TECHNICAL SERVICE BULLETIN

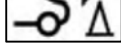| Classification:	Reference:	Date:
DA22-001B	NTB22-038B	June 20, 2023

RAB WARNING LIGHT ON IN INSTRUMENT PANEL AND/OR DTC B2724-23 STORED

This bulletin has been amended. See AMENDMENT HISTORY on the last page. Please discard previous versions of this bulletin.

APPLIED VEHICLES: 2019-2021 Altima (L34)
2019-2022 Murano (Z52)
2019-2021 Rogue Sport (J11)
2019-2021 Versa (N18)

APPLIED SYSTEMS: Rear Automatic Braking (RAB)

IF YOU CONFIRM

The customer states the RAB warning light [icon] is ON in the instrument panel's information display,

AND/OR

DTC B2724-23 (SONAR CONTROL UNIT - SONAR ECU INTERNAL FAILURE [UNDER VOLTAGE]) is stored.

ACTION

Reprogram and configure the Sonar Control Unit using the **SERVICE PROCEDURE** in this bulletin, if applicable.

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.

SERVICE PROCEDURE

Sonar Control Unit Reprogramming

IMPORTANT: Before starting, make sure:

- All CONSULT-III plus (C-III plus) software updates (if any) have been installed.

- The CONSULT PC is connected to the internet via a cable or Wi-Fi.

  o Later in the procedure you will be required to enter your username and password.

  o If you do not know your username and password, contact your service manager.

- A screen print for warranty documentation can be done from the CONSULT PC during this service procedure while still connected to the vehicle.

- No diagnostic trouble codes (DTCs) are stored.

  o Use C-III plus to perform Self Diagnosis for all systems.

  o If there are any DTCs, other than **B2724-23** and **C1B56-04**, diagnose, perform repairs, and erase DTC **before** continuing.

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

   - Make sure to use the correct VI for the CONSULT.

   NOTICE
   Make sure the VI is securely connected. If the VI connection is loose during reprogramming, the process will be interrupted and the control unit may be damaged.

2. 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 control unit may be damaged.

3. Connect a battery maintainer or smart charger set to reflash mode or a similar setting.

   NOTICE
   To avoid damage to the control unit, ensure a battery maintainer or smart charger is connected. The battery voltage must be between 12.0V and 15.5V during reprogramming.

4. 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 control unit may be damaged.

5.   Turn the ignition ON with the engine OFF.

NOTICE

To avoid damage to the control unit, the engine must not start or run during the reprogramming procedure.

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.

7.   Turn ON the hazard warning lamps.

8.   Turn ON the CONSULT PC.

9.   Start C-III plus.

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

11. 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.

12. Wait for the VI to be recognized.

- The serial number will display when the VI is recognized.
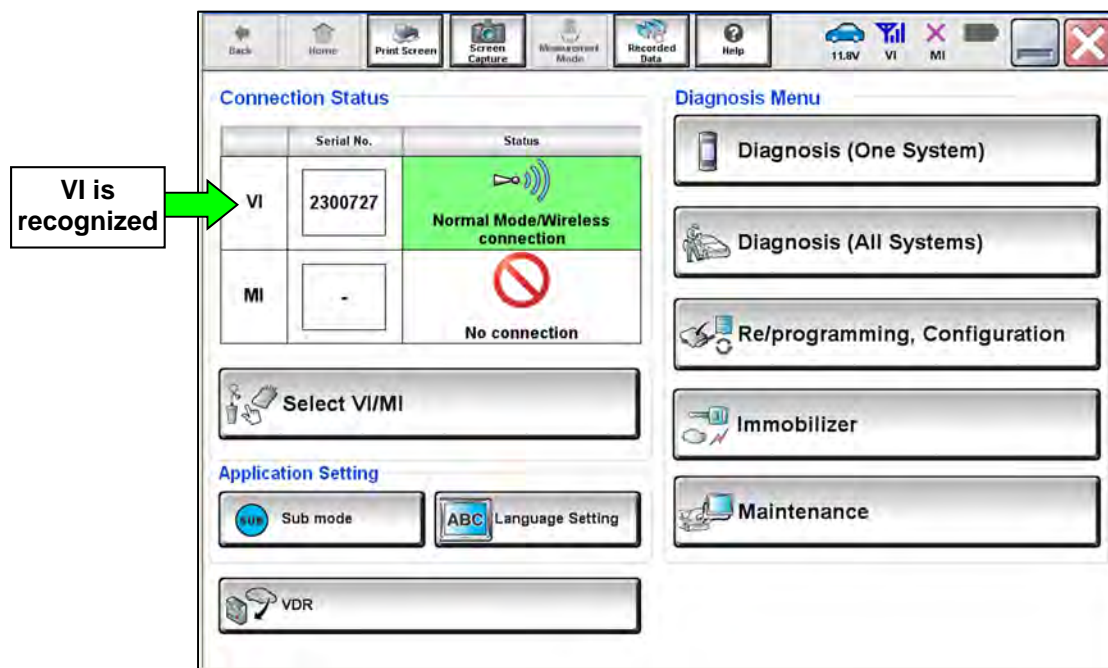
Figure 1

13. Select **Diagnosis (One System)**.
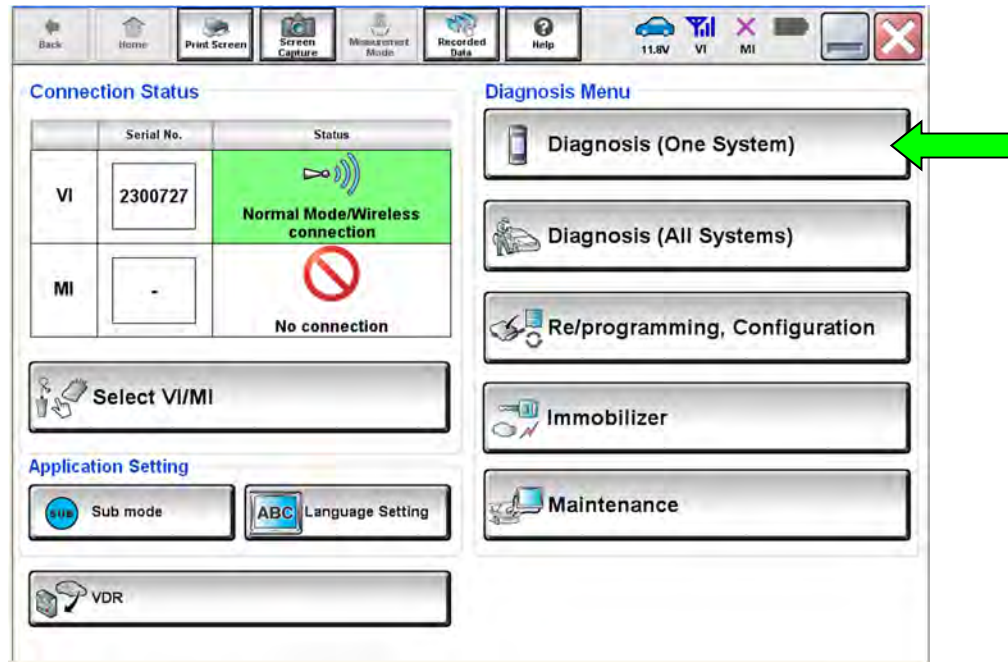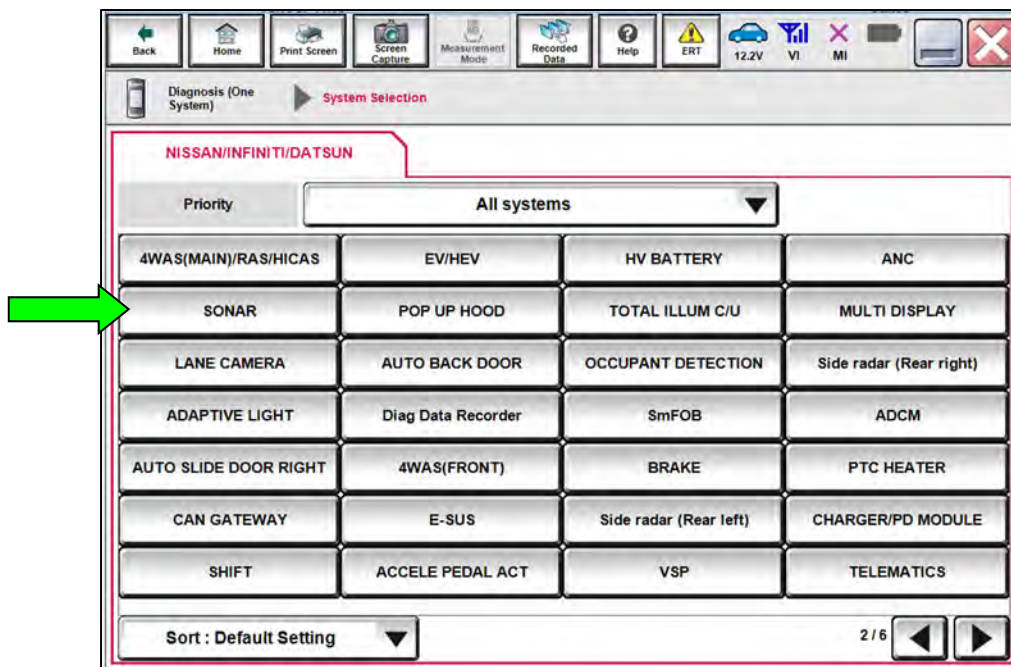

Figure 2

14. Select **SONAR**.

Figure 3

15. Select **ECU Identification**.

16. Confirm the current **SOFTWARE #** (Figure 4). See **Table A** (below) for model specific **SOFTWARE #**.

   - If the **SOFTWARE #** is in **Table A**, this bulletin does not apply. See the Electronic Service Manual (ESM) for further diagnostic information.

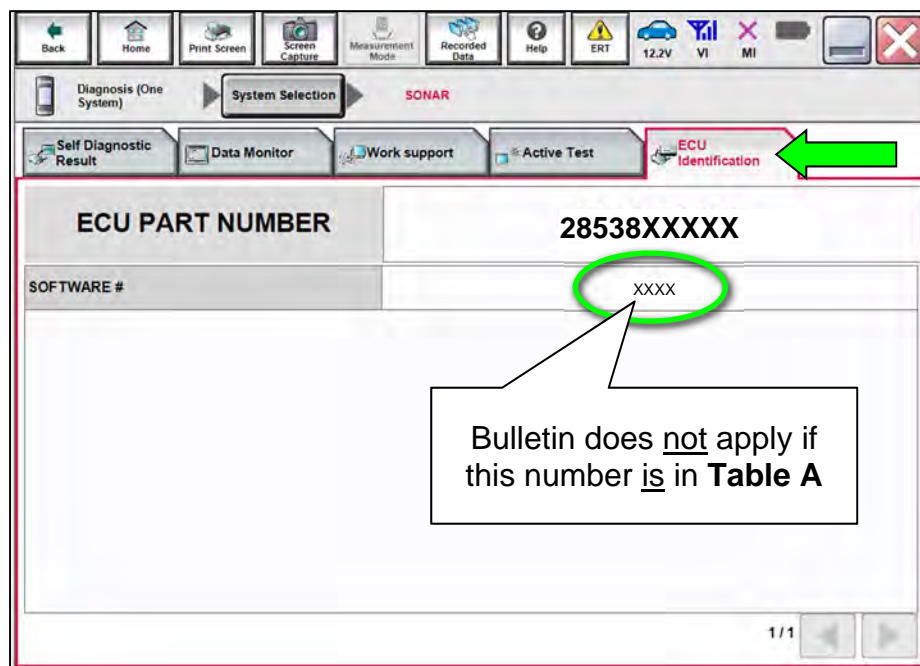   - If the **SOFTWARE #** is not in **Table A**, proceed to step 17.

