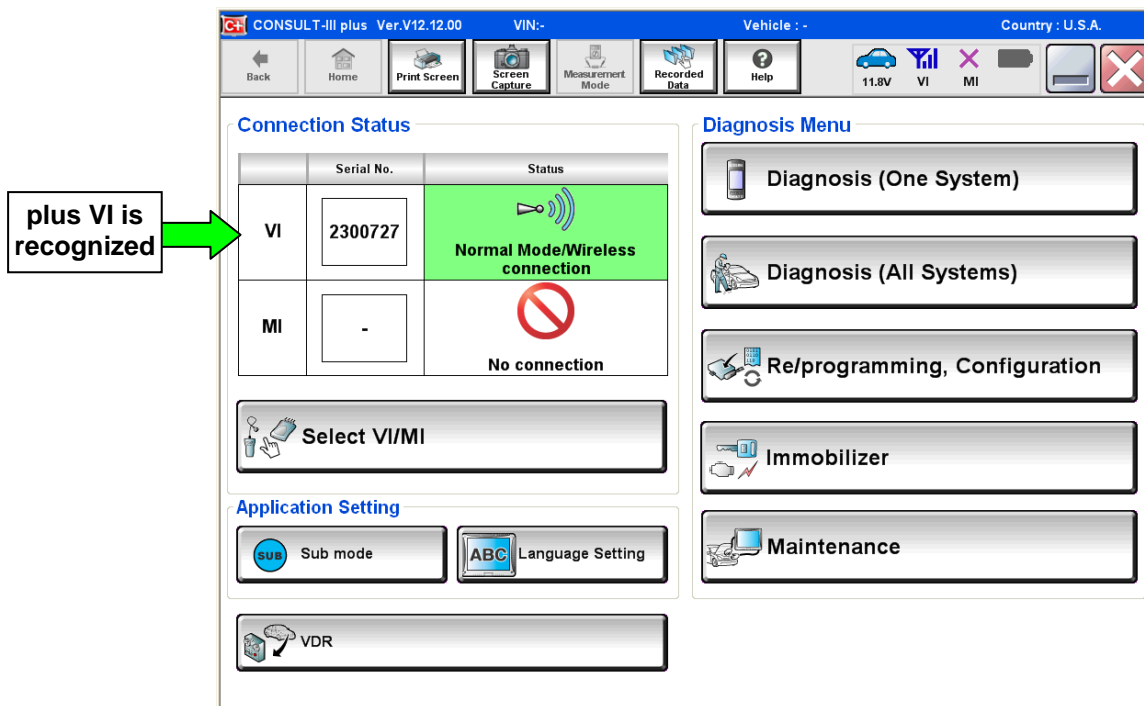


Figure 1

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

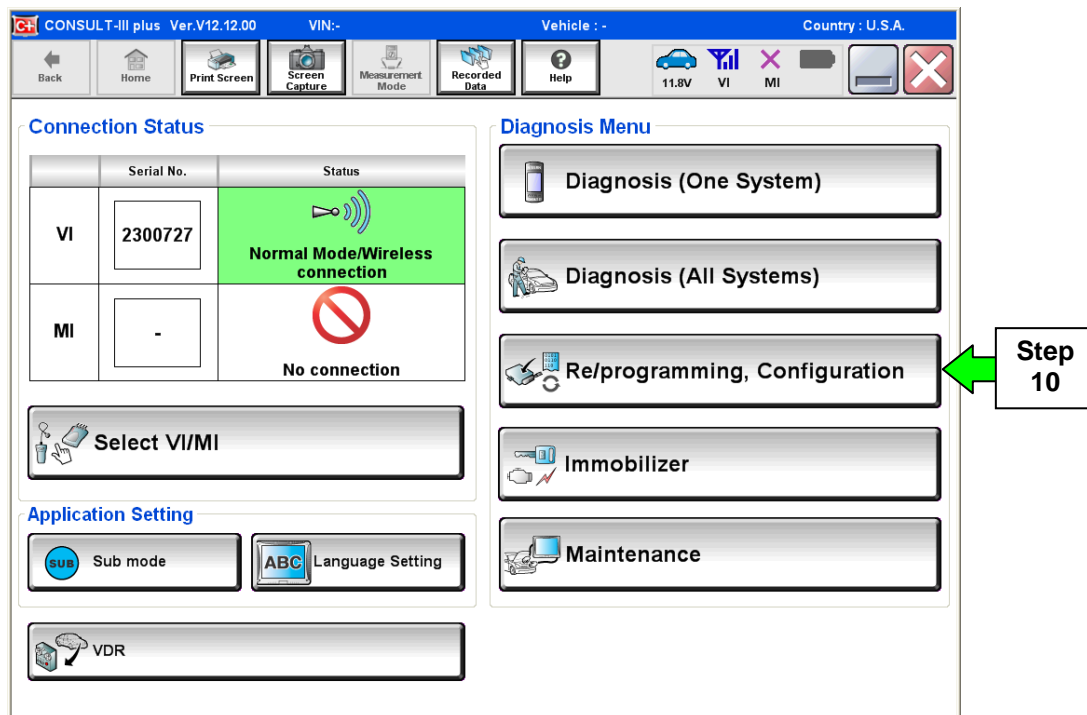


Figure 2

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

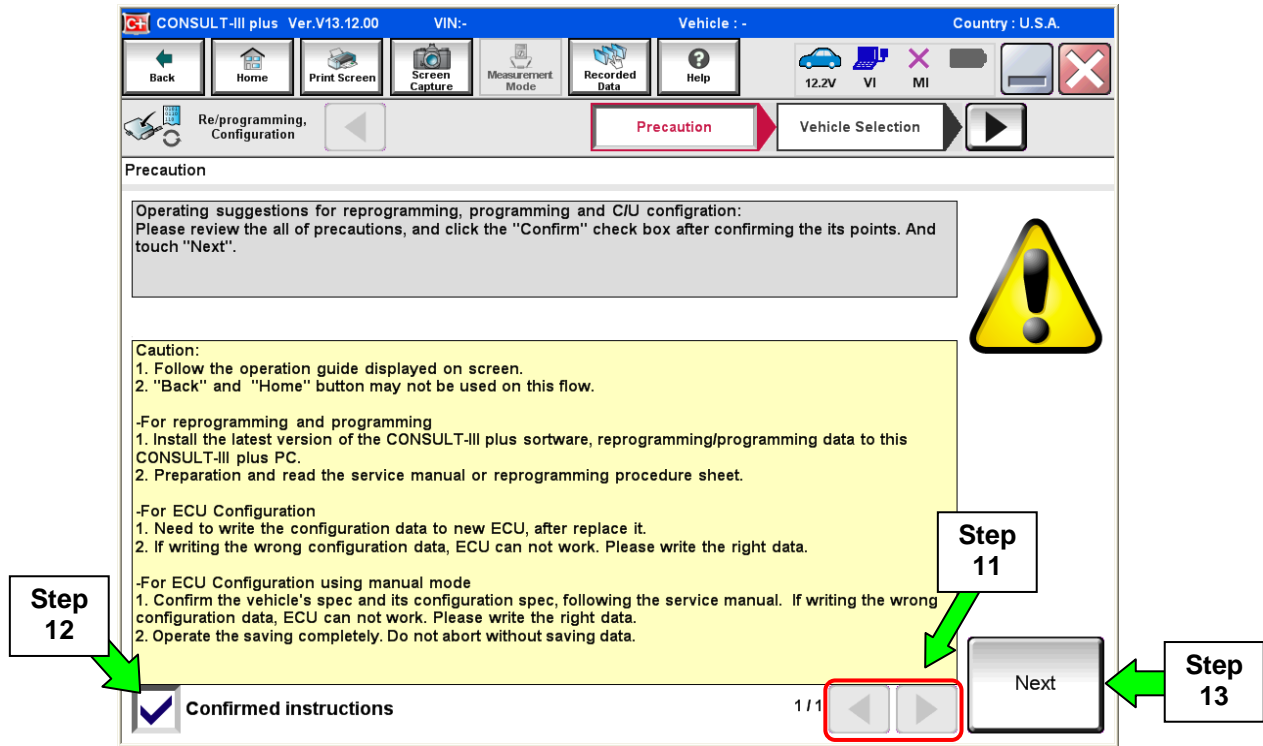


Figure 3

14. Select **Nissan** or **Infiniti**, **Vehicle Name**, and then the correct **Model Year**.

- If the screen in Figure 4 does not display, skip to step 15.

