Technical Bulletin

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SERVICE BULLETIN

Classification:	Reference:	Date:
RA20-004	NTB20-095	December 22, 2020

2021 ROGUE; AWD COUPLER
SERVICE INFORMATION

APPLIED VEHICLE: 2021 Rogue (T33)
APPLIED SYSTEM: AWD

SERVICE INFORMATION

The AWD coupler on the **APPLIED VEHICLE** listed above, is available as a separate service part.

When replacement of the AWD coupler is required, DO NOT follow the ESM procedure. Instead, follow the procedure outlined in this service bulletin.

SERVICE PROCEDURE

Save ECU Data

> **NOTICE**
>
> Perform the following before starting the procedure to prevent damage to the control unit.

- Connect the AC Adapter to the CONSULT PC.

- Connect the CONSULT PC to the internet (Wi-Fi or cable).

- Ensure ASIST on the CONSULT PC has been synchronized (updated) to the current date and all C-III plus software updates (if any) have been installed.

- 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, the reprogramming may be interrupted.

- Turn OFF all vehicle electrical loads.

- Connect a battery maintainer or smart charger, set to reflash mode or a similar setting, to ensure the battery voltage stays between 12.0 V and 15.5 V.

1. Open C-III plus and select **Re/programming, Configuration**.
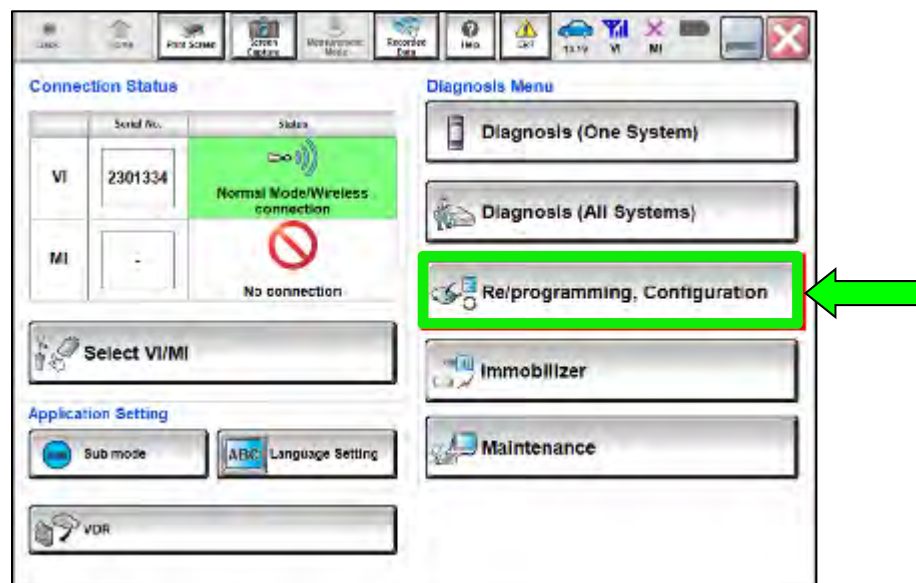

Figure 1

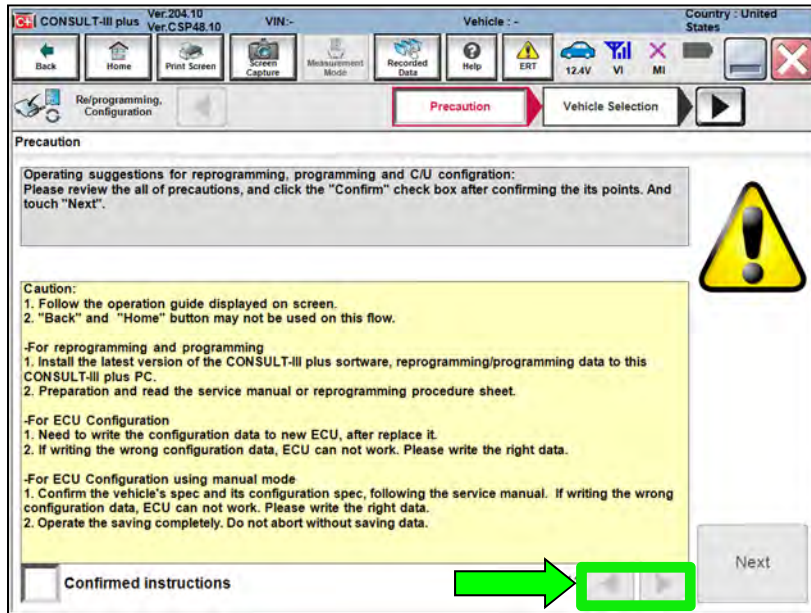2. Use the arrows (if needed) to view and read all precautions.

