Technical Bulletin

SERVICE BULLETIN

Classification:	Reference:	Date:
EC12-029	NTB12-094	November 9, 2012

2013 GT-R;
LACK OF POWER AND SPARK KNOCK WITH 91 OCTANE FUEL

APPLIED VEHICLE: 2013 GT-R (R35)

IF YOU CONFIRM

Spark knock and/or lack of power,

and

91 AKI (Anti-Knock Index) number (Research octane number 96) is the highest octane fuel in your area.

> **NOTE:** Use unleaded premium gasoline with an octane rating of at least 93 AKI (Anti-Knock Index) number (Research octane number 98) to maximize vehicle performance. If premium gasoline of at least 93 AKI number (Research octane number 98) is not available, you may use unleaded premium gasoline with an octane rating of at least 91 AKI number (Research octane number 96), but you may notice a decrease in performance. Do not use gasoline with an octane rating lower than 91 AKI (Research octane number 96).

ACTION

1. Refer to step 6 in the SERVICE PROCEDURE to confirm this bulletin applies to the vehicle you are working on.

2. If this bulletin applies, reprogram the ECM.

> **NOTE:** This reprogram will minimize the decrease in performance when using fuel with 91 AKI number (Research octane number 96), and will not affect maximum performance when using unleaded premium gasoline with an octane rating of at least 93 AKI number (Research octane number 98).

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 this repair.

CLAIMS INFORMATION

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

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Reprogram Engine Control Module	(1)	DE97AA	ZE	32	(2)

(1) Reference the Repair Order and use the **<u>current</u>** ECM P/N written down in step 6 of the **SERVICE PROCEDURE** as the PFP.

(2) Reference the current Nissan Warranty Flat Rate Manual and use the indicated FRT.

SERVICE PROCEDURE

- Make sure your CONSULT-III plus (C-III plus) has been freshly synchronized/updated.

- Most instructions for reprogramming with C-III plus are displayed on the CONSULT PC screen.

- If you are not familiar with the reprogramming procedure, **click here**. This will link you to the "CONSULT- III plus (C-III plus) ECM Reprogramming" general procedure.

Preparation for Reprogramming

- Take the vehicle for a 10 minute drive in order to meet the following Idle Air Volume Learn (IAVL) conditions:

  - ➢ Engine coolant temperature: 70 -100°C (158 - 212°F)

  - ➢ Battery voltage: More than 12.9V (At idle)

  - ➢ Transmission: Warmed up

Figure A

> **NOTE:**

- After ECM reprogramming is complete, you will be required to perform Throttle Valve Closed Position, Idle Air Volume Learn (IAVL), and Accelerator Closed Position.

- The above conditions are required for the IAVL to complete.

CAUTION:

- Connect a battery charger to the vehicle battery.
  If the vehicle battery voltage drops below 12.0V or above 15.5V during reprogramming, the ECM may be damaged.

- Be sure to turn OFF all vehicle electrical loads.
  If a vehicle electrical load remains ON, the ECM may be damaged.

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

- Turn off all external Bluetooth® devices (e.g., cell phones, printers, etc.) within range of the CONSULT PC and the VI. If Bluetooth® signal waves are within range of the CONSULT PC during reprogramming, reprogramming may be interrupted and the ECM may be damaged.

