



TECHNICAL SERVICE BULLETIN

Classification:	Reference:	Date:
DA22-001	NTB22-038	May 19, 2022

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

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 an RAB warning light in the instrument panel's information display is ON (Figure 1),

AND/OR

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

NOTE: A RAB warning light may appear in the vehicle information display.

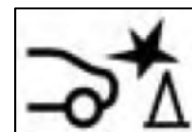


Figure 1

ACTION

Reprogram and configure the Sonar Control Unit with 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.

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 Nissan dealer to determine if this applies to your vehicle.

SERVICE PROCEDURE

Sonar Control Unit Reprogramming

IMPORTANT: Before starting, make sure:

- ASSIST on the CONSULT PC has been synchronized (updated) to the current date.
 - 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.
 - Later in the procedure you will be required to enter your username and password.
 - 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.
 - Use C-III plus to perform Self Diagnosis for all systems.
 - 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.
 - The serial number will display when the VI is recognized.

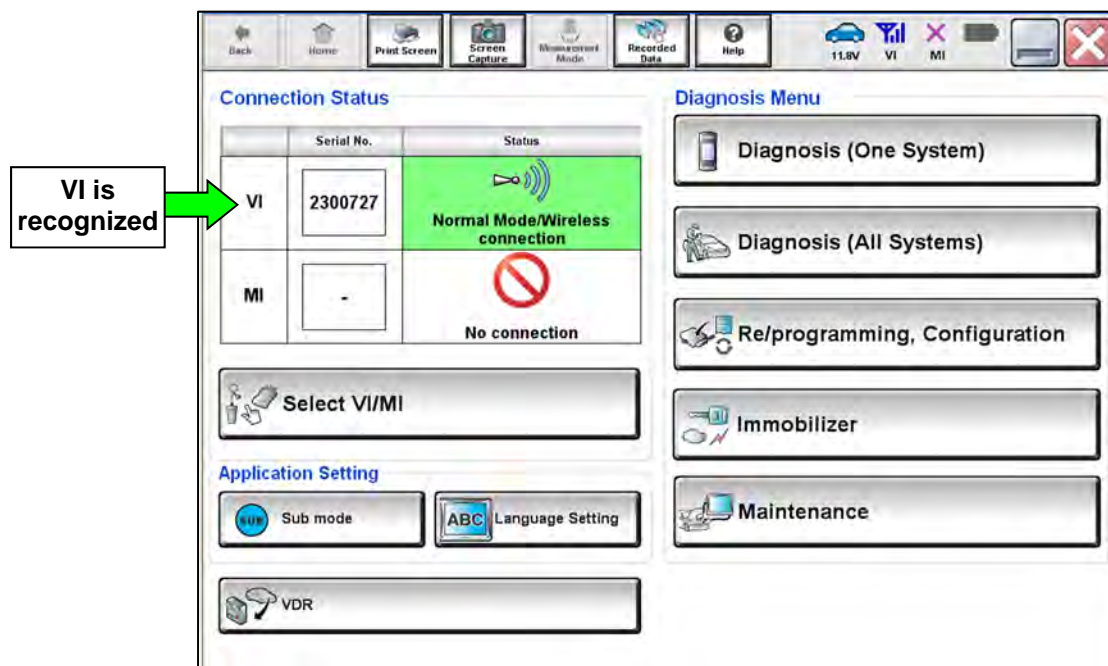


Figure 2

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

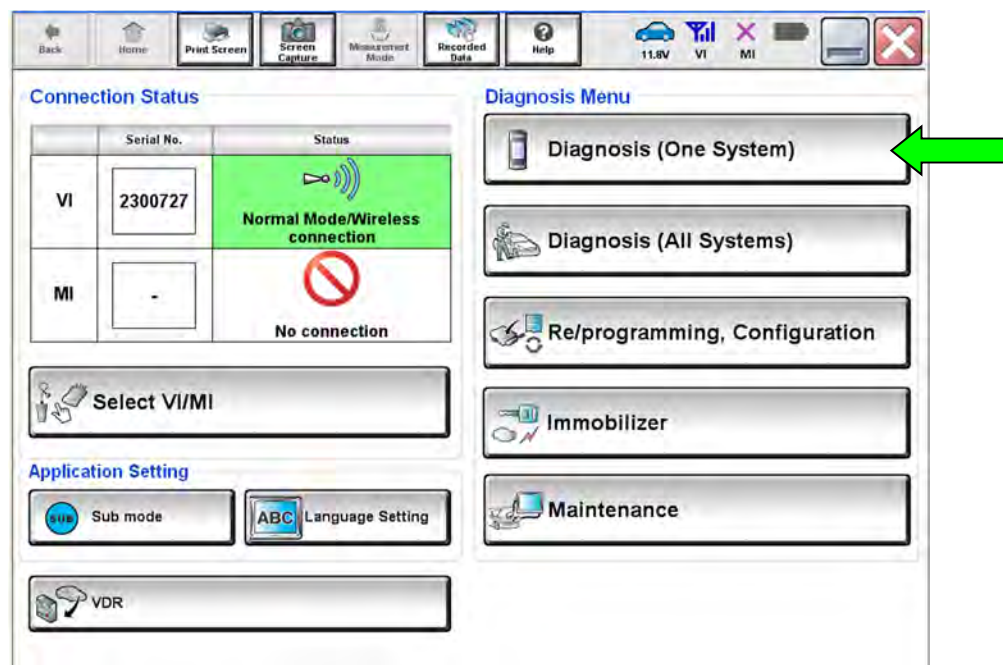


Figure 3

11. Select **SONAR**.

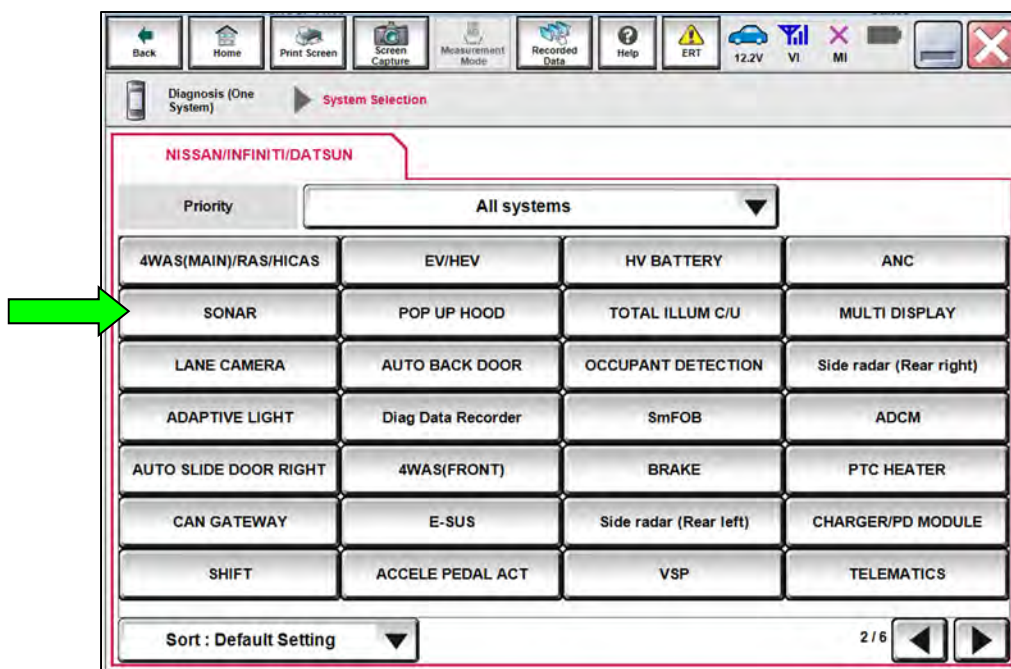


Figure 4

12. Select **ECU Identification**.
13. Confirm the current **SOFTWARE #** (Figure 5). 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 14.