ECU PART NUMBER — 28538XXXXX

SOFTWARE # — xxxx

Bulletin does not apply if this number is in **Table A**

Figure 4

Table A

MODEL	SOFTWARE #
Altima	L139
Murano	M016, M206, or M210
Rogue Sport	S140
Versa	D137

17. Select **Home**.
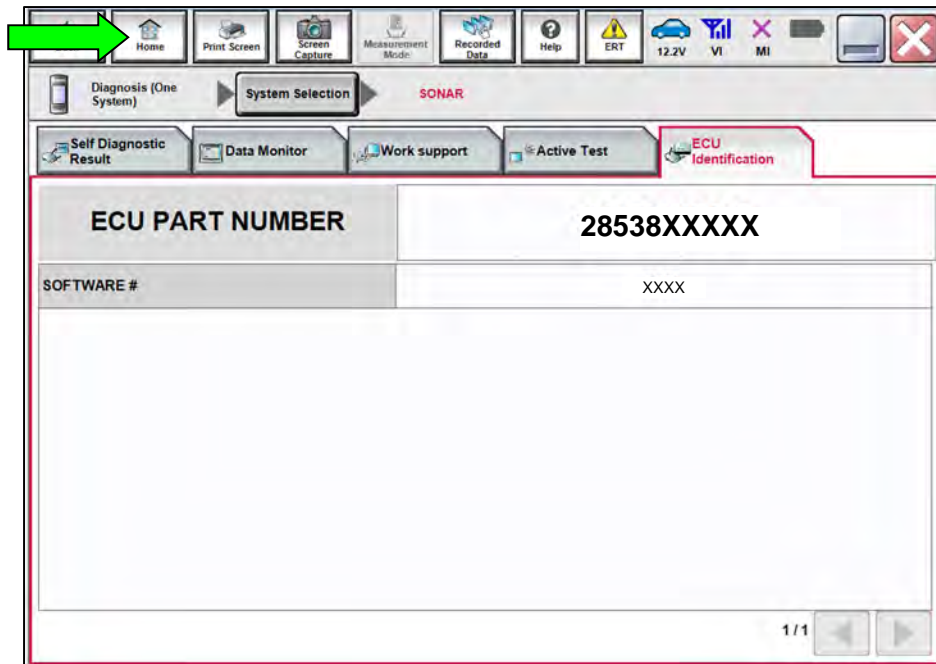
Figure 5

18. Select **Re/programming, Configuration**.
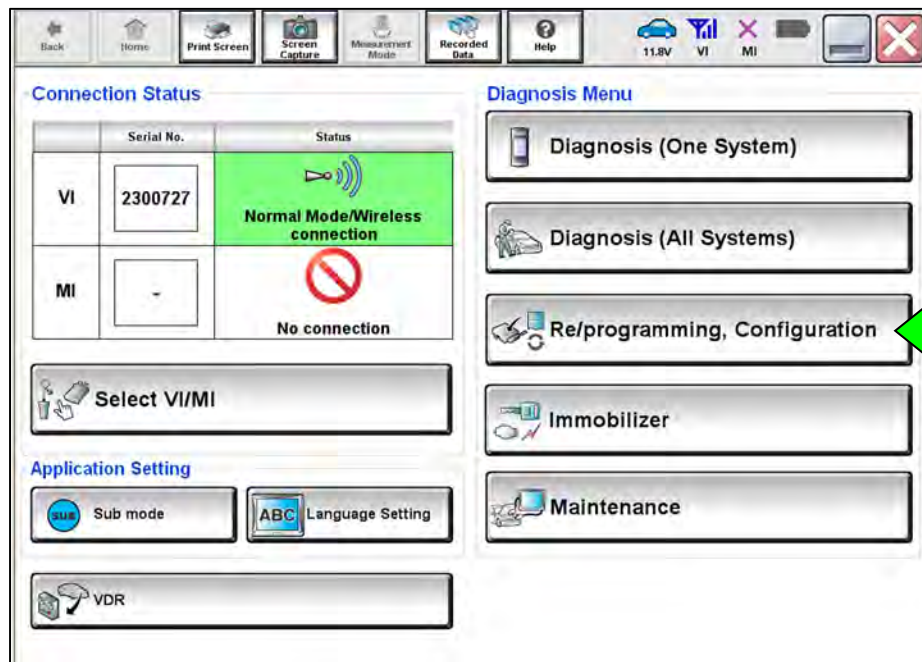
Figure 6

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

20. Check the box confirming the precautions have been read.
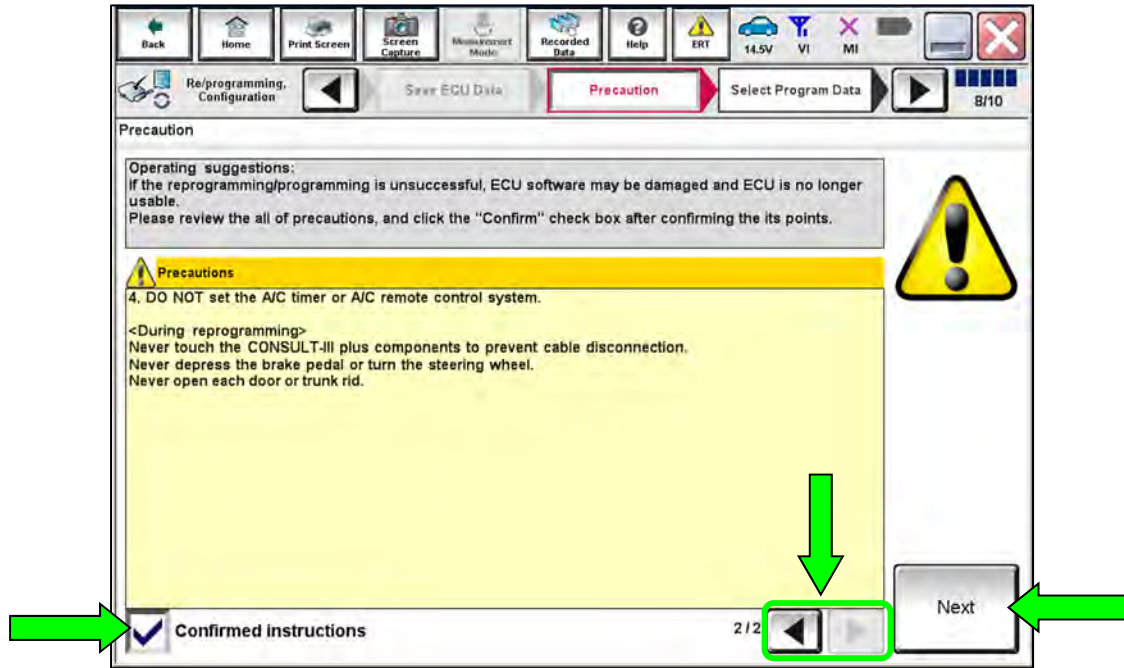
21. Select **Next**.

Figure 7

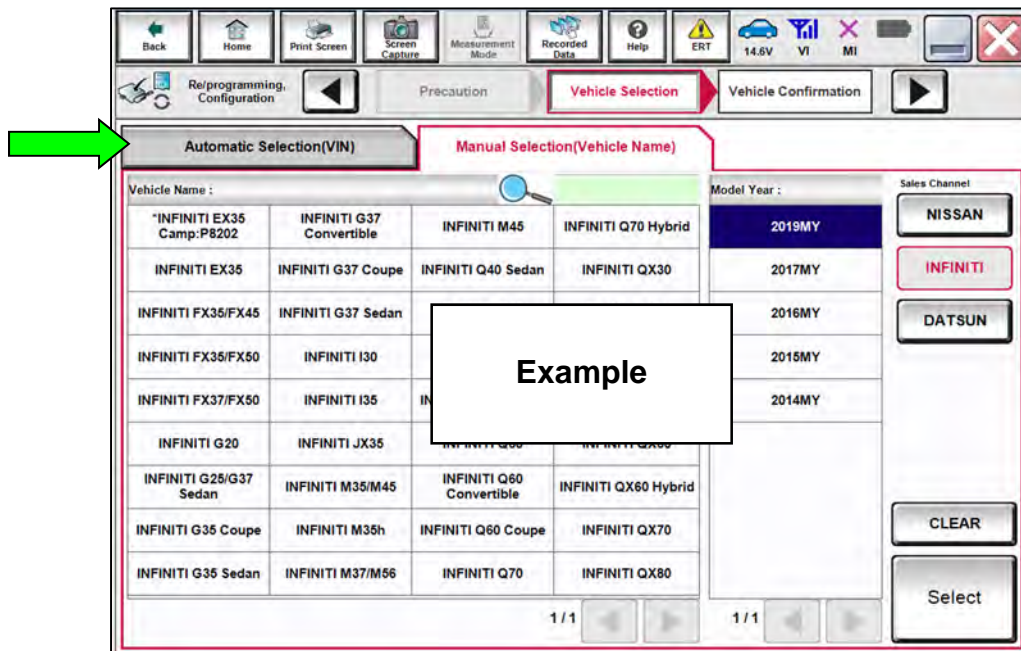22. Select **Automatic Selection(VIN)**.