1. Connect the CONSULT PC to the vehicle to begin the reprogramming procedure.

2 Open ASIST on the CONSULT PC and start C-III plus.

3. Wait for the plus VI to be recognized / connected.

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

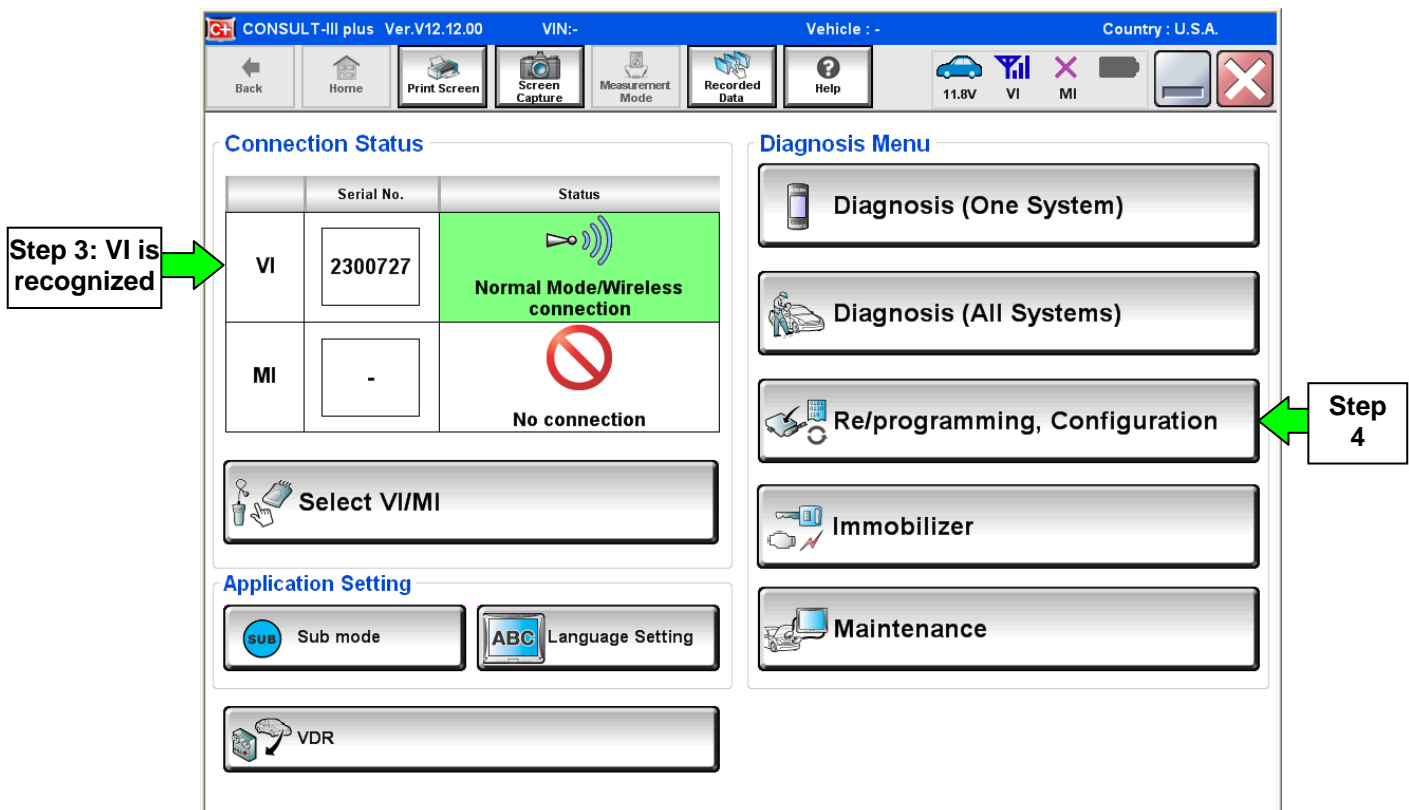4. Select **Re/programming, Configuration**.

Figure 1

5. Follow the C-III plus on-screen instructions and navigate to the screen shown in Figure 2 on the **next page**.

IMPORTANT:

During the initial "Reprogramming Confirmation" set-up, if you get this screen (Figure 3):