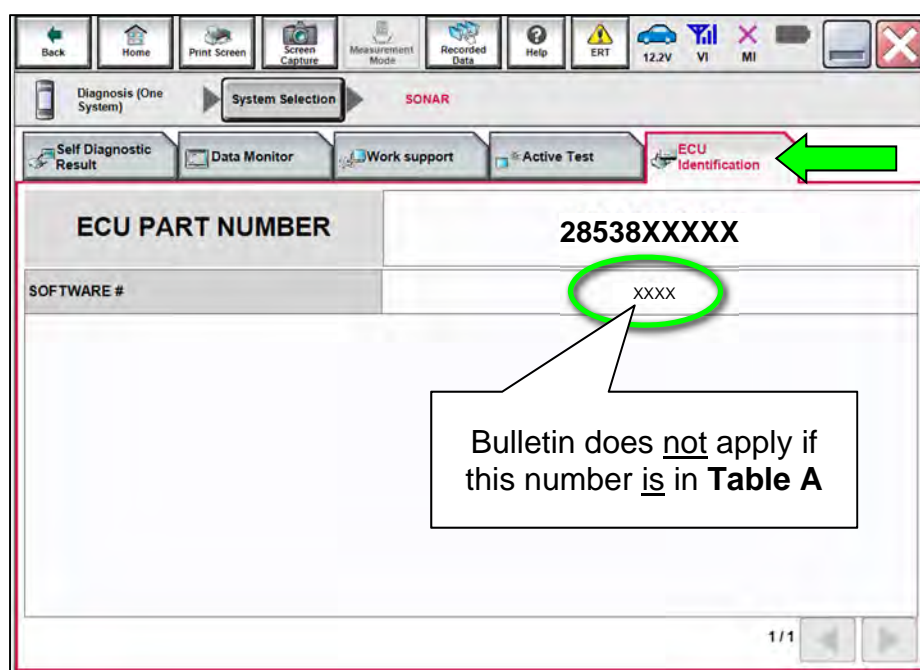


Figure 5

Table A

MODEL	SOFTWARE #
Altima	L137
Murano	M016 or M210
Rogue Sport	S140
Versa	D137

14. Select **Home**.

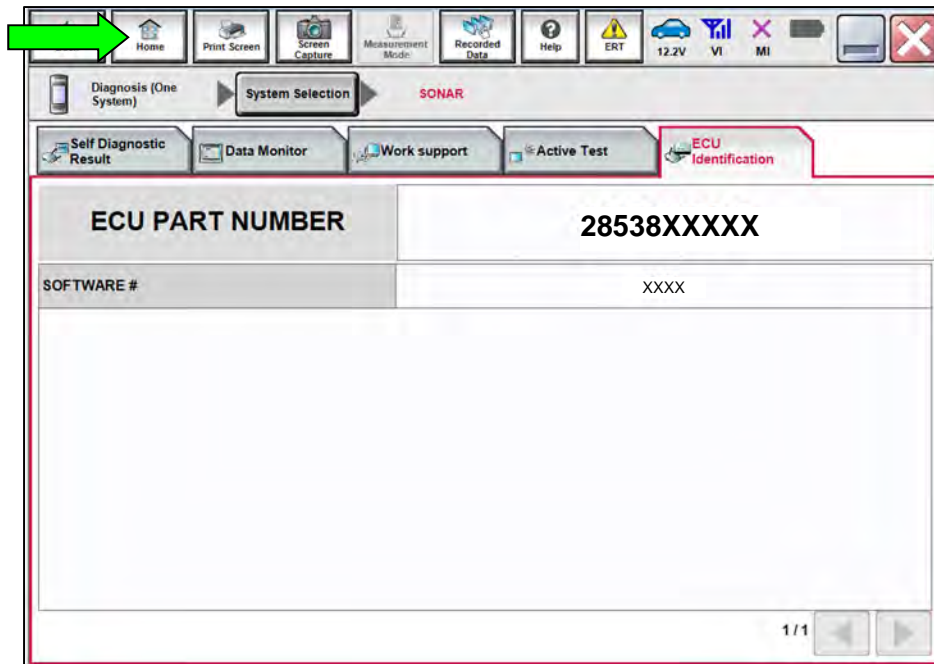


Figure 6

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

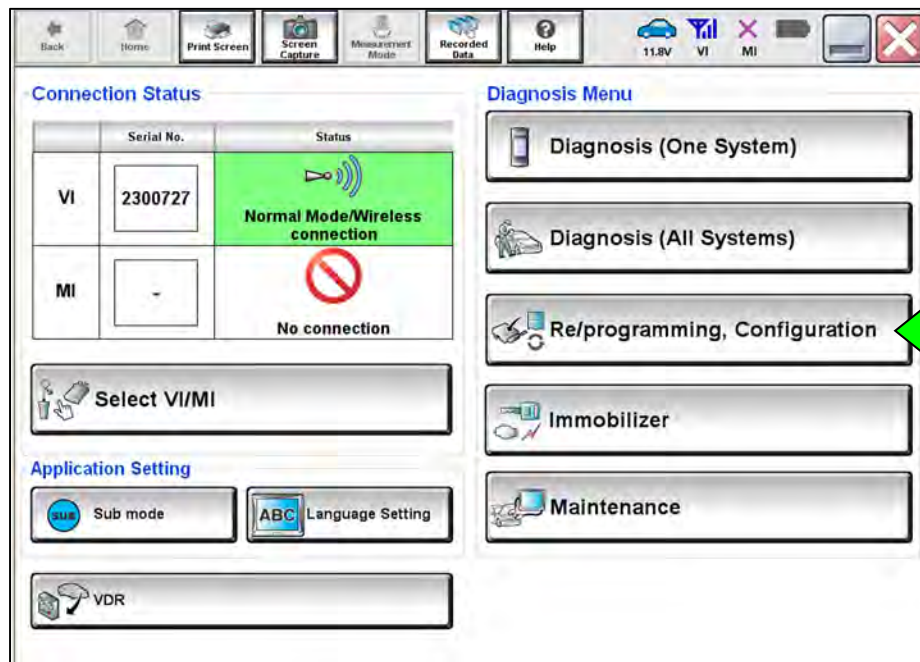


Figure 7

16. Use the arrows (if needed) to view and read all precautions.
17. Check the box confirming the precautions have been read.
18. Select **Next**.

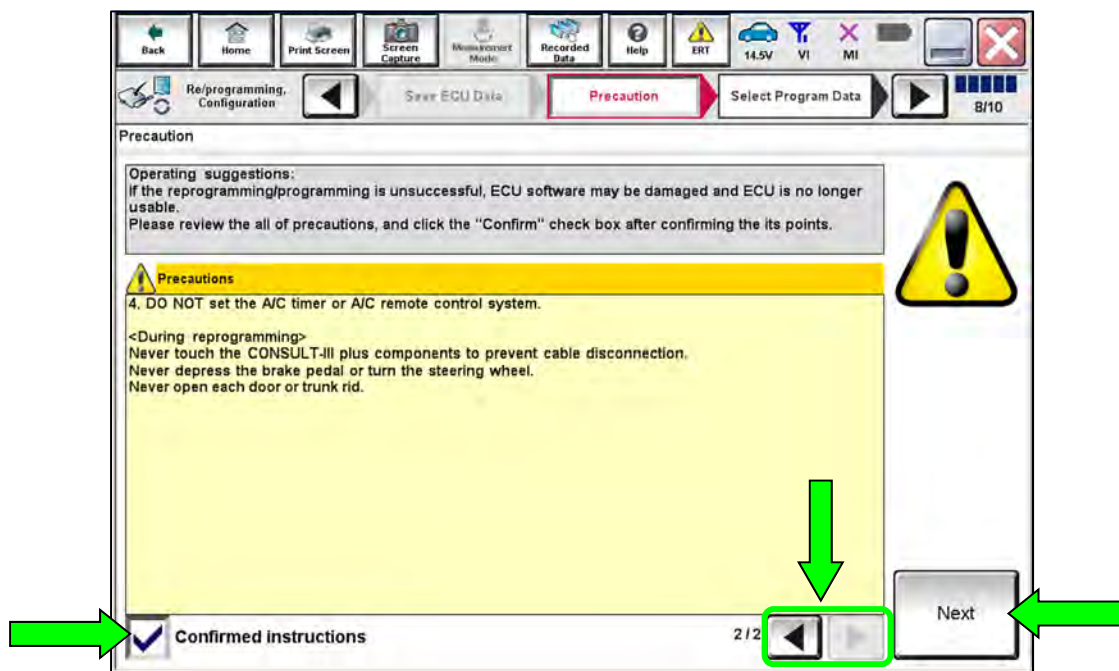


Figure 8

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

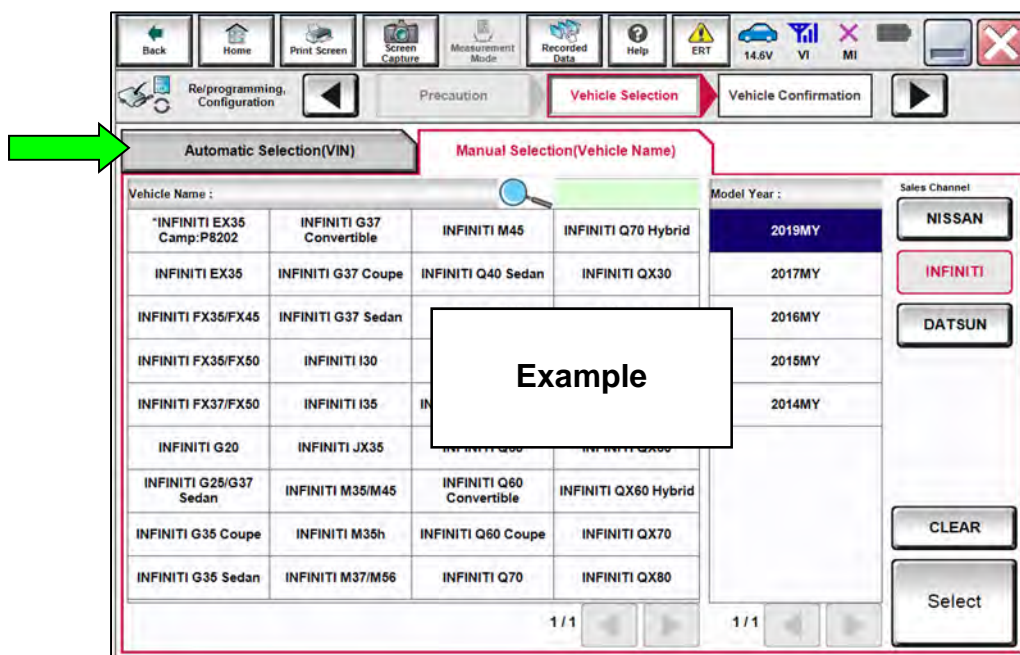


Figure 9

20. Confirm the **VIN or Chassis #** matches the vehicle's VIN.

21. Select **Confirm**.

Back Home Print Screen Screen Capture Measurement Mode Recorded Data Help ERT 11.9V VI MI

Reprogramming, Configuration Vehicle Selection **Vehicle Confirmation**

Please confirm selected information and touch "Confirm". In case you want to select another vehicle, touch "Change".

VIN or Chassis #	XXXXXXXXXXXXXXXXXX
Vehicle Name :	XXXXXXXX
Model Year	XXXXXXXX

1 / 1

Change

Confirm

Figure 10

22. Select **Confirm**.

Back Home Print Screen Screen Capture Measurement Mode Recorded Data Help 11.8V VI MI

Reprogramming, Configuration Vehicle Confirmation **Input VIN** System Selection 4/6

Input VIN

Enter the VIN number, and touch "Confirm".
According to this operation, in case of specified operation that requires to save ECU information into CONSULT, VIN number you input is saved as file name. Therefore, confirm VIN number correctly.

