Reference:	**Date:**
ITB16-022	June 29, 2016

VOLUNTARY SAFETY RECALL CAMPAIGN
2014 – 2016 Q50 AND Q50 HYBRID
DIRECT ADAPTIVE STEERING SYSTEM SOFTWARE UPDATE

CAMPAIGN ID #:   R1610

NHTSA #:   16V-430

APPLIED VEHICLES: 2014 – 2016 Q50 (V37)
2014 – 2016 Q50 Hybrid (V37)

> **Check Service COMM to confirm campaign eligibility.**
> * There are **multiple bulletins with different campaign ID numbers for the DAST system.**
> * **Each bulletin is applicable to specific vehicles.**
> * **Make sure the correct bulletin (Campaign ID #) is being used.**

INTRODUCTION

Infiniti is conducting a Voluntary Safety Recall Campaign on certain specific Model Year 2014 – 2016 Q50 and Q50 Hybrid vehicles to reprogram the Direct Adaptive Steering System (DAST). This service will be provided at no charge to the customer for parts or labor.

IDENTIFICATION NUMBER

Infiniti has assigned identification number R1610 to this campaign. This number must appear on all communication and documentation of any nature dealing with this campaign.

DEALER RESPONSIBILITY

It is the dealer's responsibility to check Service COMM for the campaign status on each vehicle falling within the range of this voluntary safety recall which for any reason enters the service department. This includes vehicles purchased from private parties or presented by transient (tourist) owners and vehicles in a dealer's inventory. **Federal law requires that new vehicles in dealer inventory which are the subject of a safety recall must be corrected prior to sale. Failure to do so can result in civil penalties by the National Highway Traffic Safety Administration.** While federal law applies only to new vehicles, Infiniti strongly encourages dealers to correct any used vehicles in their inventory before they are retailed.

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.

SERVICE PROCEDURE

IMPORTANT: Make sure this campaign (R1610) applies to the vehicle you are working on by using the VIN and checking Service COMM.

1. **Before continuing, it is IMPORTANT to make sure:**

   - **ASIST on the CONSULT PC has been freshly synchronized (updated).**

   - **All CONSULT related software updates (if any) have been installed.**

     NOTE: The CONSULT PC automatically gets all reprogramming software during ASIST synchronization.

CAUTION:
- Connect the GR8 to the vehicle 12 volt battery and set to ECM power supply mode.
  If the vehicle battery voltage drops below <u>12.0V or rises above 13.5V</u> during reprogramming, <u>DAST may be damaged</u>.

- Be sure to turn OFF all vehicle electrical loads.
  If a vehicle electrical load remains ON, <u>DAST may be damaged</u>.

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

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

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2. Once all ASIST and CONSULT related updates have been performed, attach the CONSULT PC to the vehicle.

   - Connect the plus VI to the vehicle.

   - Connect the AC adapter to the CONSULT PC.

IMPORTANT: Reprogramming Procedure must be performed 3 separate times to reprogram the control units for DAST 1, DAST 2, and EPS/DAST 3.

3. Turn ON the CONSULT PC, and then open CONSULT III plus (C-III plus).

   NOTE: Make sure all applications other than C-III plus are closed.

4. Press the ignition switch twice <u>without</u> depressing the brake pedal.

- The meter and gauges will illuminate.

   CAUTION: <u>Do Not</u> start the engine, the DAST may be damaged. (For Hybrid vehicles, make sure the Ready light is OFF.)

   NOTE: Make sure <u>ALL</u> accessories are turned OFF.

5. Check for stored DTCs in all systems as follows:

   a. Wait for the plus VI to be recognized.
   b. Select **Diagnosis (All Systems)** and **Confirm**.
   c. Wait for **System Call** to complete.
   d. Check for stored DTCs.
      - If no DTCs found, go to step 6.
      - If any DTCs are found stored:
        ➢ Perform diagnosis and repairs related to the stored DTC(s), and then erase the DTC(s).
        ➢ When completed, go to step 6.

   NOTE: Make sure the ignition is not turned OFF between step 5 and step 6.

   INFORMATION: If there are DTCs related to the Brake or Steering systems that are falsely stored and will not erase, perform the following:
   aa. Turn the ignition OFF.
   bb. Disconnect the 12V battery negative cable.
   cc. Wait 5 minutes.
   dd. Reconnect the negative battery cable.
   ee. Restart the **SERVICE PROCEDURE** from the beginning.

6. Go to **Re/programming, Configuration.**

   a. Select the **Home** button, and then **YES** to return to the screen shown in Figure 1.
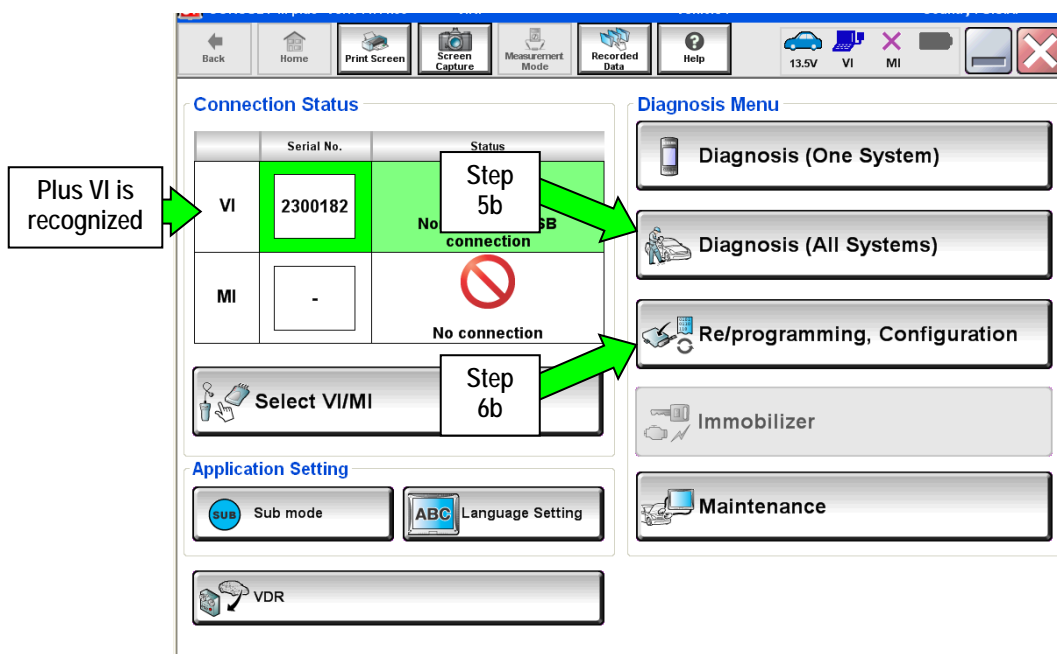   b. Select **Re/programming, Configuration.**

Figure 1

7. Check the box for **Confirmed Instructions**, and then select **Next**.

Figure 2

8. Select the correct model and model year, or **Automatic Selection(VIN)**.

- If **Automatic Selection(VIN)** is selected, or the screen in Figure 3 does not display, skip to step 10.

