

Reference:

ITB14-049

Date:

September 24, 2014

VOLUNTARY SAFETY RECALL CAMPAIGN 2014 Q50 HYBRID AND Q70 HYBRID; INVERTOR MOTOR CONTROL REPROGRAMMING

CAMPAIGN I.D. #: R1410
APPLIED VEHICLE: 2014 Q50 Hybrid (V37)
2014 Q70 Hybrid (HY51)

Check Service Comm to confirm campaign eligibility.

INTRODUCTION

Infiniti is conducting this voluntary safety recall campaign on certain 2014 Infiniti Q50 Hybrid and Q70 Hybrid vehicles to update the Hybrid Motor Controller software to the current production level. This service will be performed at no charge for parts or labor.

IDENTIFICATION NUMBER

Infiniti has assigned identification numbers R1410 to this campaign. The correct number must appear on all communications and documentation of any nature dealing with this campaign.

DEALER RESPONSIBILITY

Dealers are to correct each vehicle falling within the range of this campaign that enters the service department. This includes vehicles purchased from private parties or presented by transient (tourist) owners and vehicles in a dealer's inventory.

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

Reprogram the Motor Controller

NOTE: Follow all cautions, warnings, and notes in the ESM when working on or near a High Voltage (HV) System or Supplemental Restraint System (SRS), such as an airbag.

IMPORTANT: Before starting, make sure:

- **ASIST on the CONSULT PC has been freshly synchronized (updated).**
- **All CONSULT III PLUS (C-III plus) software updates (if any) have been installed.**
NOTE: The CONSULT PC automatically gets applicable 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 and erase all DTCs.

1. Connect the plus VI to the vehicle, and then to the CONSULT PC with the USB cable.

CAUTION: Make sure the plus VI is securely connected. If the plus VI connections are loose during reprogramming, the process will be interrupted and the **Module 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 **Module May be damaged.**

3. Connect the GR8 (Multitasking Battery Diagnostic Station) to the vehicles 12V battery.

- Set the GR8 to ECM power supply mode.

NOTE: Battery voltage must stay between 12 volts and 15.5 volts or reprogramming may not start or be temporarily stopped. Returning battery voltage within the 12-15.5V volt range will resume the reprogramming procedure.

CAUTION: Be sure the GR8 is connected 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 **Module 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 **Module may be damaged.**

5. Depress the vehicle's power ("ignition") switch twice without depressing the brake pedal.

- The meter and gauges will illuminate.

CAUTION: Do Not set the vehicle in "READY to drive" mode or vehicle component damage may occur.

- Make sure the ready to drive indicator light is OFF (not illuminated).

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



Figure A

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 **Module may be damaged**.

7. Turn ON the CONSULT PC.

8. Select CONSULT-III plus (open C-III plus).

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

9. Wait for the plus VI to be recognized.

10. Select Re/programming, Configuration.

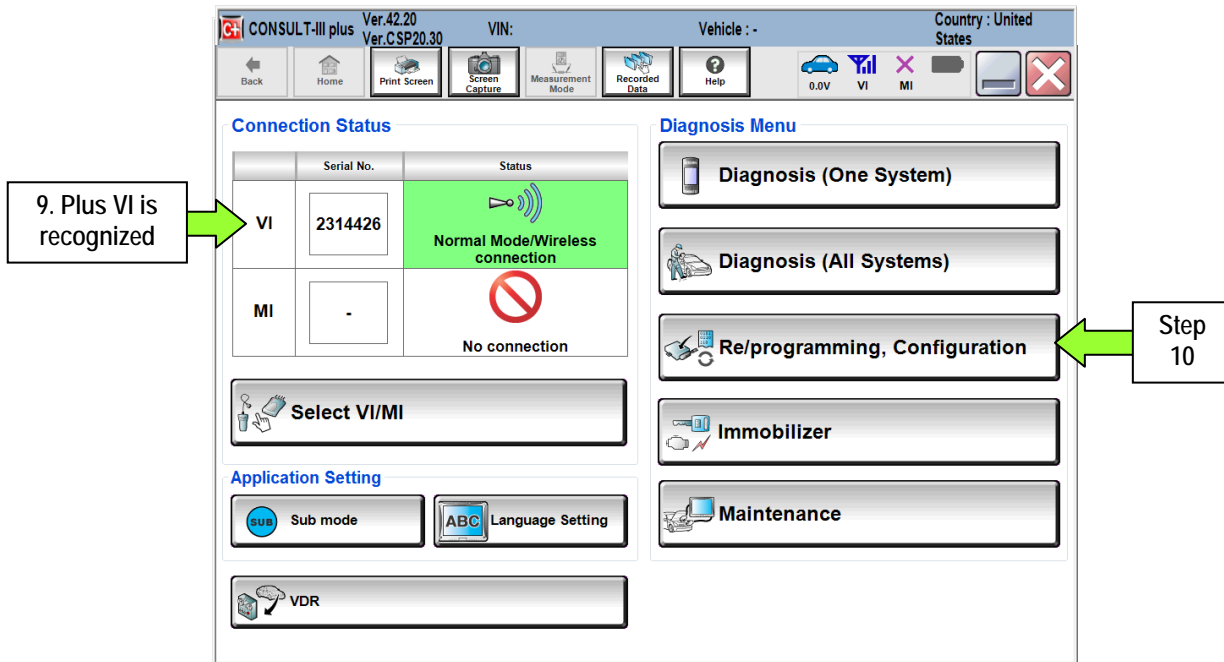


Figure 1

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

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

13. Select Next.

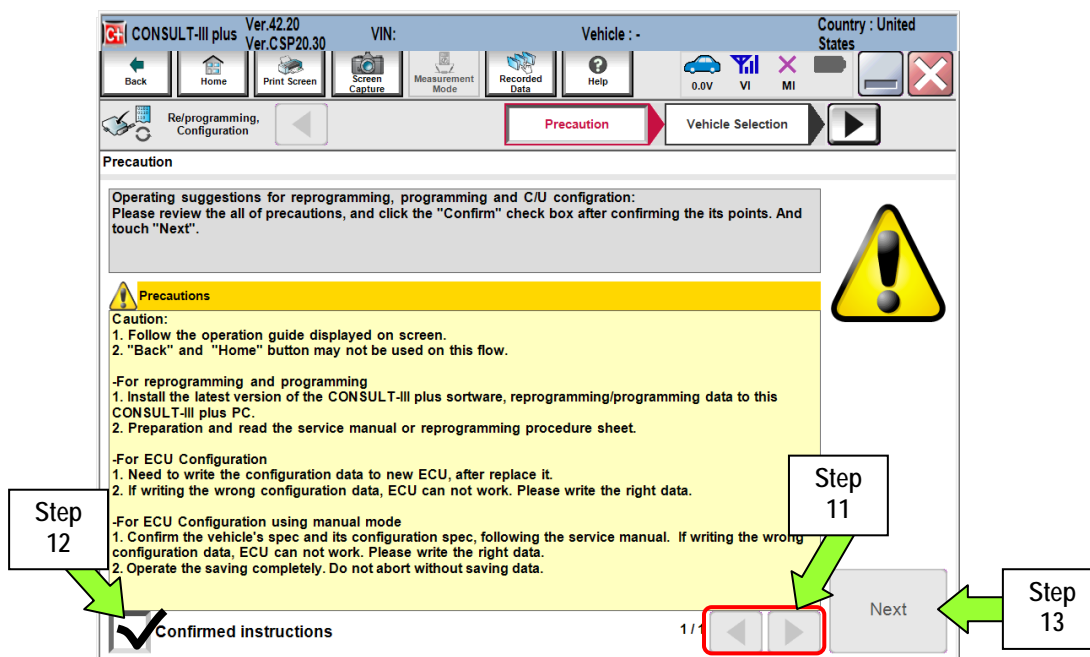


Figure 2

14. Select **Infiniti Q50 Hybrid** or **Infiniti Q70 Hybrid** and **2014**, or **Automatic Selection (VIN)**.
 - If **Automatic Selection (VIN)** is selected, wait for the **Reading VIN** screen to complete.
 - If the screen in Figure 3 does not display, skip to step 16.