VIN (17 or 18 digits) XXXXXXXXXXXXXXXXXXXX

Confirm

Figure 11

23. Select **SONAR**.

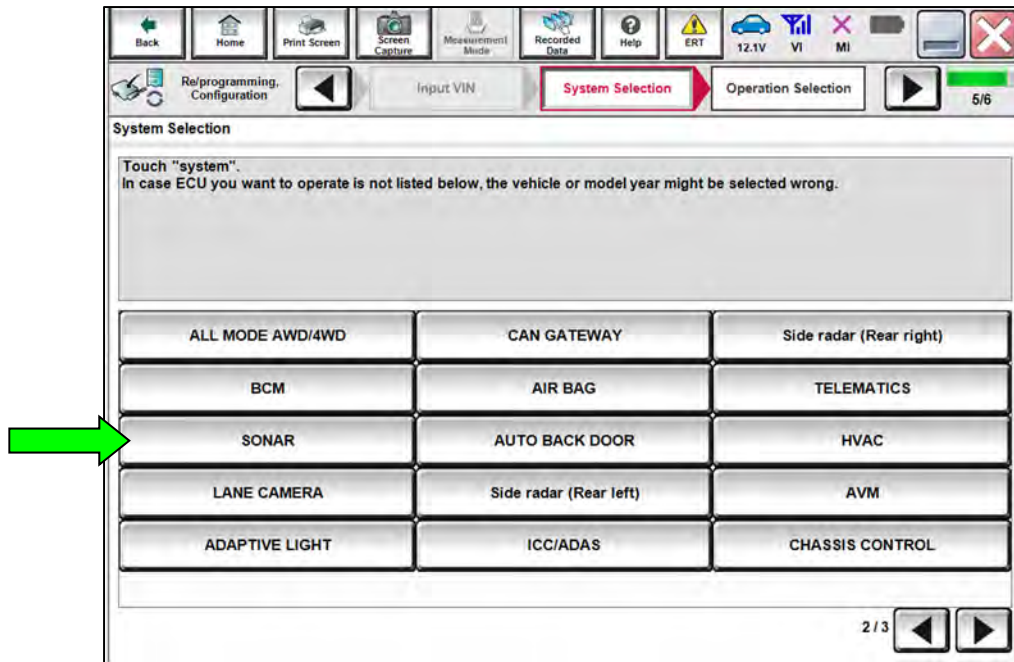


Figure 12

24. Select **Reprogramming**.

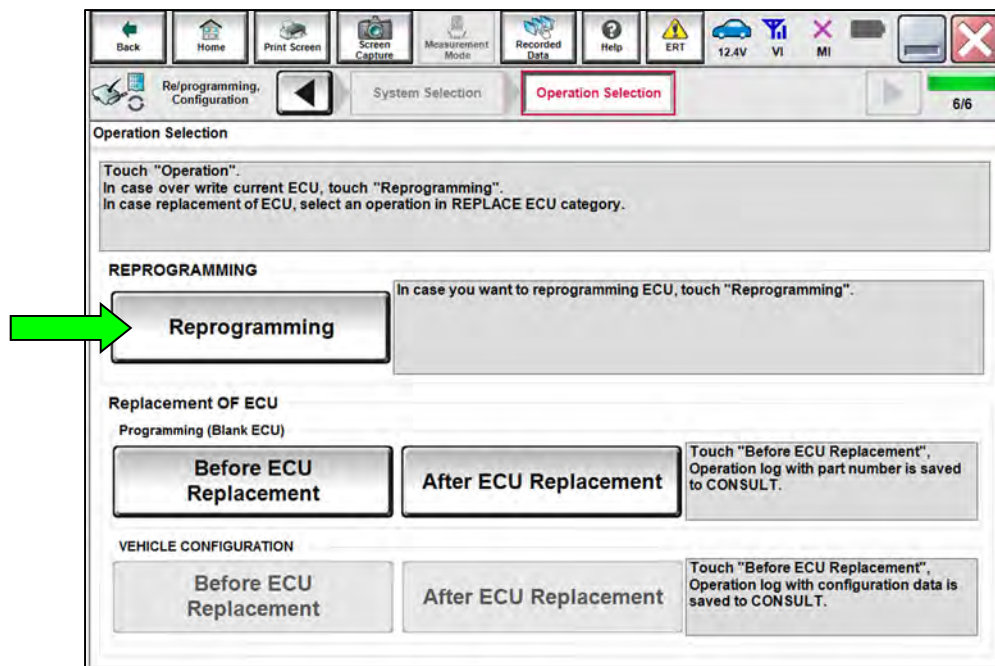


Figure 13

25. When you get to the screen shown in Figure 14, confirm that a reprogram is available as follows.

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

NOTE: This is the current part number (P/N).

Touch "Save" to save operation log and the current part number as listed below to CONSULT. Operation log helps to restart next operation by selecting suitable operation log. Operation log is erased after operation has completely finished.

File Label	XXXXXXXXXXXXX
Operation	REPROGRAMMING
System	SONAR
Part Number	28538XXXXX
Vehicle	XXXXXXXXXXXXX
VIN	XXXXXXXXXXXXX
Date	XXXXXXXXXXXXX

Save

Figure 14

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

- If there is a match, continue with the reprogramming procedure.
- If there is not a match 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

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

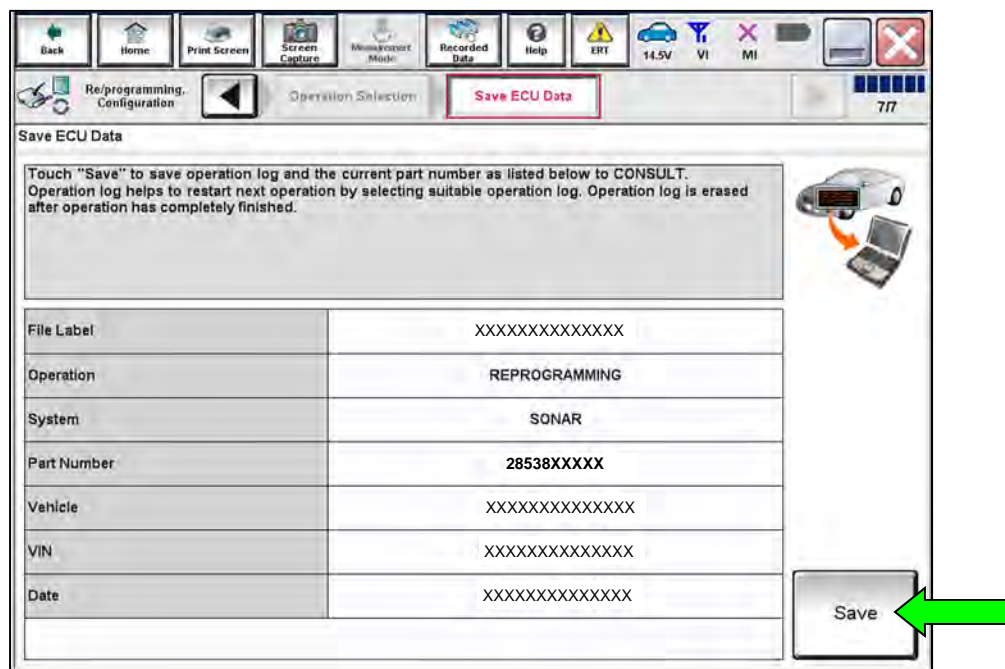


Figure 15

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

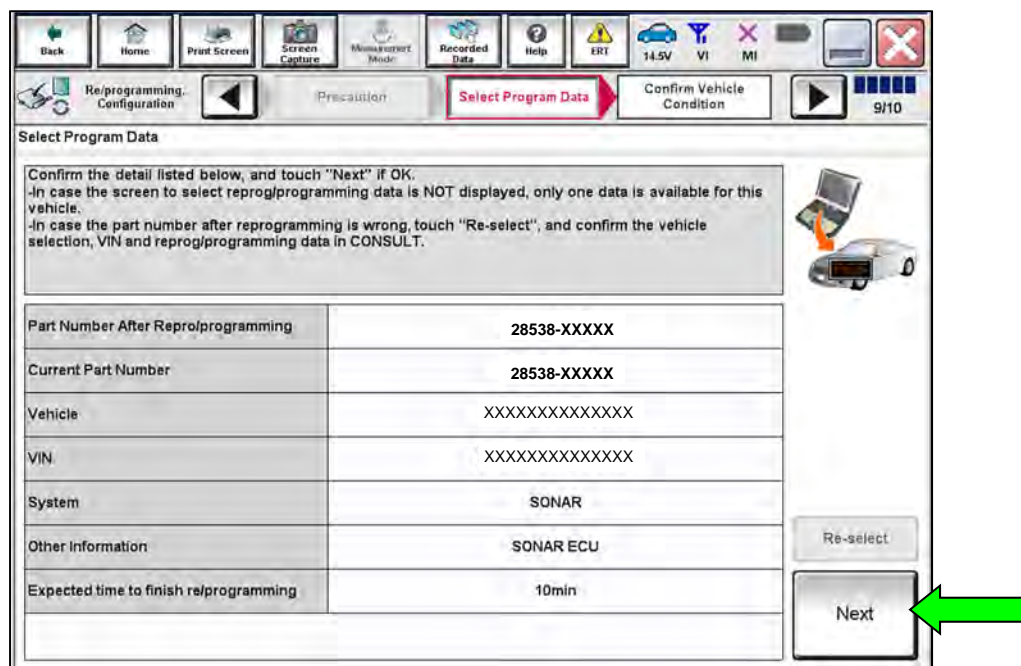


Figure 16

HINT:

- In some cases, more than one new part number for reprogramming is available.
 - If more than one new part number is available, the screen in Figure 17 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 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.

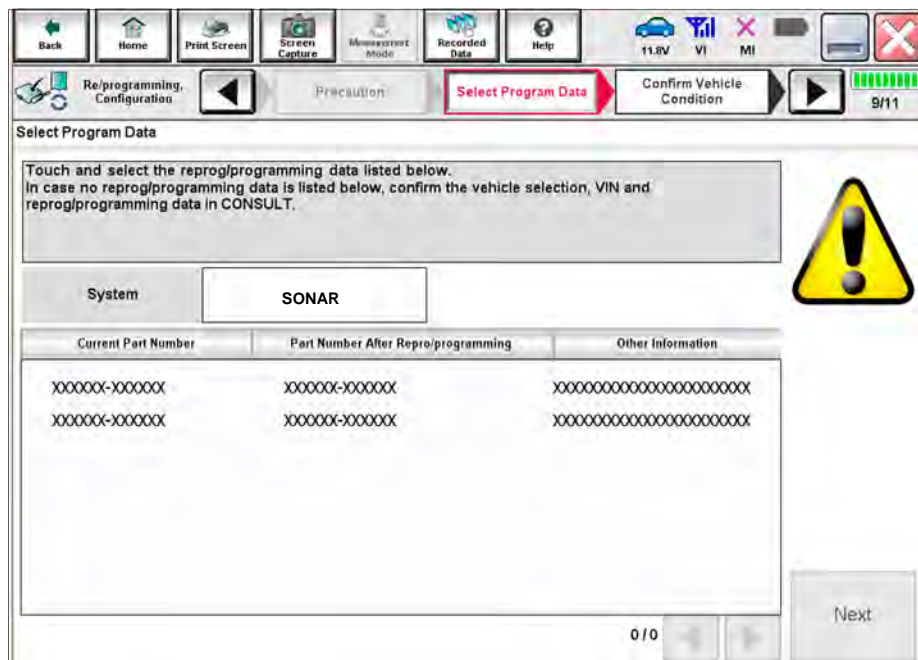


Figure 17

30. 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.