Figure 8

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23. Confirm the **VIN or Chassis #** matches the vehicle's VIN.
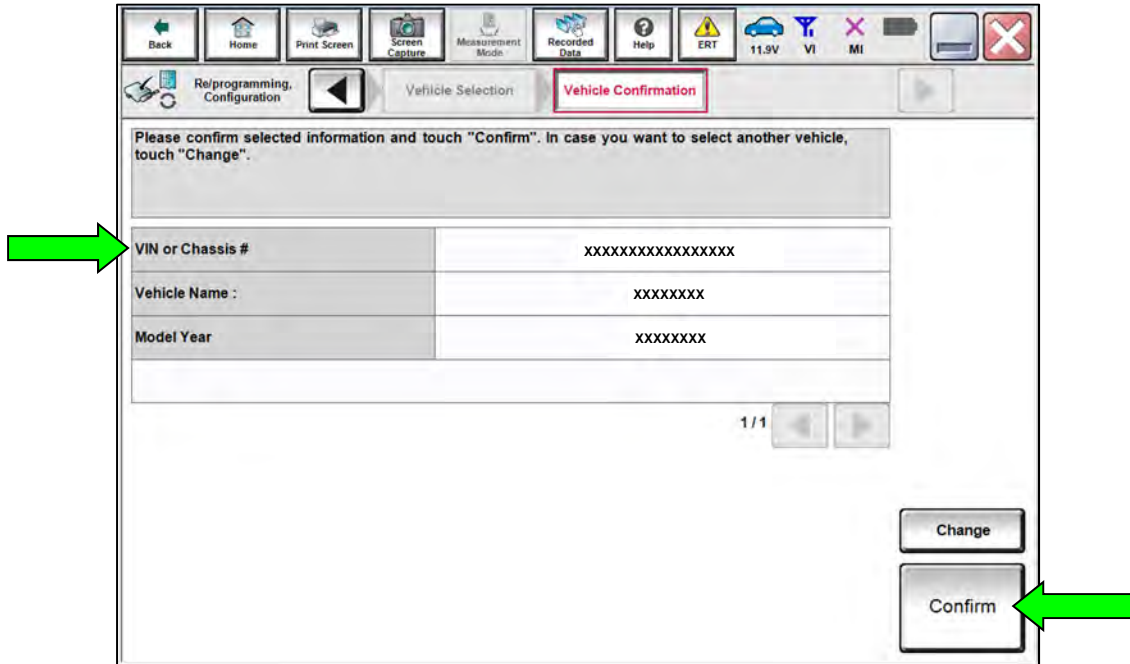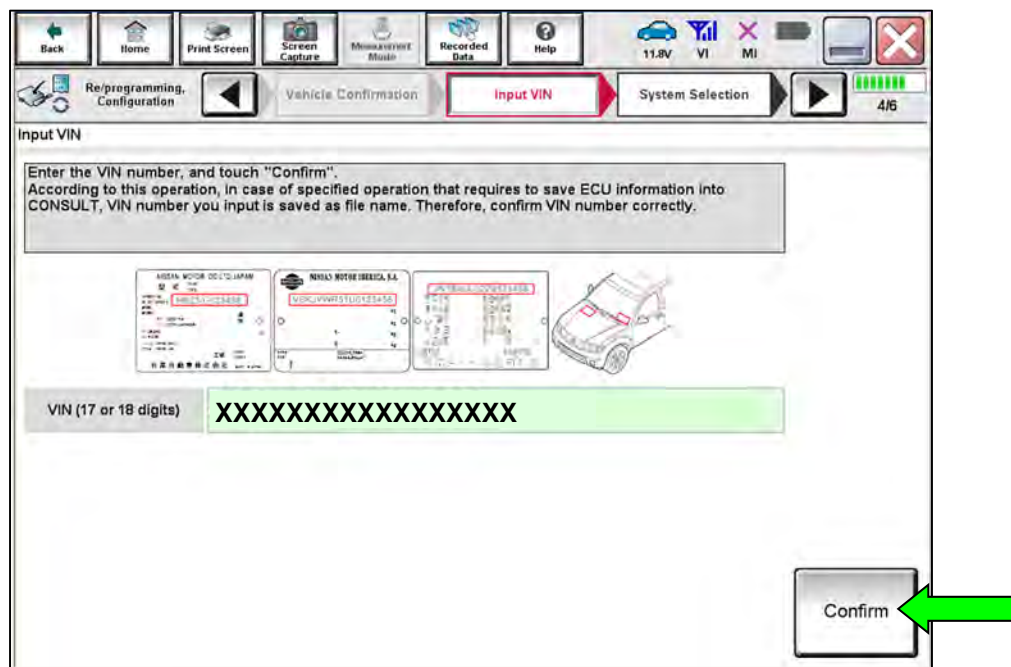
24. Select **Confirm**.

Figure 9

25. Select **Confirm**.
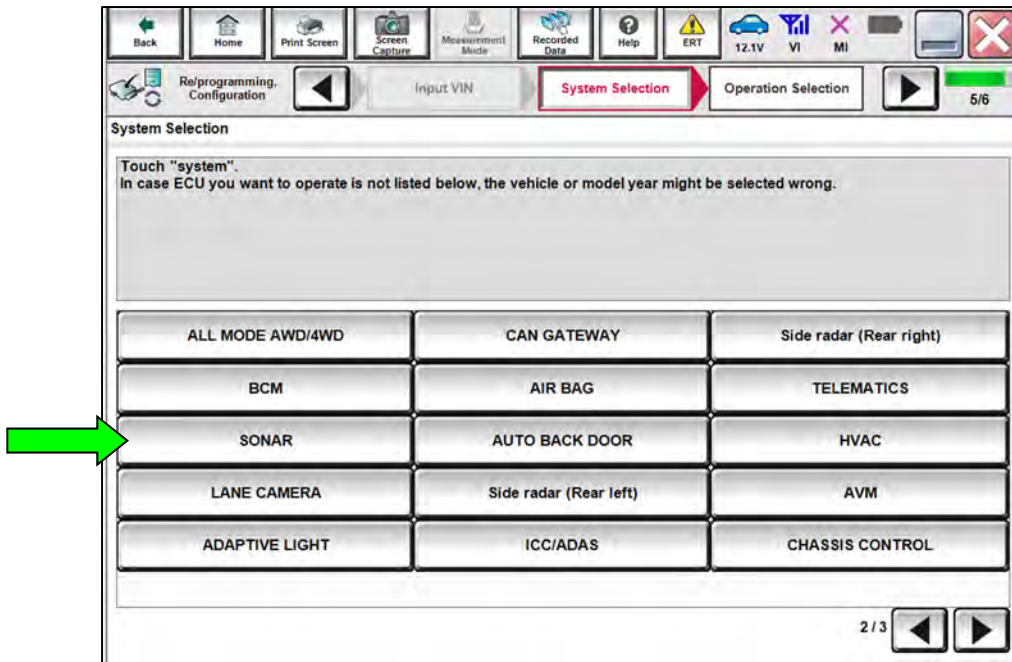

Figure 10

26. Select **SONAR**.
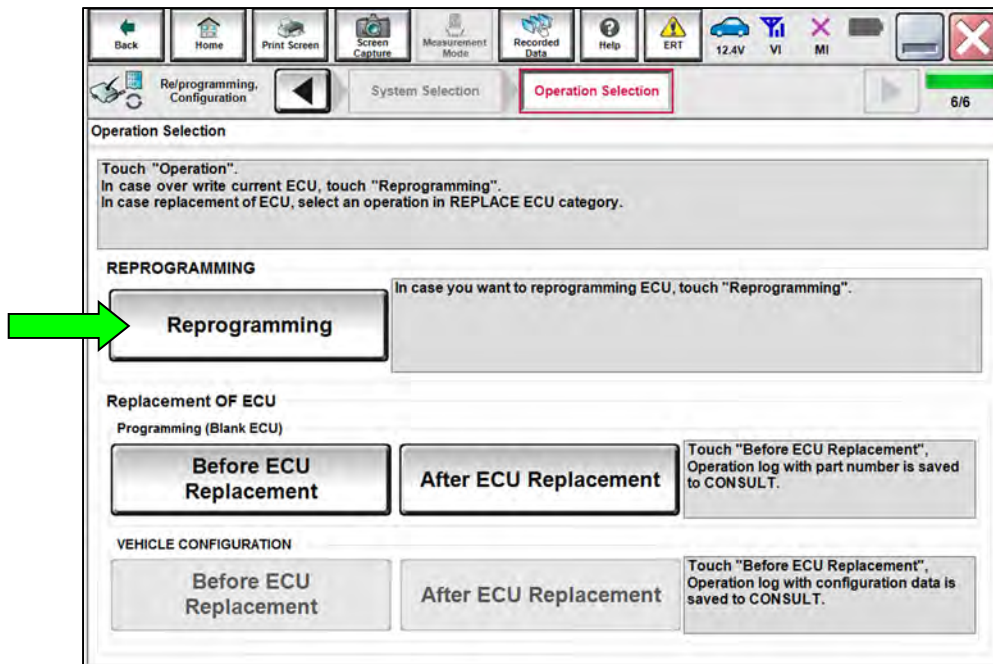

Figure 11

27. Select **Reprogramming**.

Figure 12

28. When you get to the screen shown in Figure 13, confirm that a reprogram is available as follows.

   a. Find the Sonar Control Unit **Part Number** and write it on the repair order.

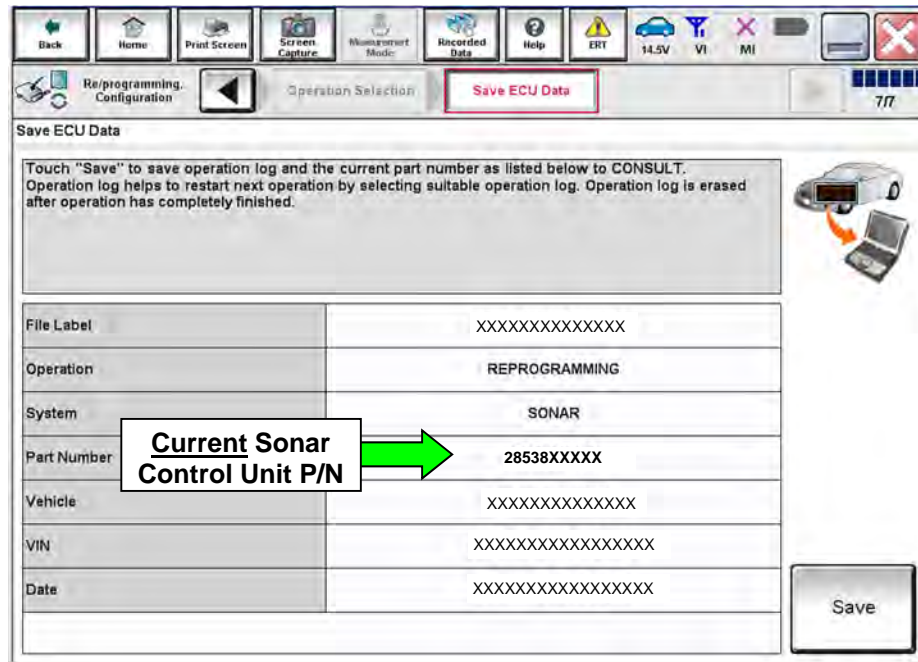   **HINT:** This is the <u>current</u> part number (P/N).

Figure 13

   b. Compare the part number you wrote down to the part numbers in **Table B**.

      o If there is a <u>match</u>, continue with the reprogramming procedure.

      o If there is <u>not a match</u> in **Table B**, this bulletin does not apply. See the ESM for further diagnostic information.