15. Select **Select**.

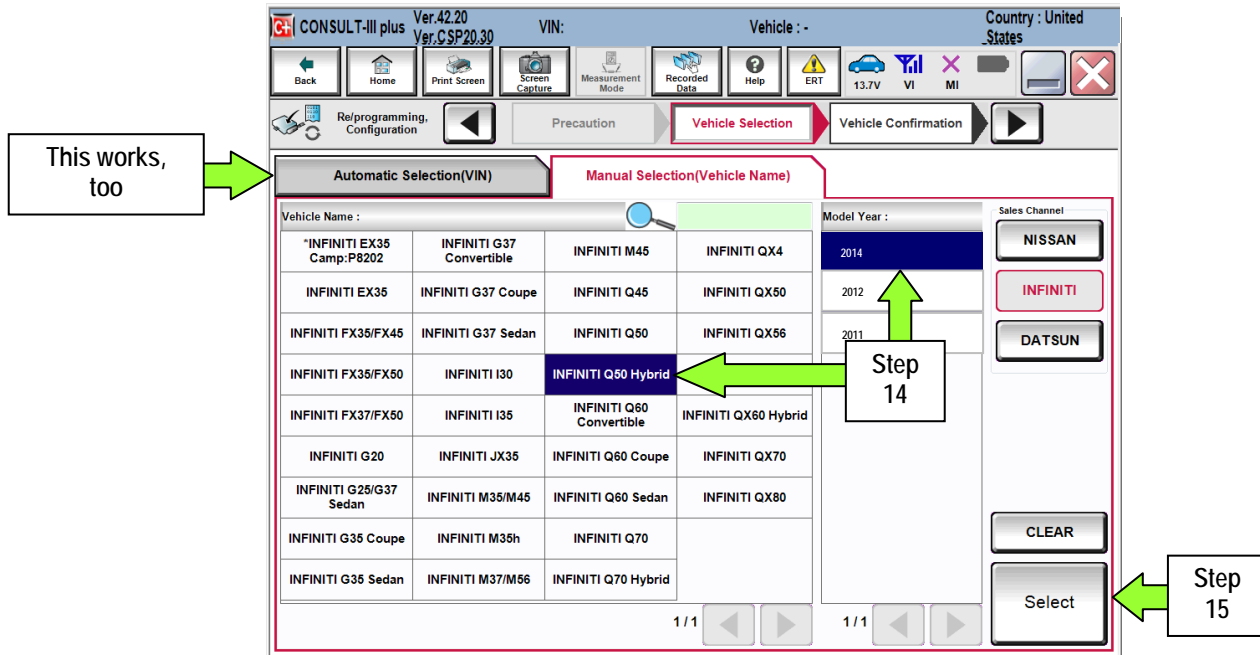


Figure 3

16. Verify the VIN in **VIN** or **Chassis #** matches the vehicle being reprogrammed.

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

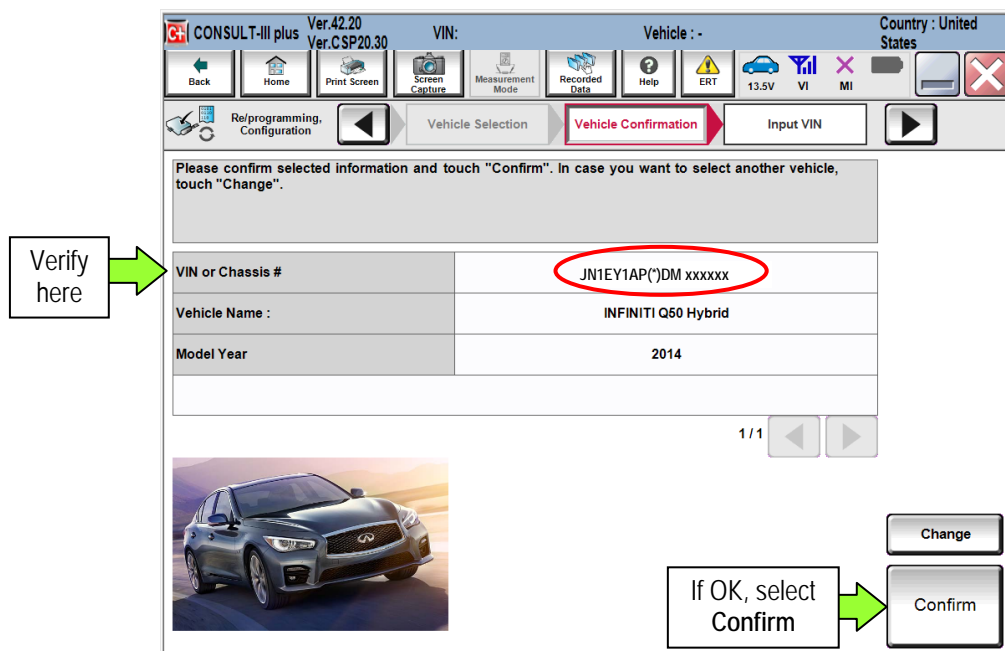


Figure 4

17. Wait for system call to complete, and then select **Confirm** again.

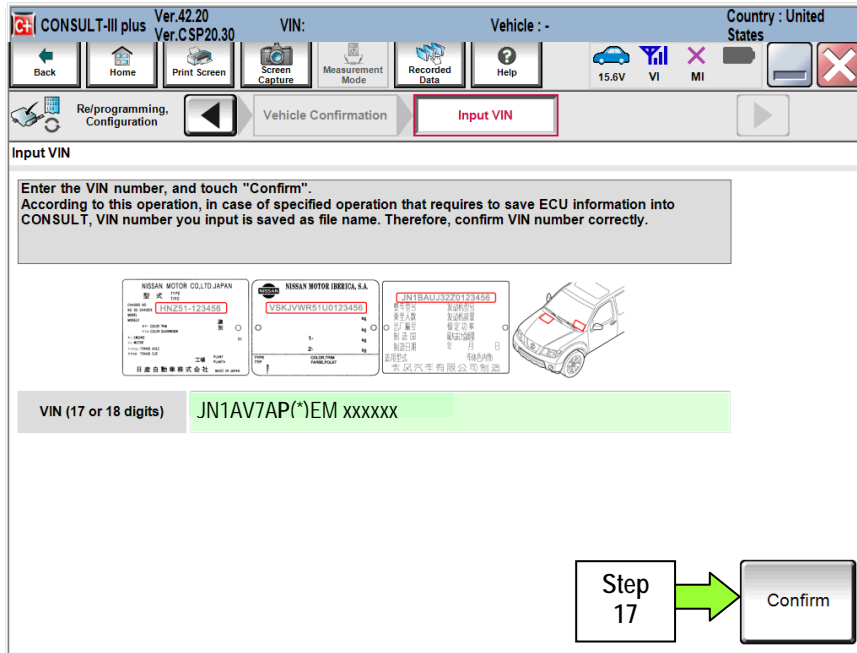


Figure 5

18. Select **MOTOR CONTROL**.

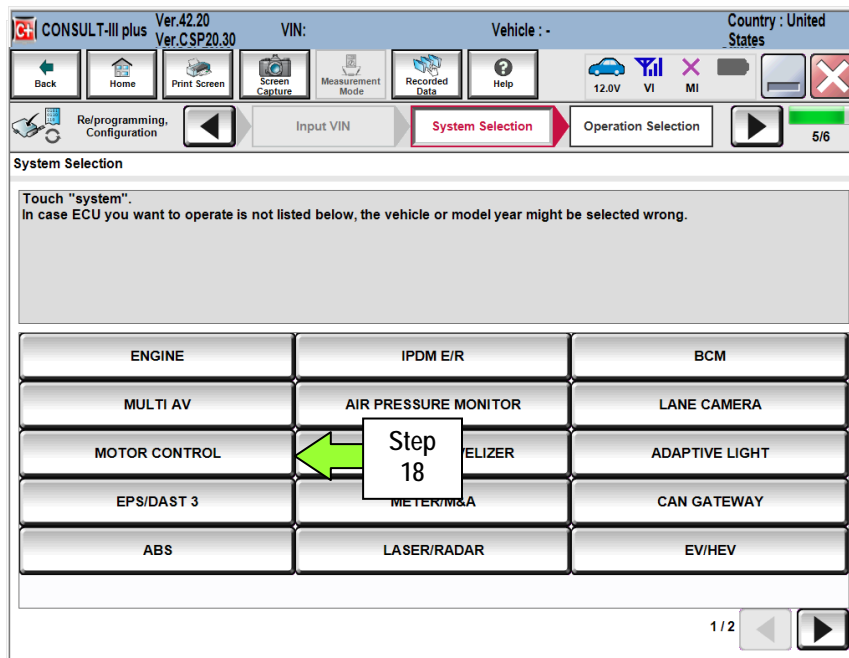


Figure 6

19. Select Reprogramming.

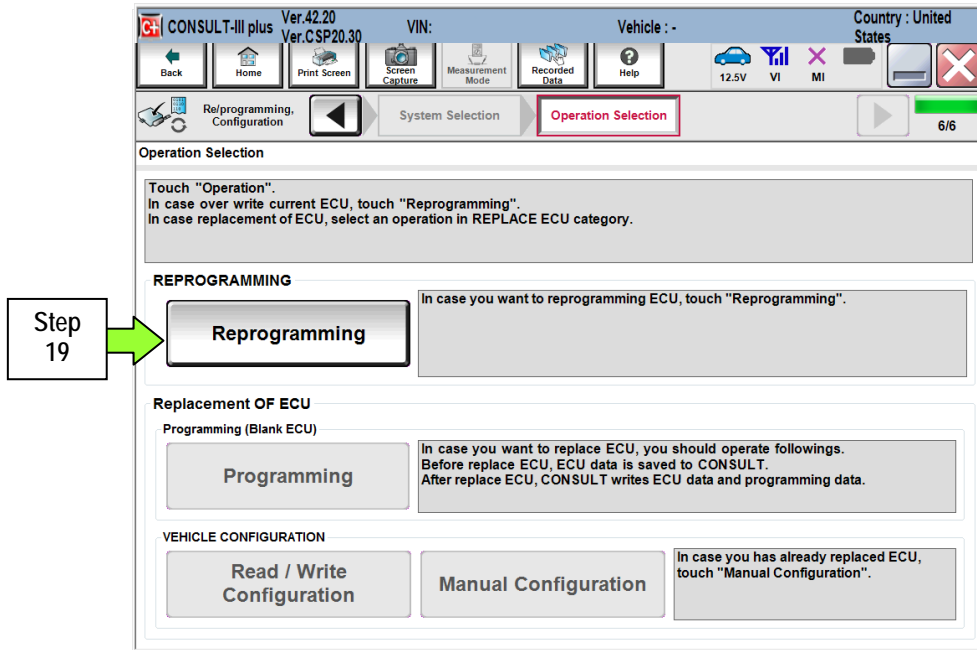


Figure 7

20. When you get to the screen shown in Figure 8, confirm this bulletin applies as follows.

- a. Find the **MOTOR CONTROL Part Number** and write it on the repair order.

NOTE: This is the current **MOTOR CONTROL Part Number (P/N)** and will also be needed for claims information.

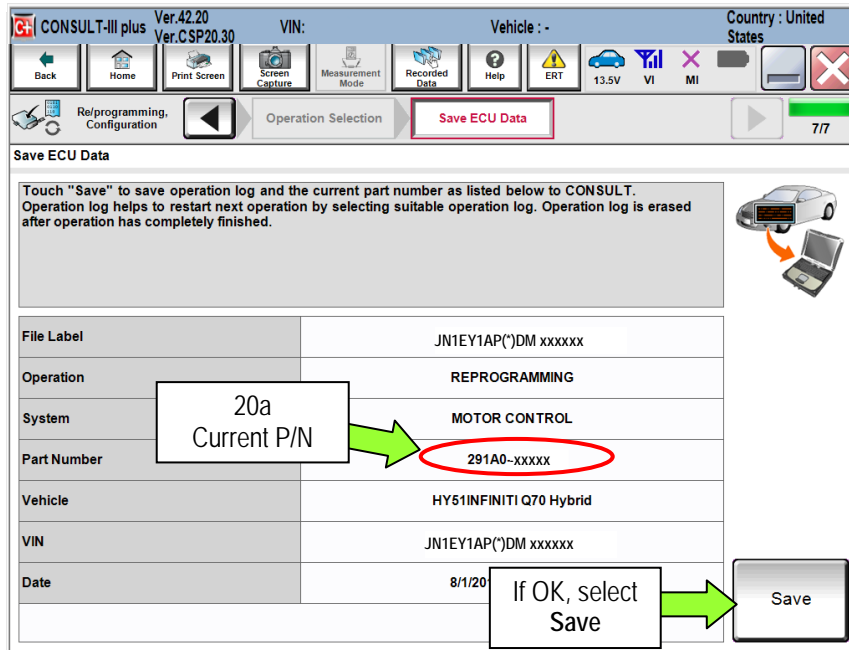


Figure 8

- b. Compare the P/N you wrote down to the numbers in the **CURRENT MOTOR CONTROL PART NUMBER** column in **Table A** below.