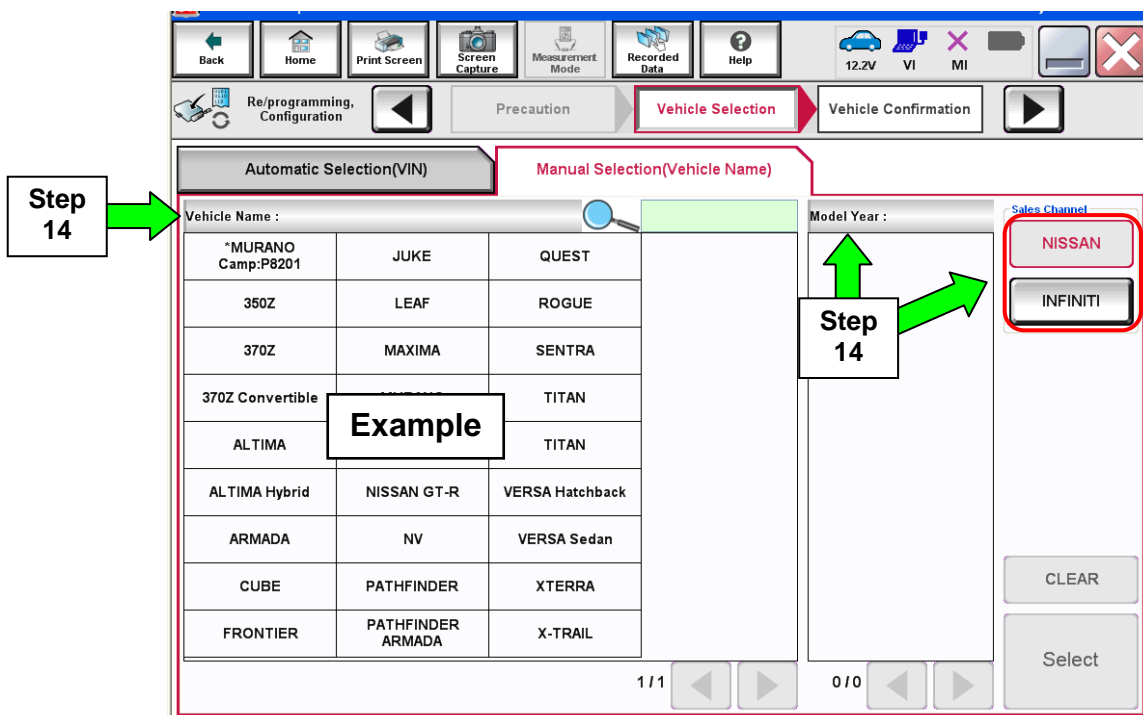


Figure 4

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

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

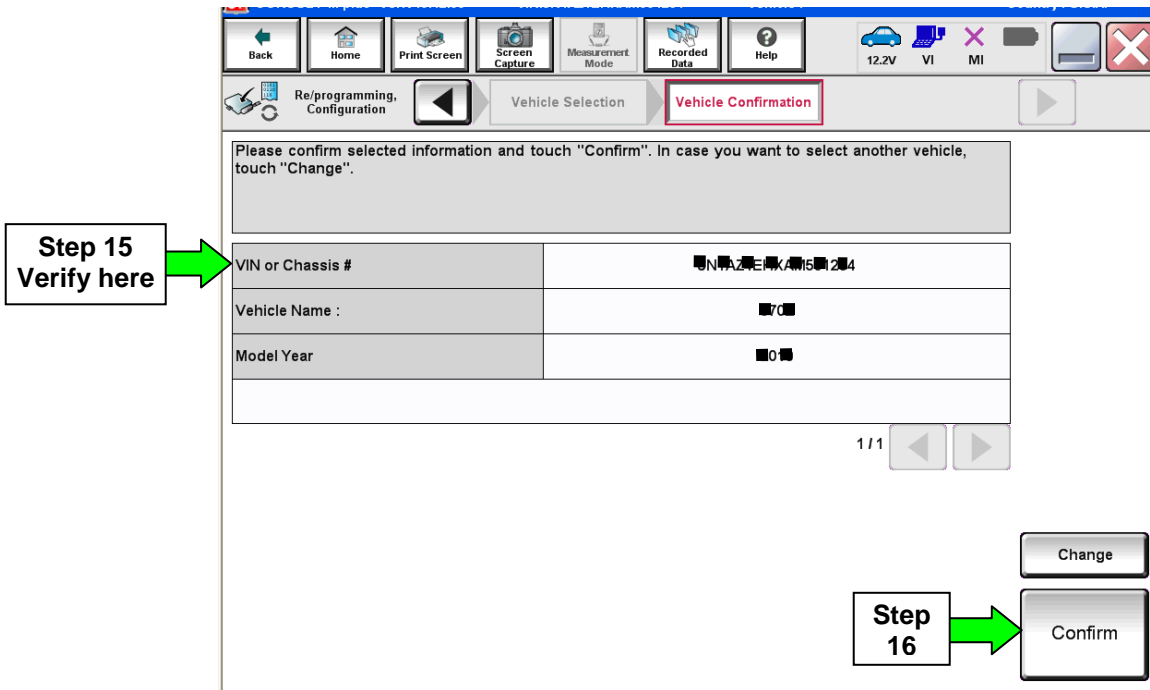


Figure 5

17. Select **Confirm**.

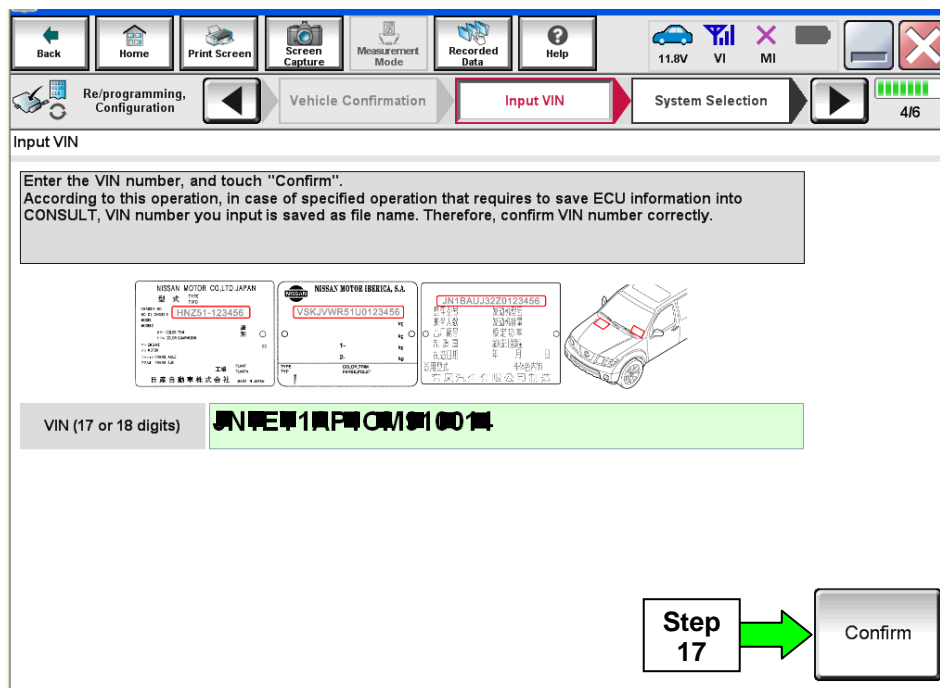


Figure 6

18. Select **ENGINE** or **TRANSMISSION**.

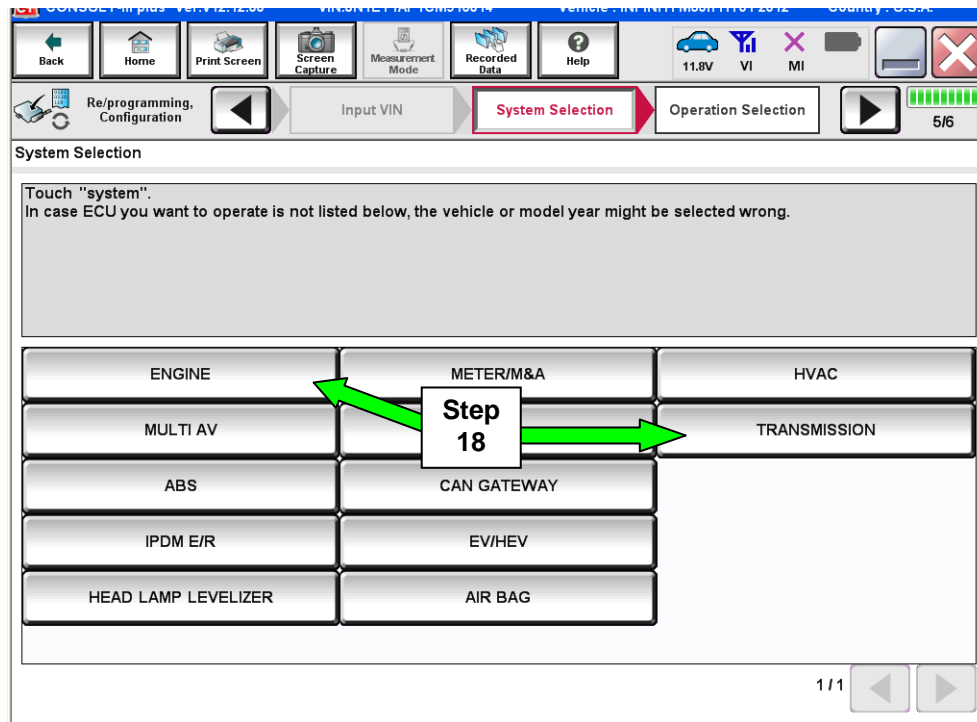


Figure 7

19. Select **Reprogramming**.

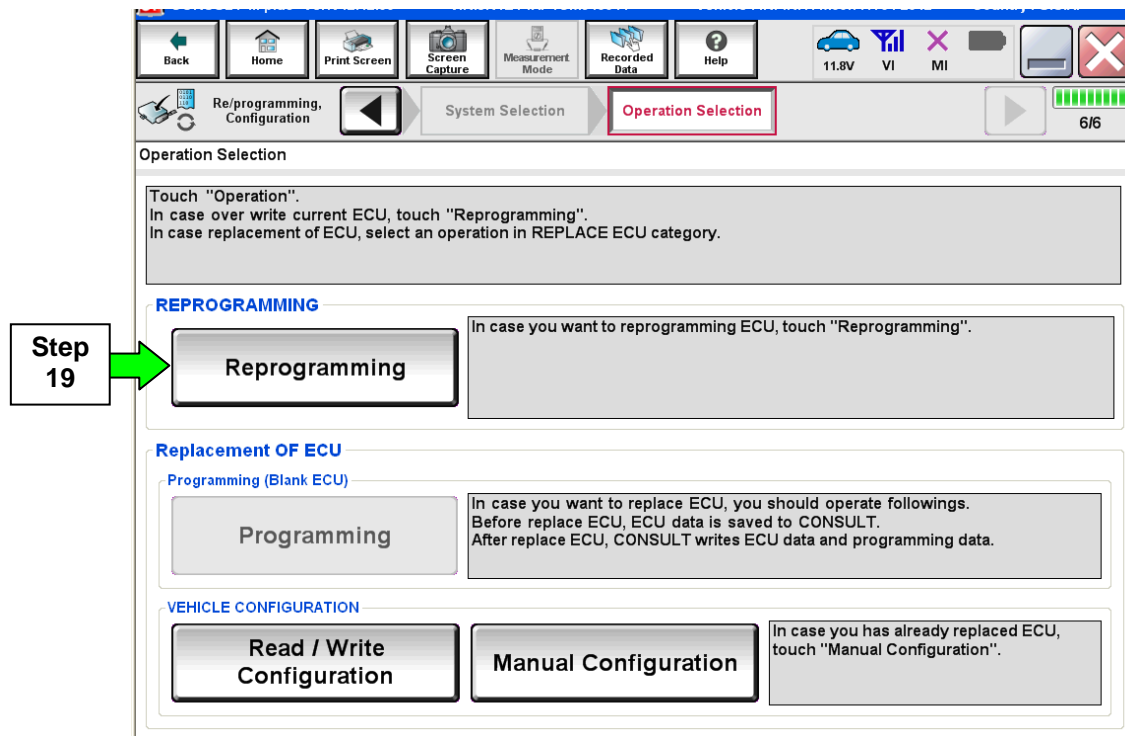


Figure 8



20. Find the ECM OR TCM **Part Number** (see Figure 9) and write it on the repair order.