Table B

MODEL	CURRENT SONAR CONTROL UNIT PART NUMBER: 28538-
Altima	6CA2A, 6CA3A
Murano	9UH1A, 9UF1B
Rogue Sport	6MM0B
Versa	5EA0A, 5EA1A

29. Follow the on-screen instructions to navigate CONSULT and reprogram the SONAR.
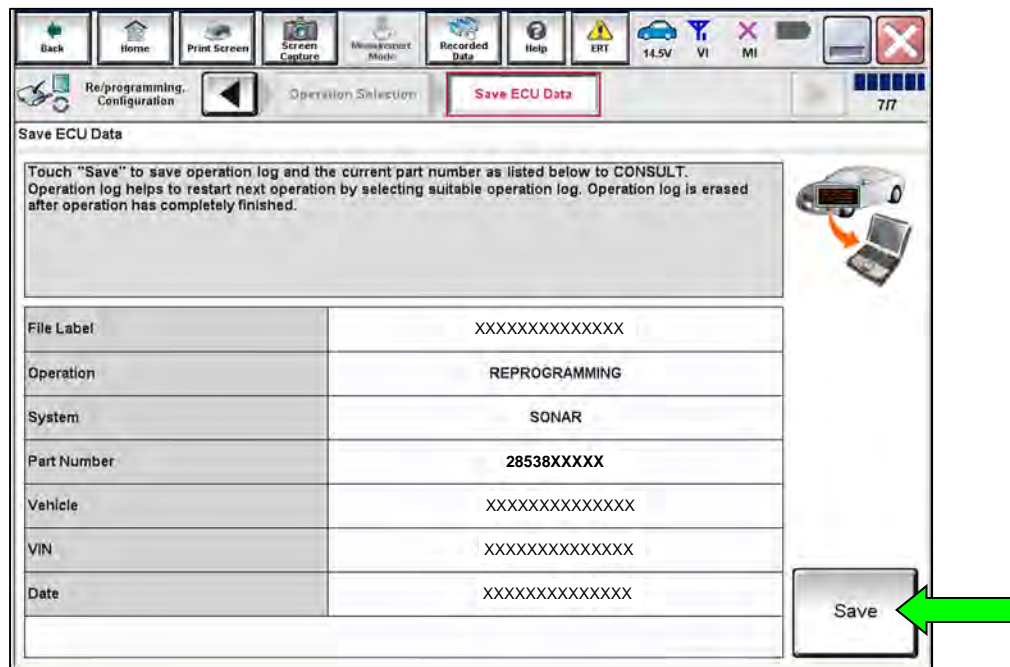
30. Select **Save**.

Figure 14

31. Read the precautions on the CONSULT screen, check the box for **Confirmed Instructions**, and then select **Next**. (Screens not shown.)
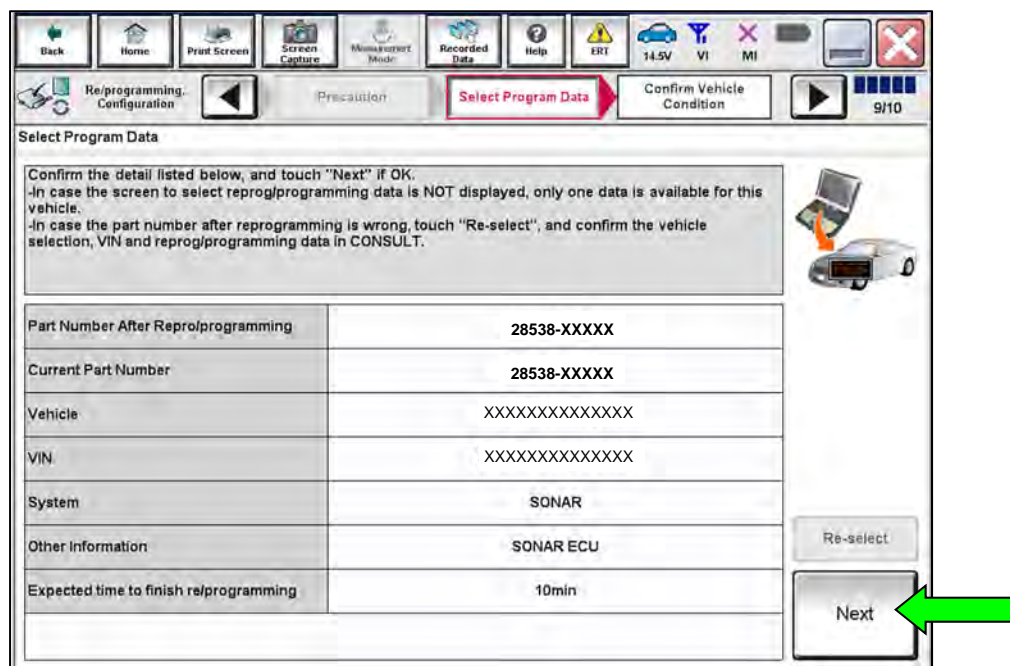
32. Select **Next**.

Figure 15

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HINT: If you get the screen below and it is blank (no reprogramming listed), it means there is no reprogramming available for this vehicle. Close CONSULT and refer back to the ESM for further diagnosis.
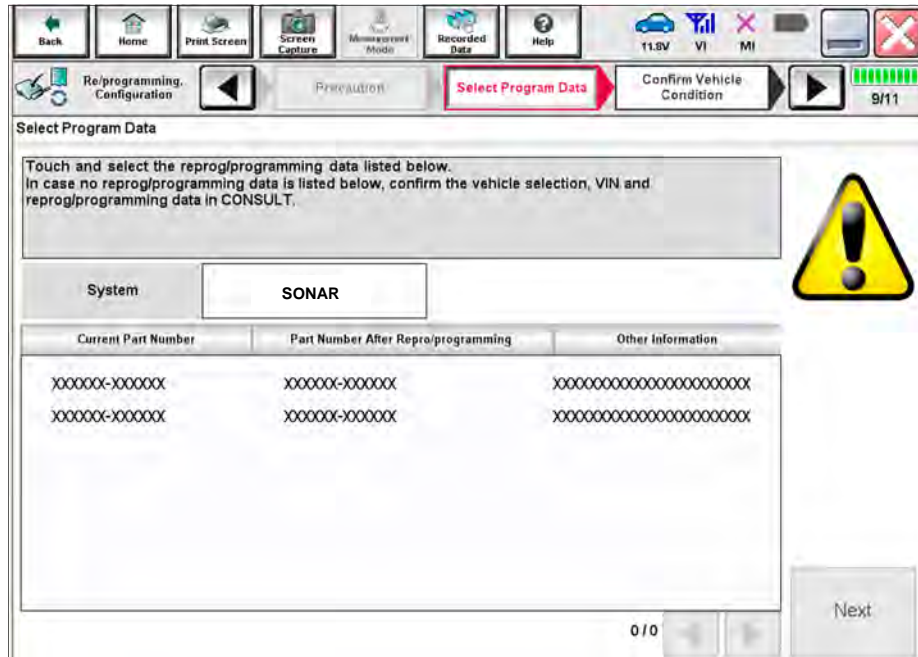

Figure 16

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

NOTICE

To avoid damage to the control unit, ensure a battery maintainer or smart charger is connected. The battery voltage must be between 12.0V and 15.5V during reprogramming.
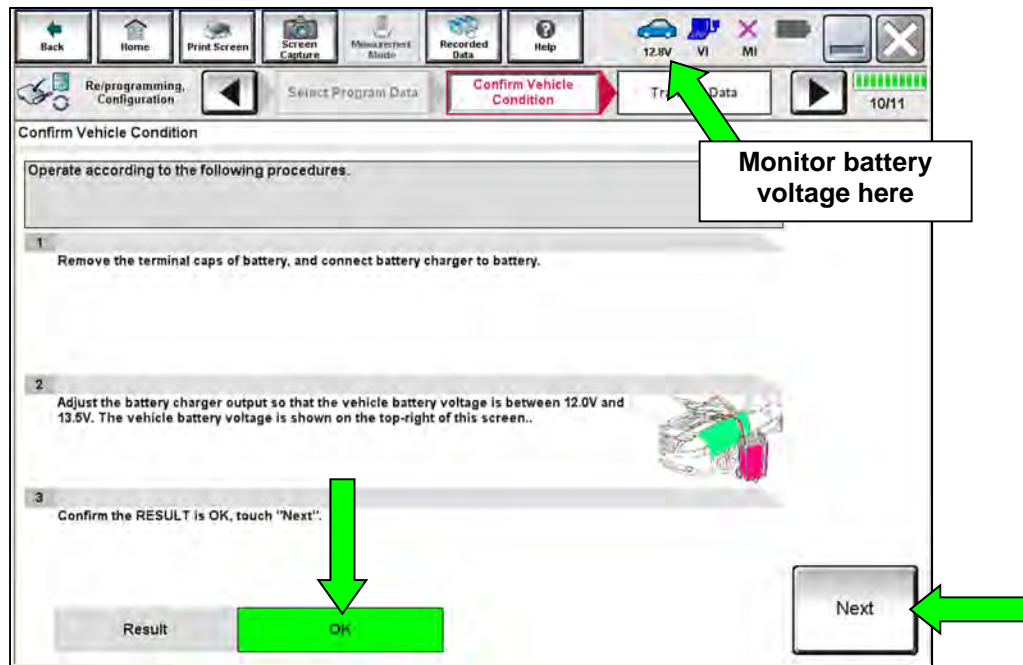
34. Select **Next**.

Figure 17

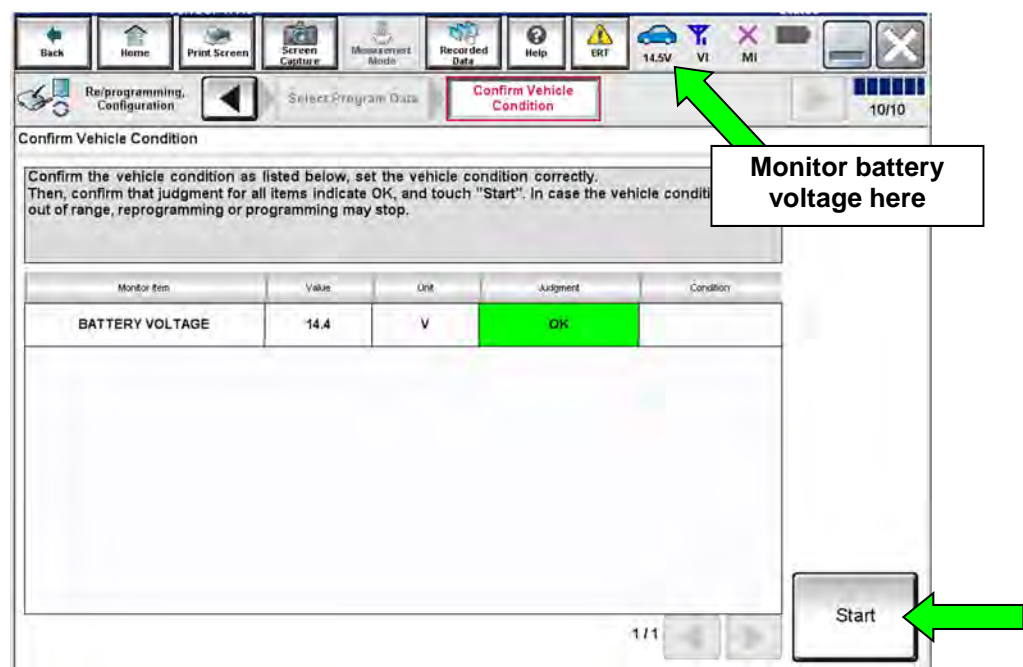35. Confirm all **Judgment** items are "OK", and then select **Start**.