9. Select **Select**.

Figure 3

10. Verify the **VIN or Chassis #** matches that of the vehicle.
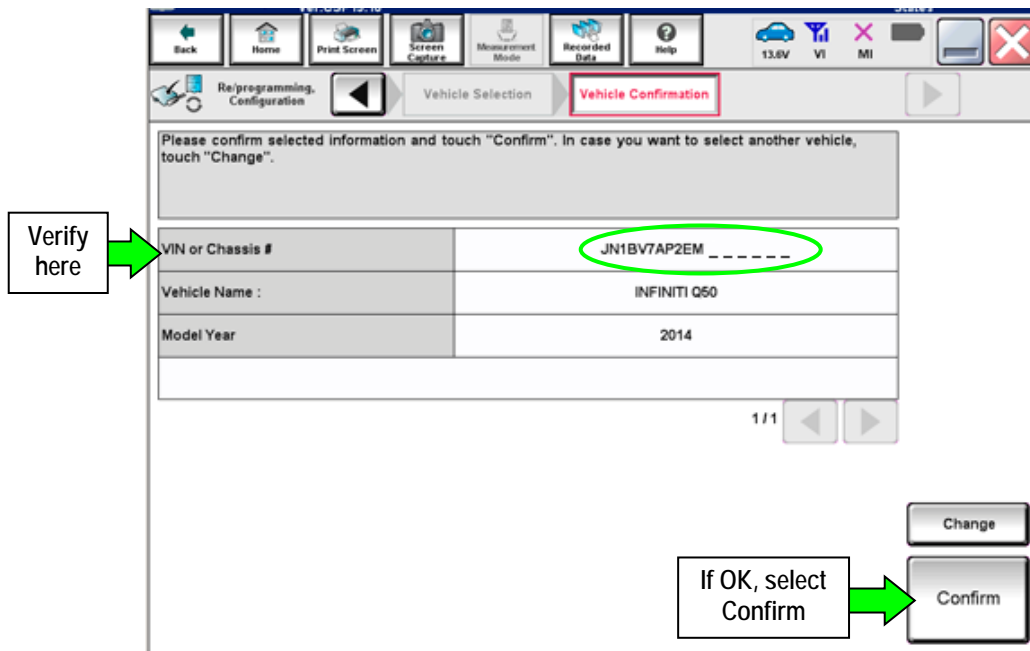
- If the correct VIN is displayed, select **Confirm**.

Figure 4

NOTE: Write the last 6 digits of the VIN on the repair order. You will need it later in the procedure.

11. Select **Confirm** again.
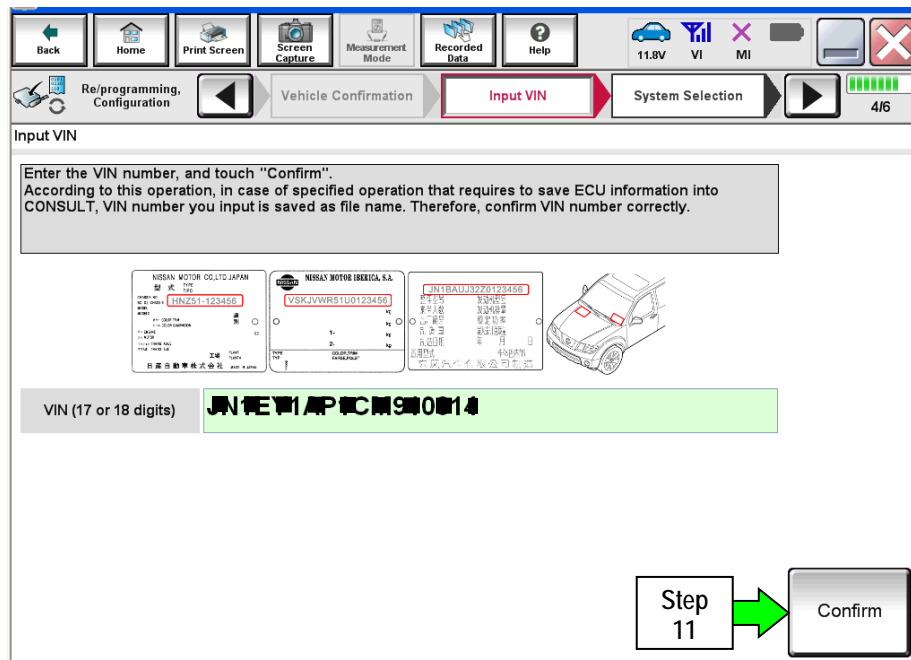
Figure 5

12. Use the page arrows to scroll and **select the correct control unit** to be reprogrammed.

Make sure to reprogram the control units in this order:

DAST 1, then **DAST 2**, and then **EPS/DAST 3**

NOTE: DAST 1 and DAST 2 are shown in Figure 6; EPS/DAST 3 is not shown.
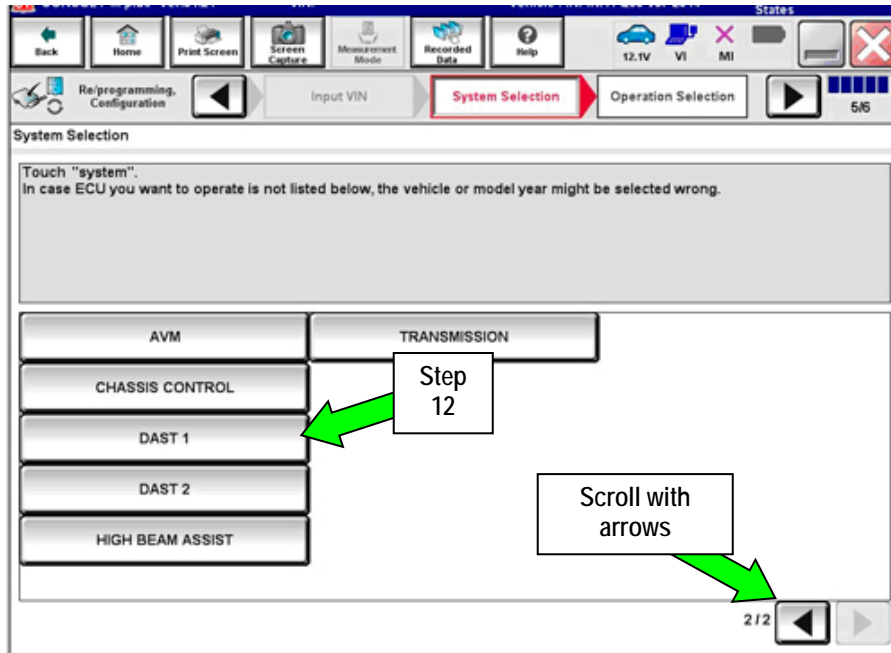
Figure 6