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

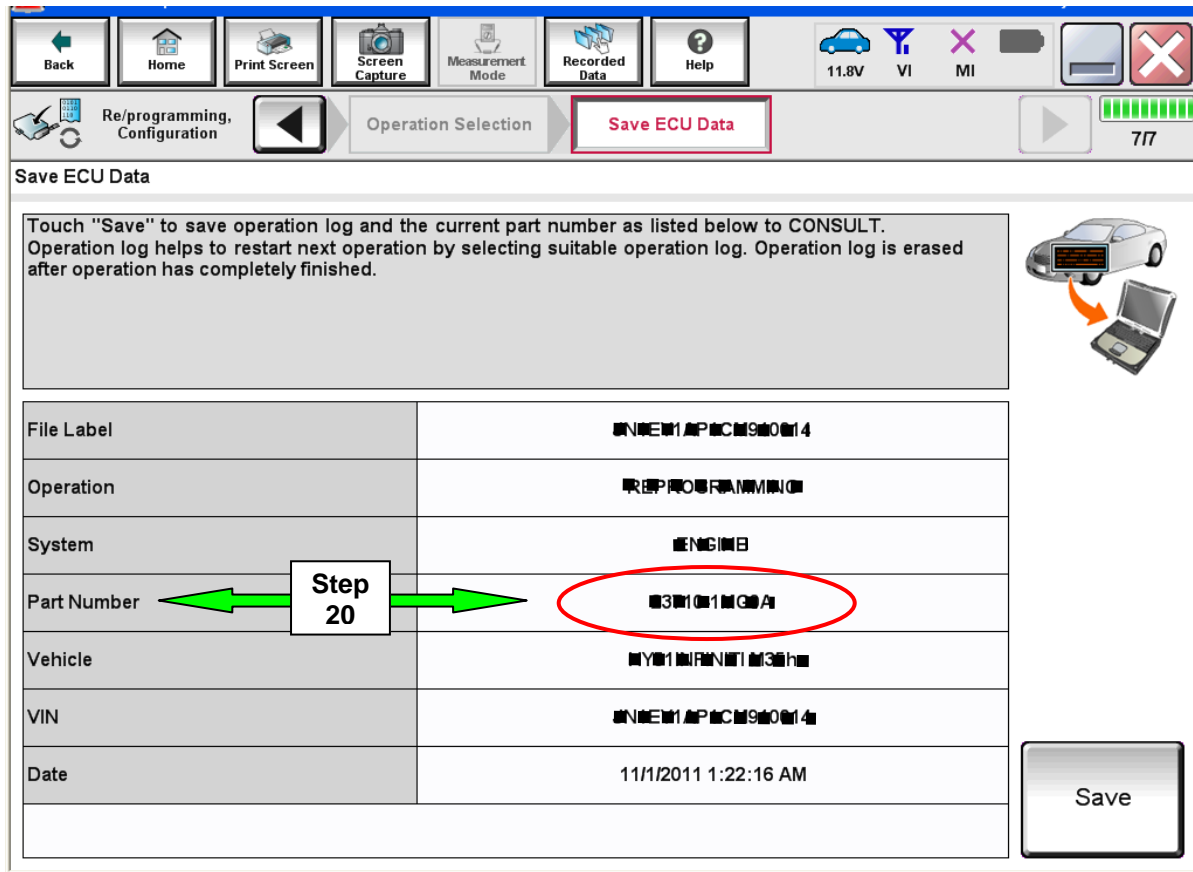


Figure 9

21. Refer to the symptom based TSB that directed you to reprogram the ECM or TCM.

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

## 22. Select Save.

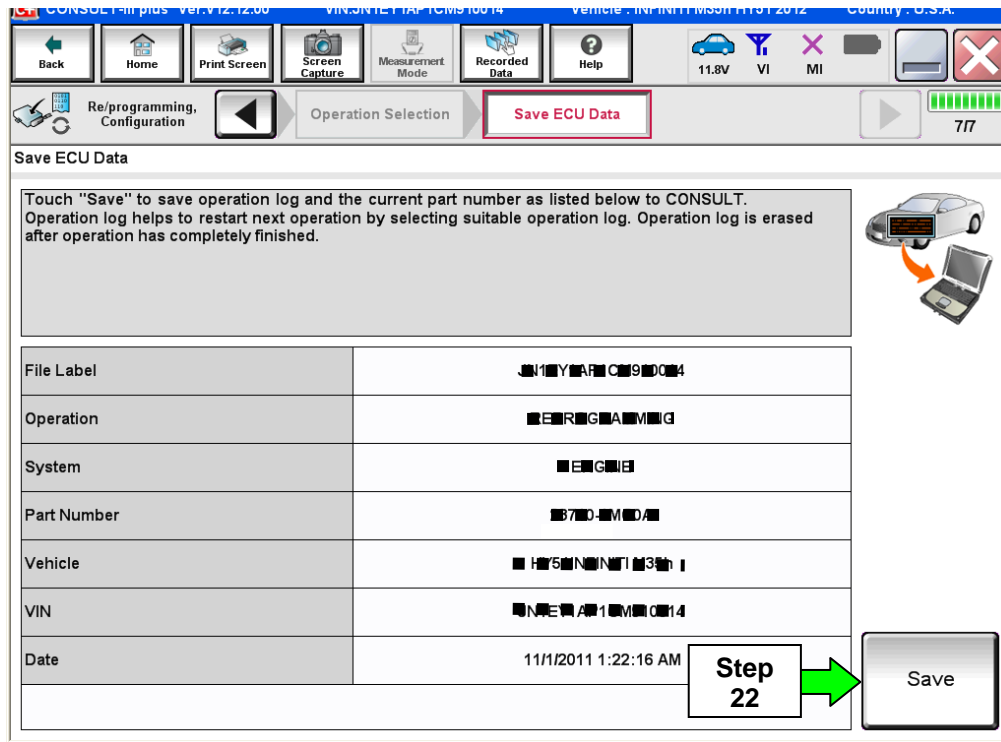


Figure 10

## 23. Select Next.

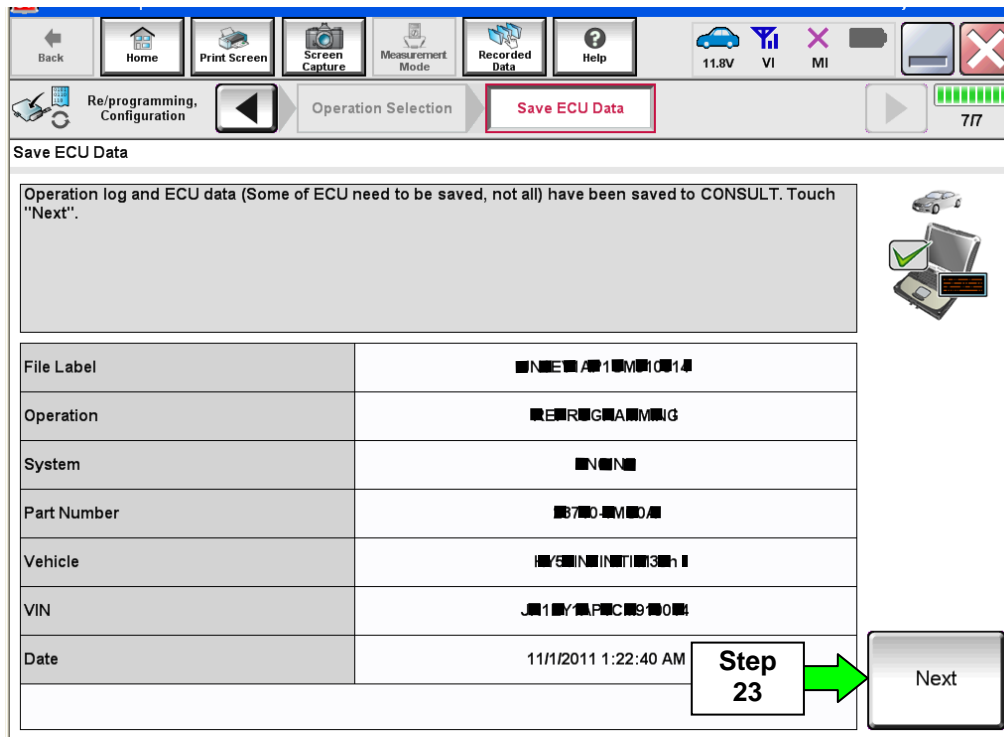


Figure 11

24. Use arrows (if needed) to view and read all precautions.
25. Check the box confirming the precautions have been read.
26. Select **Next**.