Figure 18

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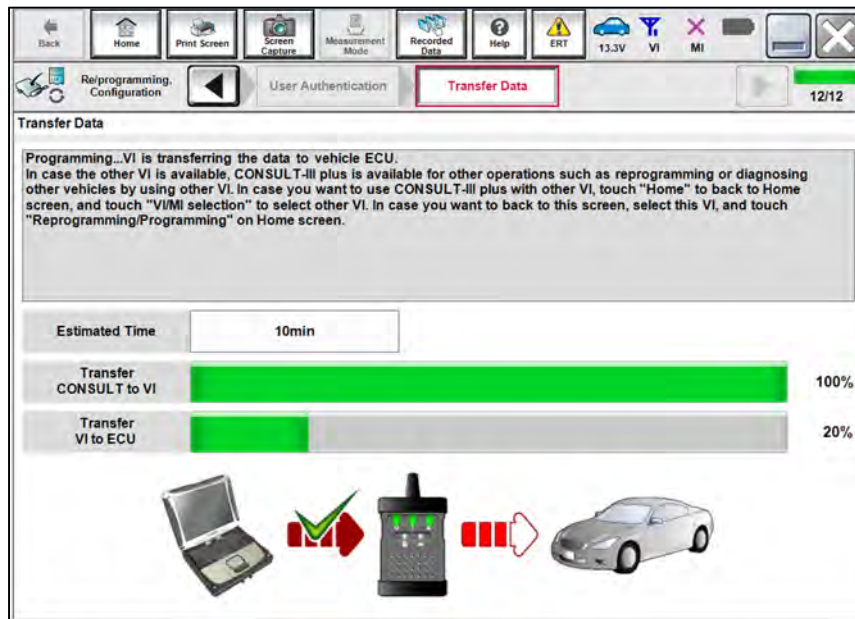36. Wait for both progress bars to complete.

Figure 19

- When the screen in Figure 20 displays, the reprogramming is complete.

- If the screen in Figure 20 does not display (indicating that reprogramming did not complete), refer to **Sonar Control Unit Recovery** on the next page.

37. Disconnect the battery maintainer or smart charger from the vehicle.
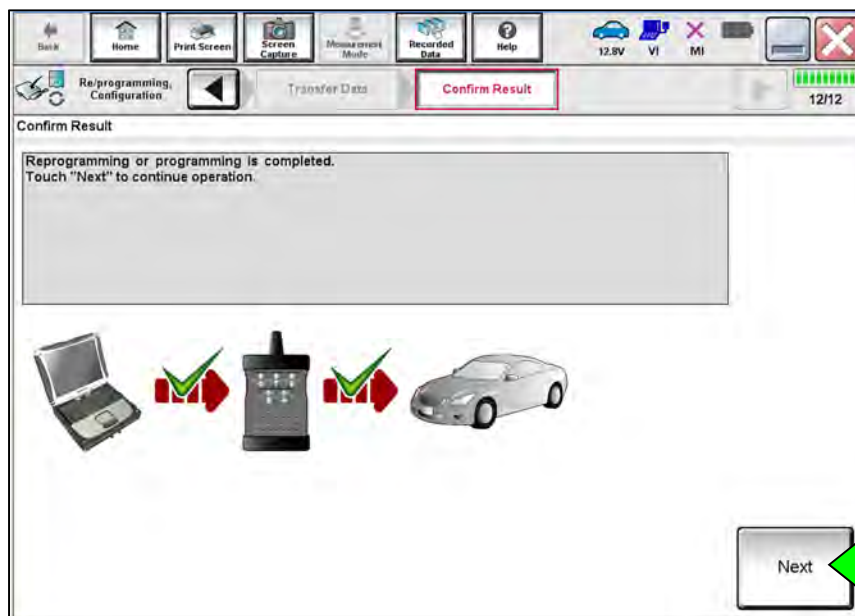
38. Select **Next**.

Figure 20

HINT: Additional steps/operations are required before CONSULT will provide the final reprogramming confirmation report. Continue with the reprogramming procedure on page 16.

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Sonar Control Unit Recovery

Do not disconnect the VI or shut down CONSULT if reprogramming does not complete.

If reprogramming does not complete and the "!?" icon displays, as shown in Figure 21**:**

- 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**.

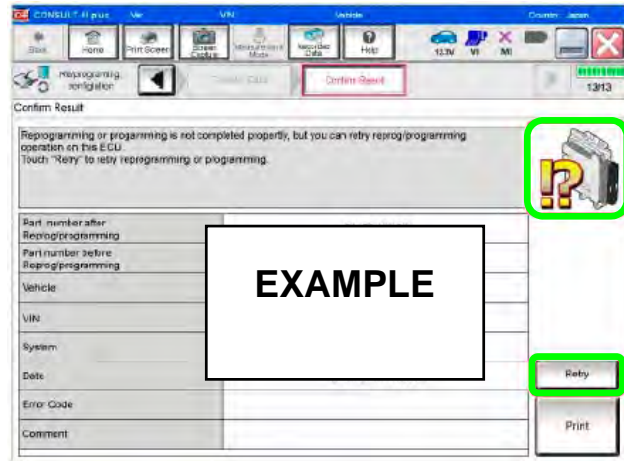- "Retry" may not go through on first attempt and can be selected more than once.

Figure 21

If reprogramming does not complete and the "X" icon displays, as shown in Figure 22**:**

- 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 CONSULT VI cables are securely connected.

- All C-III plus updates are installed.

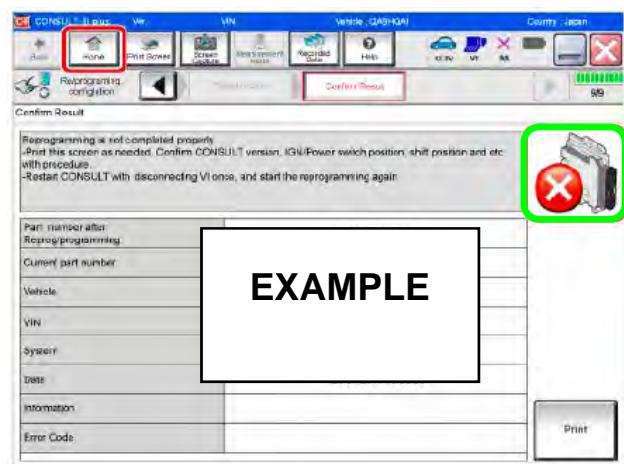- **Select Home, and restart the reprogram procedure from the beginning.**

Figure 22

39. Perform **Erase All DTCs** as follows:
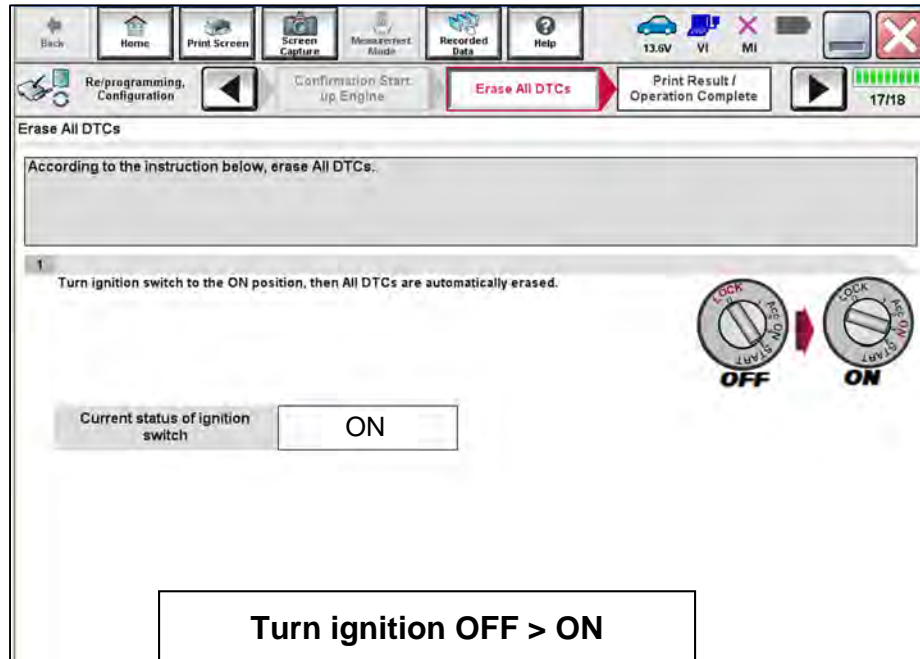
a. Turn the ignition OFF.

b. Turn the ignition ON.

Figure 23

HINT: When the entire reprogramming process is complete, the screen in Figure 24 on page 17 will display.

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40. Verify the before and after part numbers **are the same**.

HINT: For this reprogram, the before and after reprogramming part numbers should be the same. This is not an error.

41. Print a copy of the screen below (Figure 24) and attach it to the repair order for warranty documentation.

HINT: If you cannot print the screen:

  a. Select **Screen Capture**.

  b. Name the file.

  c. Save the file in My Documents.

      o A copy of the screen is now saved in the CONSULT PC. It can be retrieved and printed at a later time.
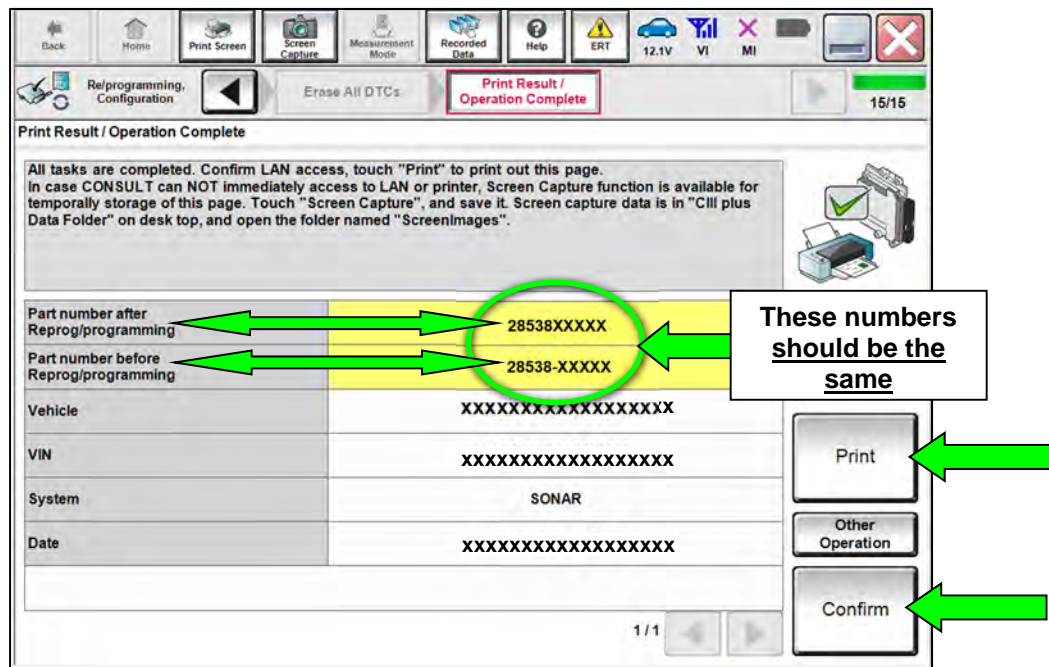
42. Select **Confirm**.