- If the **MOTOR CONTROL** part number is one of the part numbers listed in the **Table A**, continue with reprogramming.
 - Select **Save**, and then go to the next step.
- If the **MOTOR CONTROL** part number is not listed in **Table A**, this bulletin does not apply.
 - Disconnect the GR8 and CONSUTLT PC.

Table A

MODEL YEAR	CURRENT MOTOR CONTROL PART NUMBER: 291A0 -
2014 Q50 Hybrid (V37)	4GA0A, 4GA2A
2014 Q70 Hybrid (HY51)	1MG1C, 1MG3C

21. Use arrows (if needed) to view and read all precautions, then check the box confirming the precautions have been read.
22. Select **Next**.

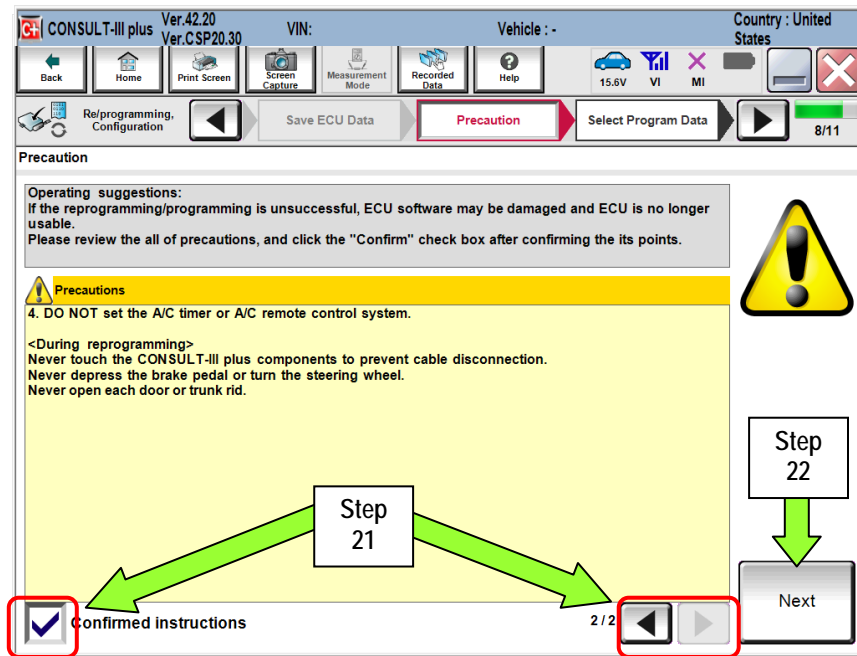


Figure 9

NOTE:

- In some cases, more than one new P/N for reprogramming is available.
- If more than one P/N is available, the screen in Figure 10 will display. 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 blank (no reprogramming listed), it means there is no reprogramming available for this vehicle.