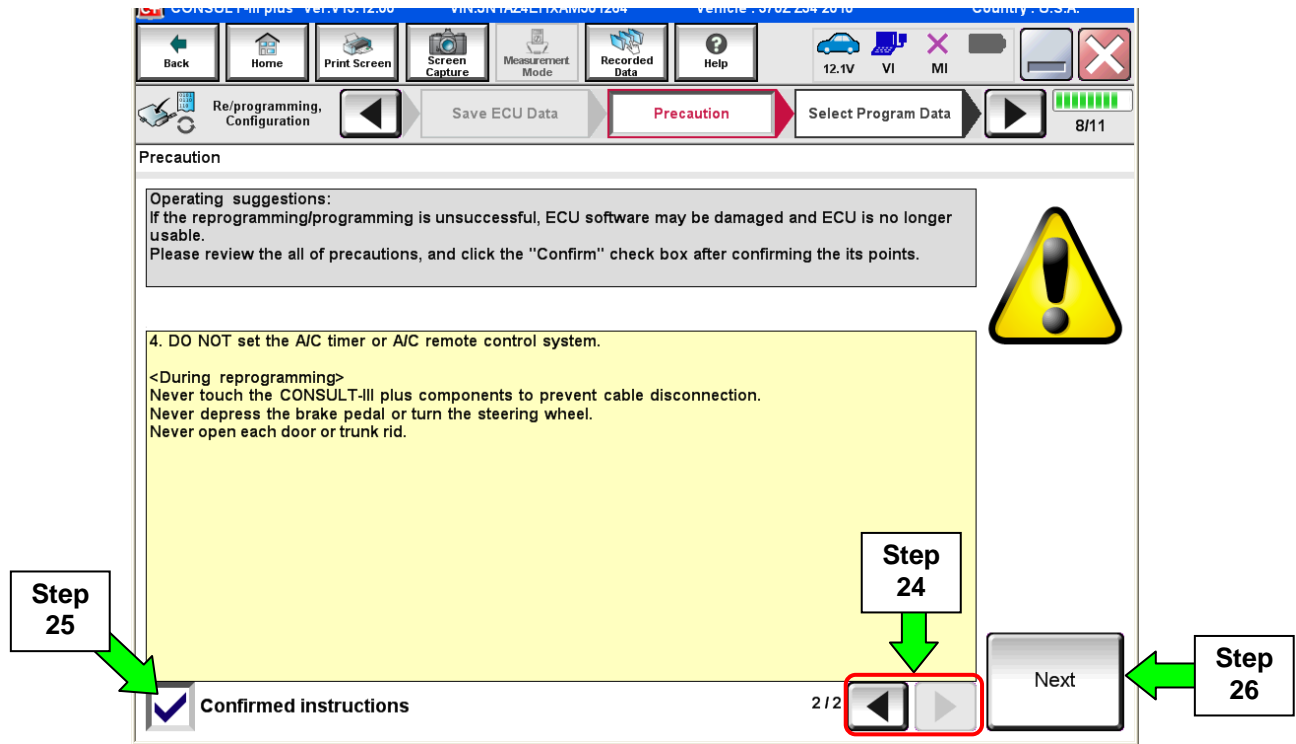


Figure 12

27. Read the **Current Part Number** and **Part Number After Reprogramming**. They should be different.
28. Select **Next**.

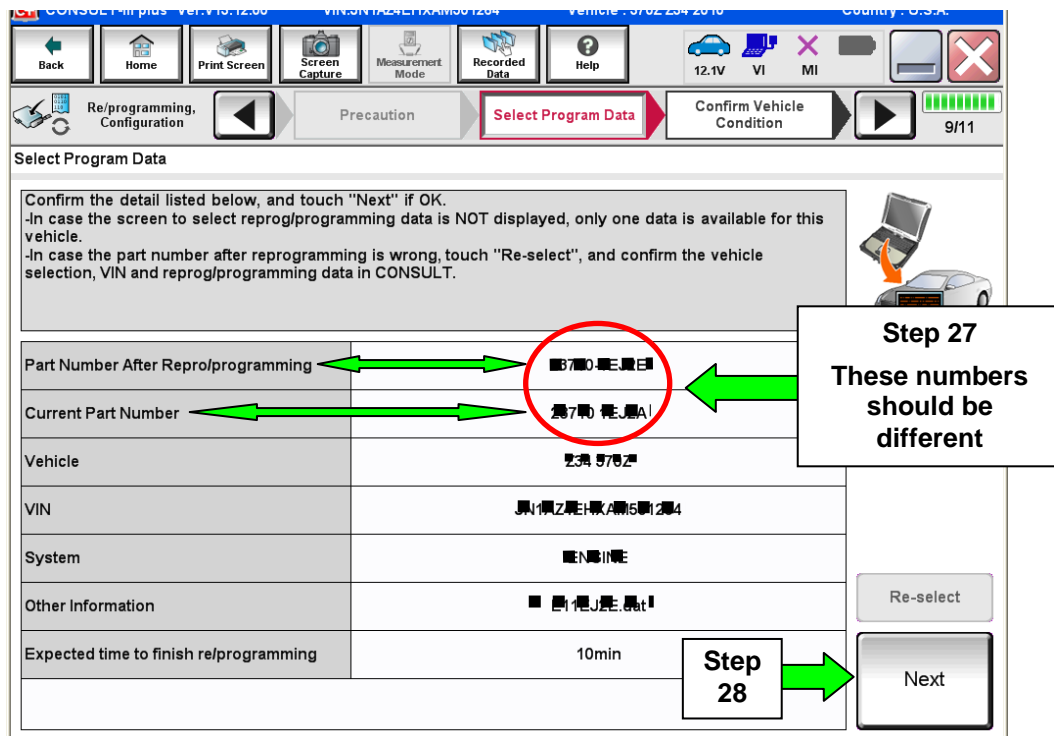


Figure 13

**NOTE:**

- 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 14 displays.
  - Use the symptom based TSB 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 this vehicle.