Figure 24

43. Select **Home** (screen not shown).

Sonar Control Unit Configuration

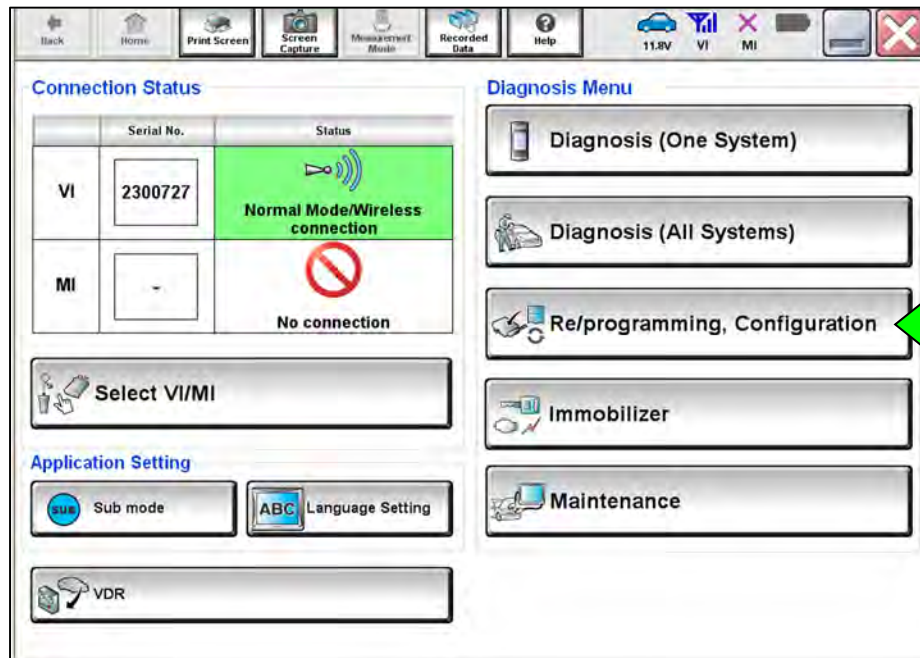44. Select **Re/programming, Configuration**.

Figure 25

HINT: CONSULT screens for steps 45-48 are not shown.

45. Read the precautions on the CONSULT screen, check the box for **Confirmed Instructions**, then select **Next**.

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

47. Select **Confirm**.
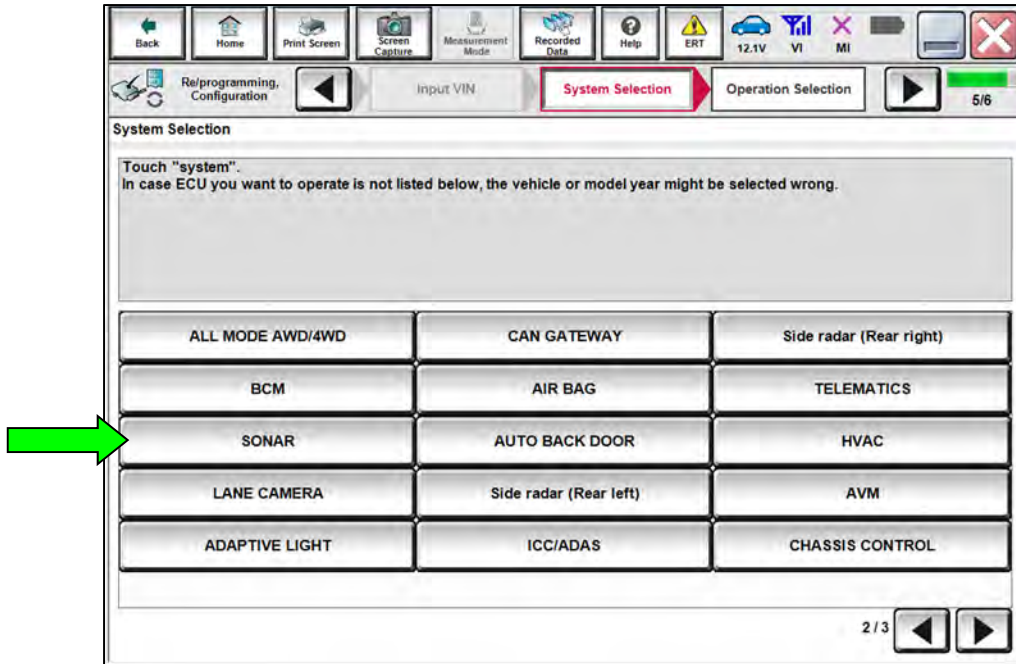
48. Select **Confirm** again.

49. Select **SONAR**.

Figure 26

50. Select **After ECU Replacement** under **VEHICLE CONFIGURATION**.
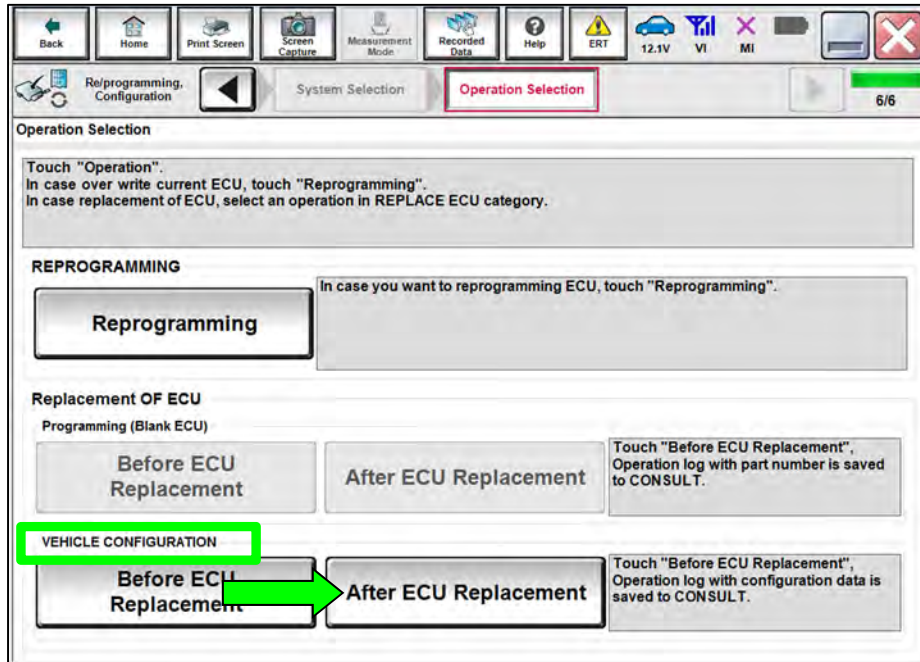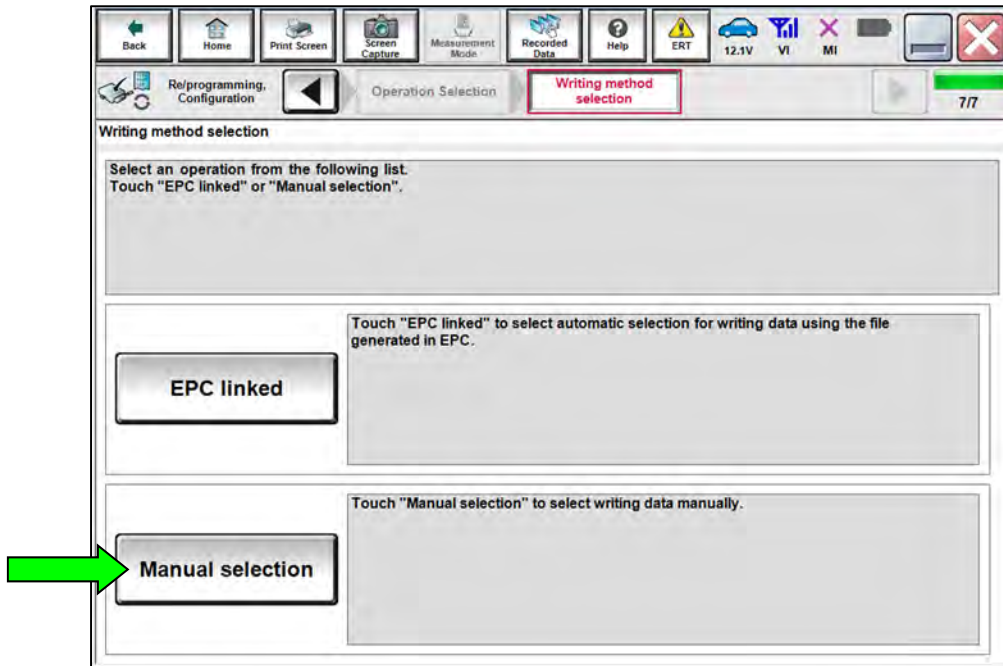

Figure 27

51. Select **Manual selection**.

Figure 28

52. Select the applicable **Type ID**.

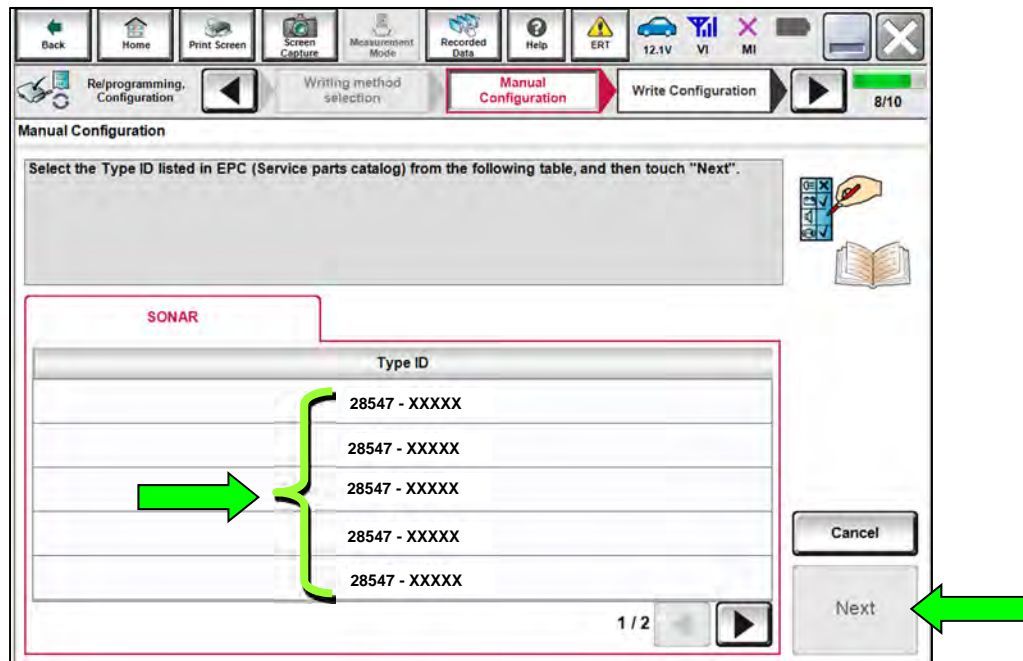- Refer to the EPC to determine the applicable **Type ID**.