Figure 2

3. Select **Confirmed instructions**.
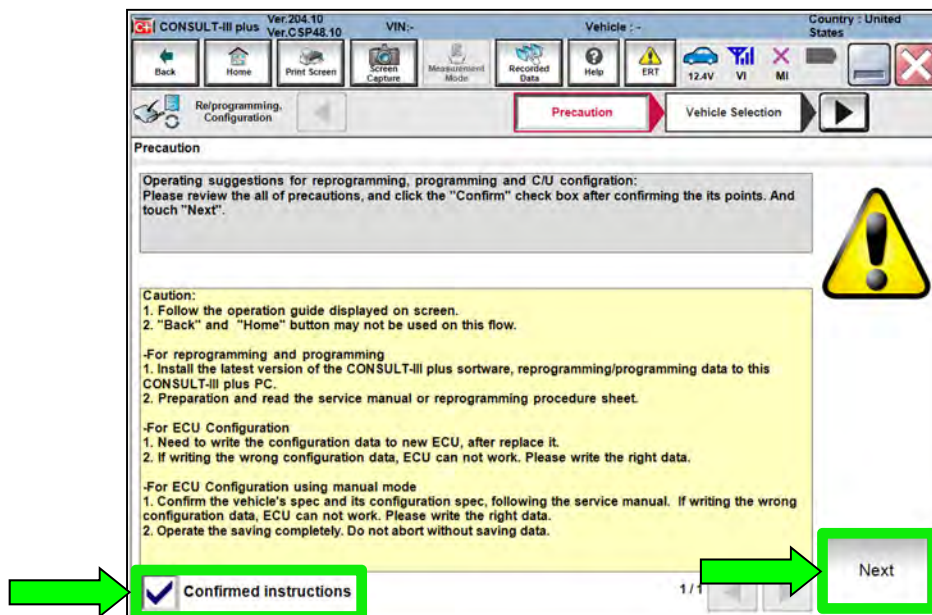
4. Select **Next**.

Figure 3

5. Select the correct vehicle information.
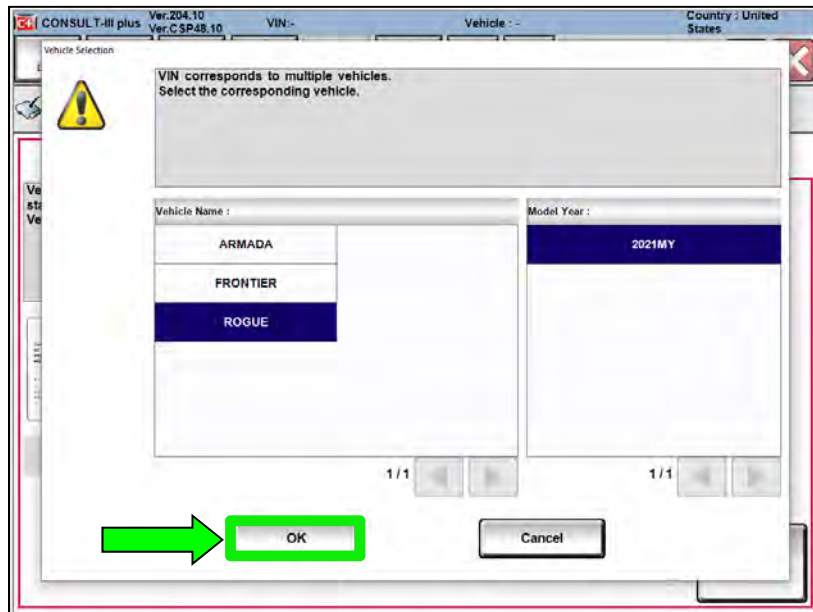
6. Select **OK**.

Figure 4

7. Verify the correct VIN is populated.

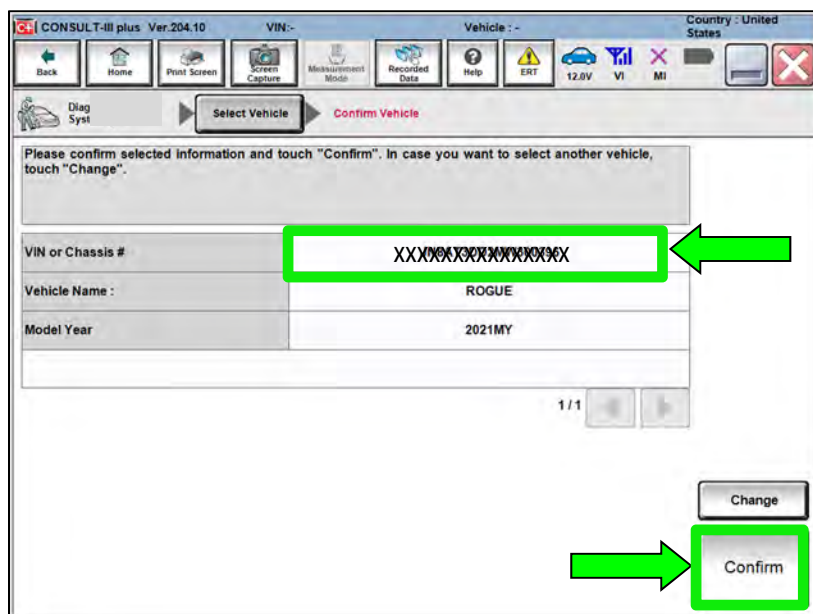8. Select **Confirm**.