13. Wait for System Call to complete, and then select **Reprogramming**.
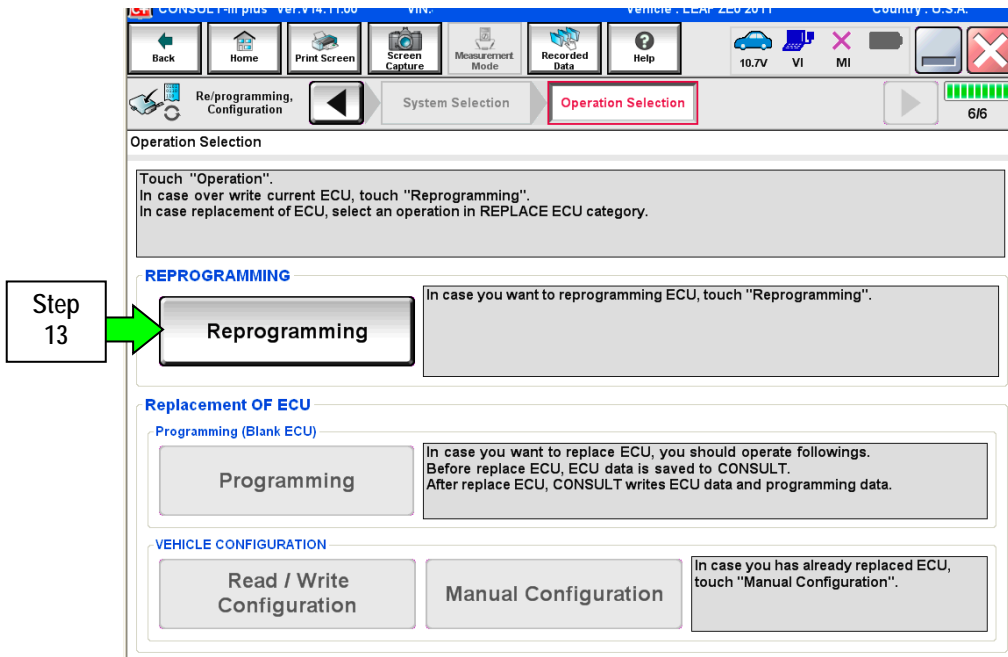
Figure 7

14. When you get to the screen shown in Figure 8, confirm reprogramming applies as follows:

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

   NOTE: This is the current DAST part number (P/N). DAST 1 is shown; DAST 2 and DAST 3 are similar.
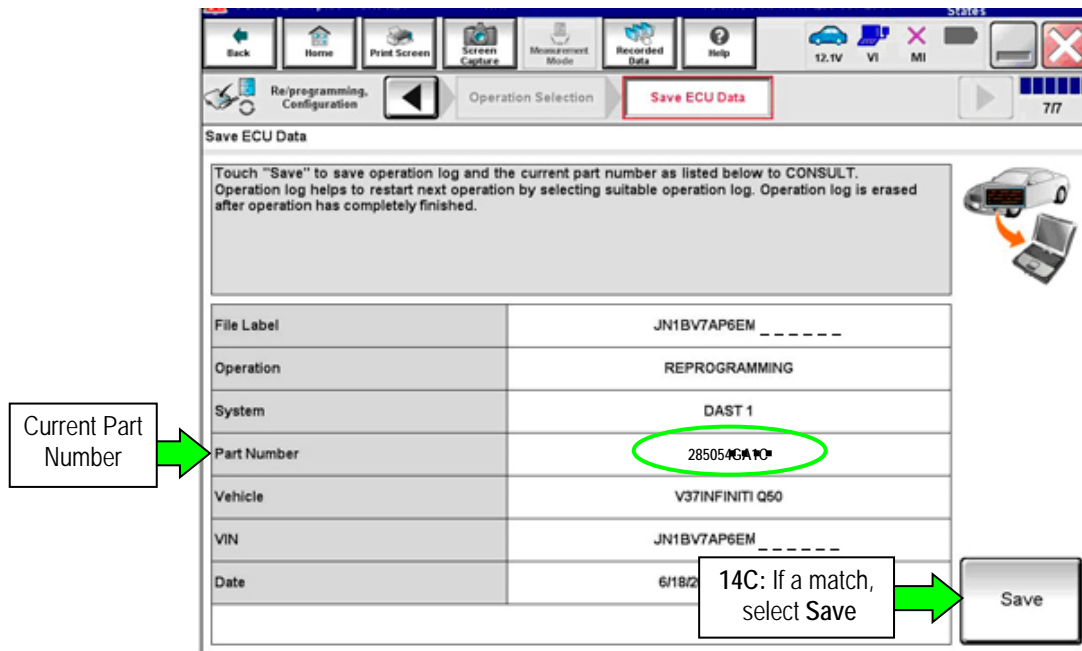
Figure 8

B. Compare the P/N written down earlier to the P/Ns in the **Current Part Number** column of **Table A** on the next page:

   - If there is a match, reprogramming applies. Continue with the reprogramming procedure.

   - If there is not a match, this campaign does not apply or it has already been done.

     NOTE: If there is no match for DAST 1, there will be no match for DAST 2 or DAST 3. You can stop. This bulletin does not apply.