53. Select **Next**.

Figure 29

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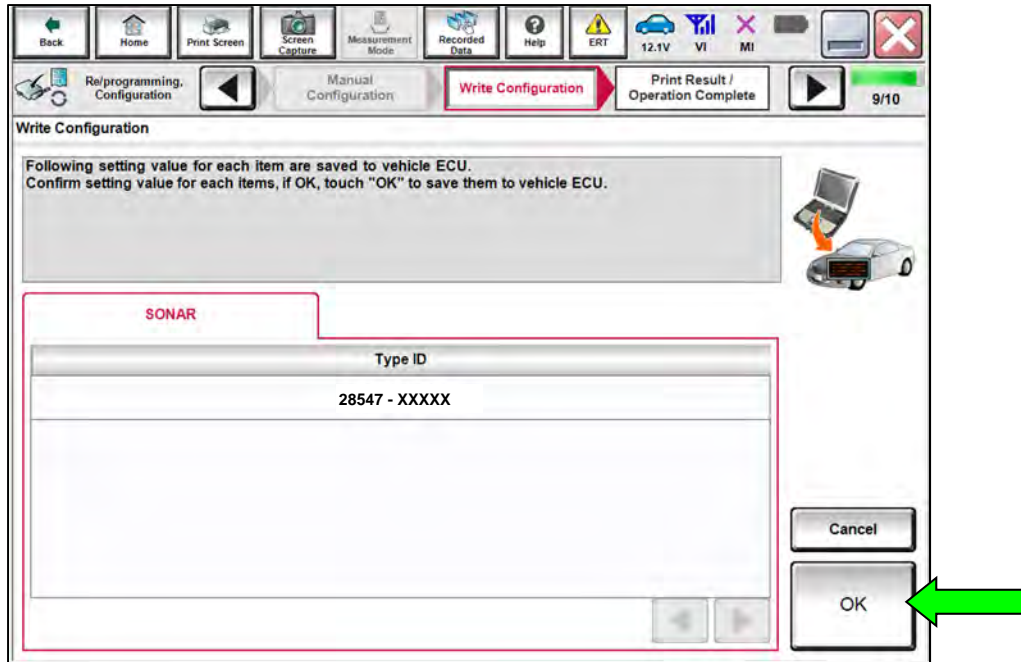54. Confirm that the correct **Type ID** is displayed, and then select **OK**.

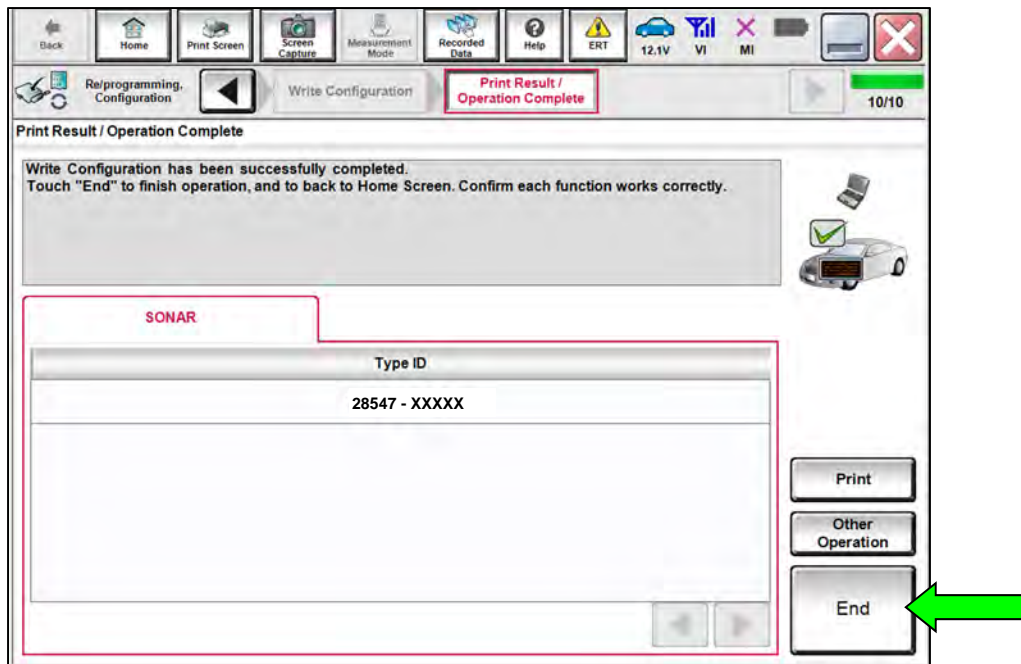
Figure 30

55. Select **End**.

Figure 31

56. Select **Home** (screen not shown).

57.   Select **Diagnosis (One System)**.
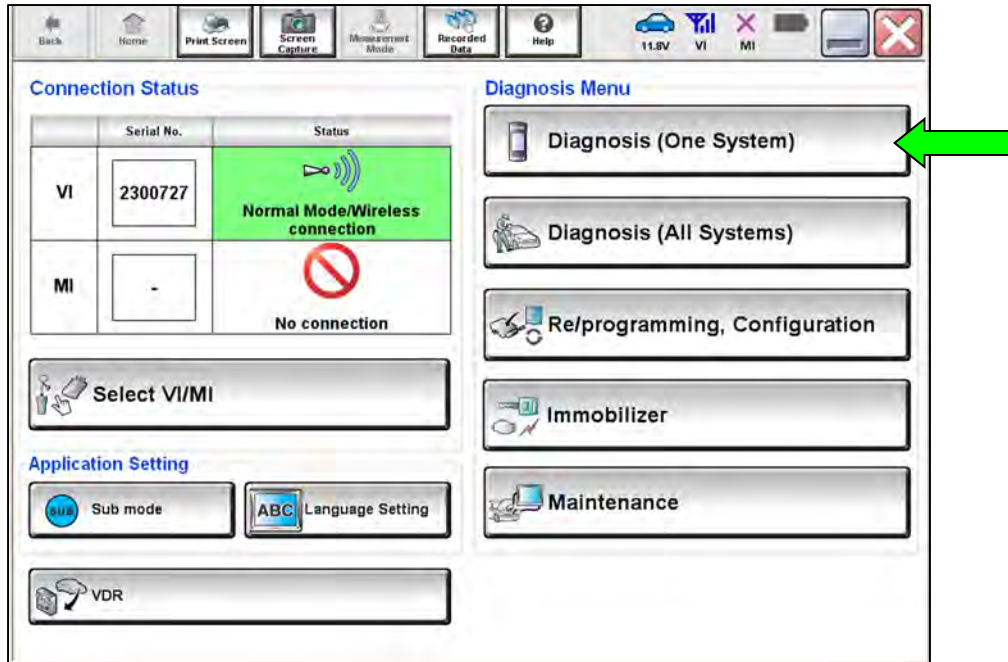

Figure 32
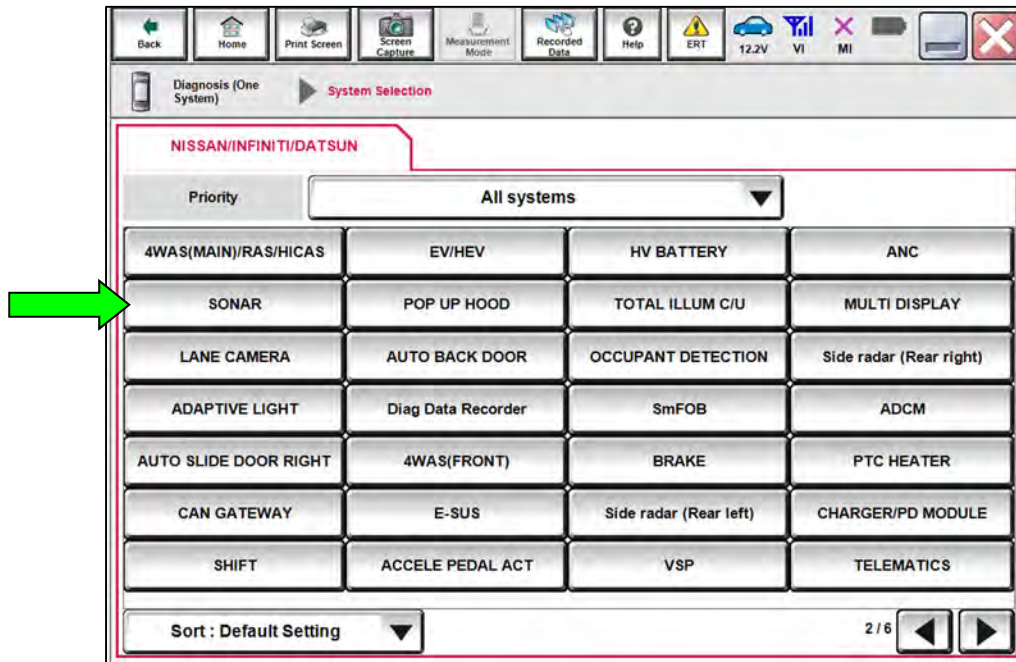
58.   Select **SONAR**.

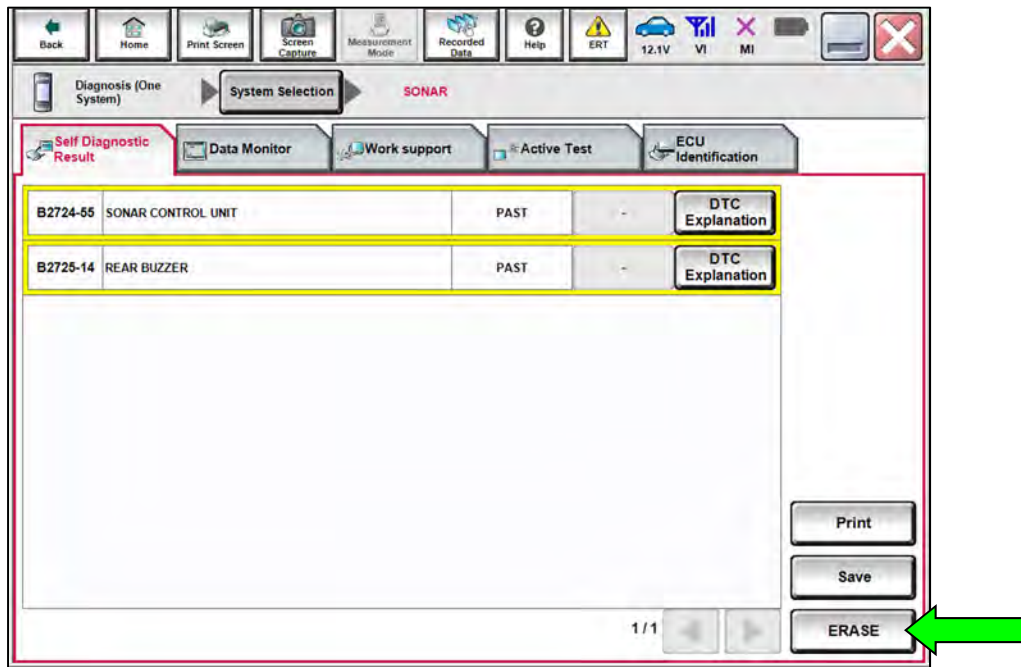Figure 33

59. Select **ERASE**.

Figure 34

60. Select **ECU Identification**.

61. Confirm the **SOFTWARE #** (Figure 35).

- If the **SOFTWARE #** <u>is</u> in **Table A** on page 5, proceed to step 62.