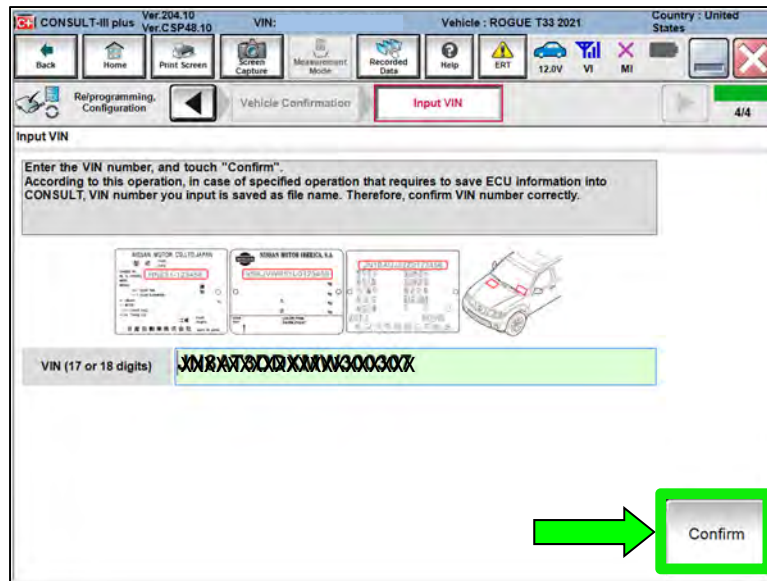Figure 5

9. Select **Confirm**.
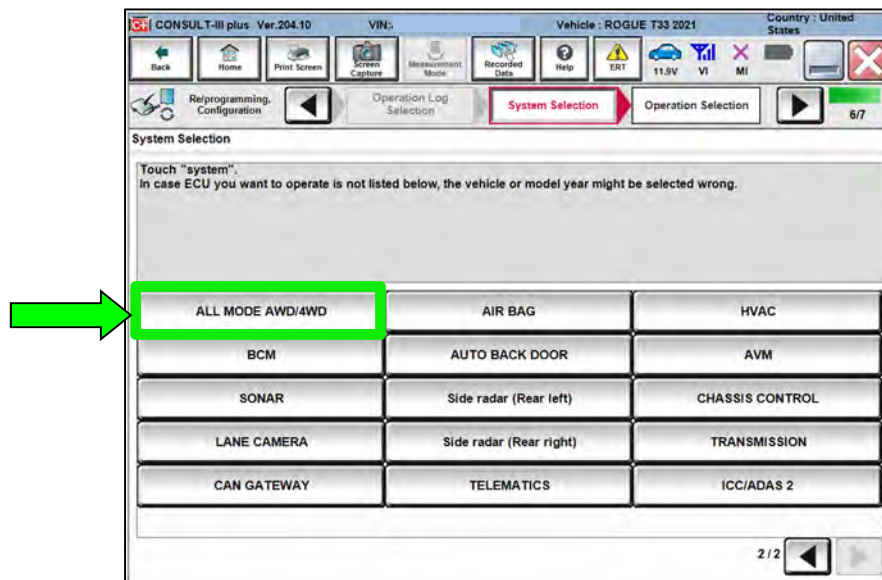

Figure 6

10. Select **ALL MODE AWD/4WD**.