1. Select **Delete**, then

2. Select **Other Operation**, then

3. Continue with the reprogramming procedure.

NOTE: If reprogramming does not complete, this screen can display for reprogramming recovery. Do not select Delete if this screen displays during reprogram recovery.
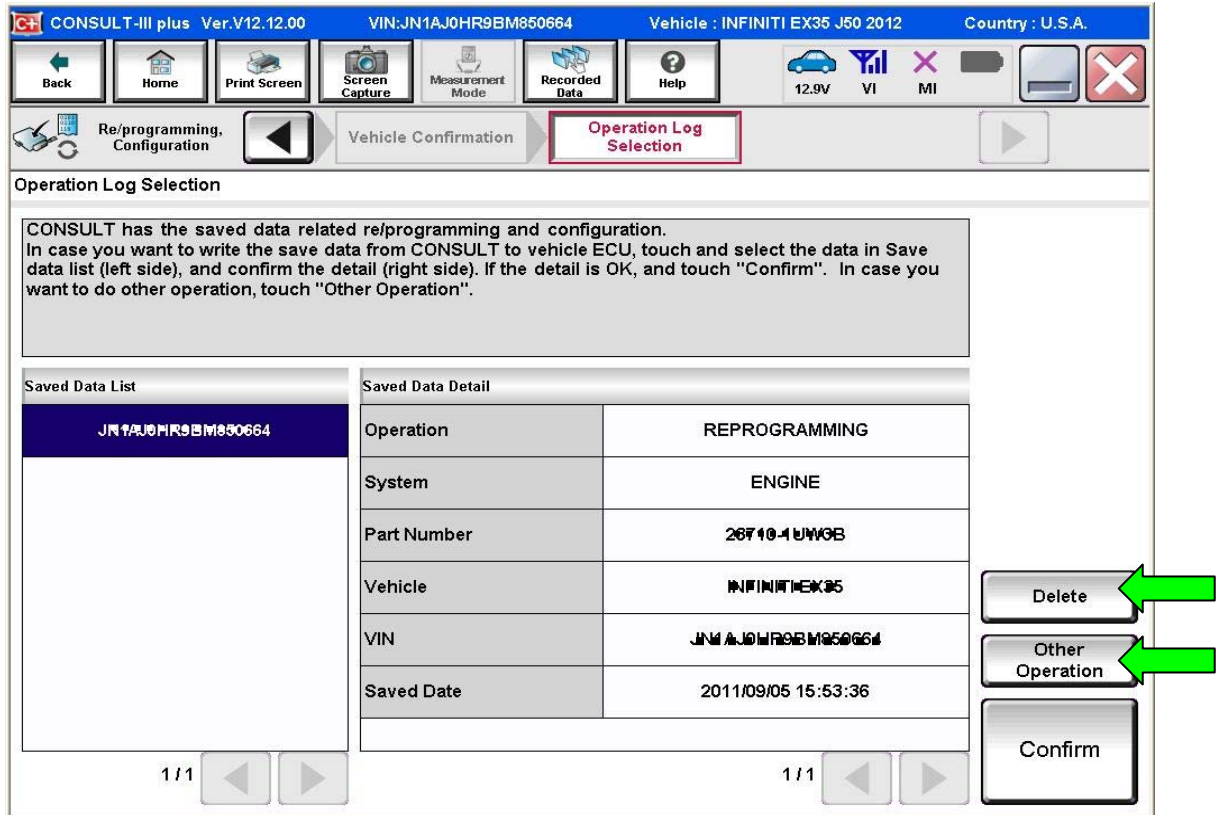

Figure 1A

6. When you get to the screen shown in Figure 2, confirm this bulletin applies as follows.

A. Find the ECM **Part Number** and write it on the repair order.

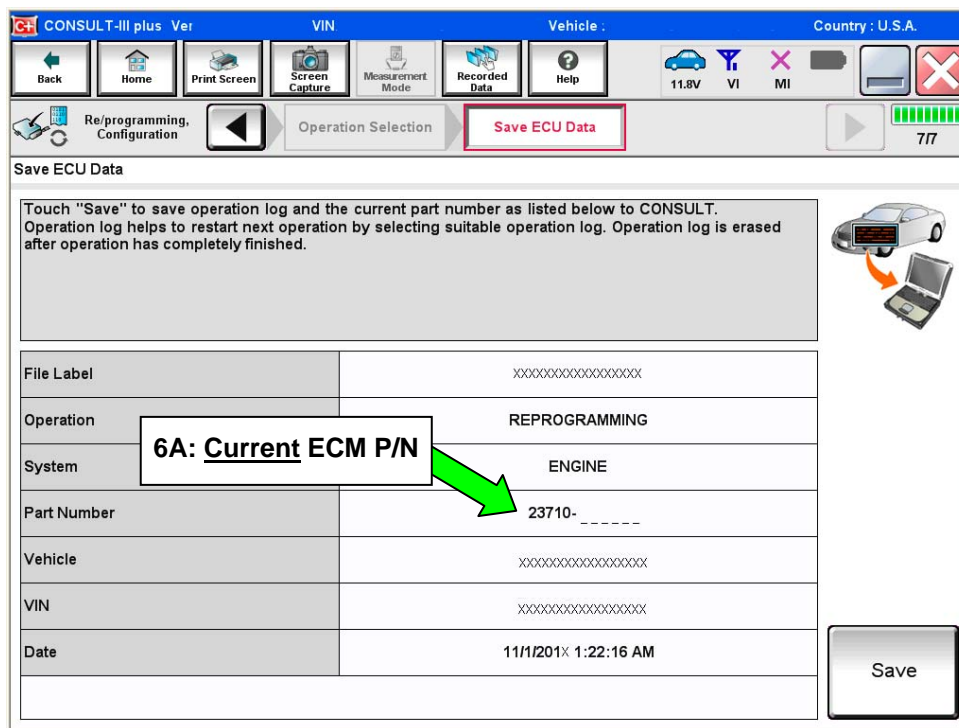   **NOTE:** This is the current ECM Part Number (P/N).