31. Select **Next**.

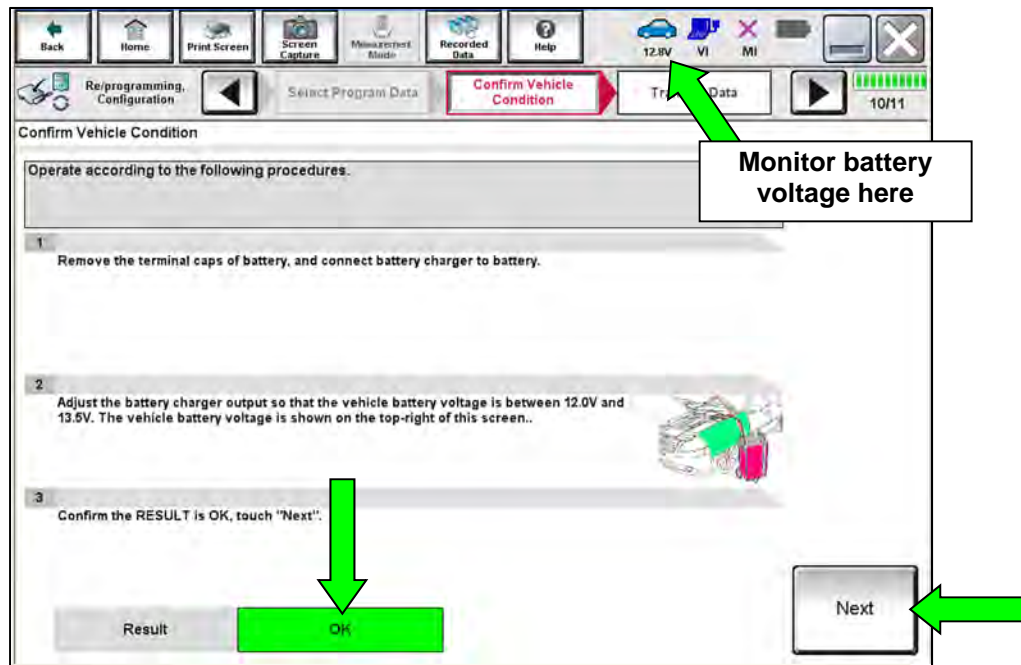


Figure 18

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

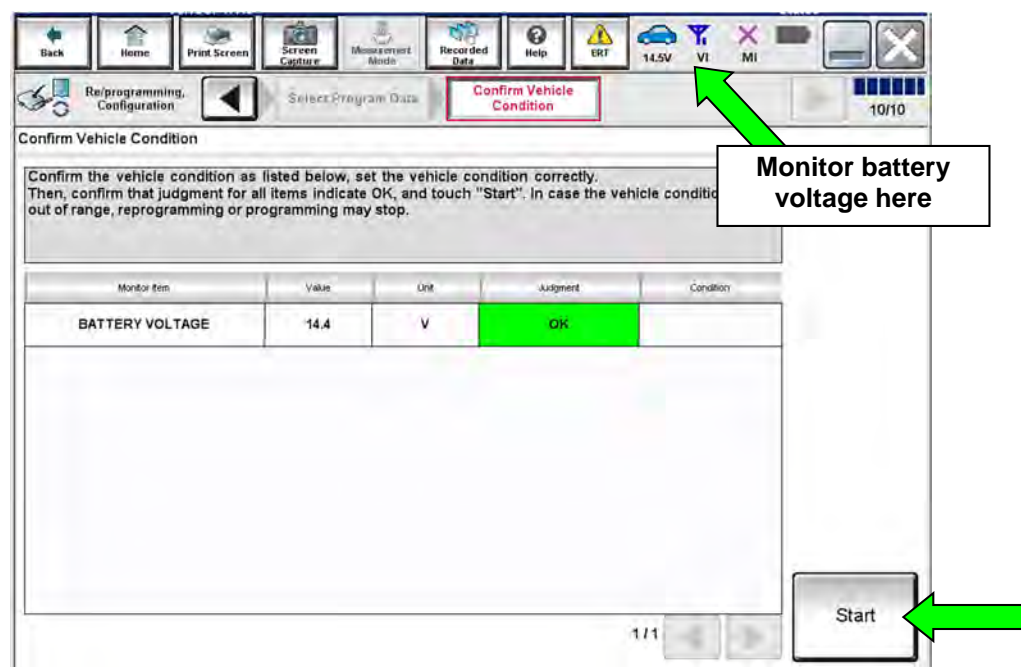


Figure 19

33. Select **USA/CANADA Dealers**.

34. Select **OK**.

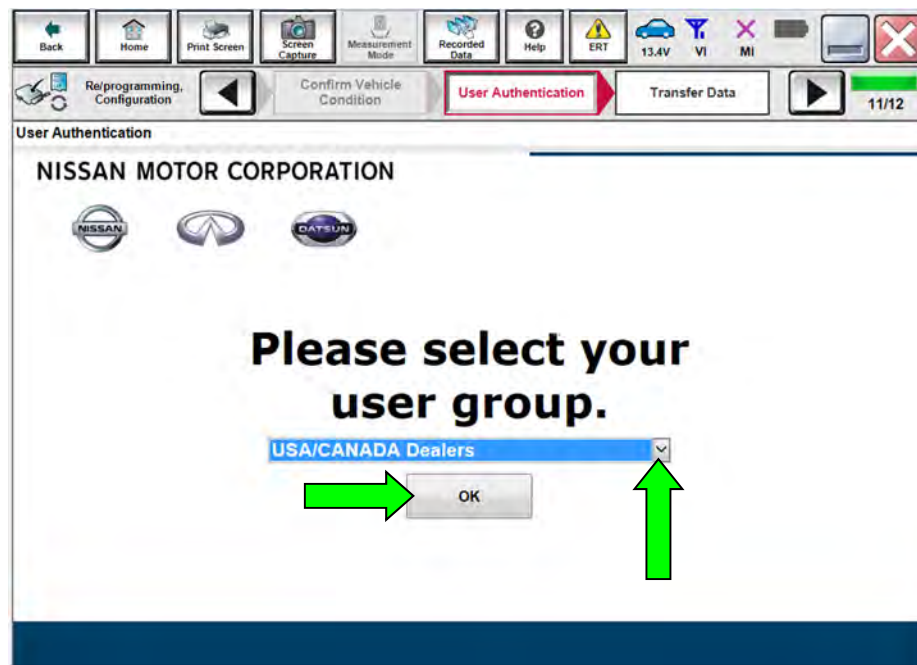


Figure 20

HINT:

- The screen in Figure 20 may not display if the CONSULT PC has remained ON since the last reprogramming.
- If the CONSULT PC is not connected to the internet, the screen in Figure 21 will display.

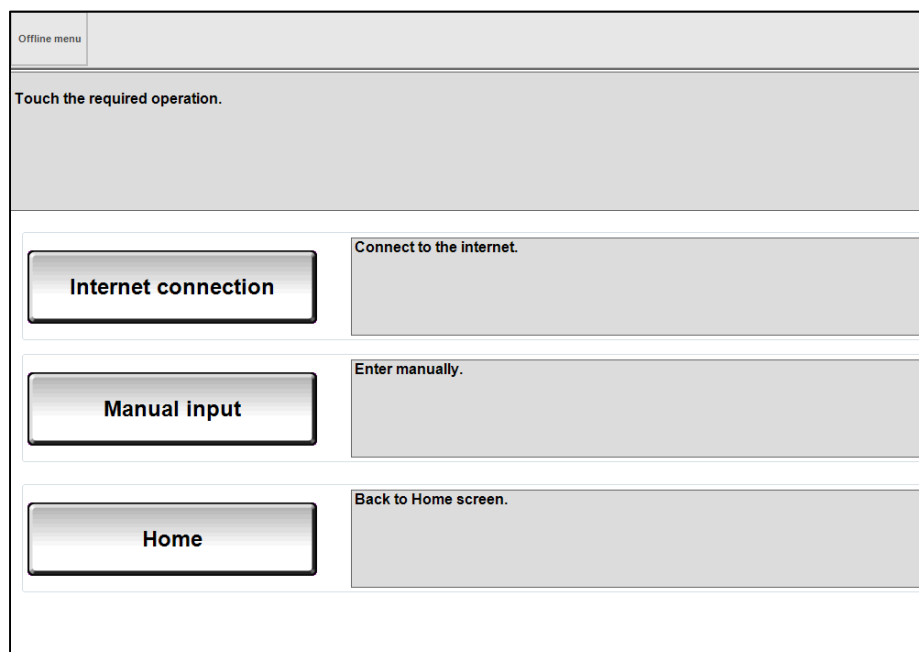


Figure 21

HINT: In the next steps, the reprogramming process will begin when **Submit** is selected.

35. Enter your **Username** and **Password**.

- The CONSULT PC must be connected to the internet via cable or Wi-Fi.
- If you do not know your username and password, contact your service manager.

36. Select **Submit**.

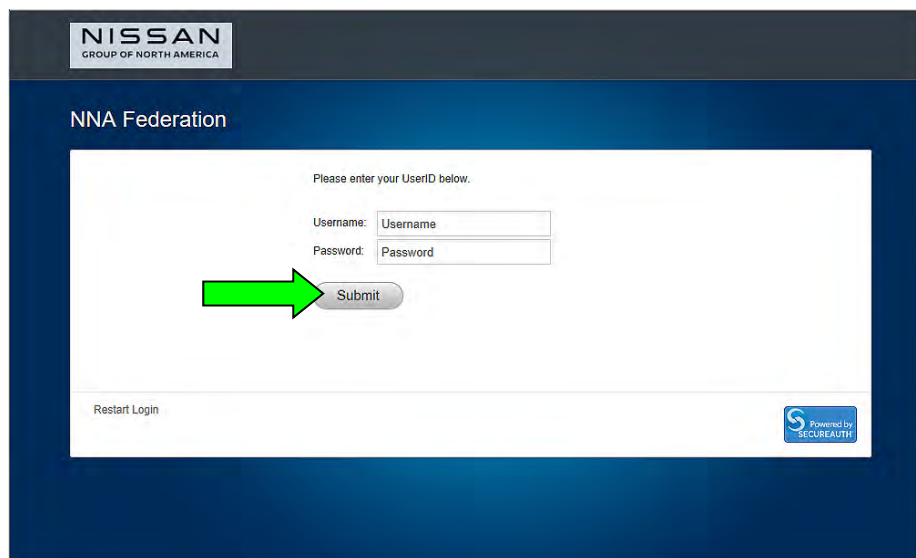
The image shows a web-based login interface for the Nissan NNA Federation. At the top, the Nissan logo and 'GROUP OF NORTH AMERICA' are displayed. Below this, the text 'NNA Federation' is shown. The main area contains a login form with the instruction 'Please enter your UserID below.' There are two input fields: 'Username' and 'Password'. A green arrow points to the 'Submit' button. At the bottom left, there is a 'Restart Login' link. At the bottom right, there is a 'Powered by SECUREAUTH' logo.