Figure 7
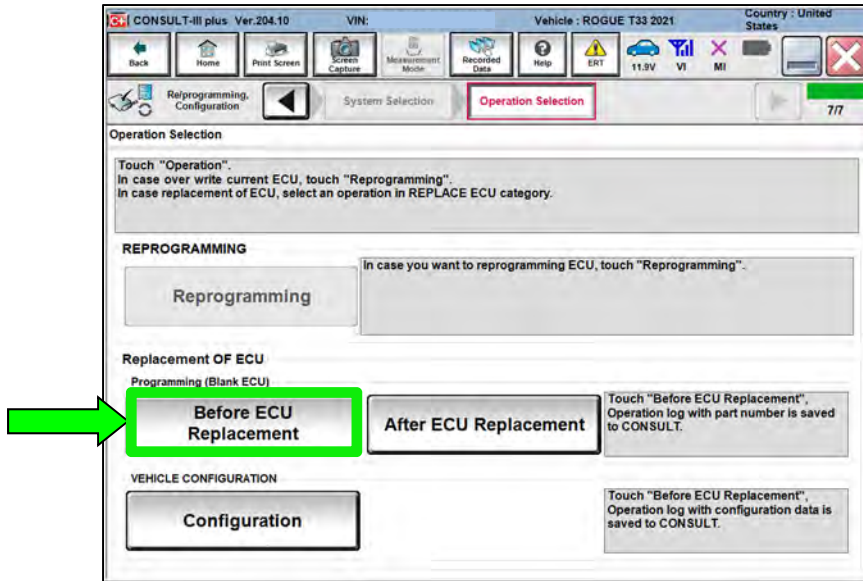
11. Select **Before ECU Replacement**.
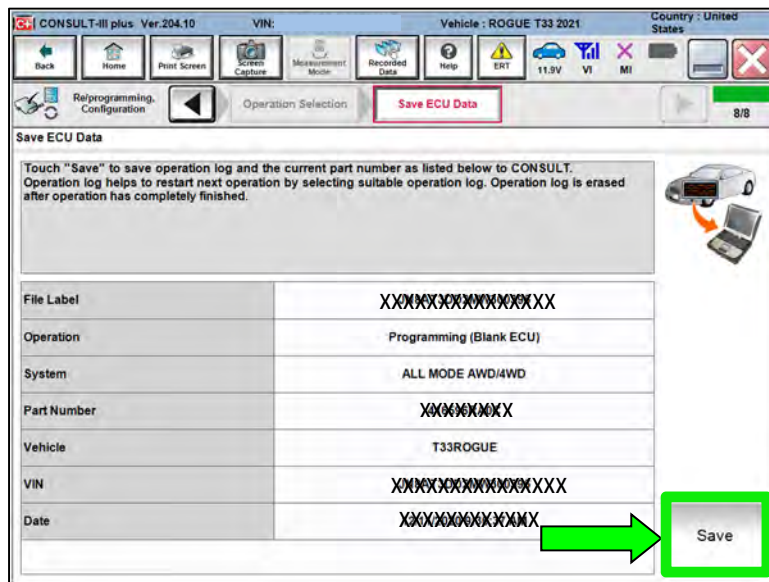