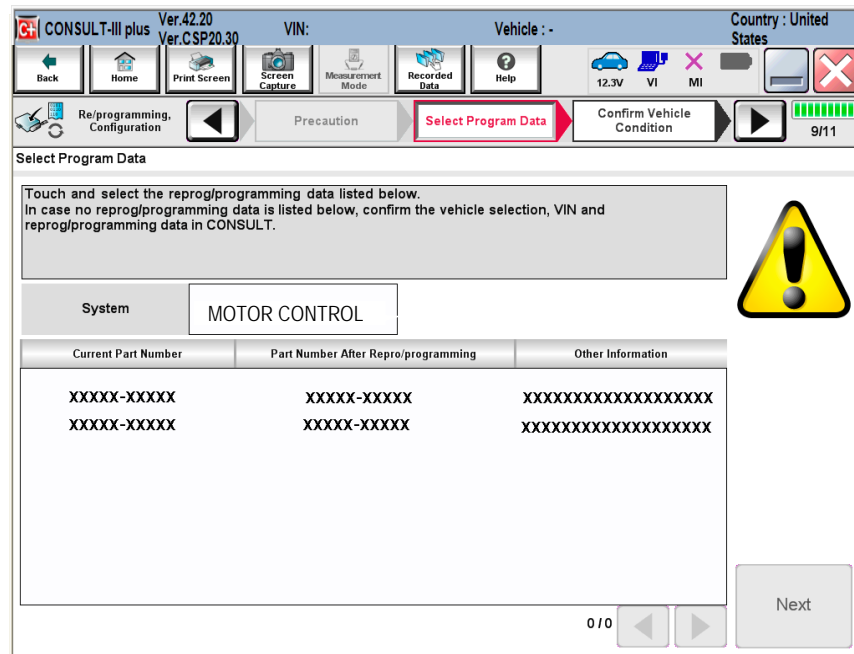


Figure 10

23. Read the **Current Part Number** and **Part Number After Reprogramming**. They should be different.

24. Select **Next**.

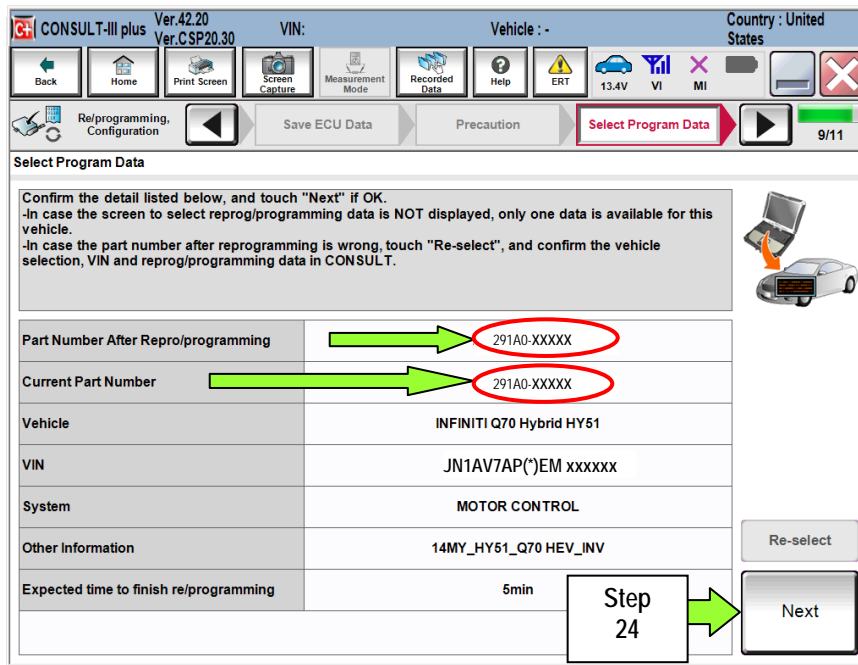


Figure 11

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

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

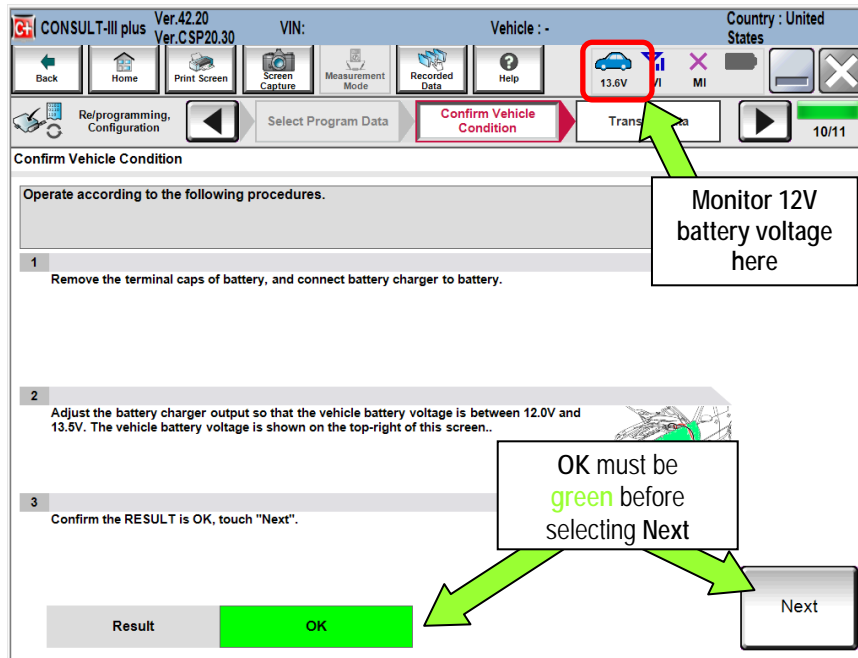


Figure 12

26. With battery voltage in the green, select **Start**.

- The reprogramming process begins when **Start** has been selected.

NOTE: For reprogramming to continue, vehicle 12V battery voltage must stay within 12 volts and 15.5 volts. Make sure the voltage level is sufficient.

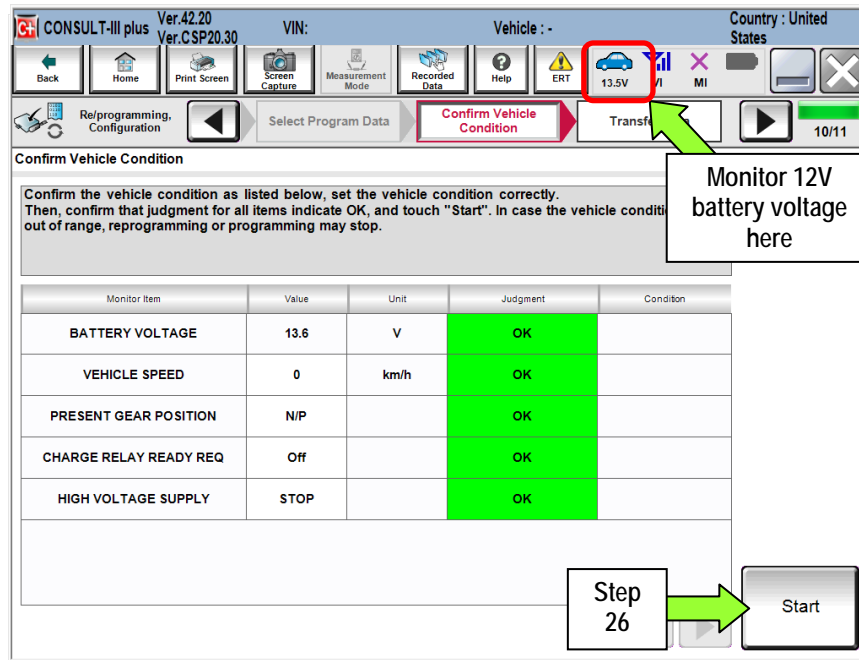


Figure 13

27. Wait for both bar graphs to complete.

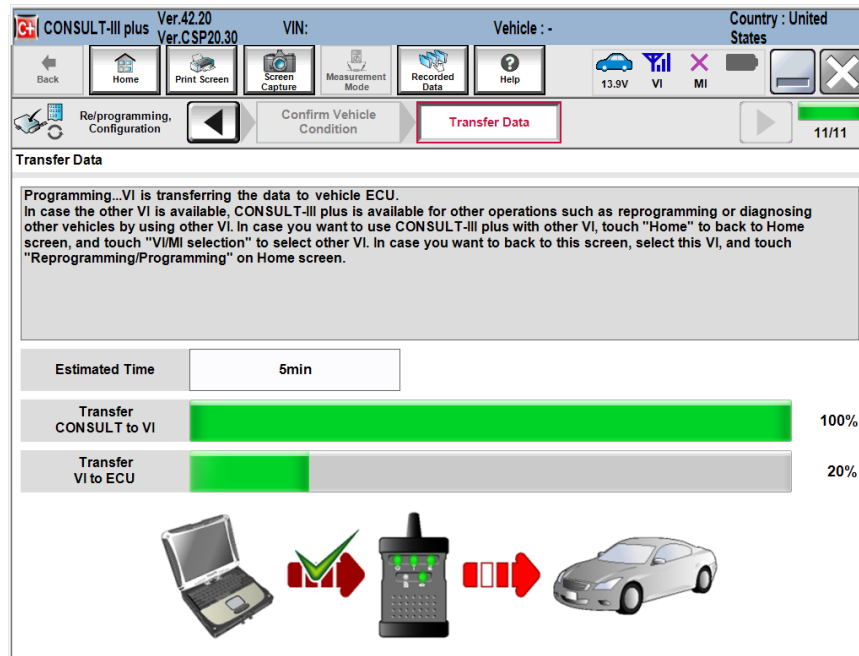


Figure 14

28. When the screen in Figure 16 displays, reprogramming is complete.
- a. Select **Next**, and then wait for System Call to complete.
 - b. Proceed to step 29 on page 14.