Figure 22

37. Wait for both progress bars to complete.

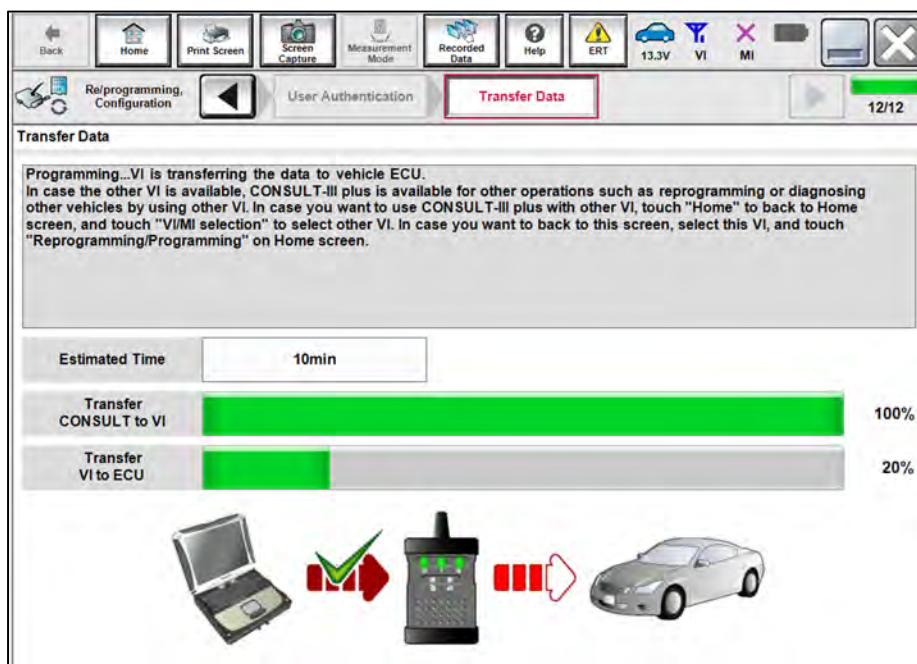


Figure 23

- When the screen in Figure 24 displays, the reprogramming is complete.
- If the screen in Figure 24 does not display (indicating that reprogramming did not complete), refer to **Sonar Control Unit Recovery** on the next page.

38. Disconnect the battery maintainer or smart charger from the vehicle.

39. Select **Next**.

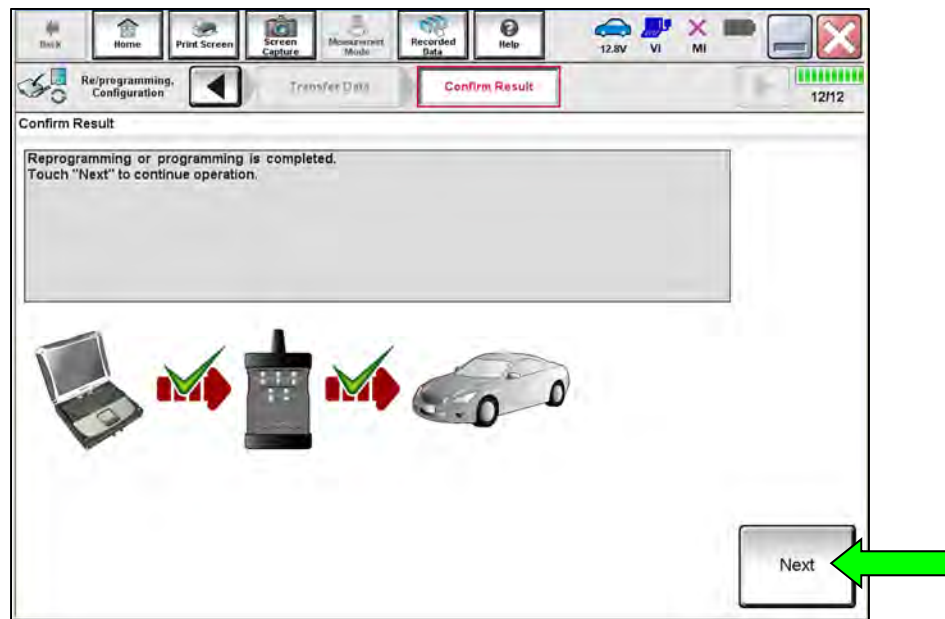


Figure 24

HINT: Additional steps/operations are required before CONSULT will provide the final reprogramming confirmation report. Continue with the reprogramming procedure on page 18.

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 25:

- 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.

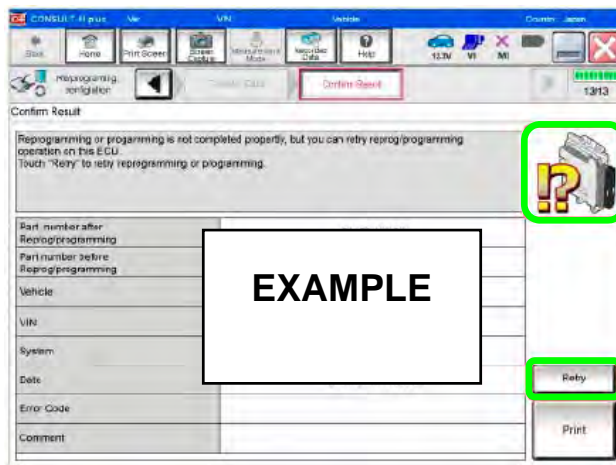


Figure 25

If reprogramming does not complete and the “X” icon displays, as shown in Figure 26:

- 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.**

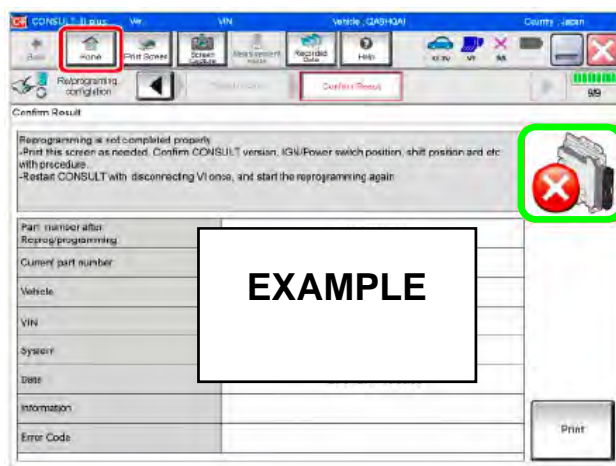


Figure 26

40. Perform **Erase All DTCs** as follows:

- a. Turn the ignition OFF.
- b. Turn the ignition ON.

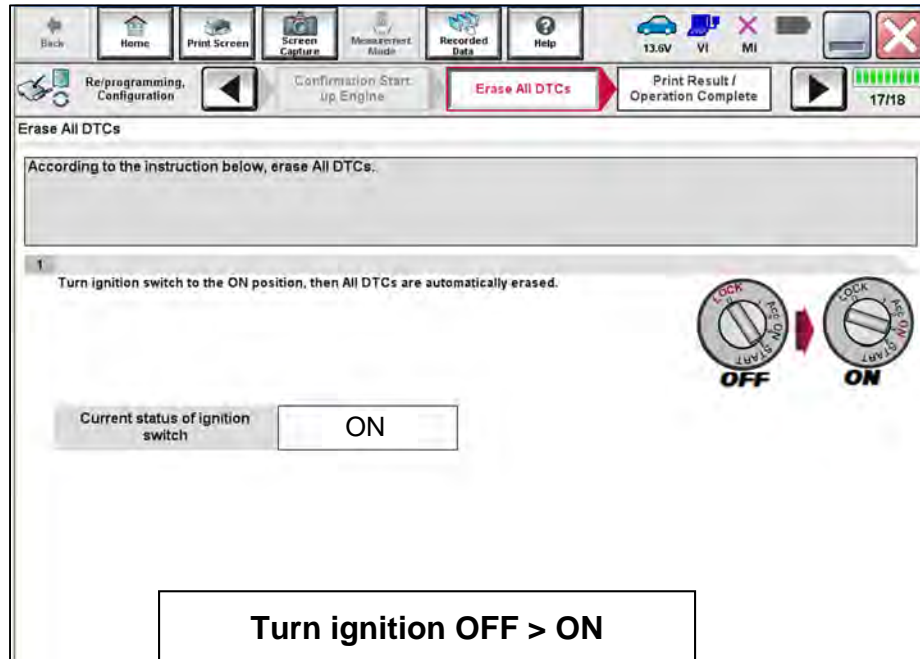


Figure 27

HINT: When the entire reprogramming process is complete, the screen in Figure 28 on page 19 will display.

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

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

42. Print a copy of the screen below (Figure 28) 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.
 - A copy of the screen is now saved in the CONSULT PC. It can be retrieved and printed at a later time.