C. If there is a P/N match as specified above, select **Save**, and then continue with the reprogramming procedure.

Table A

MODEL	CONTROL MODULE	CURRENT PART NUMBER (P/N):
2014 – 2016 Q50 and Q50 Hybrid	DAST 1	28505 - 4GA0B, 4GA0C, 4GA0D, 4GA0E. 4GA0F, 4GA0H, 4GA0K 28505 - 4GA1B, 4GA1C, 4GA1D, 4GA1E, 4GA1F, 4GA1H, 4GA1K 28505 - 4GA2B, 4GA2C, 4GA2D, 4GA2E. 4GA2F, 4GA2H, 4GA2K 28505 - 4GG0A, 4GG0B 28505 - 4GG1A, 4GG1B 28505 - 4GG2A, 4GG2B
	DAST 2	28505 - 4GA5B, 4GA5C, 4GA5D, 4GA5E, 4GA5F, 4GA5H, 4GA5K 28505 - 4GA6B, 4GA6C, 4GA6D, 4GA6E, 4GA6F, 4GA6H, 4GA6K 28505 - 4GA7B, 4GA7C, 4GA7D, 4GA7E, 4GA7F, 4GA7H, 4GA7K 28505 - 4GG5A, 4GG5B 28505 - 4GG6A, 4GG6B 28505 - 4GG7A, 4GG7B
	EPS/DAST 3	285H0 - 4GA0B, 4GA0C, 4GA0D, 4GA0E, 4GA0F, 4GA0H, 4GA0K 285H0 - 4GA1B, 4GA1C, 4GA1D, 4GA1E, 4GA1F, 4GA1H, 4GA1K 285H0 - 4GA5B, 4GA5C, 4GA5D, 4GA5E, 4GA5F, 4GA5H, 4GA5K 285H0 - 4GA6B, 4GA6C, 4GA6D, 4GA6E, 4GA6F, 4GA6H, 4GA6K 285H0 - 4GG0A, 4GG0B 285H0 - 4GG1A, 4GG1B 285H0 - 4GG5A, 4GG5B 285H0 - 4GG6A, 4GG6B

15. Read the precautions on the C-III plus screen (use page arrow as needed). After reading, select **Confirmed instructions**, and then select **Next**.
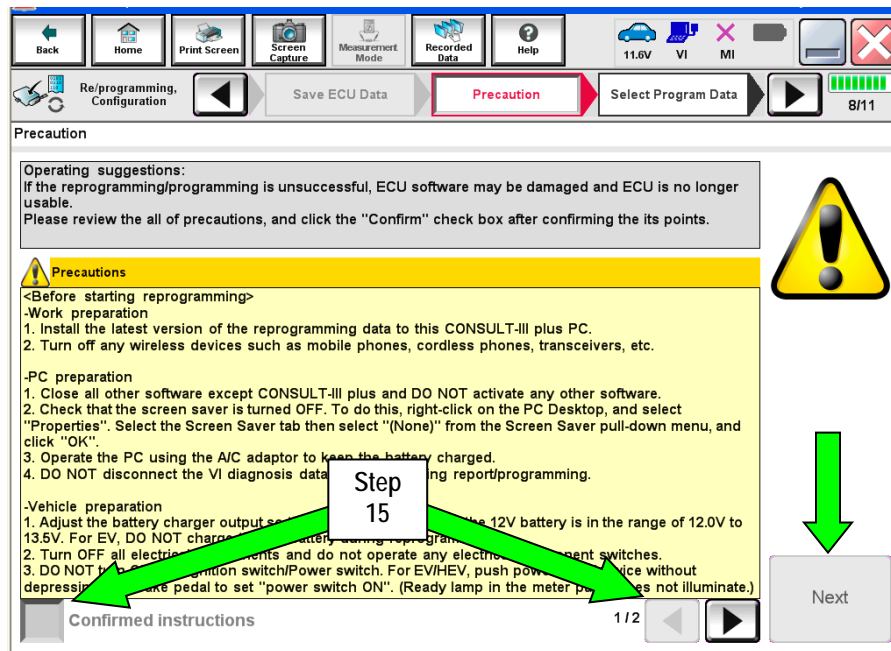
Figure 9

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

➢ If more than one new P/N is available, the screen in Figure 10 will display.

➢ Select and use the reprogramming option that <u>does not</u> have the message "Caution! Use ONLY with ITBXX-XXX".

• If you get this screen and it is <u>blank</u> (no reprogramming listed), it means there is no reprogramming available for that control unit.
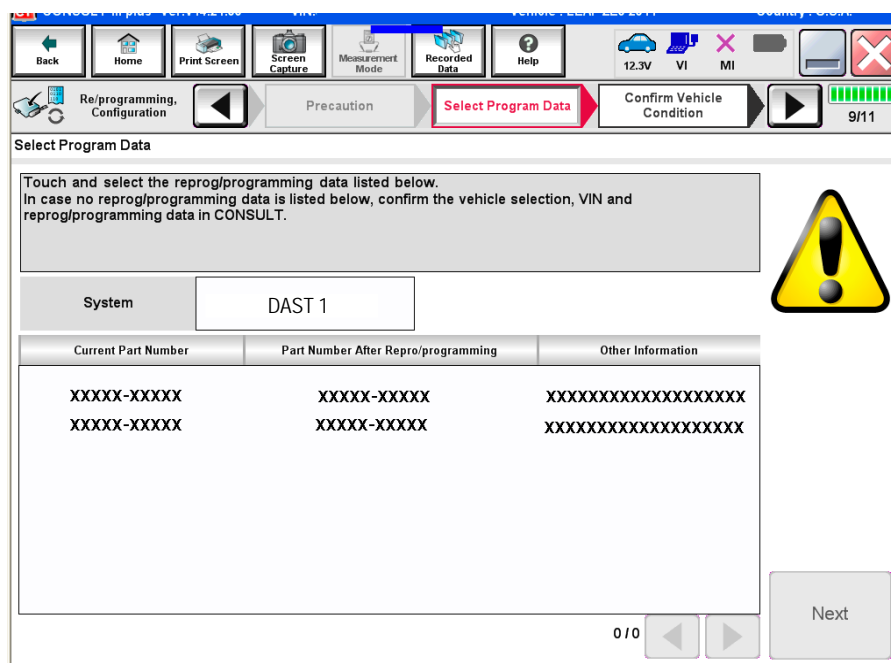
Figure 10

16. Verify the **Current Part Number** matches the P/N written down in step 14, and then select **Next**.
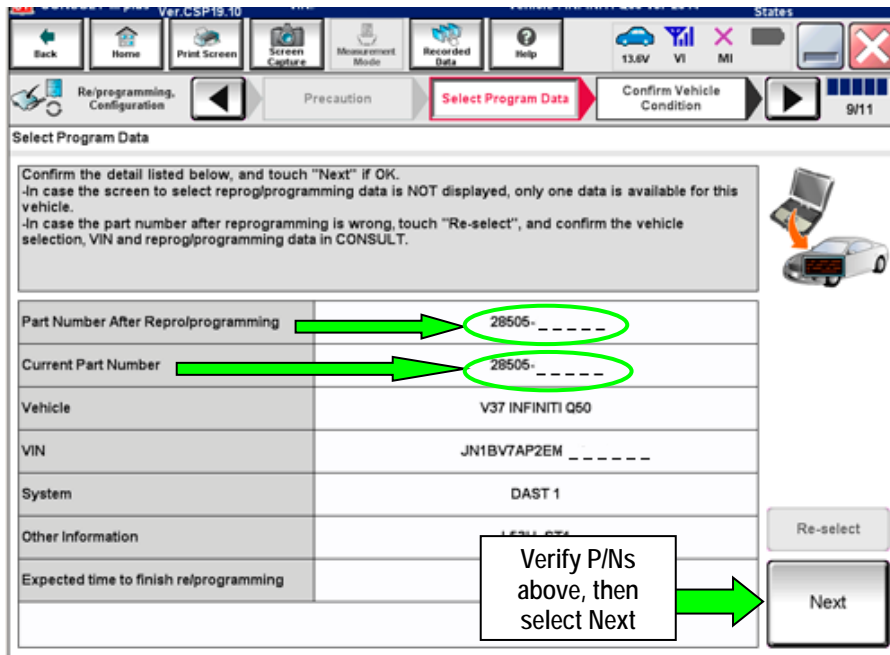
Figure 11

17. If the screen in Figure 12 appears, first select **Delete,** then **Confirm,** and then **Other Operation**.

- This will erase the **Saved Data List** and restart the reprogram from step 12. You must go back to step 12.