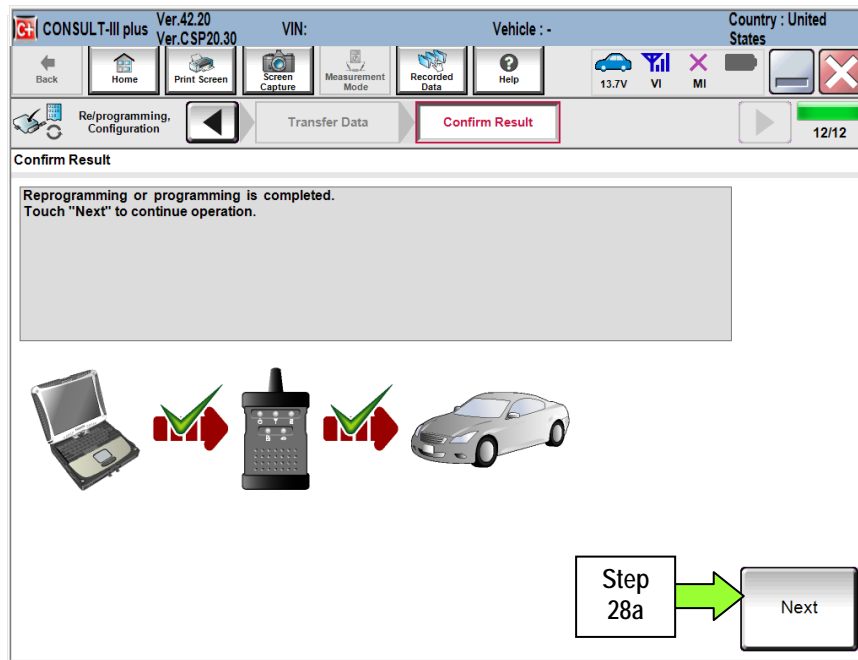


Figure 15

NOTE: If the reprogram will not complete, refer to the next page for "recovery" information.

MOTOR CONTROL Module recovery

NOTE: If reprogramming does not complete and the **!?** displays as shown in Figure 16:

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

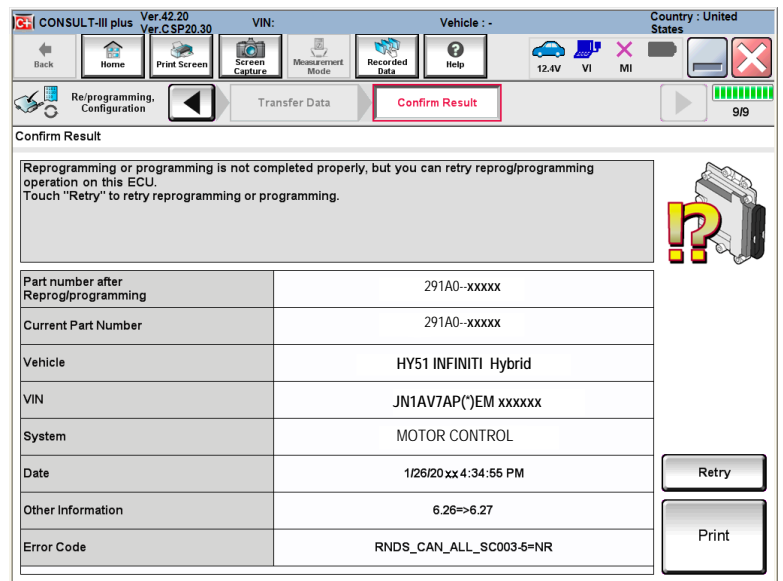


Figure 16

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

Do not disconnect plus VI or shut down Consult 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.

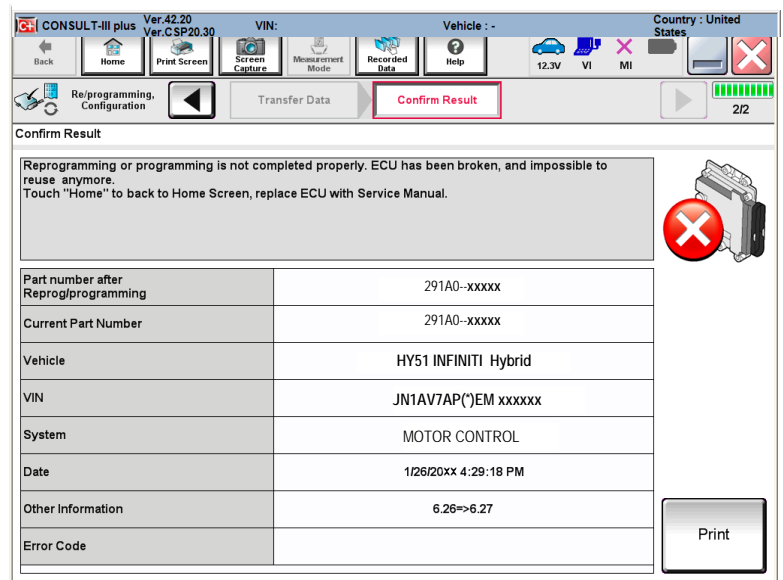


Figure 17

29. Erase all DTCs as follows:

- a. Turn the "ignition" off by depressing the power switch once.
 - The screen in Figure 18 will read **OFF** after pressing the power switch once.

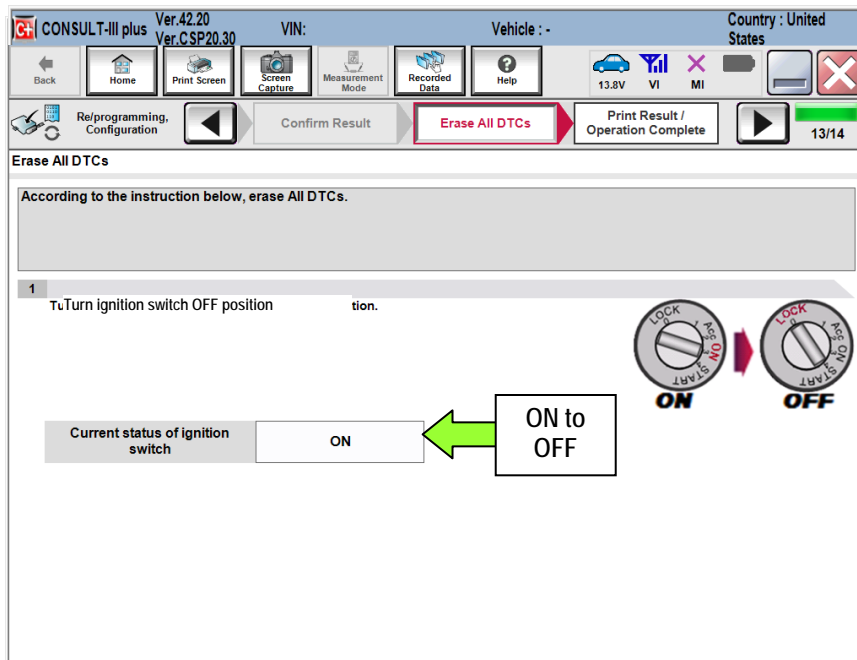


Figure 18

- b. Wait 1 minute with the ignition OFF.
- c. Turn the "ignition" ON by depressing the power switch twice (not Ready mode).
 - Do not step on the brake pedal when depressing the power switch.
 - The screen in Figure 19 will read **ON** after pressing the power switch twice.