43. Select **Confirm**.

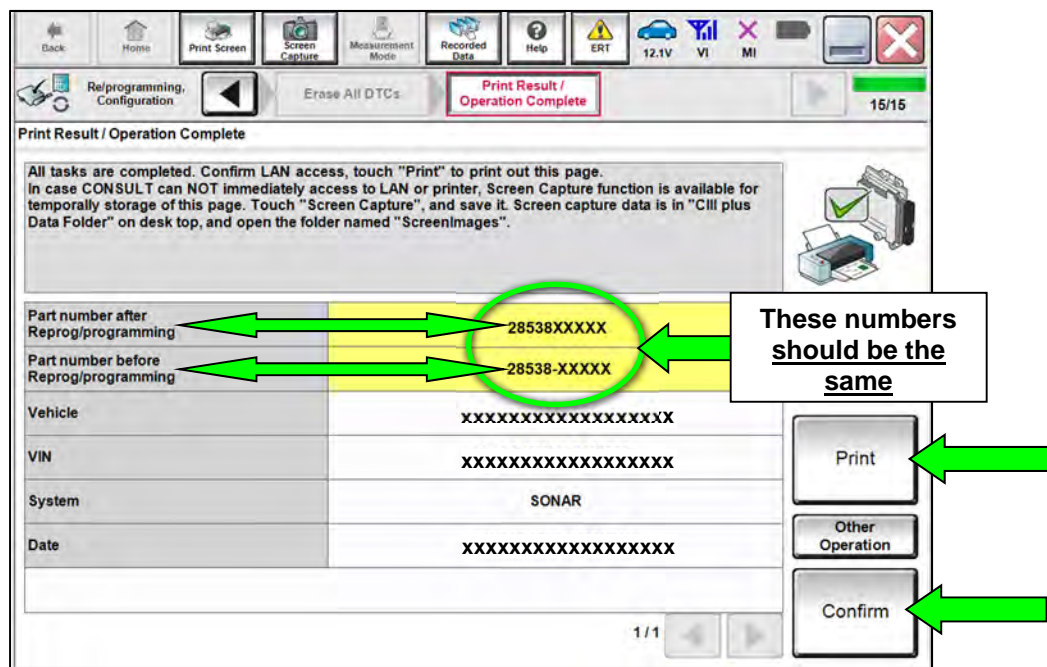


Figure 28

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

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

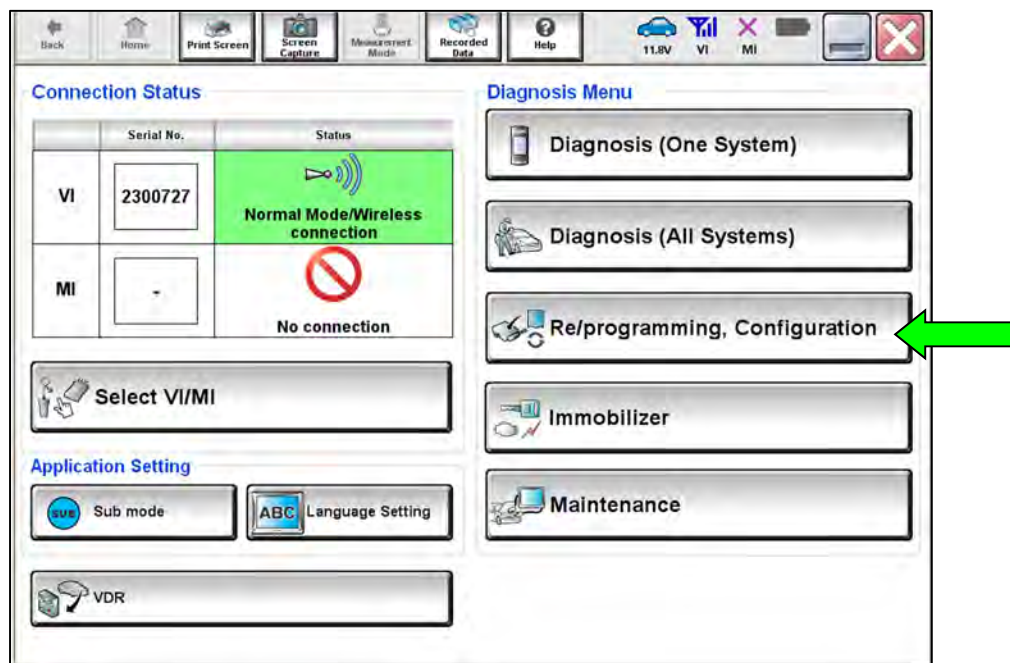


Figure 29

NOTE: CONSULT screens for steps 46-49 are not shown.