Figure 2

B. Compare the P/N you wrote down to the numbers in the **Current ECM Part Number** column in **Table A**.

- If there is a match, this bulletin applies. Continue with the reprograming procedure.

- If there is not a match, this bulletin does not apply. Close C-III plus and refer to ASIST for further diagnostic information.

Table A

Model	Current ECM Part Number
2013 GT-R	23710 -KJ12A

7. Follow the on-screen instructions to navigate C-III plus and reprogram the ECM.

NOTE:

- In some cases, more than one new P/N for reprogramming is available.

  - In this case, the screen in Figure 3 displays.

  - Select and use the reprogramming option that **does not** have the message "Caution! Use ONLY with NTBXX-XXX".

- If you get this screen and it is <u>blank</u> (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.
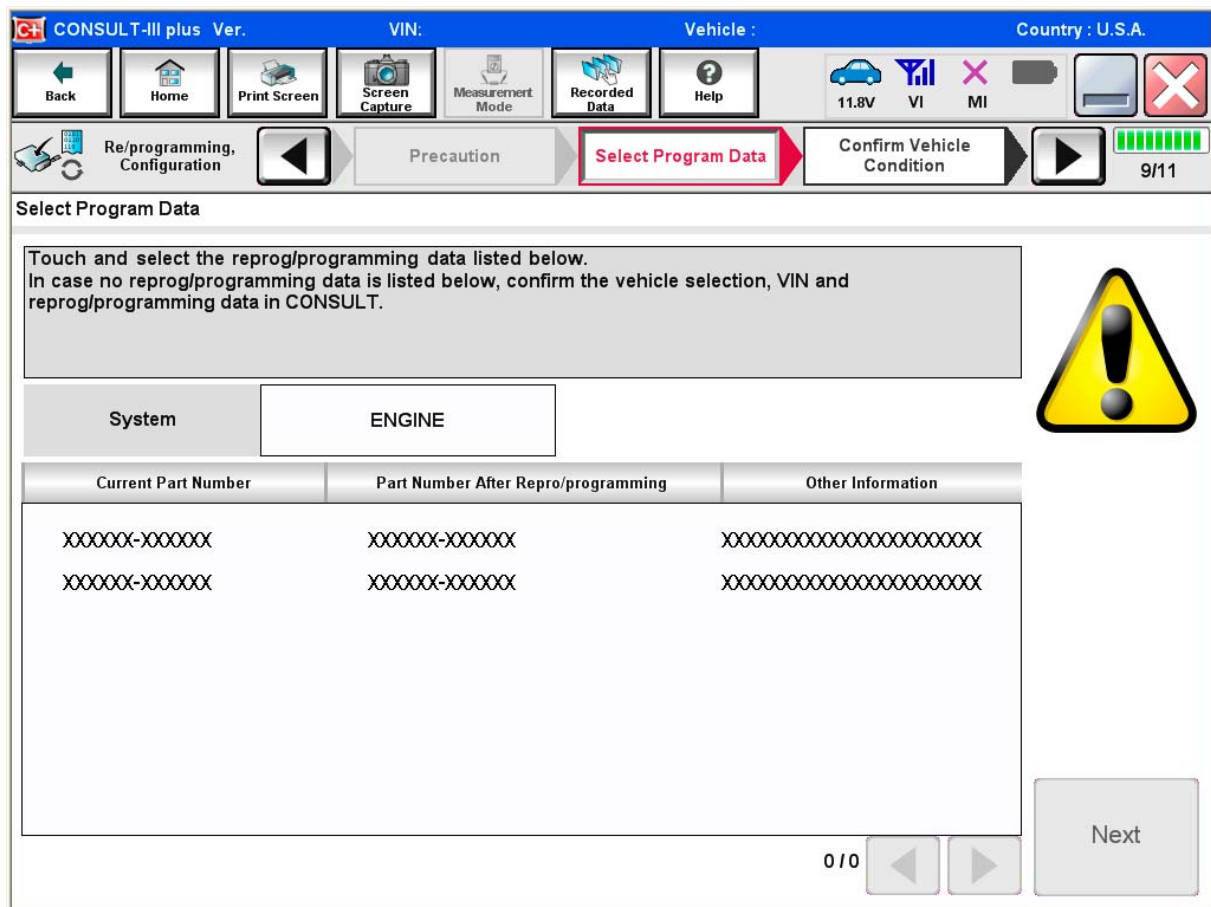