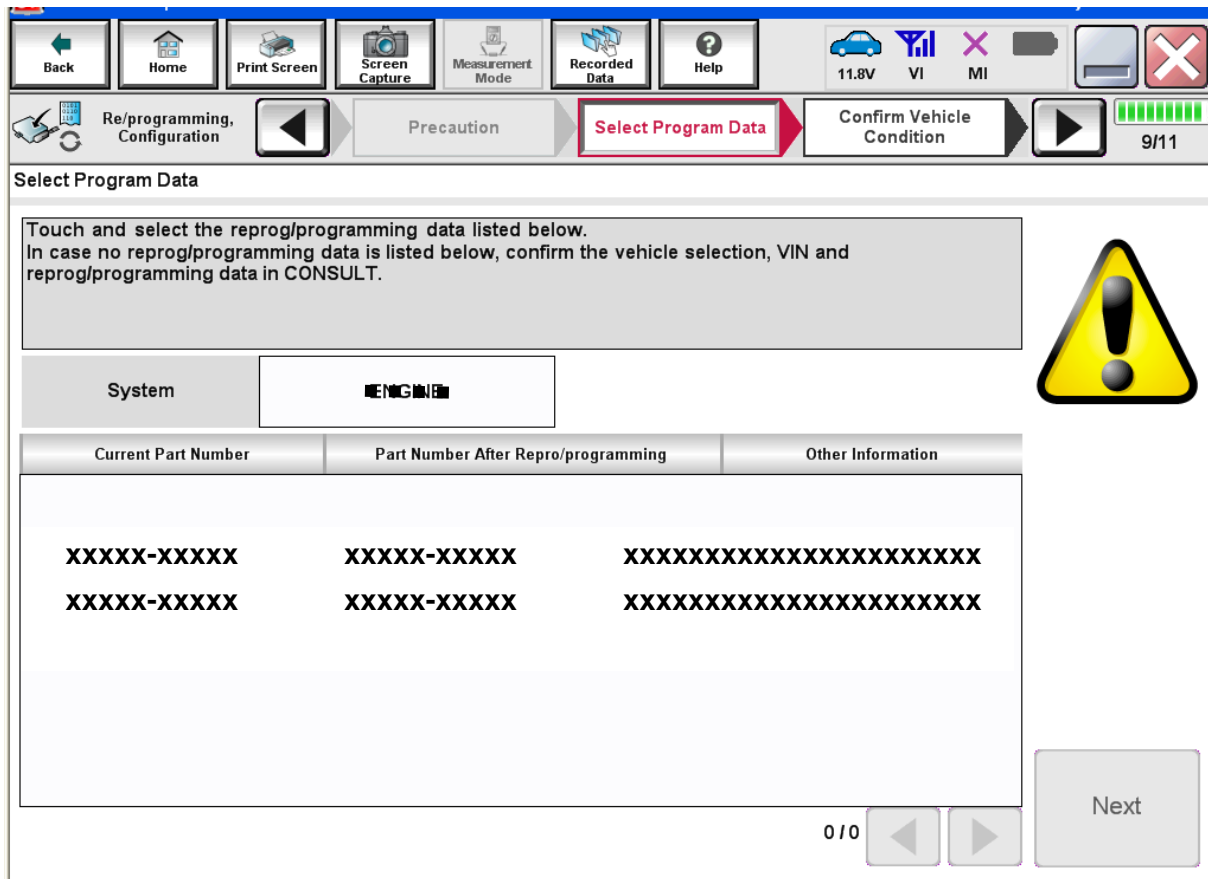


Figure 14

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

30. Select **Next**.

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

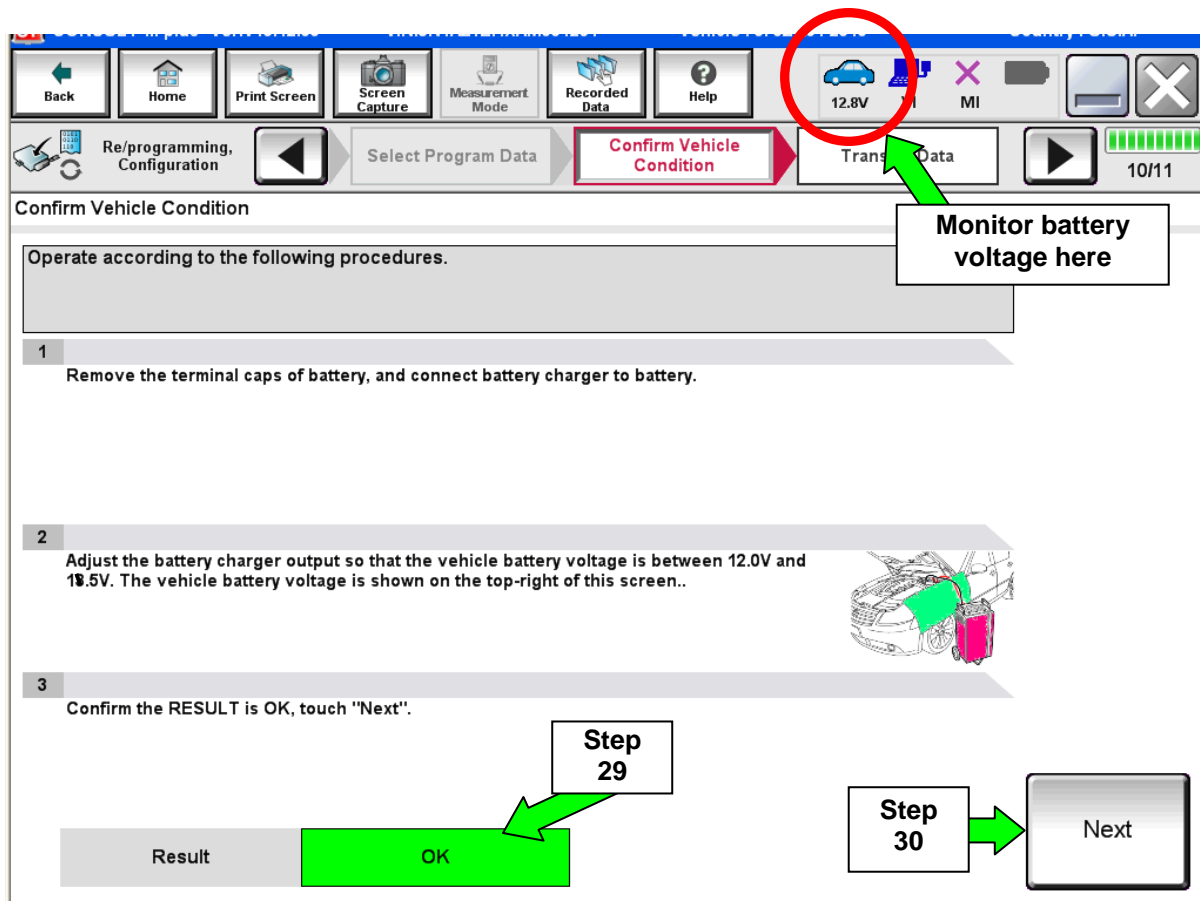


Figure 15

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

31. Select **Start**.

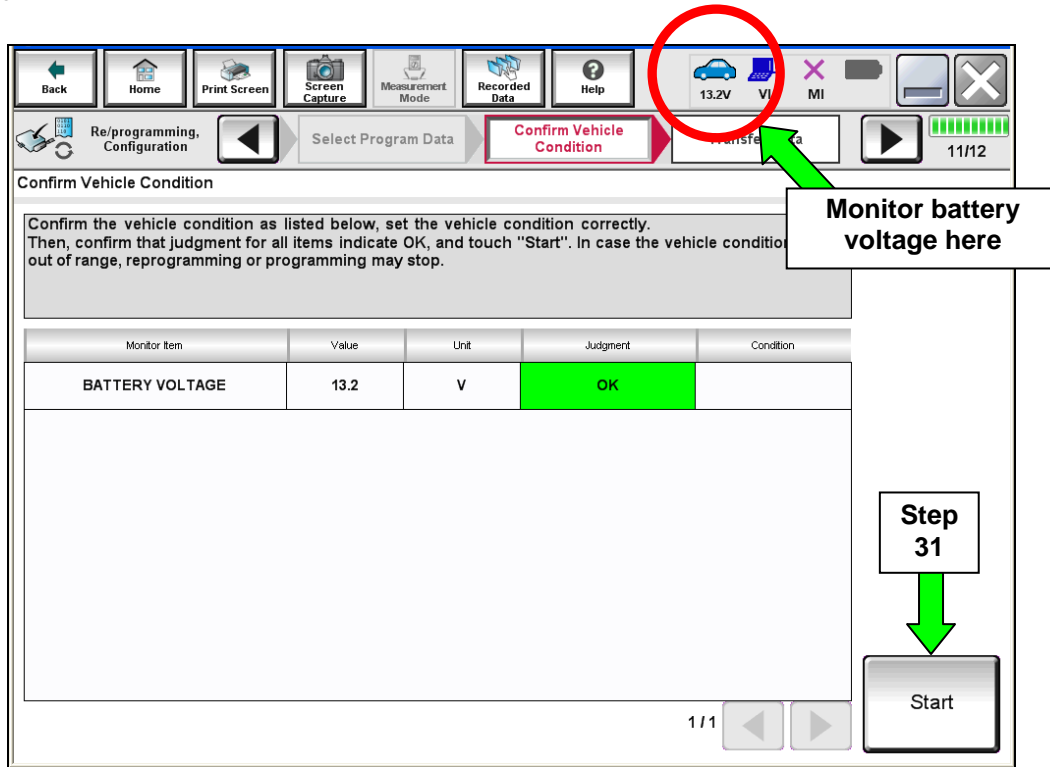


Figure 16

32. Wait for both progress bars to complete.

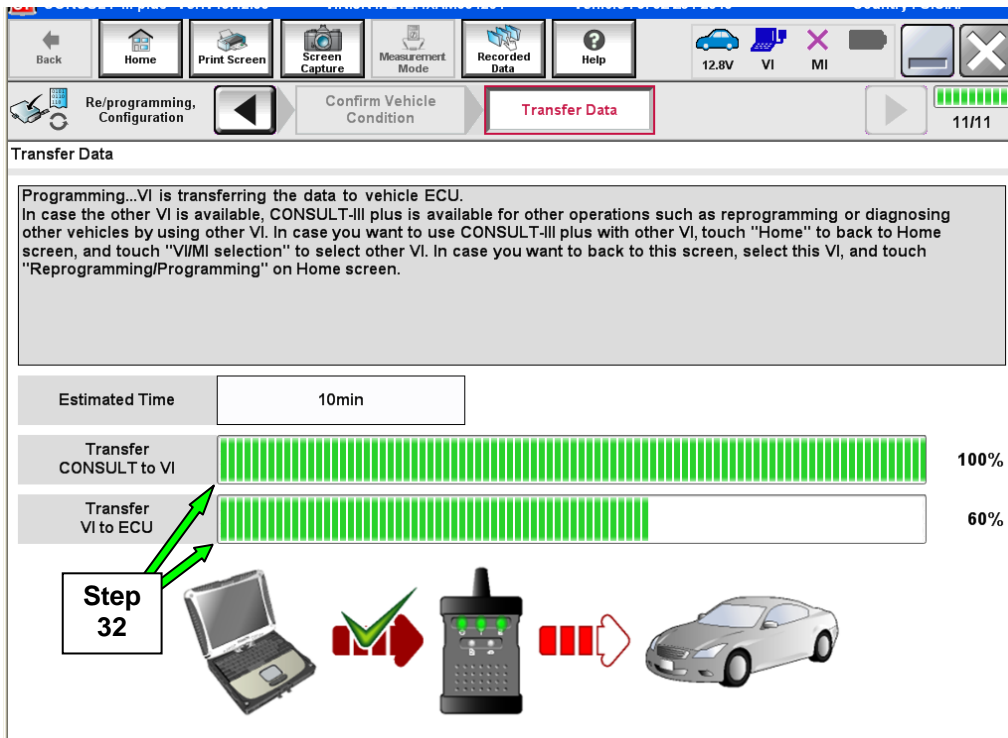


Figure 17

**NOTE:** If the message shown in Figure 18 appears, there is data stored in the plus VI. Select “Yes” to proceed with reprogramming.