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

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

48. Select **Confirm**.

49. Select **Confirm** again.

50. Select **SONAR**.

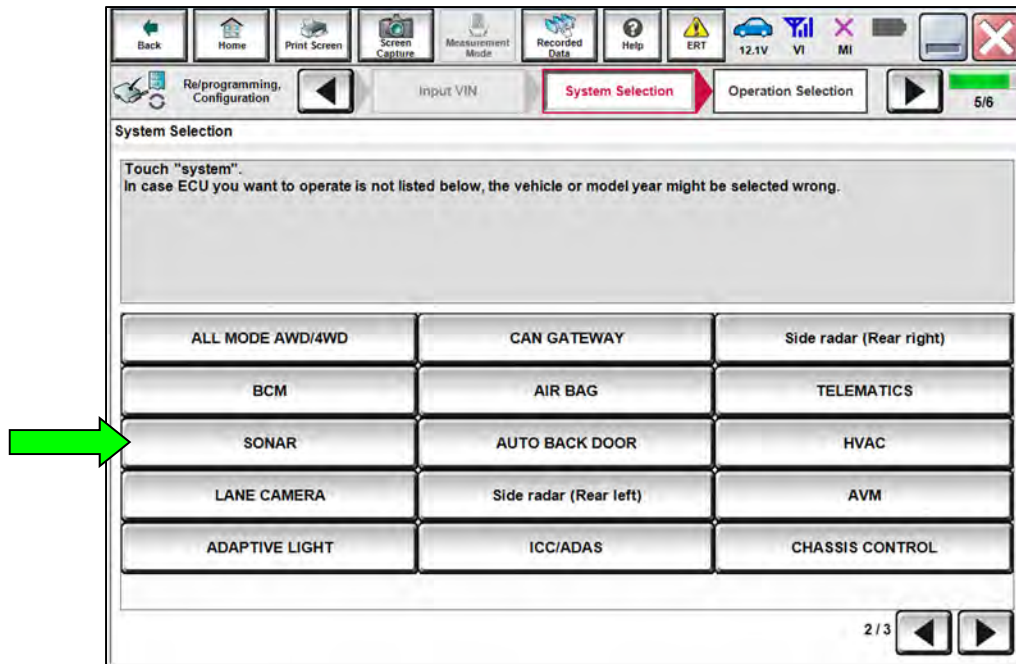


Figure 30

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

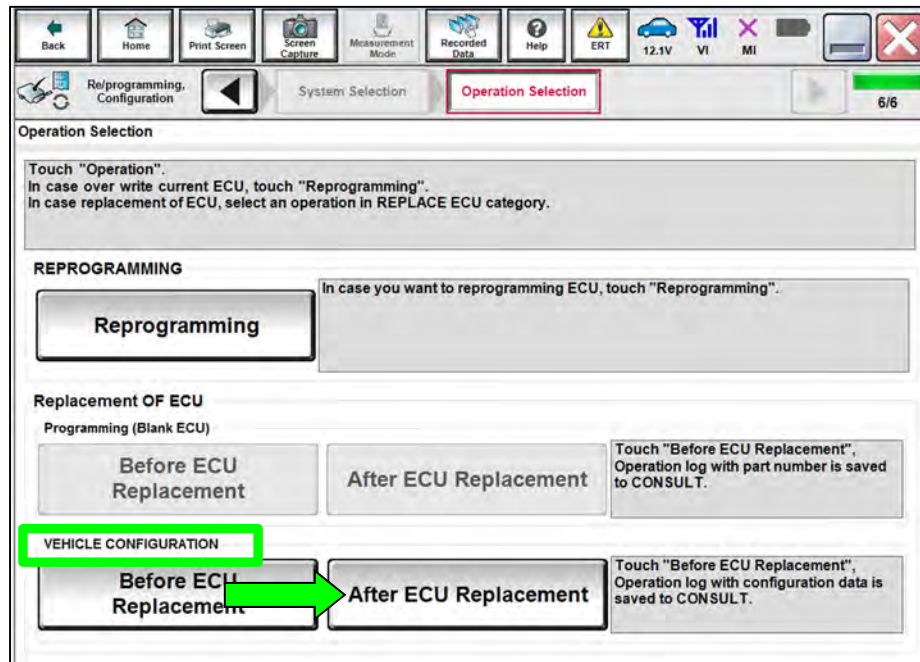


Figure 31

52. Select **Manual selection**.

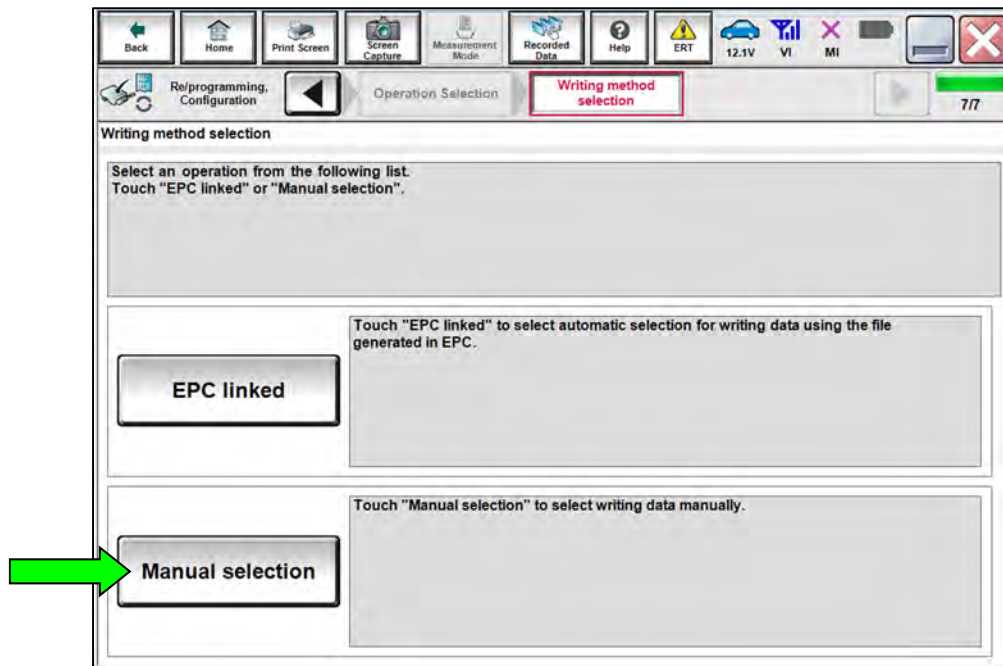


Figure 32

53. Select the applicable **Type ID**.

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

54. Select **Next**.

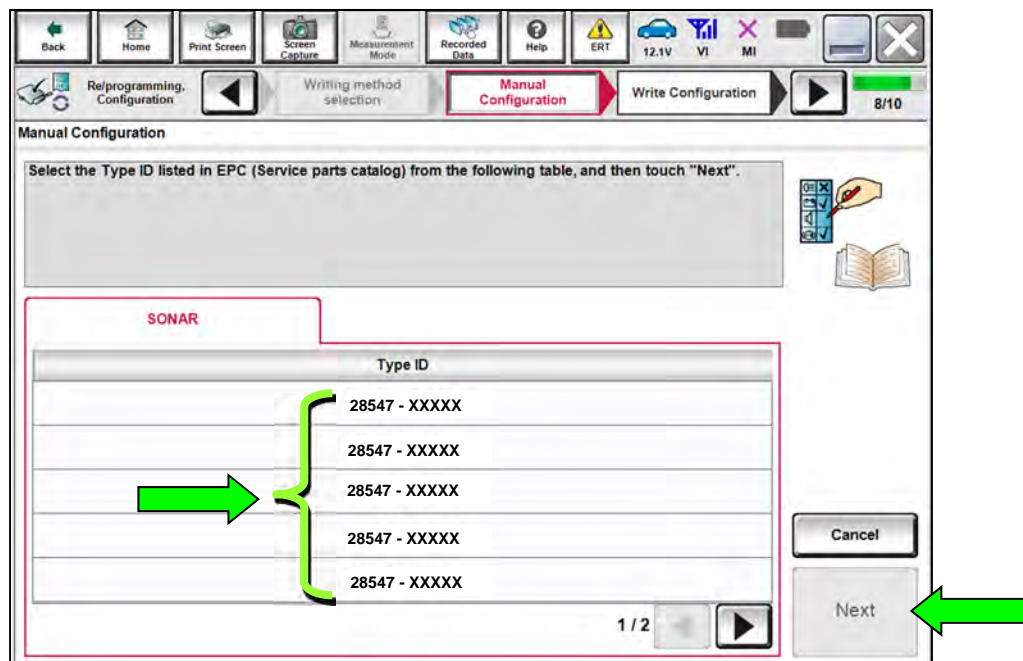


Figure 33

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

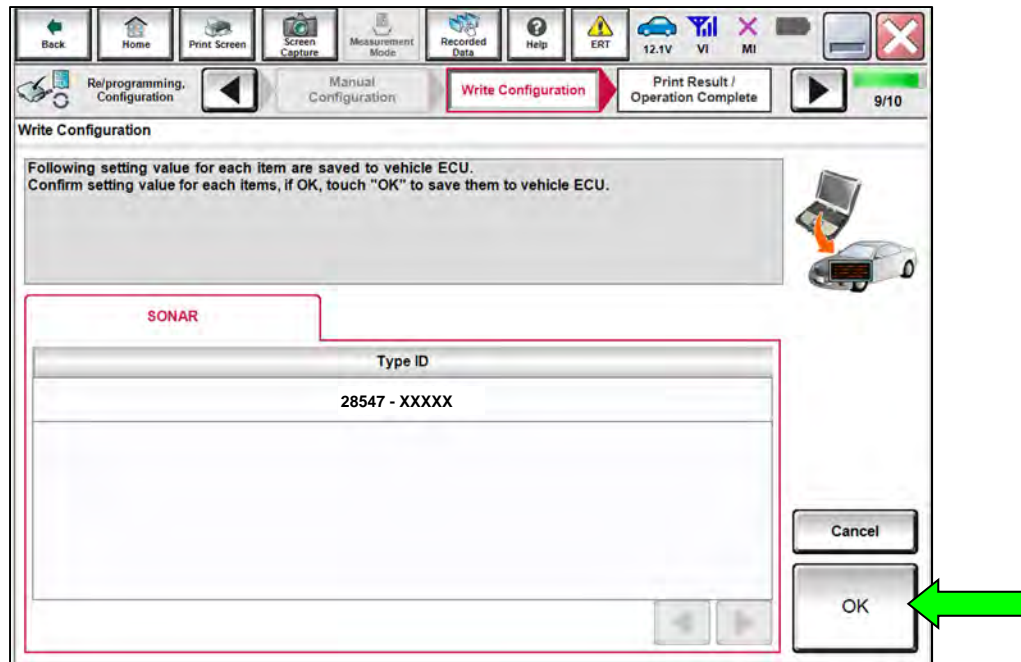


Figure 34

56. Select **End**.

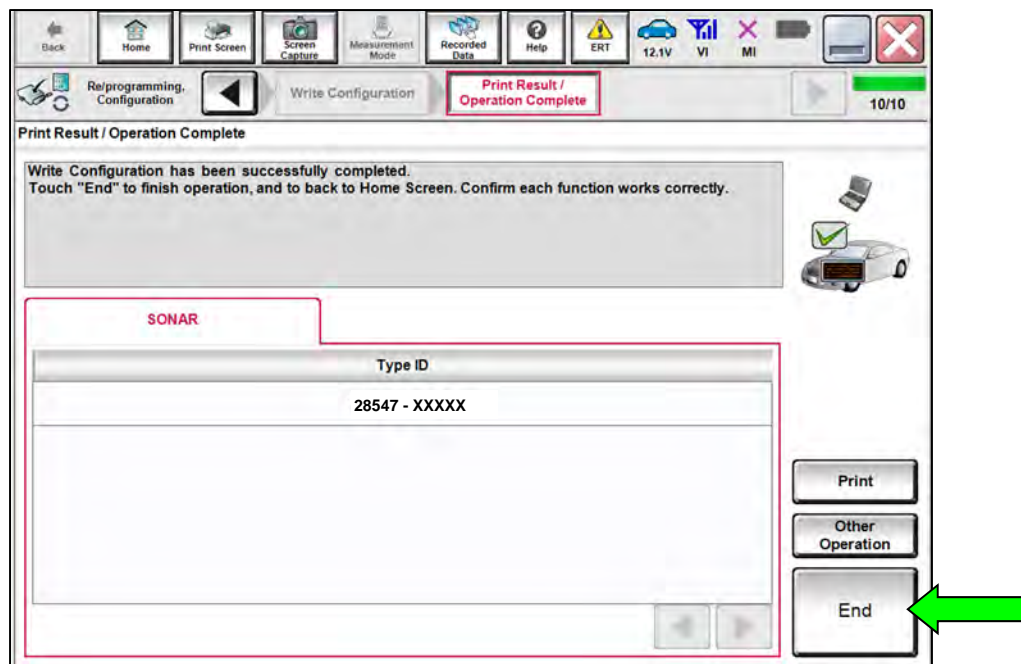


Figure 35

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

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

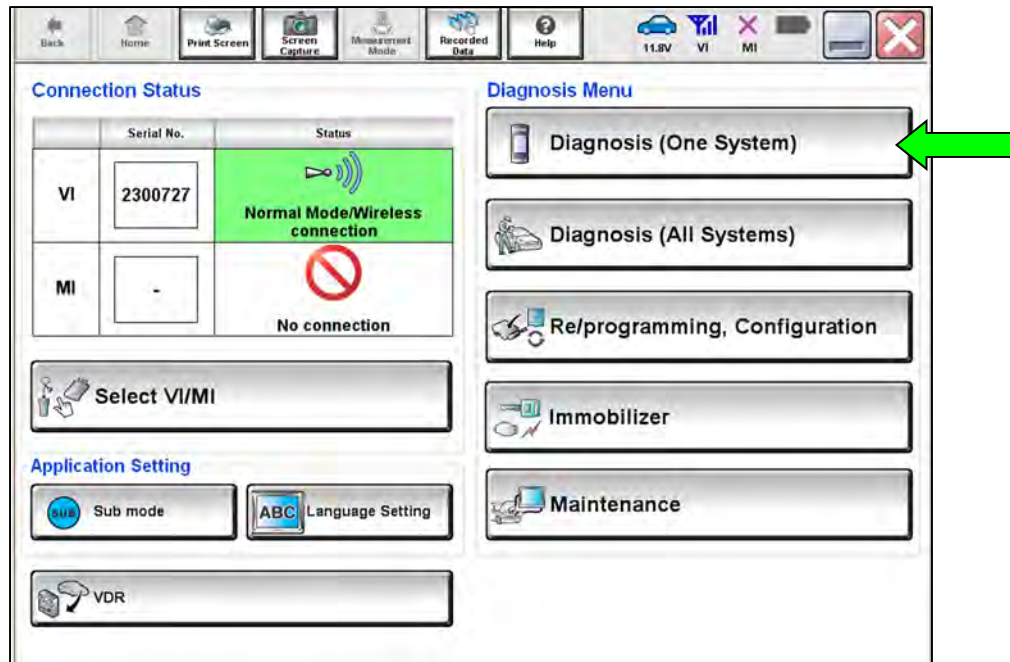


Figure 36

59. Select **SONAR**.

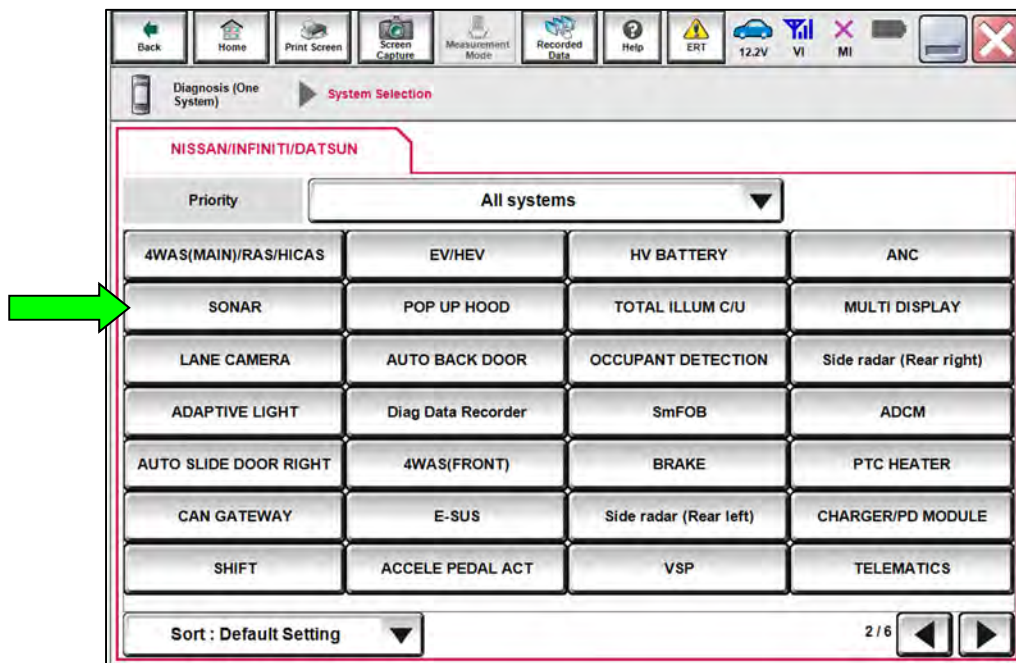


Figure 37

60. Select **ERASE**.

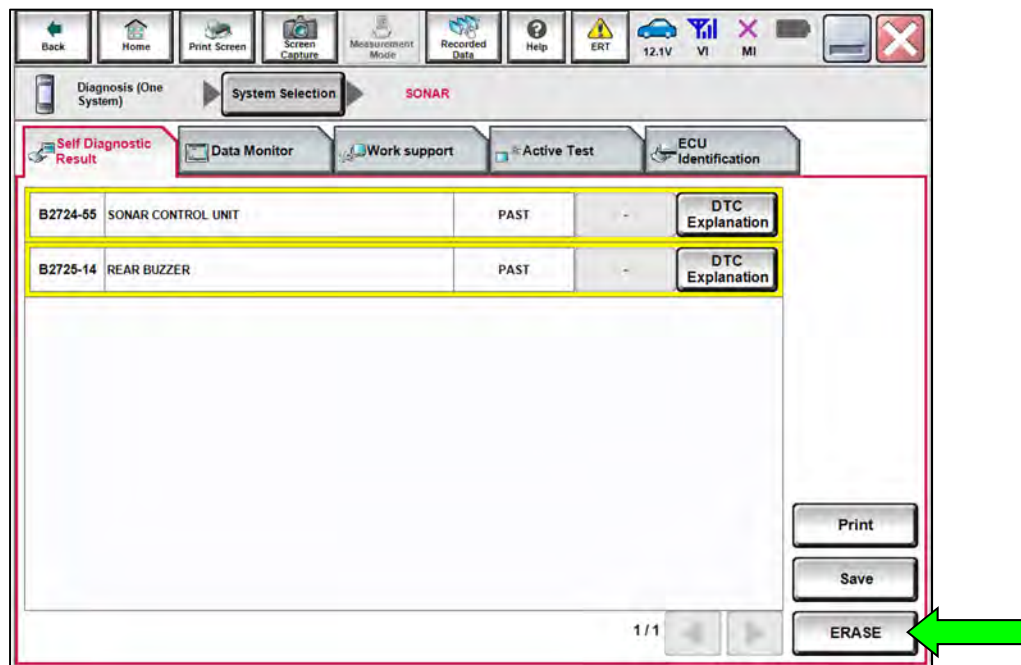


Figure 38

61. Select **ECU Identification**.

62. Confirm the **SOFTWARE #** (Figure 39).

- If the **SOFTWARE #** is in **Table A** on page 13, proceed to step 63.
- If the **SOFTWARE #** is not in **Table A** on page 13, reprogramming did not successfully complete. Go back to step 15 on page 6 and perform the procedure again.