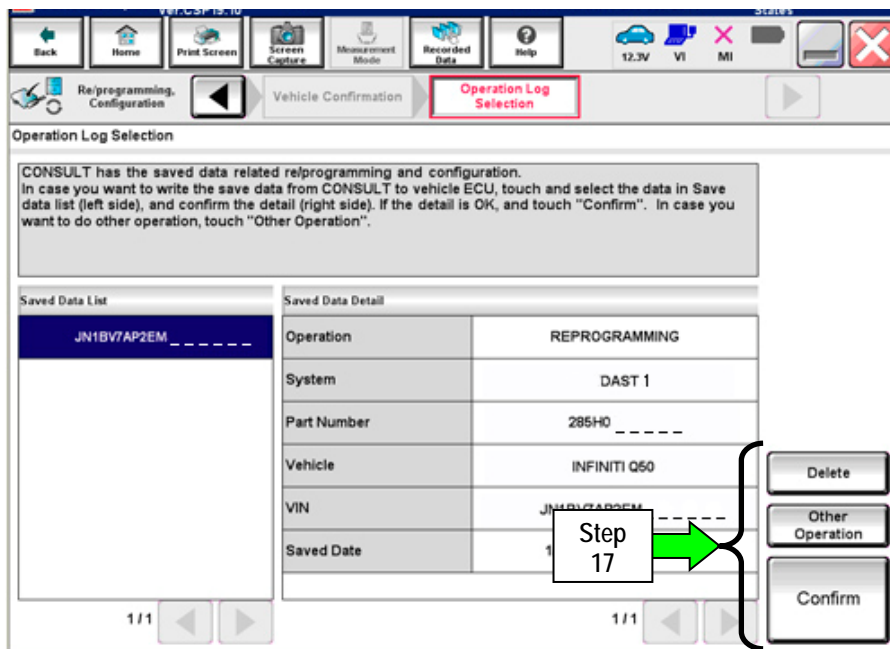- If no **Saved Data List** is stored, Figure 13 on the next page will be displayed.

Figure 12

18. Confirm battery voltage is correct, and then select **Next**.

> **NOTE:** Battery voltage must stay within the specified range to make the indicator turn green.
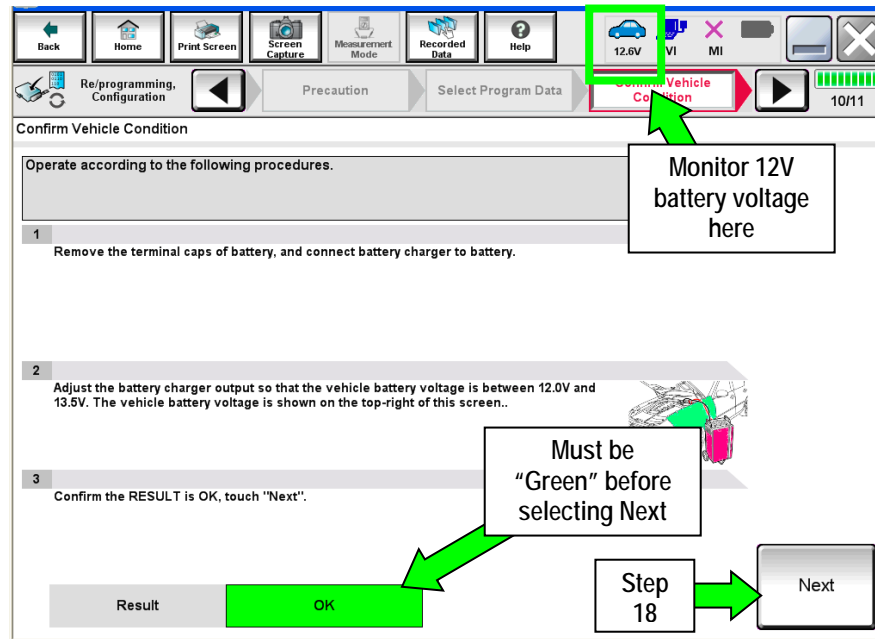
Figure 13

19. With battery voltage OK (green), select **Start**.

- The reprogramming process begins when **Start** is selected.

> **NOTE:** For reprogramming to continue, vehicle 12V battery voltage must stay within 12 volts and 13.5 volts.
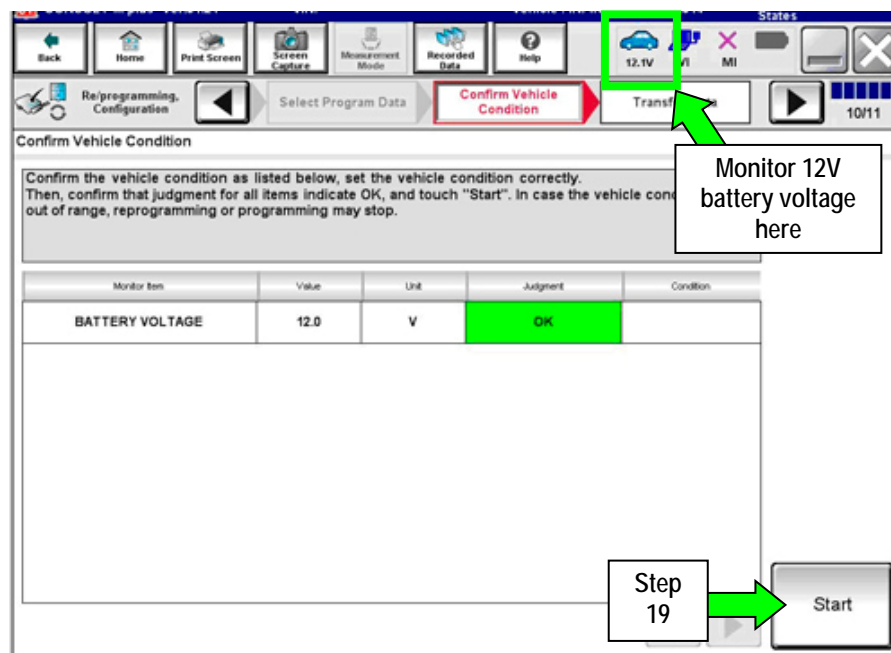