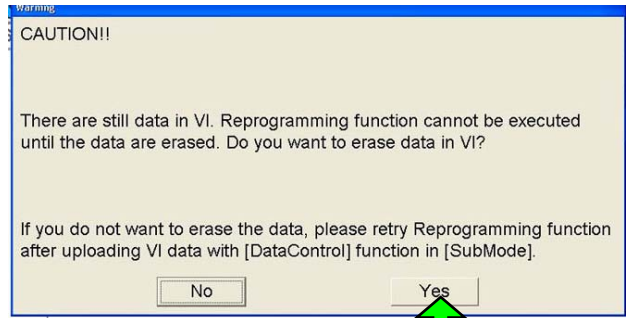


Figure 18

33. When the screen in Figure 19 displays, the reprogramming is complete.

**NOTE:** If the screen in Figure 19 does not display (reprogramming does not complete), refer to the information on the next page.

34. Disconnect the battery charger from the vehicle.

35. Select **Next**.

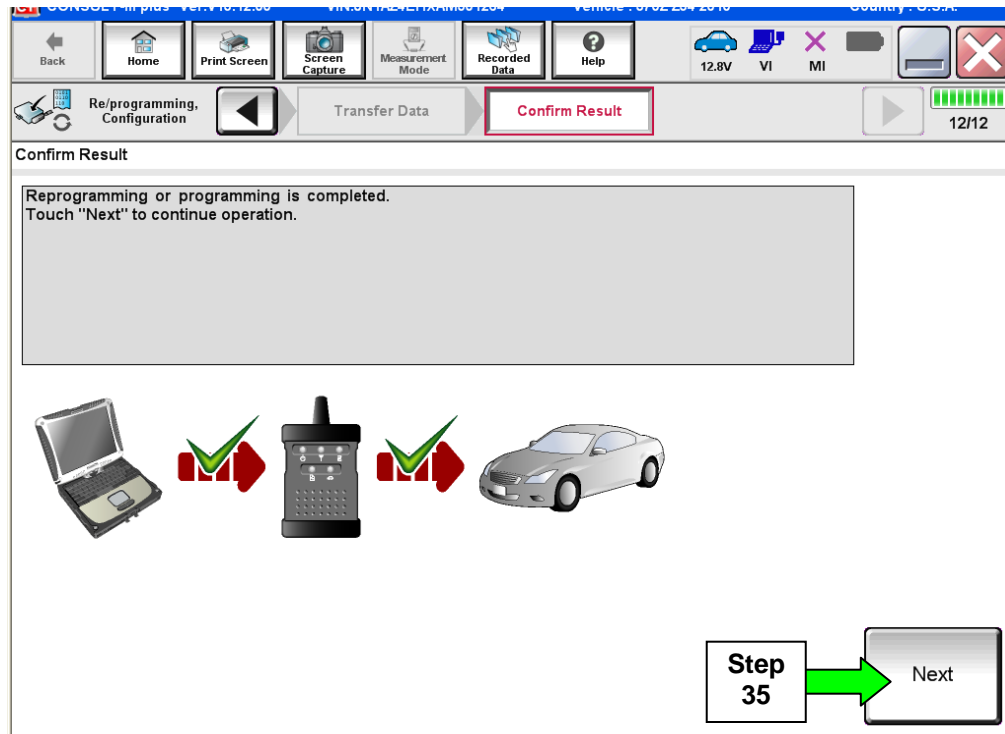


Figure 19

**NOTE:** Additional steps/operations are required before C-III plus will provide the final reprogramming confirmation report. Continue with the reprogramming procedure on page 17.

If reprogramming does not complete and the “!?” symbol displays as shown in Figure 20:

- Check battery voltage (12.0 – 15.5V).
- 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.**

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

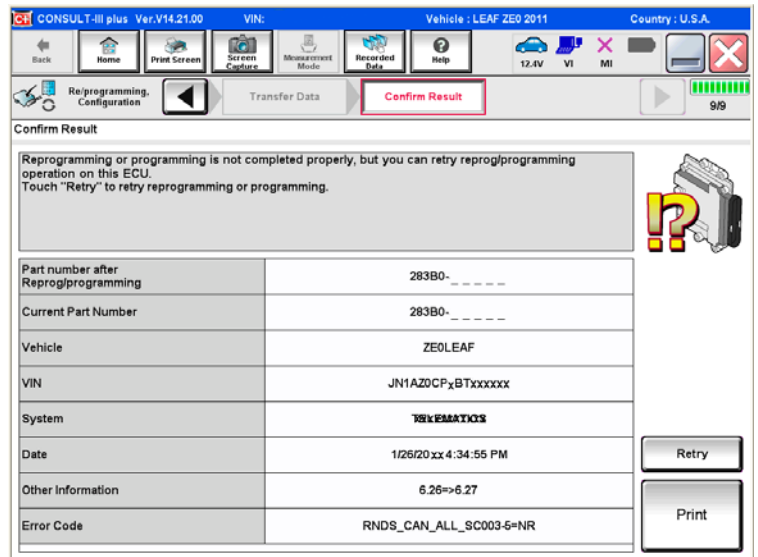


Figure 20

If reprogramming does not complete and the “X” symbol displays as shown in Figure 21:

- **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 is ON, Ready Mode is 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.**

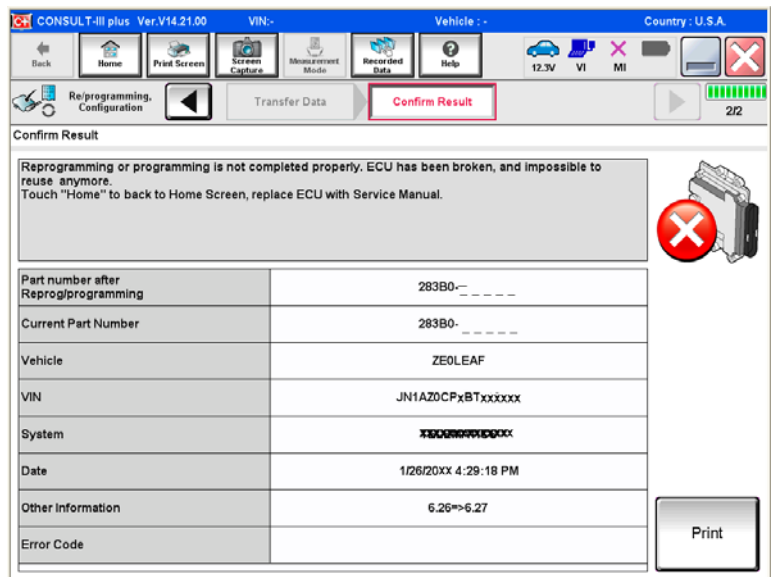


Figure 21



36. For **ECM** reprogramming: Perform **Throttle Valve Closed Position** procedure.

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

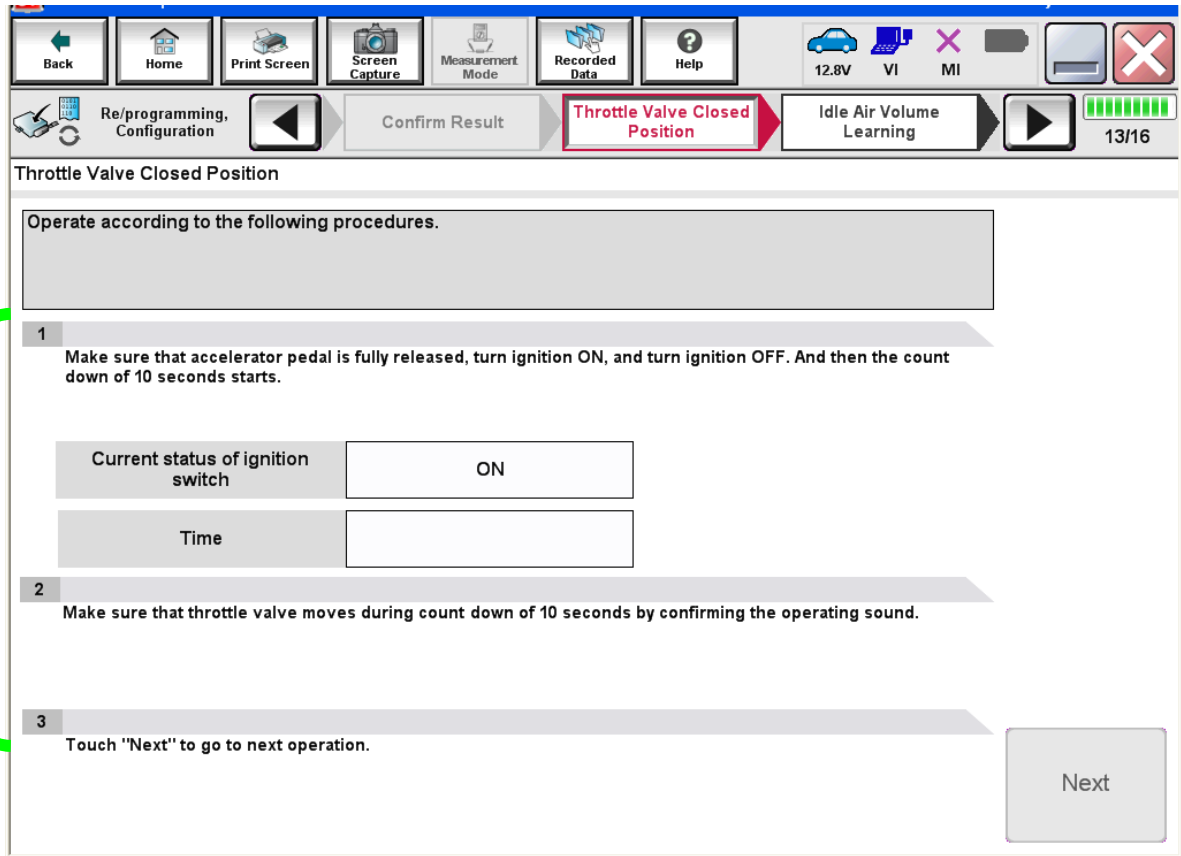


Figure 22

37. For **ECM** reprogramming: Perform **Idle Air Volume Learn (IAVL)**.

a. 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.

b. Select **Next**.