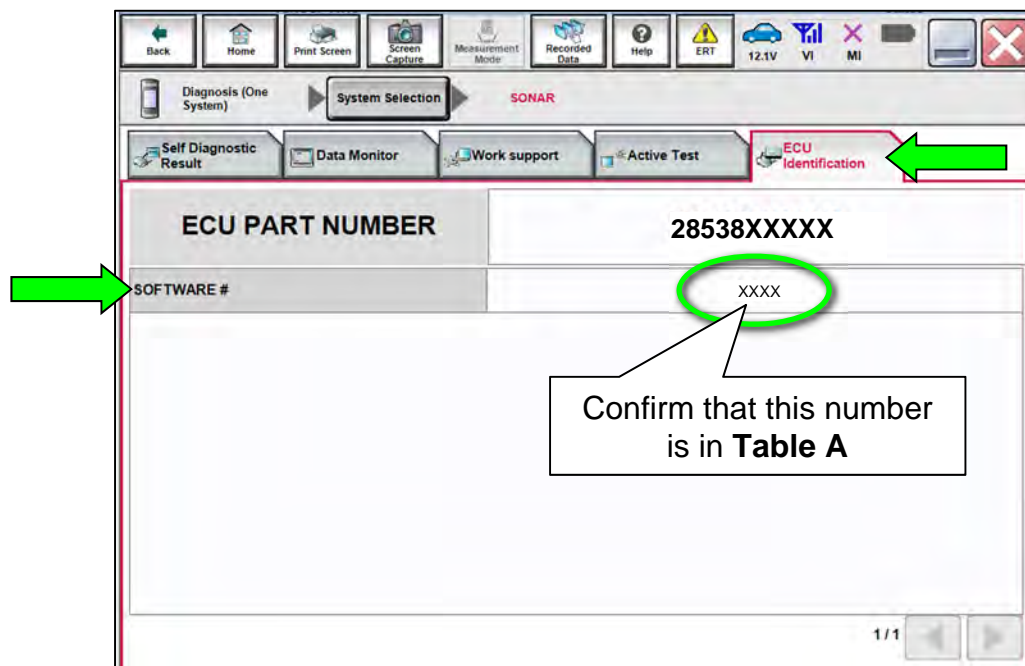


Figure 39

63. Select **Home**.

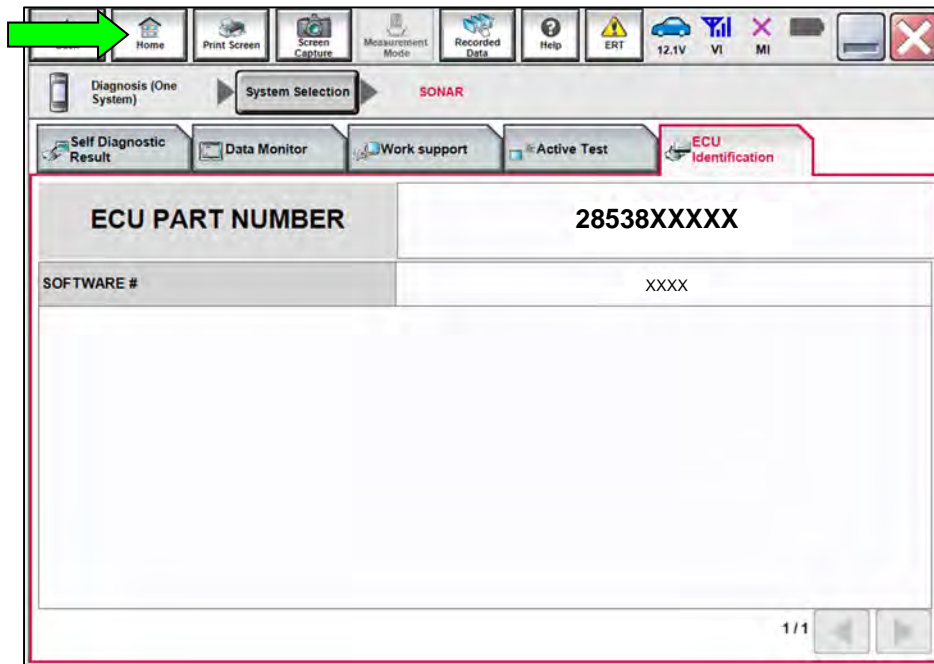


Figure 40

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

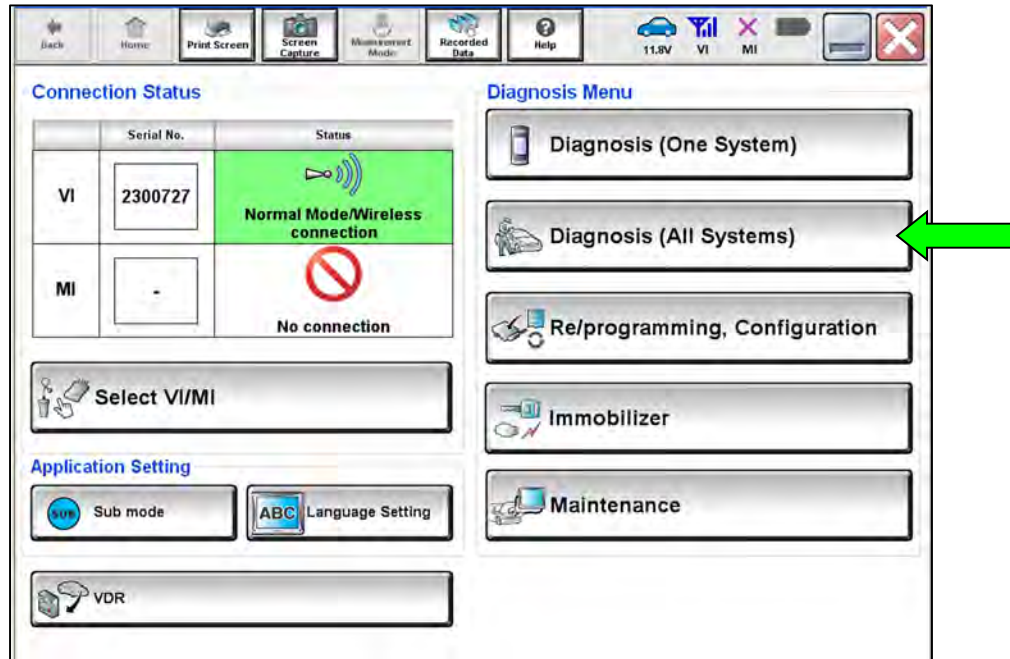


Figure 41

NOTE: CONSULT screens for steps 65-67 are not shown.

65. Select **Automatic Selection(VIN)**.
66. Select **Confirm**.
67. Select **Confirm** again.
68. Turn the ignition OFF, then turn the ignition ON.
69. Confirm DTC C1B56-04 is displayed as **PAST** (not **CRNT**) (Figure 42).
70. Select **ERASE**.

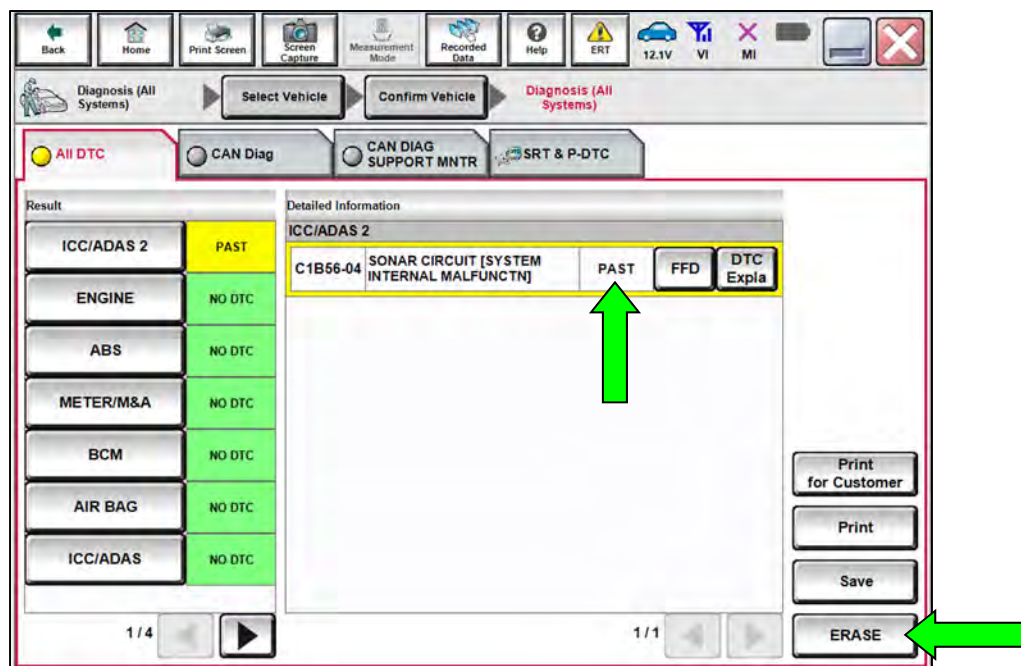


Figure 42

71. Close CONSULT.
72. Turn the ignition OFF.
73. Disconnect the VI from the vehicle.
74. Start the engine.
75. Check that the RAB system setting can be enabled/disabled on the combination meter.
76. 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