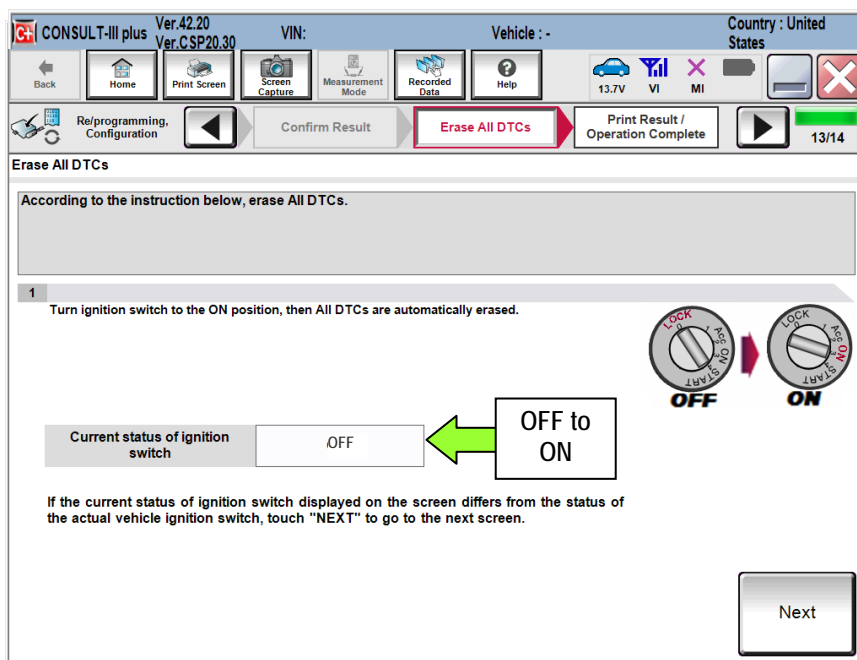


Figure 19

d. Wait for the ERASE function to complete.

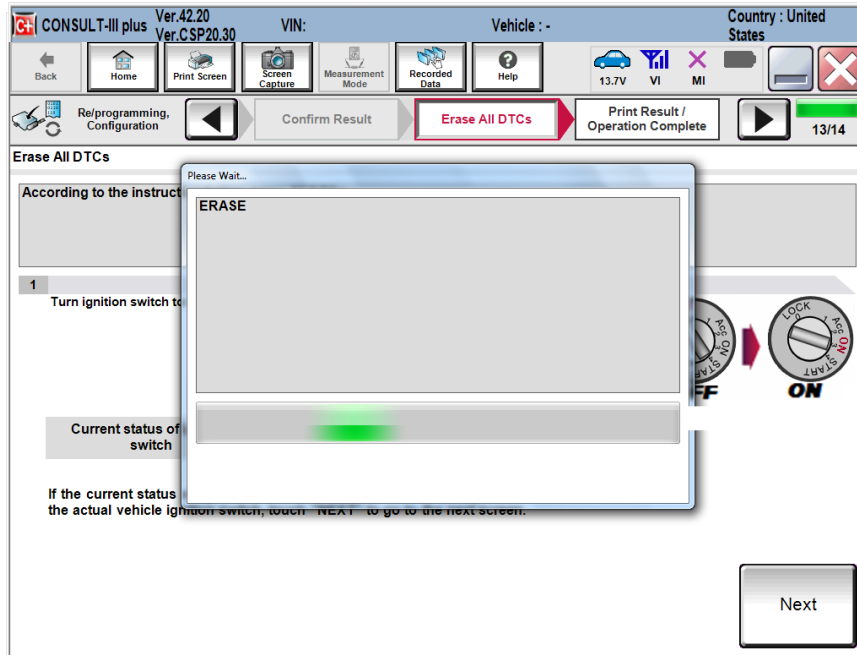


Figure 20

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

31. Print a copy of this screen (Figure 21) and attach it to the repair order.

32. Select Confirm.

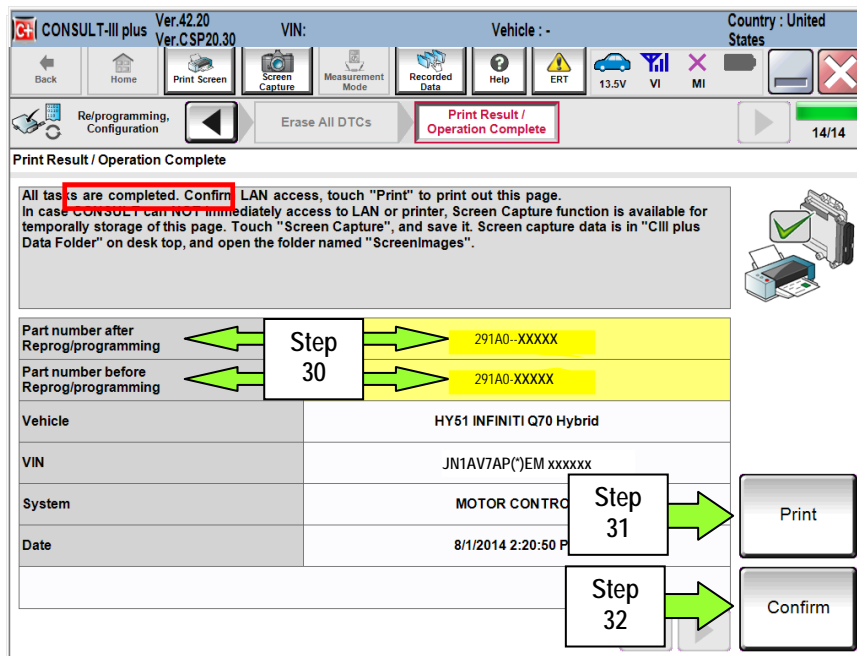


Figure 21

33. Select Home.

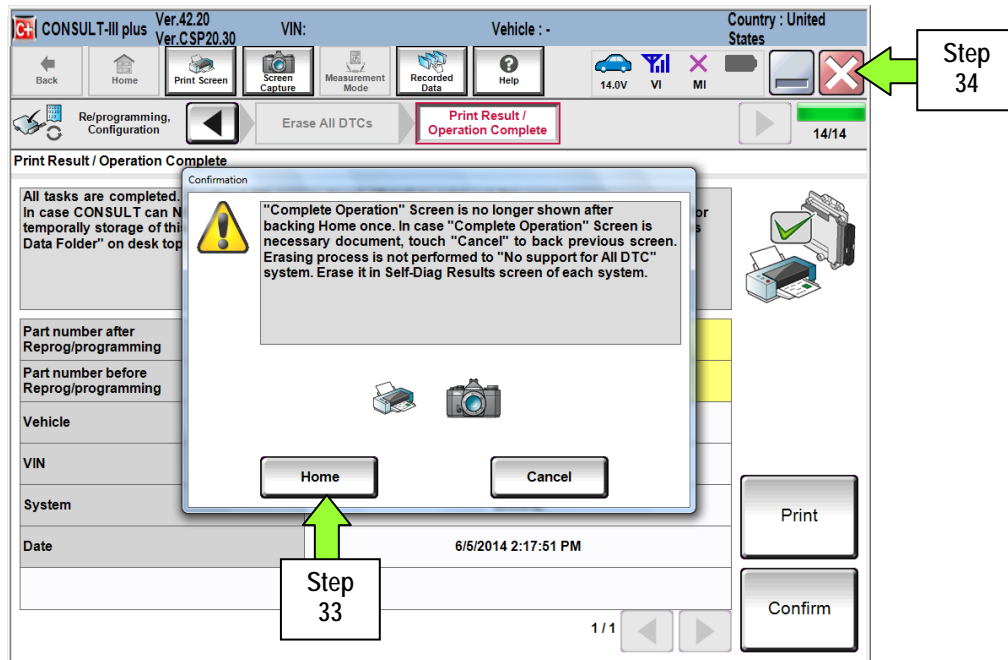


Figure 22

34. Close C-III plus by selecting "X" (see Figure 22).

- Do not turn off the CONSULT PC.