Figure 14

IMPORTANT: Until the reprogramming has completed:

- Do not touch the **Home** button until instructed to.
- When the plus VI is transferring the reprogram data to the DAST control unit, do not disconnect the plus VI from the vehicle even if the PC freezes.
- If you need to disconnect the plus VI, first check the LED on the plus VI body to confirm that the communication from the plus VI to the vehicle has completed and the LED for the vehicle icon is OFF.
- If you accidentally disconnect the plus VI during reprogram writing to the vehicle, the DAST control unit that is being reprogrammed may need to be replaced.
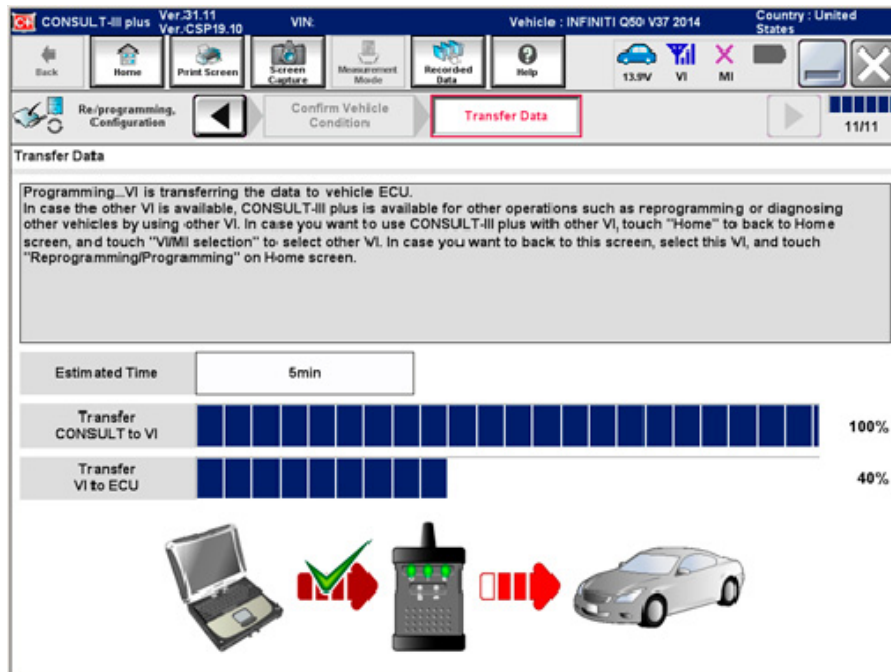
20. Wait for both bar graphs to complete.

Figure 15

Possible errors that may rarely occur:

- If the progress bar freezes at 90% of a complete transfer to the plus VI and error code "12-1-1NR" is displayed (see Figure 16 on the next page), **turn the ignition OFF, then ON**, and then refer to **Control Unit Recovery** on the next page.

- If the progress bar freezes at 90% more than 3 times "on the same DAST control unit" but without Error Code "12-1-1NR", the DAST control unit that is currently being reprogrammed will need to be replaced.

NOTE: If a DAST control unit replacement is required:
- Refer to the appropriate section of the ESM for the procedure to replace and configure a DAST control unit.
- **Make sure to perform Read/Write Configuration** and save the Control unit's configuration before replacement, and then write the configuration to the new control unit.

Control Unit 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 16:

- Check battery voltage (12.0–13.5 V).

- Ignition is ON, engine OFF (not READY).

- External Bluetooth® devices are OFF.

- All electrical loads are OFF.

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

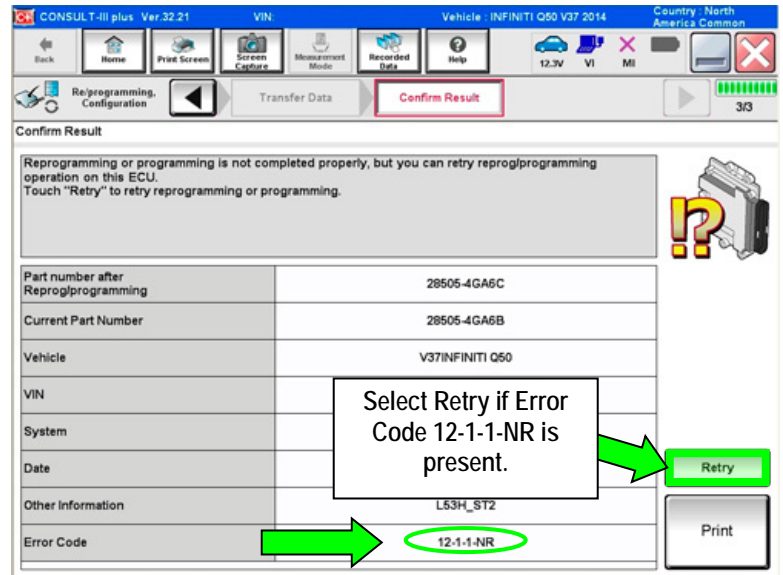- "Retry" may not go through on the first attempt and can be selected more than once.

Figure 16

If reprogramming does not complete and the "**X**" icon displays as shown in Figure 17:

- Check battery voltage (12.0 – 13.5 V).

- CONSULT A/C adapter is plugged in.

- Ignition is ON, engine OFF (not READY).

- Transmission is in Park.

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

- All C-III plus updates are installed.