Figure 3

8. When the screen in Figure 4 displays, reprogramming is complete.

   NOTE: If the screen in Figure 4 does <u>not</u> display (reprogramming does <u>not</u> complete), refer to the information on page 8.

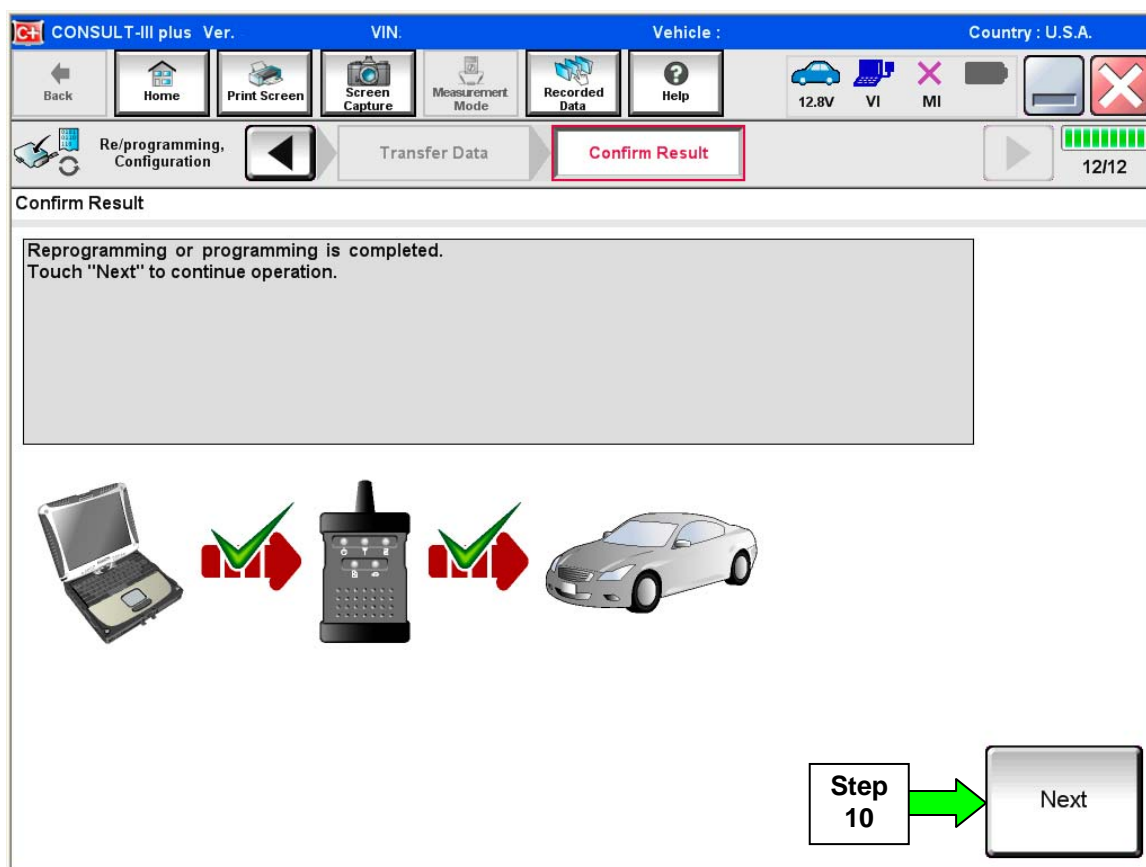9. Disconnect the battery charger from the vehicle.