- If the **SOFTWARE #** <u>is not</u> **Table A** on page 5, reprogramming did not successfully complete. Go back to step 18 on page 6 and perform the procedure again.
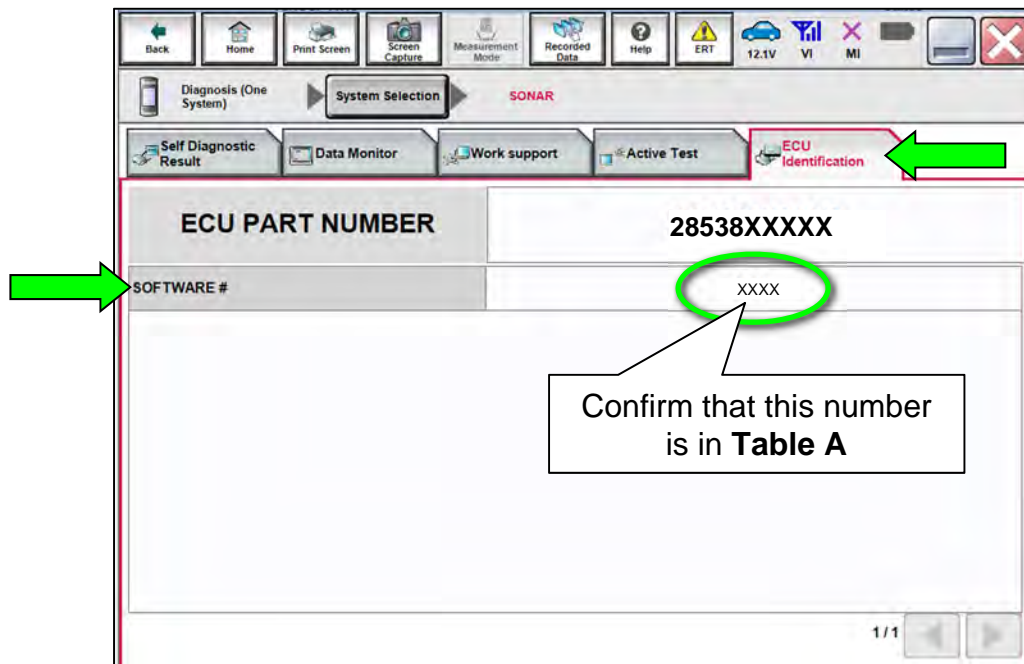

Figure 35

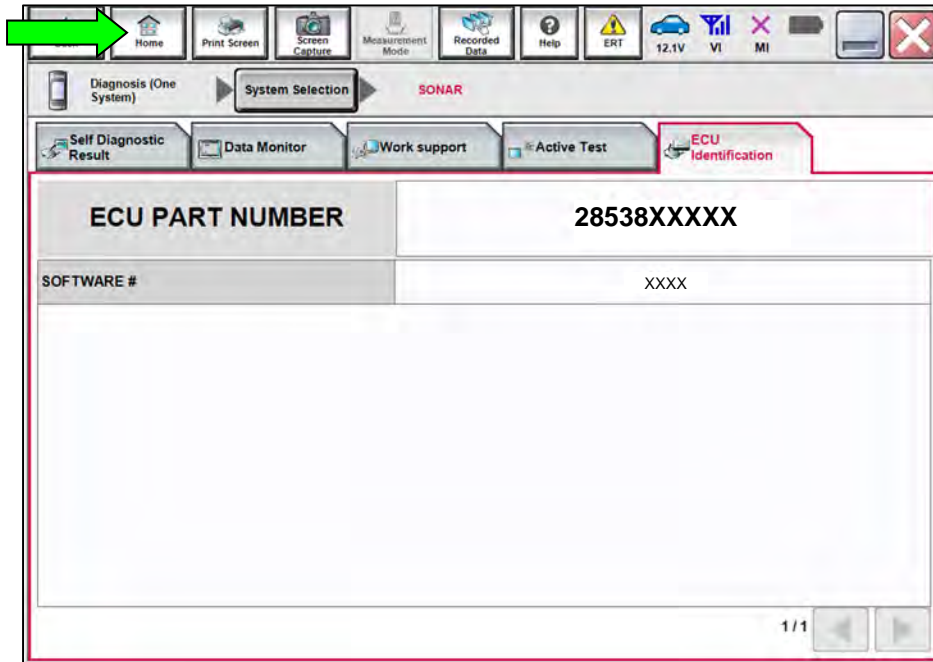NTB22-038B

62. Select **Home**.

Figure 36

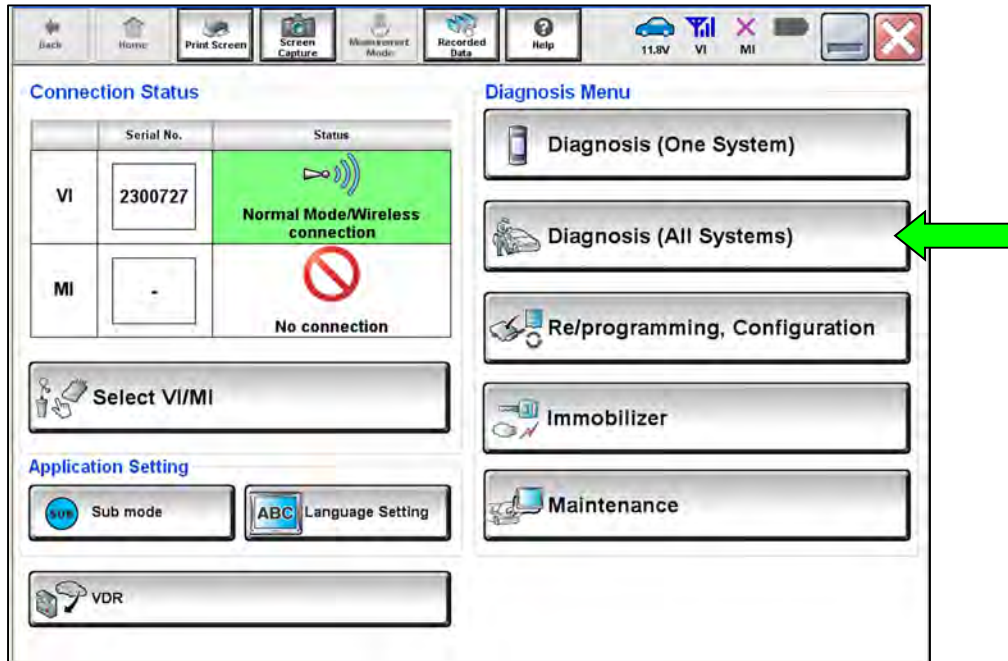63. Select **Diagnosis (All Systems)**.

Figure 37

HINT: CONSULT screens for steps 64-66 are not shown.

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

65. Select **Confirm**.

66. Select **Confirm** again.

67. Turn the ignition OFF, and then turn the ignition ON.

68. Confirm DTC C1B56-04 is displayed as **PAST** (not **CRNT**) (Figure 38).
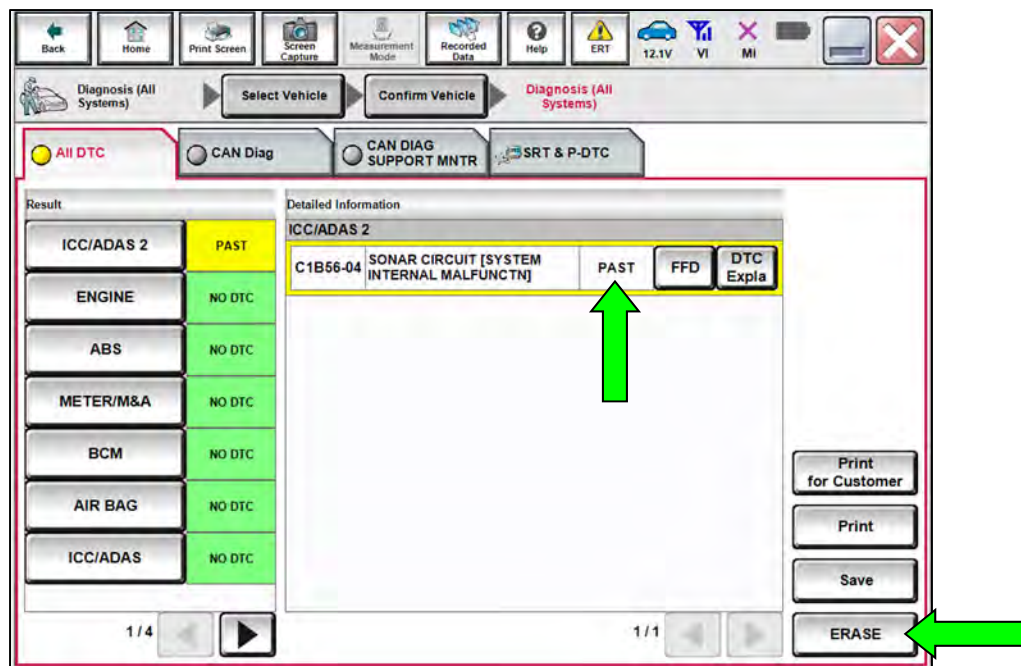
69. Select **ERASE**.

Figure 38

70. Close CONSULT.

71. Turn the ignition OFF.

72. Disconnect the VI from the vehicle.

73. Start the engine.

74. Check that the RAB system setting can be enabled/disabled on the combination meter.

75. Test drive the vehicle and make sure it operates correctly and the MIL is OFF.

    - If the MIL comes ON, go back to the ESM for further diagnostic information.

    - Diagnosis and repairs beyond SONAR reprogramming are not covered by this bulletin.

CLAIMS INFORMATION

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

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Reprogram Sonar Software	(1)	RXA7AA	ZE	32	0.8

(1)   Reference the electronic parts catalog and use the Sonar Control Unit (28532-*****) as the Primary Failed Part (PFP).

AMENDMENT HISTORY

PUBLISHED DATE	REFERENCE	DESCRIPTION
May 19, 2022	NTB22-038	Original bulletin published
January 24, 2023	NTB22-038A	Table A revised, and login information moved to page 3
June 20, 2023	NTB22-038B	Pages 1-2 and Table A revised

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