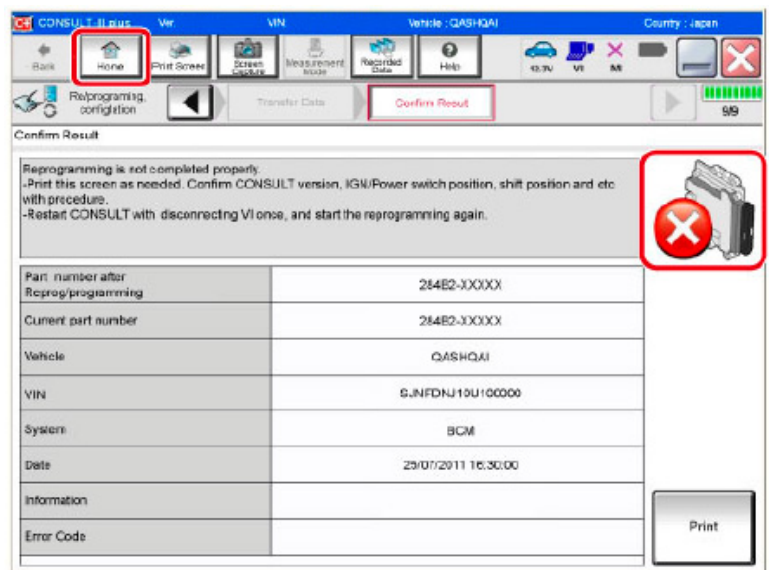- **Select Home, and then restart the reprogram procedure from the beginning.**

Figure 17

21. When the screen in Figure 18 appears, reprogramming is complete.

22. Select **Next**.
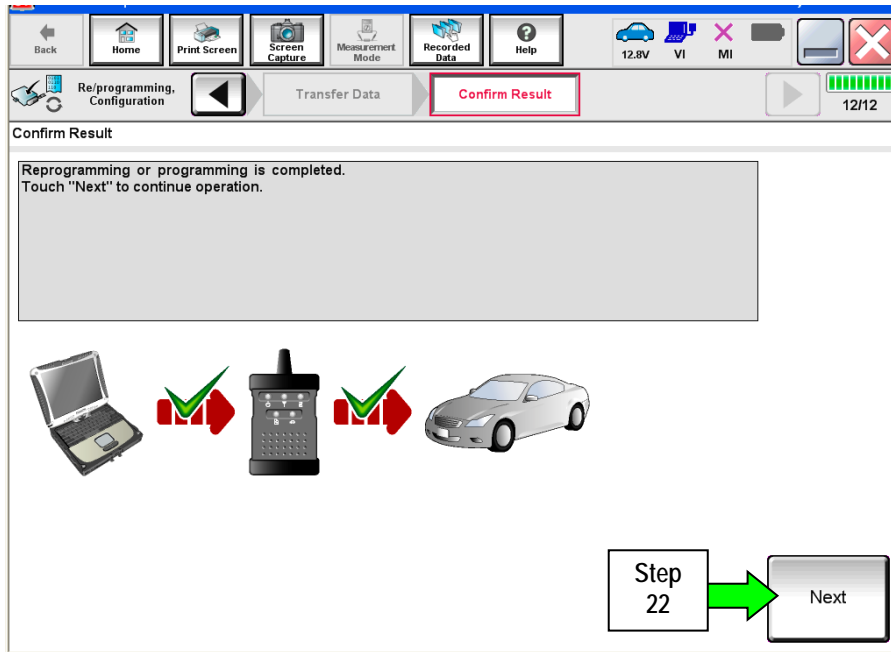
23. Wait for System Call to complete.

Figure 18

24. Erase all DTCs as follows:

   a. Turn "ignition" OFF.

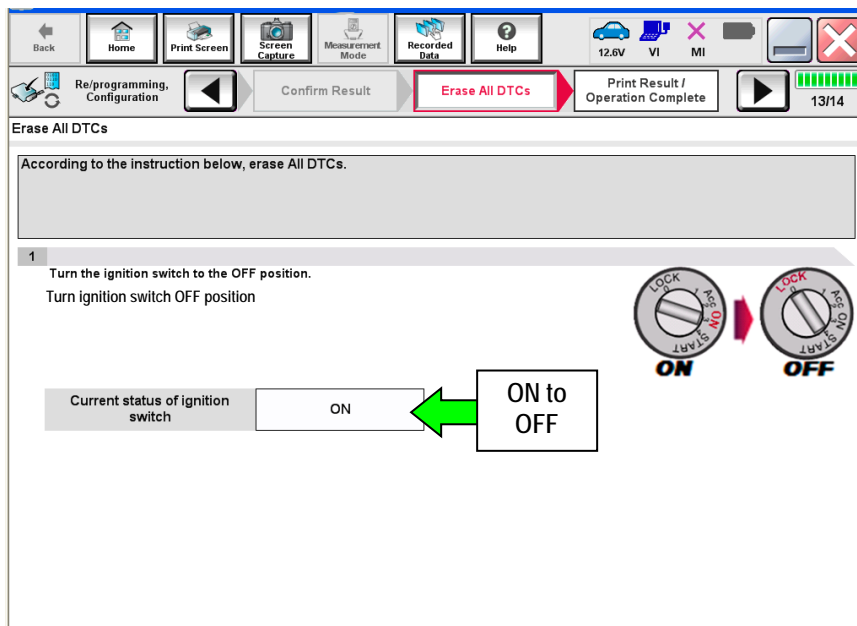   • The screen in Figure 19 will read OFF after pressing the power switch once.

Figure 19

b. Turn the ignition ON with engine OFF (press switch twice, no foot on brake).

*   The screen in Figure 20 will read **ON** after pressing the power switch <u>twice</u>.

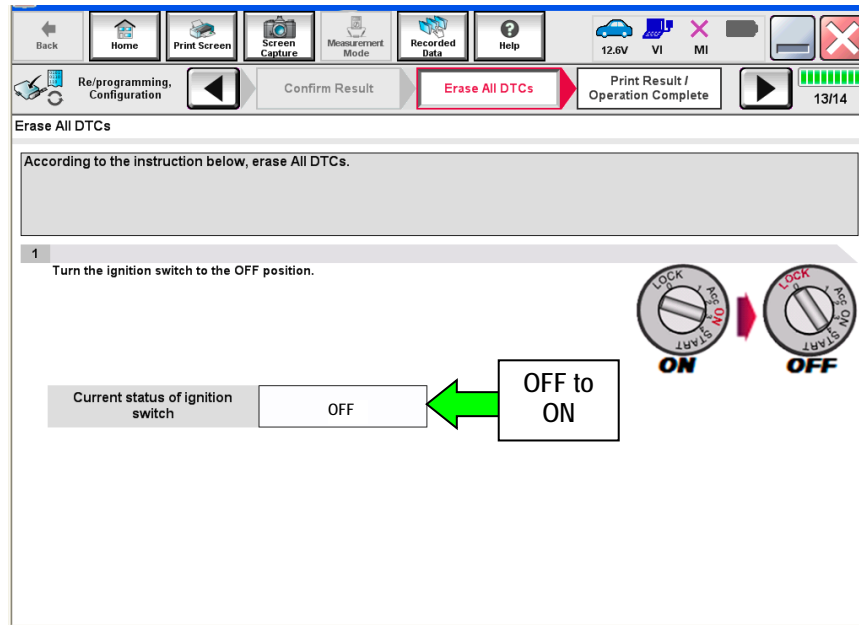   **NOTE:** Do not be confused by any screen messages. At this point, simply turn the ignition ON.