10. Select **Next**.

Figure 4

NOTE:

- In the next steps on page 9, you will perform Throttle Valve Closed Position, Idle Air Volume Learn, Accelerator Closed Position, and DTC erase.

- These operations are required before C-III plus will provide the final reprogramming confirmation report.

ECM recovery:

Do not disconnect plus VI or shut down C-III plus if reprogramming does not complete.

If reprogramming does not complete and the "!?" icon displays as shown in Figure 5:

- Check battery voltage (12.0–15.5 V)

- Ignition is ON, engine OFF

- External Bluetooth® devices are OFF

- All electrical loads are OFF

- **Select retry and follow the on screen instructions**.

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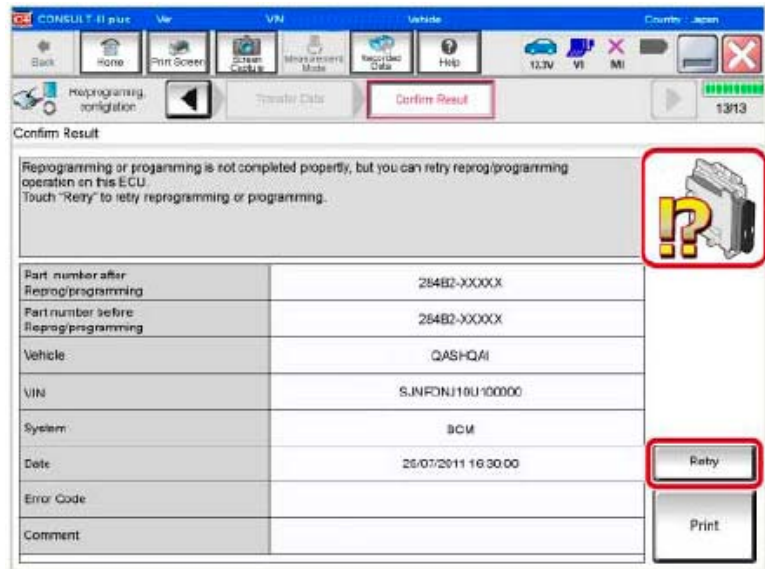

Figure 5

If reprogramming does not complete and the "X" icon displays as shown in Figure 6:

- Check battery voltage (12.0 – 15.5 V)

- CONSULT A/C adapter is plugged in

- Ignition is ON, engine OFF

- Transmission is in Park

- All C-III plus / VI cables are securely connected

- All C-III plus updates are installed

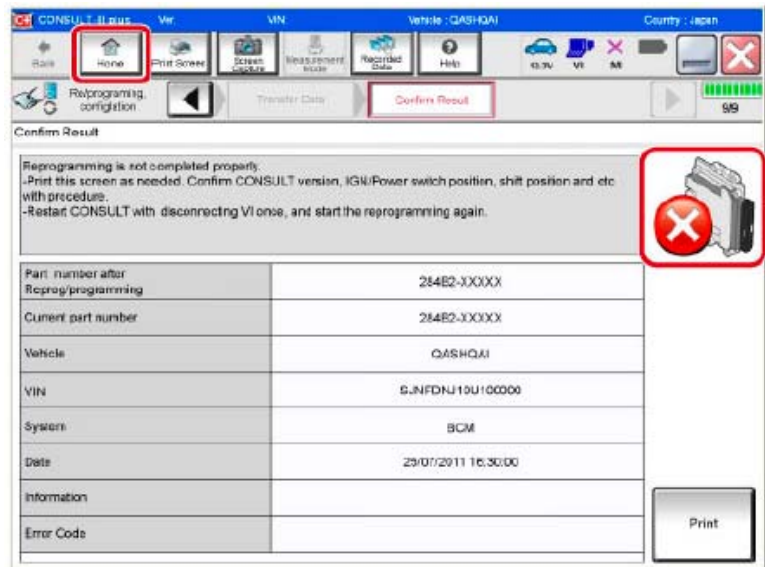- **Select Home, and restart the reprogram procedure from the beginning**.