35. Turn the ignition OFF.

36. Disconnect the GR8 from the 12V battery.

37. Open C-III plus.

38. Once the plus VI is recognized, select **Diagnosis (All Systems)**.

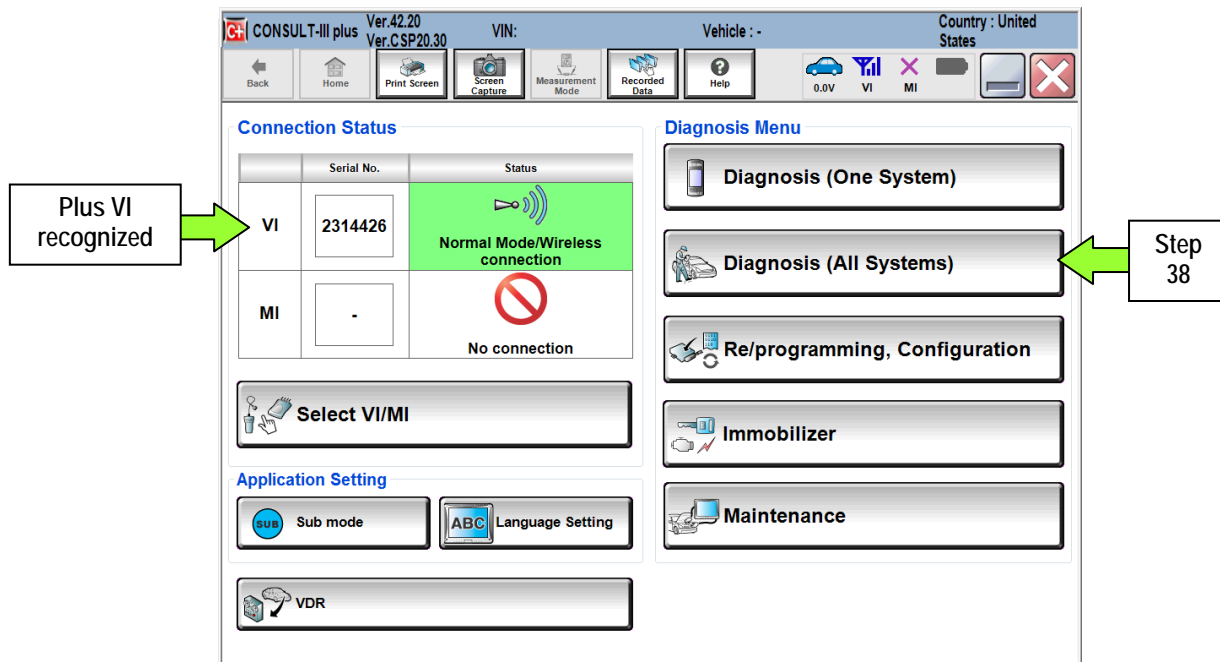


Figure 23

39. Select Infiniti Q50 Hybrid or Infiniti Q70 Hybrid and 2014, or Automatic Selection (VIN).

- If Automatic Selection (VIN) is selected, wait for the Reading VIN screen to complete.
- If the screen in Figure 24 does not display, skip to step 41.

40. Select Select or Detect Vehicle, whichever displays.

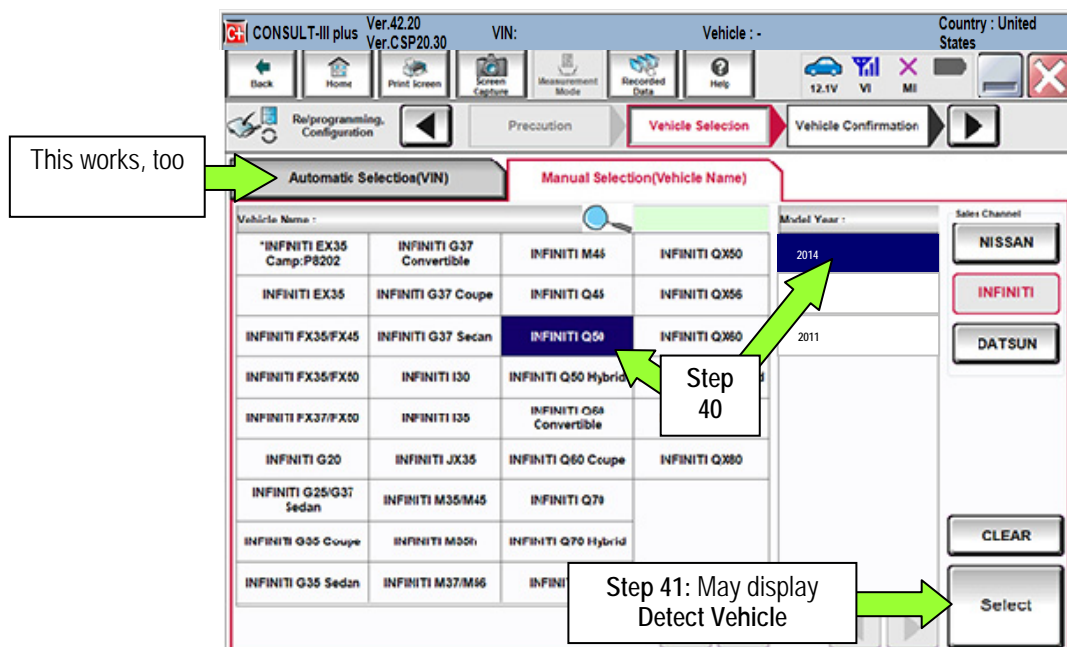


Figure 24

41. Verify the VIN in **VIN or Chassis #** matches that of the vehicle.

- If the VIN is correct, select **Confirm**.