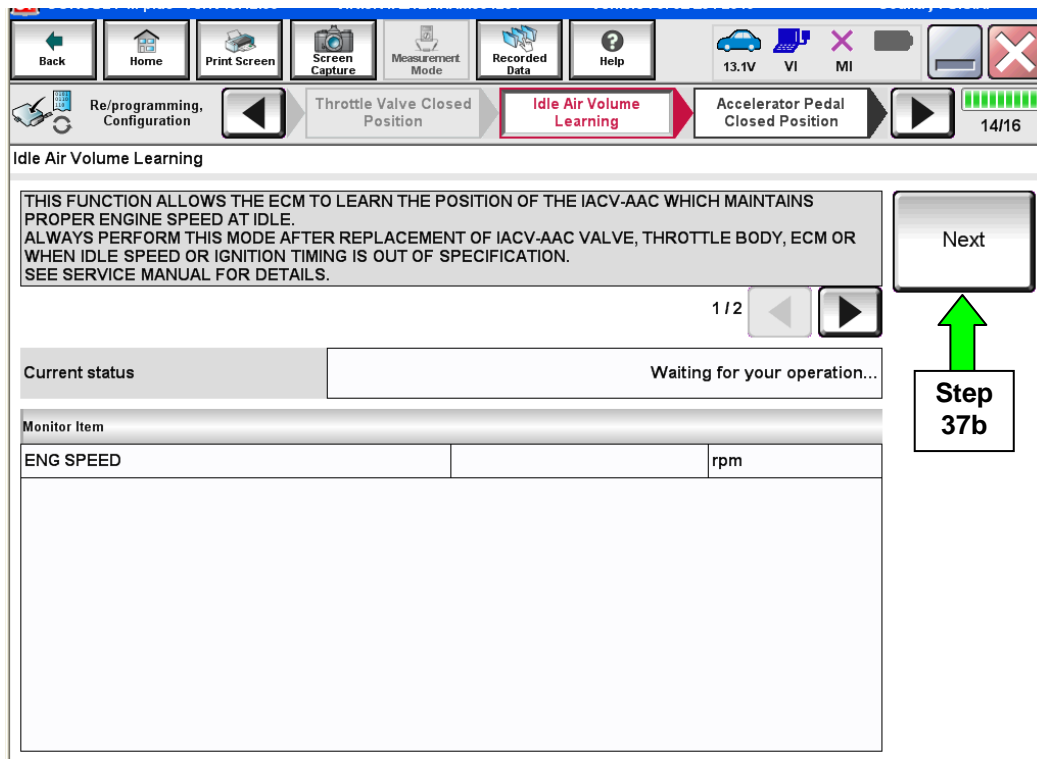


Figure 23

c. Select **Start**.

d. Wait for IAVL to complete.

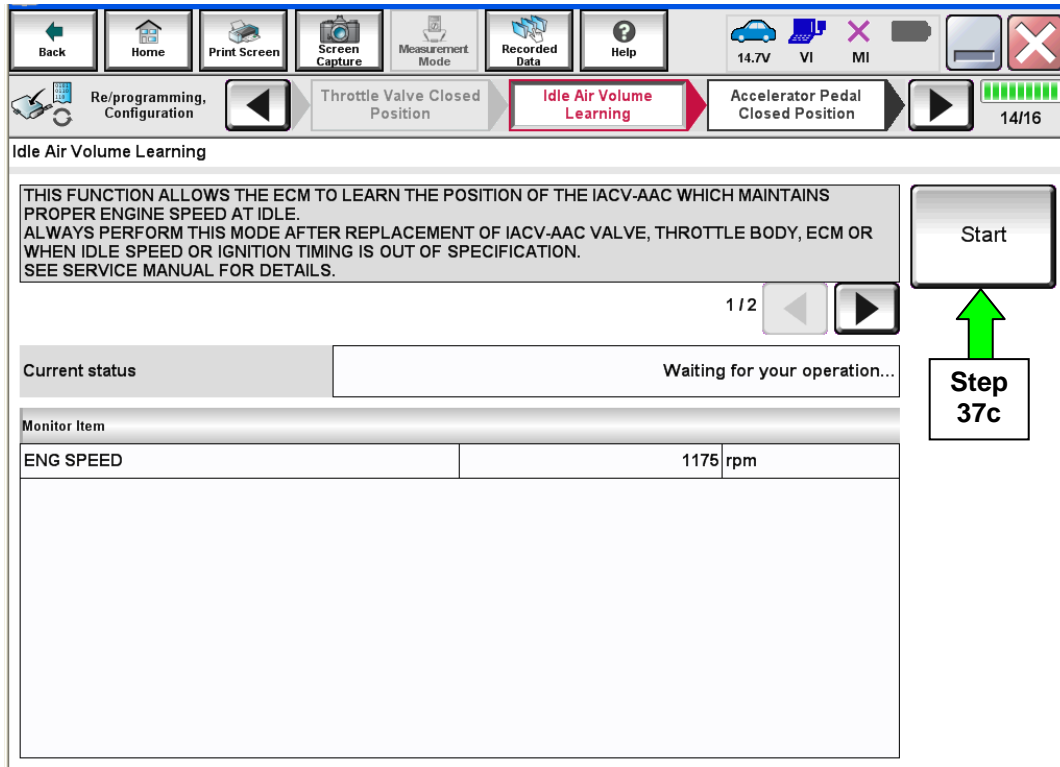


Figure 24

**NOTE:**

- Listed below are common required conditions for IAVL to complete.
- If IAVL does not complete within a few minutes, a condition may be out of range.
- 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)
  - Steering wheel: Neutral (Straight-ahead position)
  - Vehicle speed: Stopped
  - Transmission: Warmed up

e. Select **Next**.

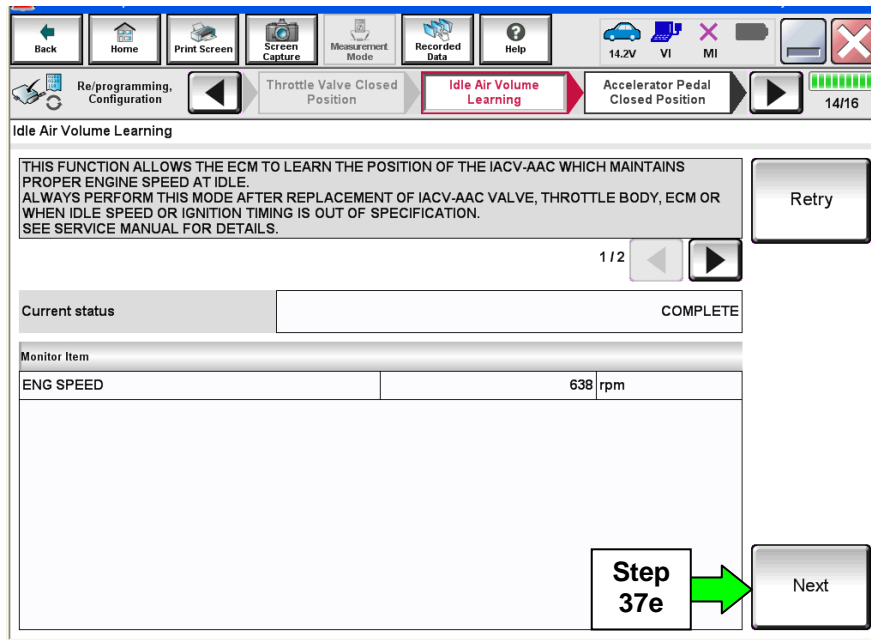


Figure 25

38. For **ECM** reprogramming: Follow the on screen instructions to complete **Accelerator Pedal Close Position Learning**.