Figure 6

11. Follow the on-screen instructions to perform the following:

- **Throttle Valve Closed Position**

- **Idle Air Volume Learn (IAVL)**

    NOTE:

    o **Listed below are common conditions required for IAVL to complete.**

    o **If IAVL does not complete within a few minutes, a condition may be out of range.**

    ➢ Engine coolant temperature: 80 -100° C (176 - 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

- **Accelerator Pedal Close Position Learning**

- **Erase DTCs**

Continue to the next page.

12. When the entire reprogramming process is complete, the screen in Figure 7 will display.

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

14. Print a copy of this screen (Figure 7) and attach it to the repair order for warranty documentation.

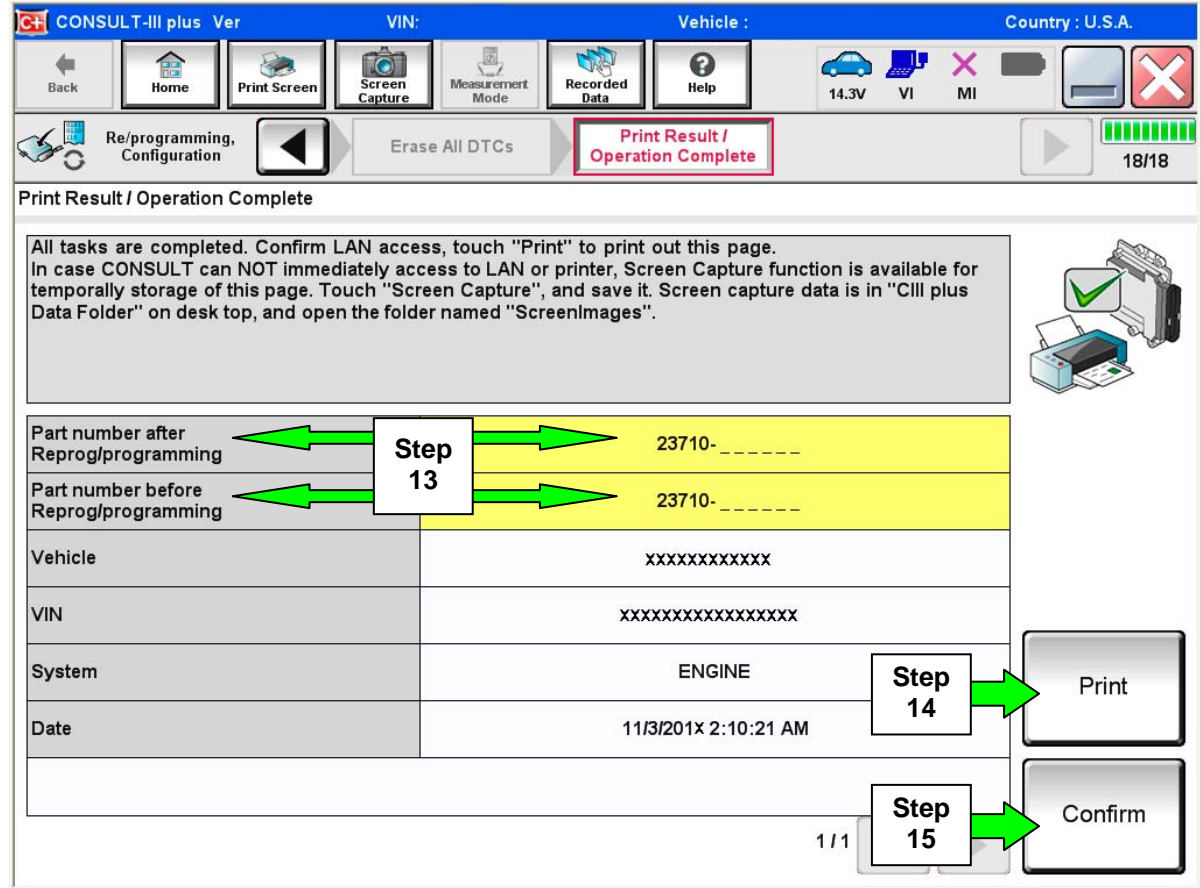15. Select **Confirm**.

Figure 7

16. Close C-III plus.

17. Turn the ignition OFF.

18. Disconnect the plus VI from the vehicle.

19. Test drive the vehicle; make sure it operates correctly and the MIL is OFF.
    - If the MIL comes ON, go back to ASIST for further diagnostic information.
    - Diagnosis and repairs beyond ECM reprogramming are not covered by this bulletin.