Figure 20

c. Wait for the bar graph in the **ERASE** window to complete 100%.
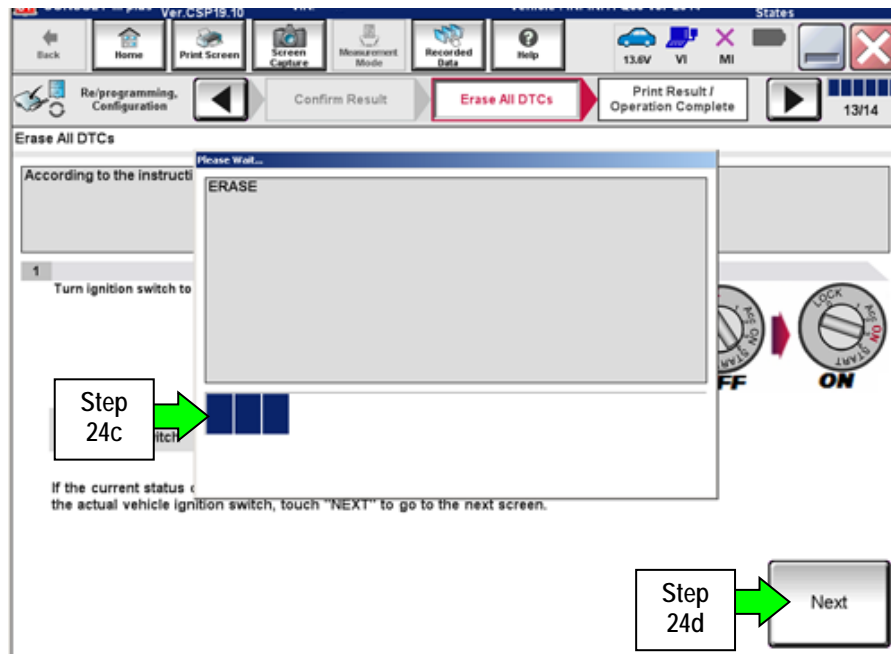
d. Select **Next**.

Figure 21

25. Verify the P/N has changed (before and after reprogramming P/Ns should be different).

    a.   Print a copy of the screen in Figure 22 by selecting **Print**.

    b.   Attach the copy to the repair order.

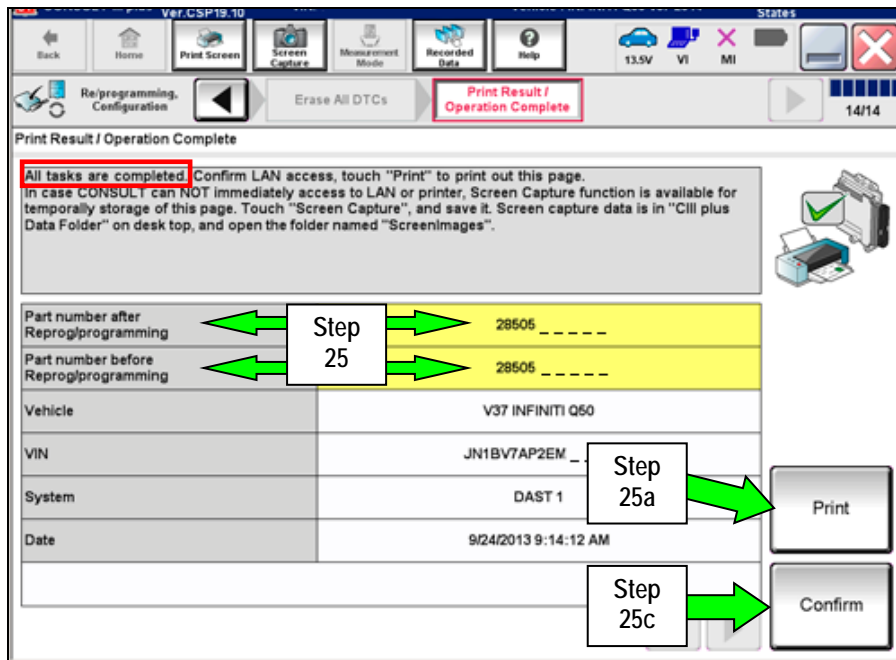   c.   Once a copy has been printed, select **Confirm**.

Figure 22

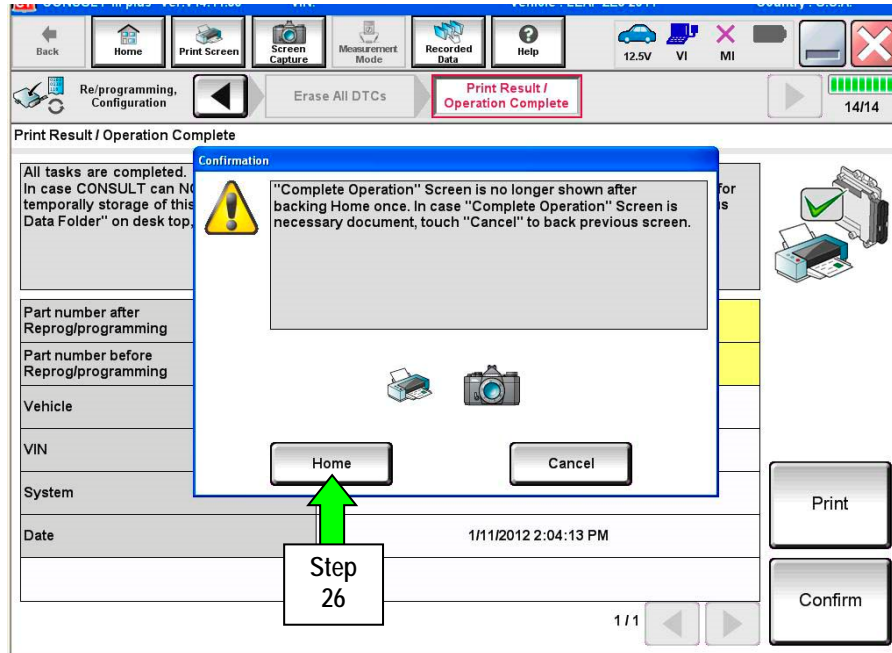26. After Confirmation has completed, select **Home**

Figure 23

27. Repeat the entire reprogramming procedure for DAST 2.

28. Repeat the entire reprogramming procedure for EPS/DAST 3.

After all three reprograms are complete, the procedure is finished.

CLAIMS INFORMATION

Submit a "CM" line claim using the following claims coding:

CAMPAIGN ("CM") I.D.	DESCRIPTION	OP CODE	FRT
R1610	Reprogram Direct Adaptive Steering	R16100	1.0 hrs.