Figure 8

12. Select **Save**.

Figure 9
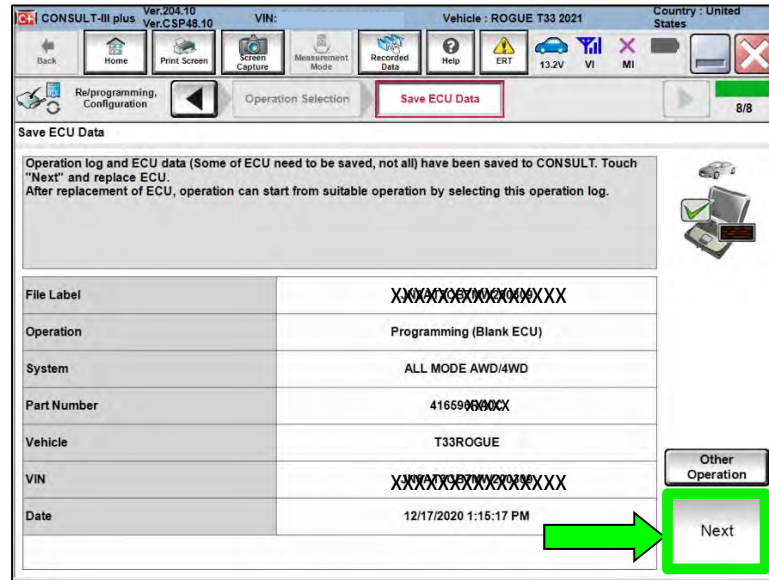
13. Select **Next**.

Figure 10

14. If the screen in Figure 11 displays, select **Home**. If the screen in Figure 11 does not display, skip to step 15.
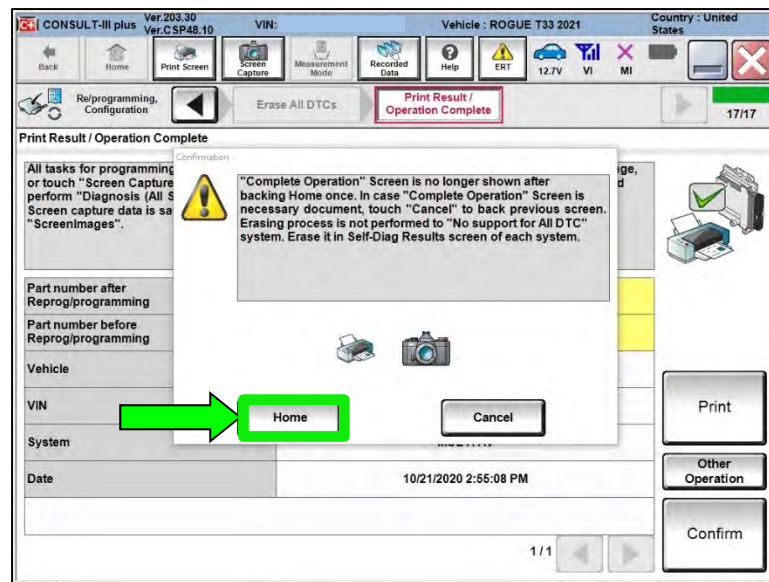

Figure 11

15. Close C-III plus.

16. Turn the ignition OFF.
    - It may be necessary to hold the start button in for several seconds for the ignition to turn OFF.

17. Disconnect the battery maintainer or smart charger.

Replace AWD Coupler

18. Raise and support vehicle.

⚠️ **WARNING**

To prevent serious burns, avoid contact with hot metal parts. Perform the operation after the exhaust system has fully cooled down because the system will be hot just after engine stops.

19. Remove the propeller shaft rear flange fasteners and tie the propeller shaft aside with a suitable strap.

Figure 12

20. Disconnect the AWD coupler electrical connector.

- The gray lock tab must be pulled outward before the connector will disconnect.