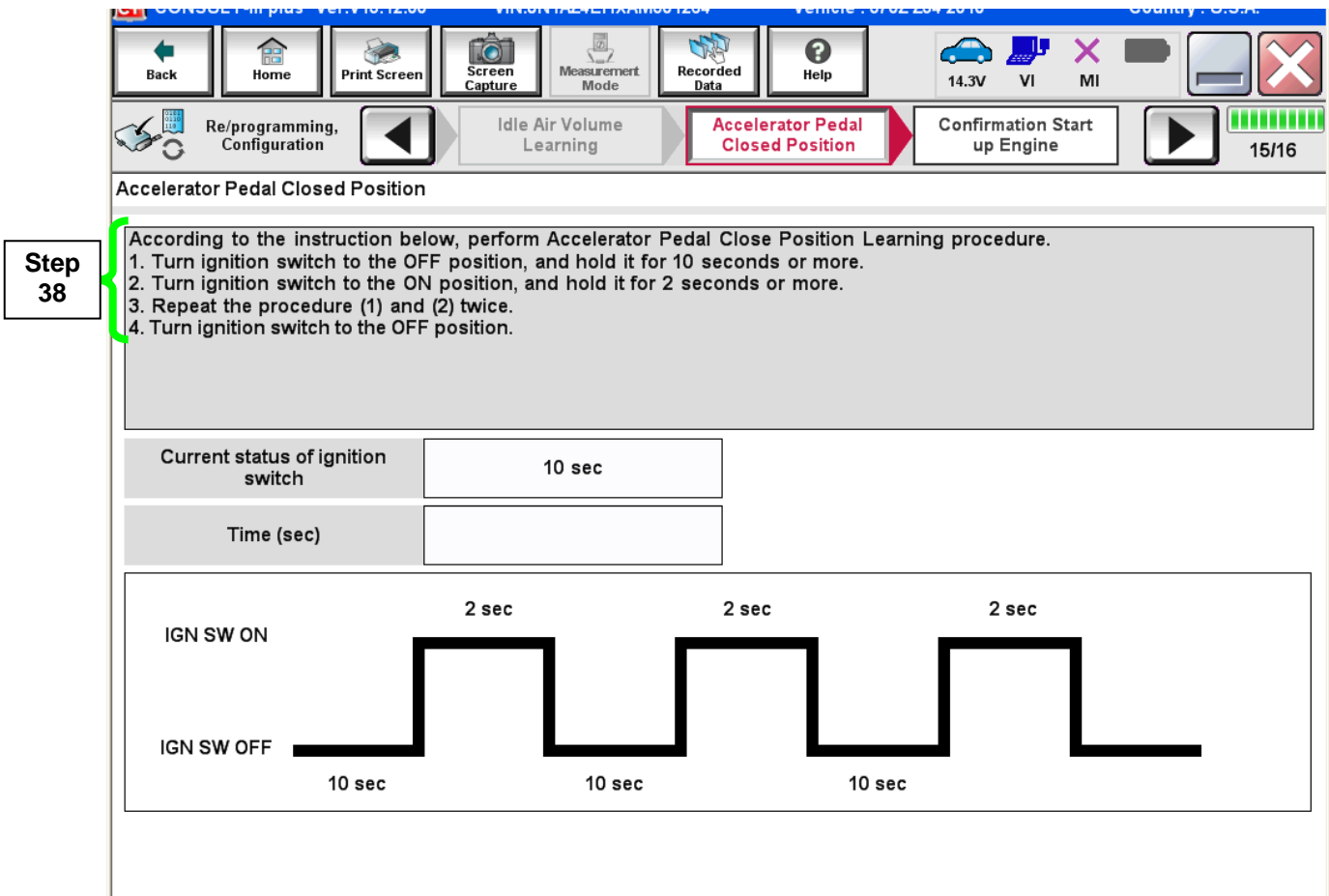


Figure 26

39. **Erase all DTCs** as follows:

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

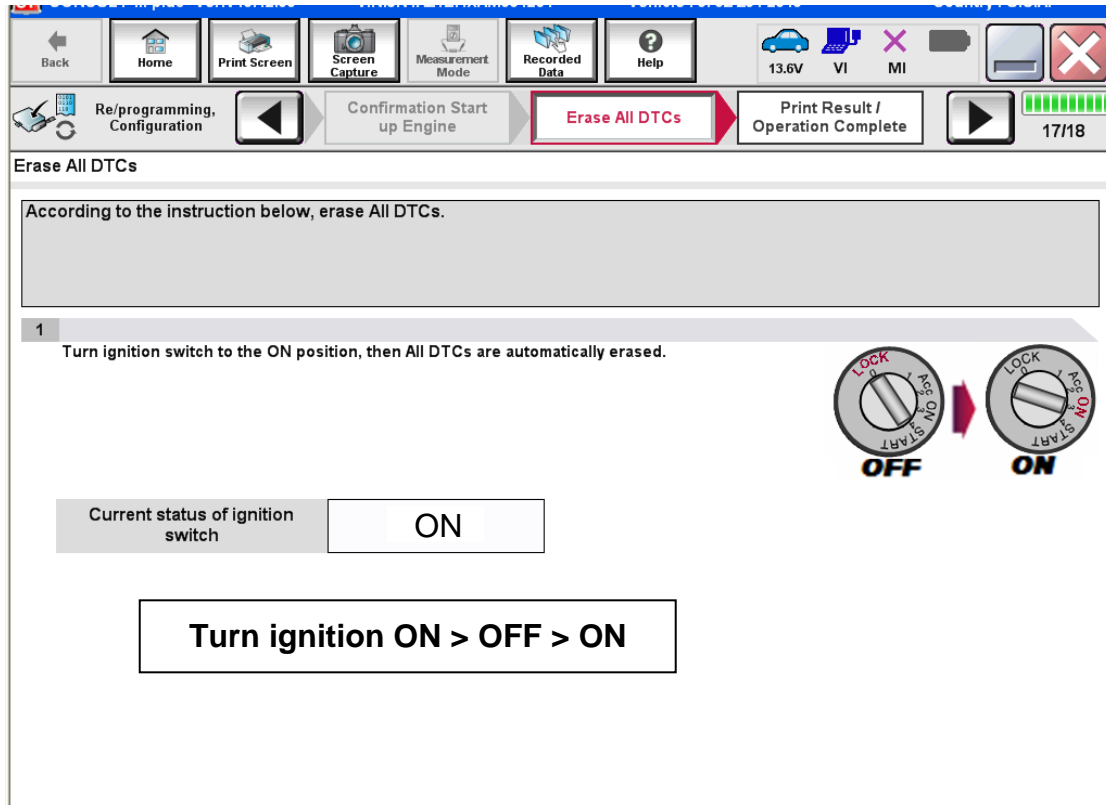


Figure 27

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

41. Print a copy of this screen (Figure 28) and attach it to the repair order.

42. Select **Confirm**.

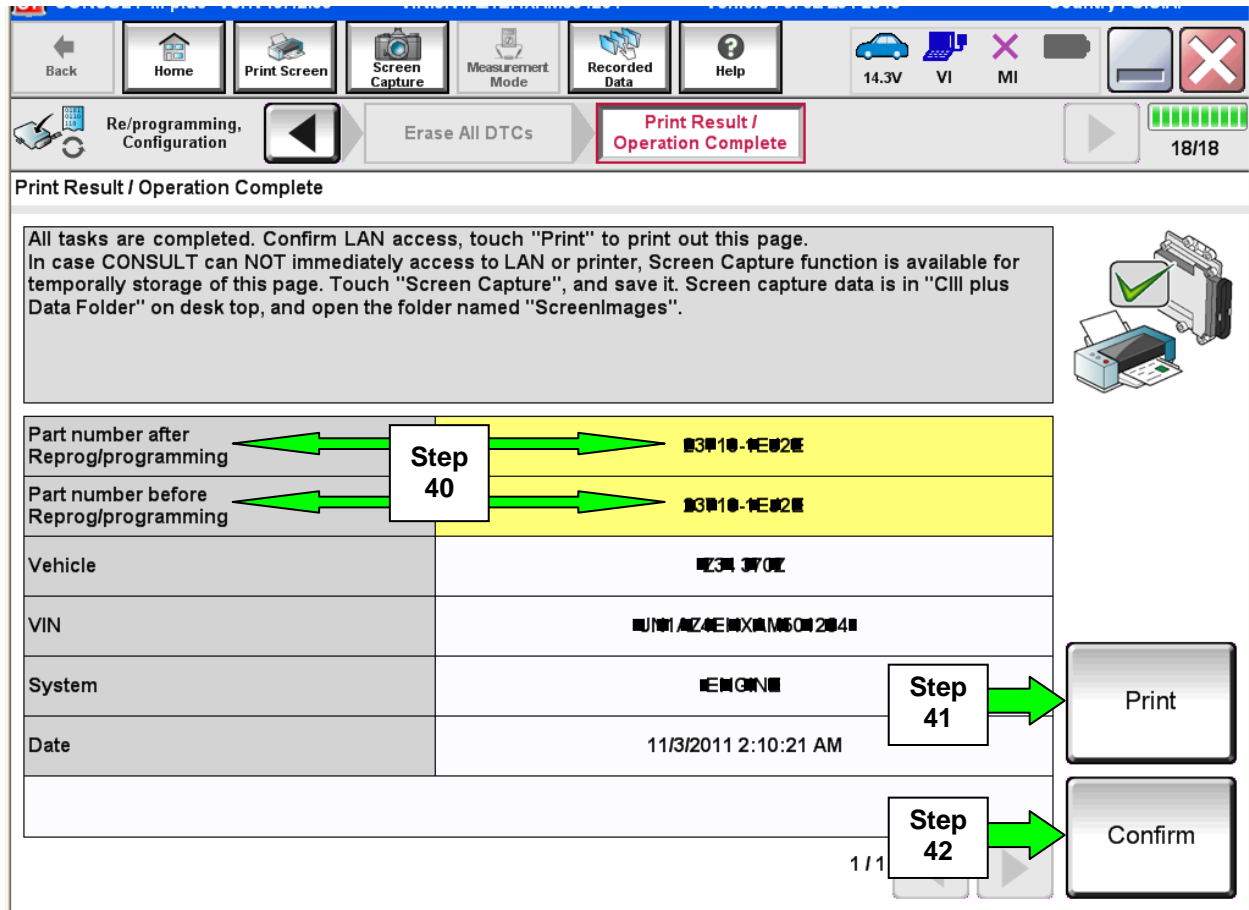


Figure 28

**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.

43. Close C-III plus.

44. Turn the ignition OFF.

45. Disconnect the plus VI from the vehicle.