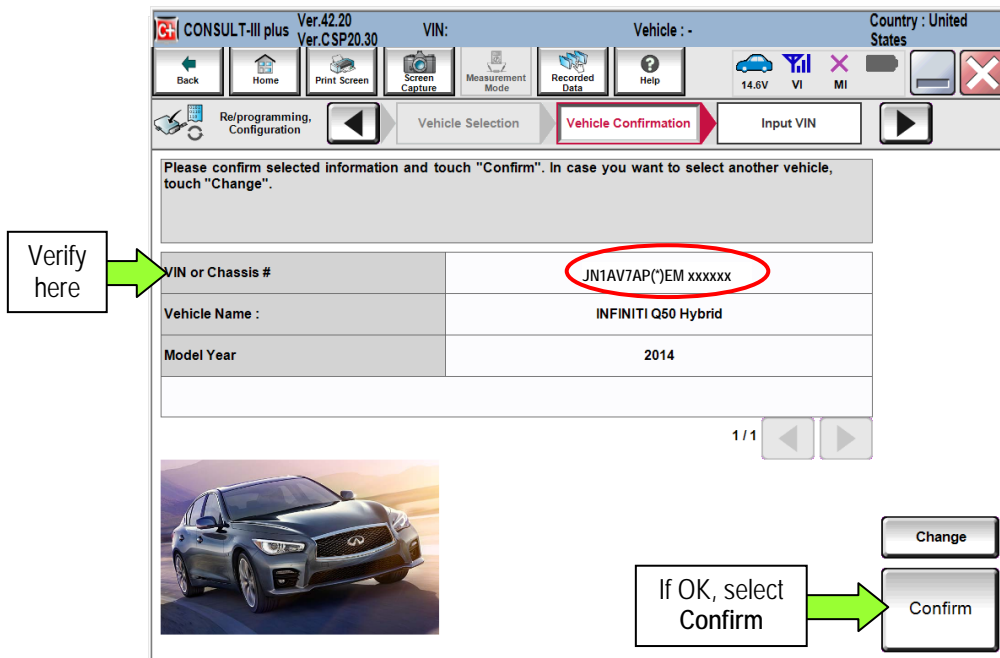


Figure 25

42. Wait for System Call to complete.

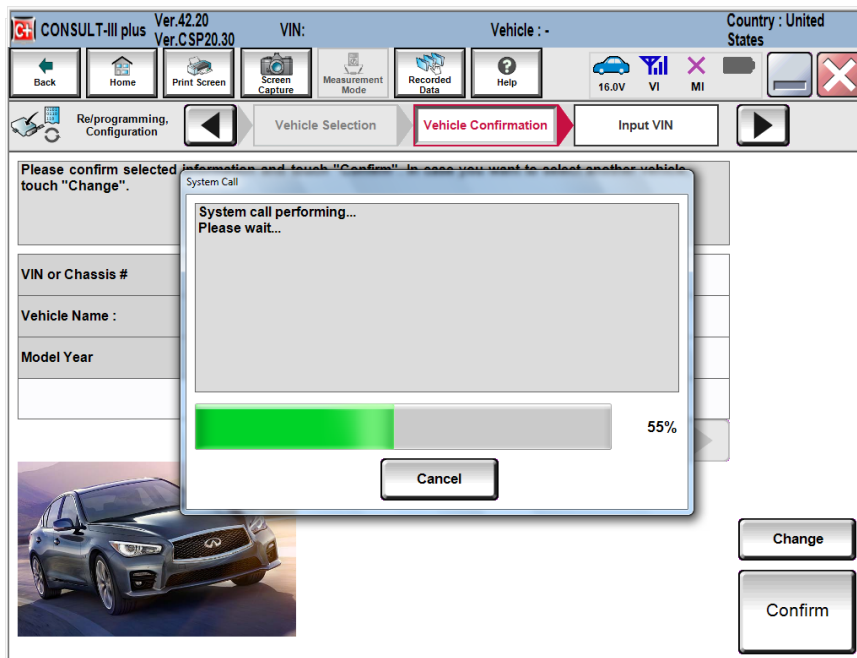


Figure 26

Erase all DTCs present

43. Once the screen in Figure 27 appears:

- Do not select **ERASE** until the Step 46.
- Turn the ignition OFF.
- Close CIII plus application.
- Disconnect the CIII plus VI.**
- Wait for at least 5 minutes.**

IMPORTANT:

- If the VI is not disconnected before “step e”, DTCs will not clear.
- If the ignition is not left OFF for 5 minutes the DTCs will not clear.

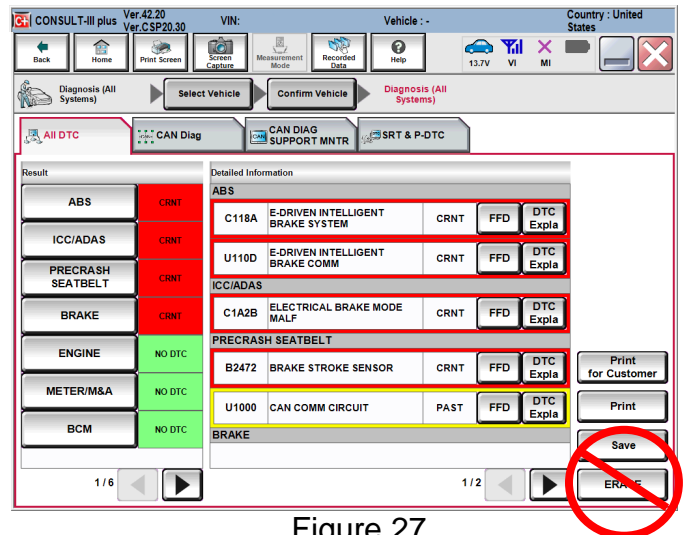


Figure 27

44. After 5 minutes depress the vehicle's power (“ignition”) switch twice without depressing the brake pedal to turn ignition ON:

- Re-connect the CIII plus VI.
- Start CIII plus.
- Check DTCs.
- If all DTCs have gone to past (Figure 29), skip to Step 46.
- After checking DTCs turn ignition OFF

NOTE: This can be done immediately after DTCs are checked.

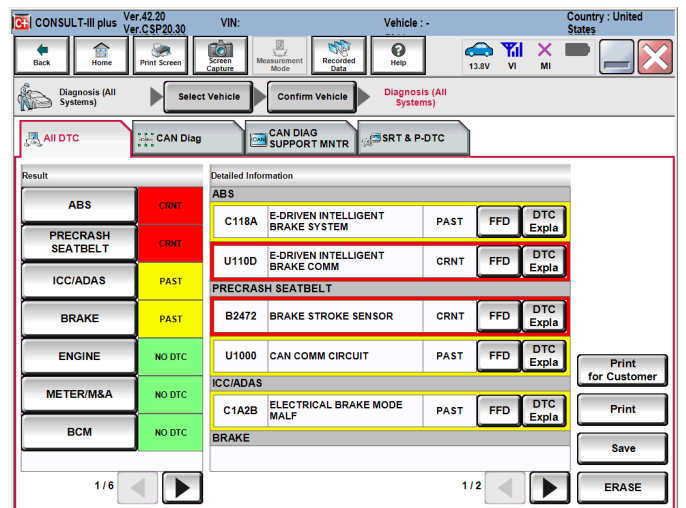


Figure 28

45. Wait 1 minute and then:

- Place the vehicle in “READY to drive” mode as follows:
 - Apply the parking brake.
 - Depress the brake pedal.
 - Depress the power switch once.
 - Make sure the “Ready” light is ON.
- While in “READY to drive” mode depress brake pedal for at least 5 seconds (all DTCs as shown in Figure 29 should now be PAST).

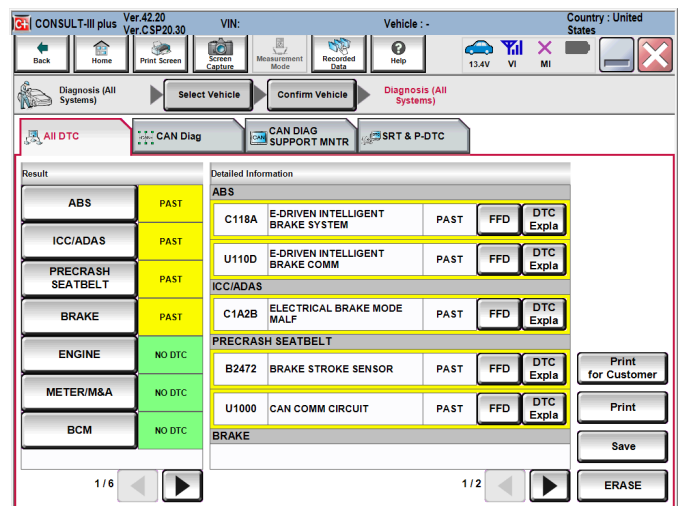


Figure 29

46. Select **ERASE**.

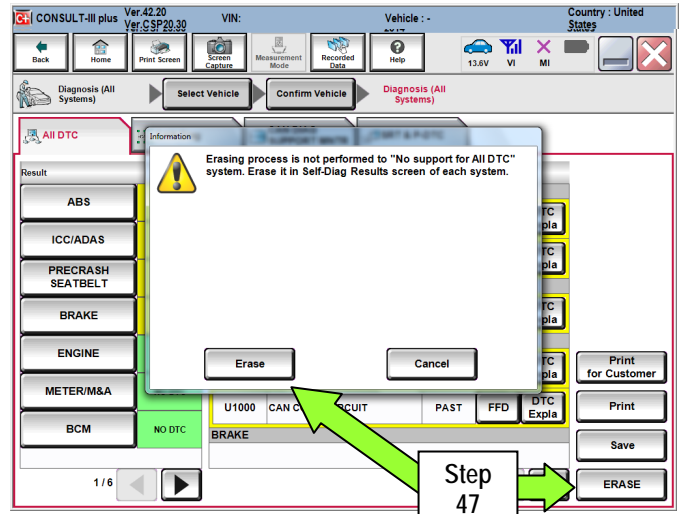


Figure 30

47. Once all DTCs have been cleared turn "ignition" off (depress power switch once).

48. Select **Home**, and then on the next screen select **Yes** (screen not shown).

49. Close C-III plus, turn off the CONSULT PC, and then disconnect the CONSULT PC and plus VI from the vehicle.

50. Verify no additional error messages are displayed in the meter and gauges or center multi-function control panel.

CLAIMS INFORMATION

Submit a Campaign (CM) line claim using the following claims coding:

CAMPAIGN ("CM") I.D.	DESCRIPTION	OP CODE	FRT
R1410	Reprogram Inverter Motor Controller	R14100	0.5 hrs.