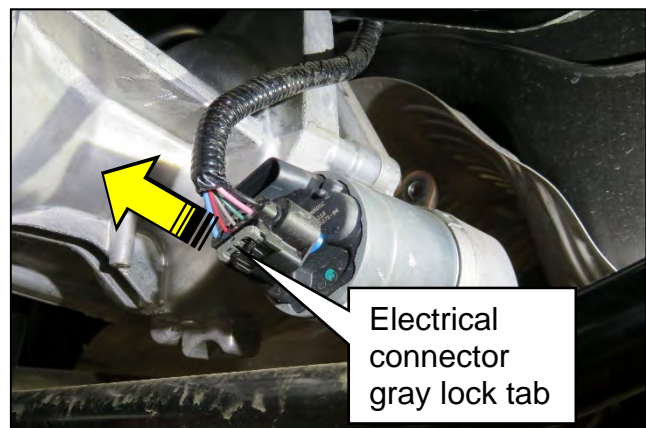Electrical connector gray lock tab

Figure 13

21. Place a drain pan under the rear coupler.

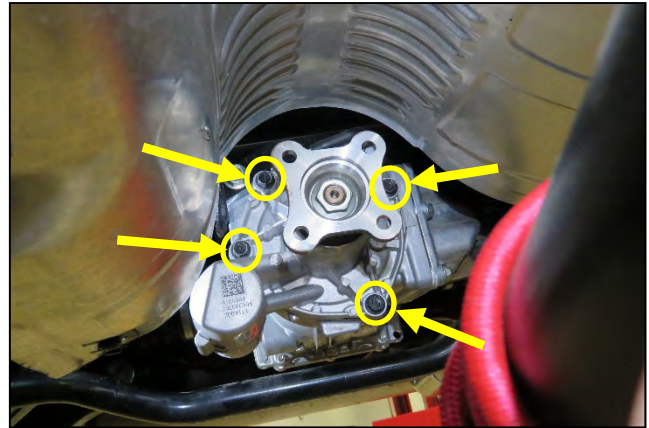22. Remove the four (4) AWD coupler bolts.

Figure 14

- Fluid may start to drain from between the AWD coupler and the differential.

Figure 15

23. Remove the AWD coupler from the differential. If necessary, there are three (3) tool pry points where light pressure can be applied to remove the AWD coupler from the differential.

- Figure 16 shows two (2) of the three (3) tool pry points.
- The third tool pry point is located near the passenger side upper AWD coupler bolt (not shown).

Driver side tool pry point
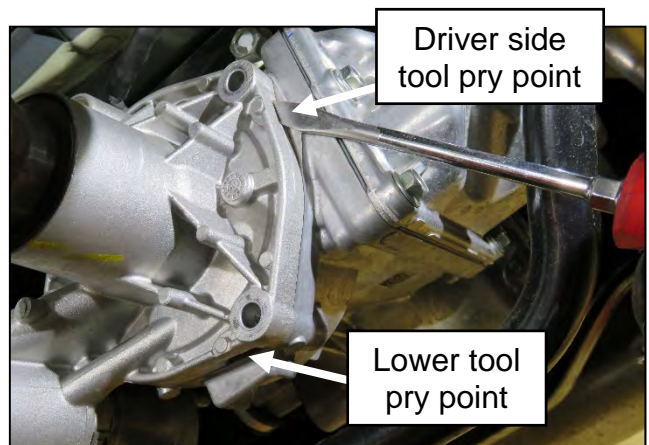
Lower tool pry point

Figure 16

24. With the AWD coupler removed, locate the blue reference mark on the differential pinion shaft. If necessary, rotate one of the rear wheels until the blue reference mark is aligned with the driver side coupler lower bolt hole, as shown in Figure 17.
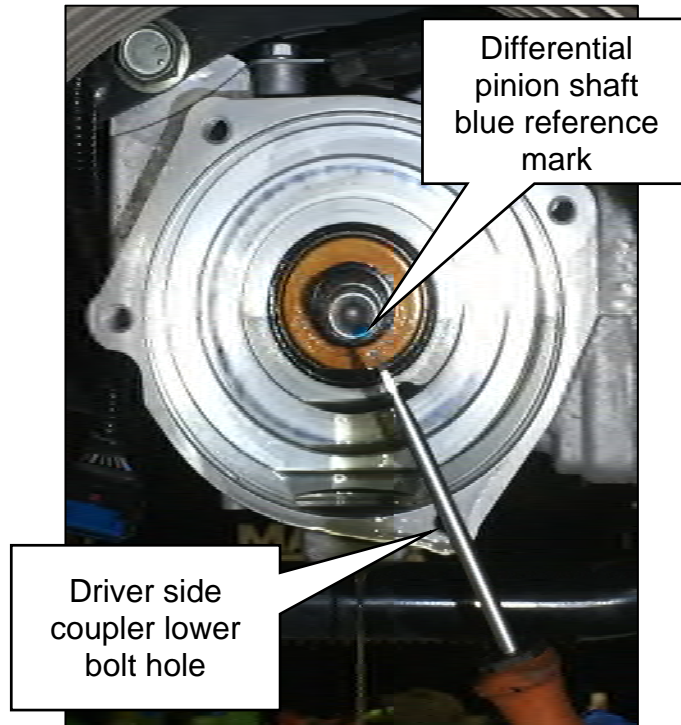
Differential pinion shaft blue reference mark

Driver side coupler lower bolt hole

Figure 17

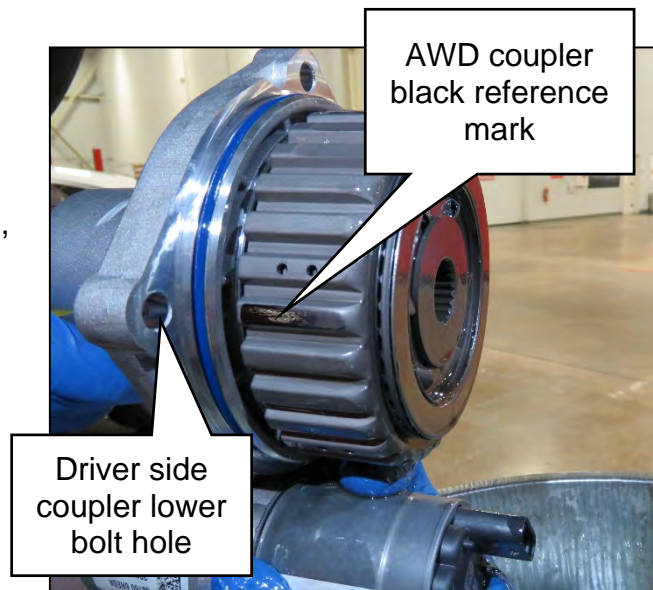25. On the new AWD coupler, locate the black reference mark and align it with the driver side coupler lower bolt hole, as shown in Figure 18.

AWD coupler black reference mark

Driver side coupler lower bolt hole

Figure 18

26. Install the new AWD coupler.
    - Keep the black reference mark aligned with the driver side coupler lower bolt hole, as close as possible, while installing the new AWD coupler.
    - It may be necessary to slightly rotate the AWD coupler flange during installation, to align the splines.
    - Ensure the coupler seats fully with the differential housing before installing the coupler bolts.
    - Do NOT use excessive force to seat the coupler to the differential housing.
    - Torque the four (4) AWD coupler bolts in a diagonal pattern to 30 N●m (22 ft-lb).

Figure 19

27. Remove the strap from the propeller shaft.

28. Align the outer edges of the mating surface of the propeller shaft flange with the mating surface of the AWD coupler flange.
    - The mating surface flanges should be completely flush with one another.
    - If the mating surface flanges are not completely flush with one another, rotate the position of the propeller shaft 90 degrees and recheck.
    - Install new propeller shaft rear flange bolts and nuts.
    - Torque the propeller shaft rear flange bolts/nuts in a diagonal pattern to 50 N●m (37 ft-lb).
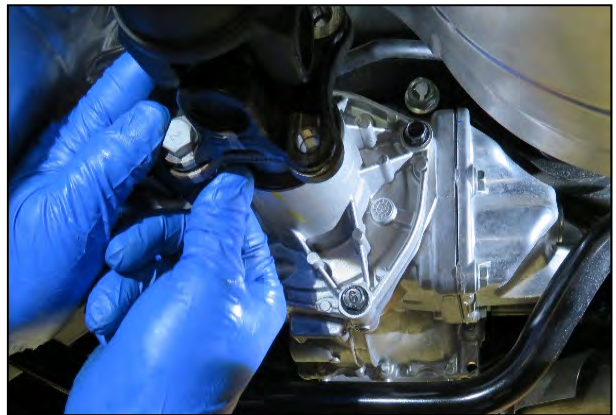
Figure 20

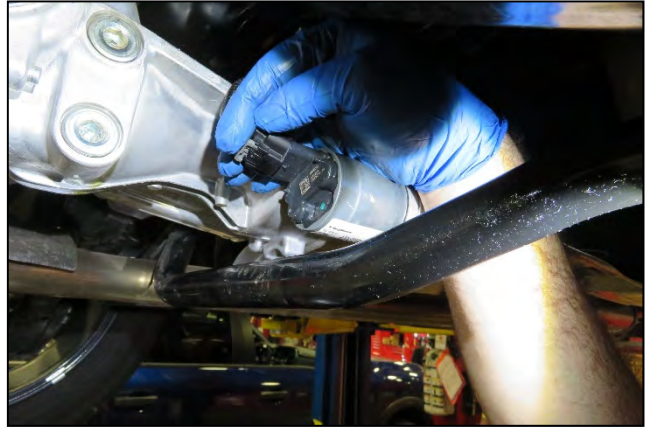29. Reconnect the AWD coupler electrical connector.

Figure 21

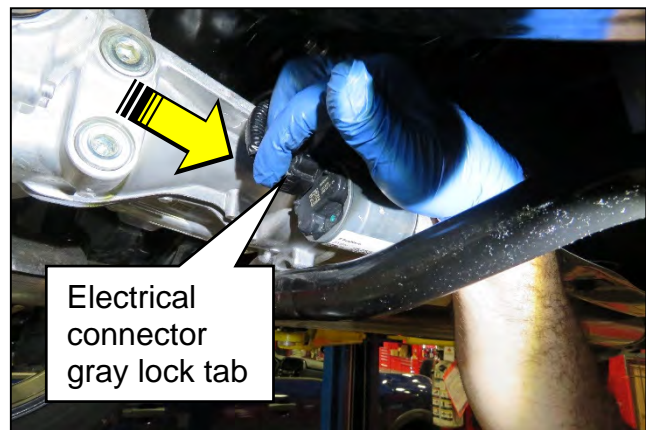• Engage the AWD coupler electrical connector gray lock tab by pushing inward.

Electrical connector gray lock tab

Figure 22

30. Remove the AWD coupler filler plug using a 10 mm hex socket.
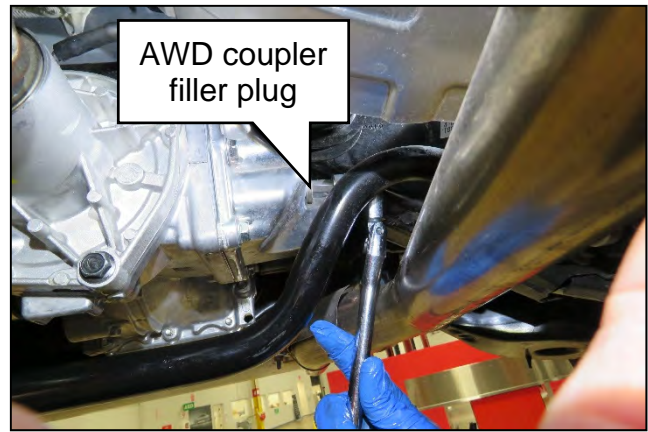

AWD coupler filler plug

Figure 23

31. Fill the AWD coupler.

- Only use a dedicated fluid pump that has not been used for other types of fluids.
- See **PARTS INFORMATION** for coupling fluid information.
- Fill the AWD coupler until fluid starts to come out of the filler hole.
- Temporarily reinstall the filler plug using the original sealing washer.
- Torque the filler plug to 35 N•m (26 ft-lb).

Fluid pump
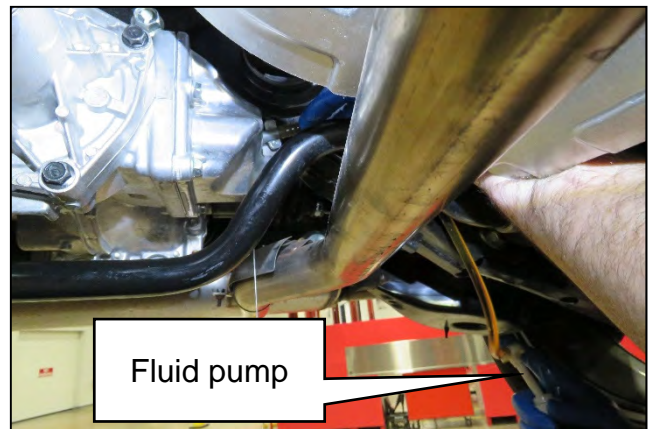
Figure 24

32. Lower the vehicle.

Write ROM Data To New AWD Coupler

33.   Turn the ignition ON.

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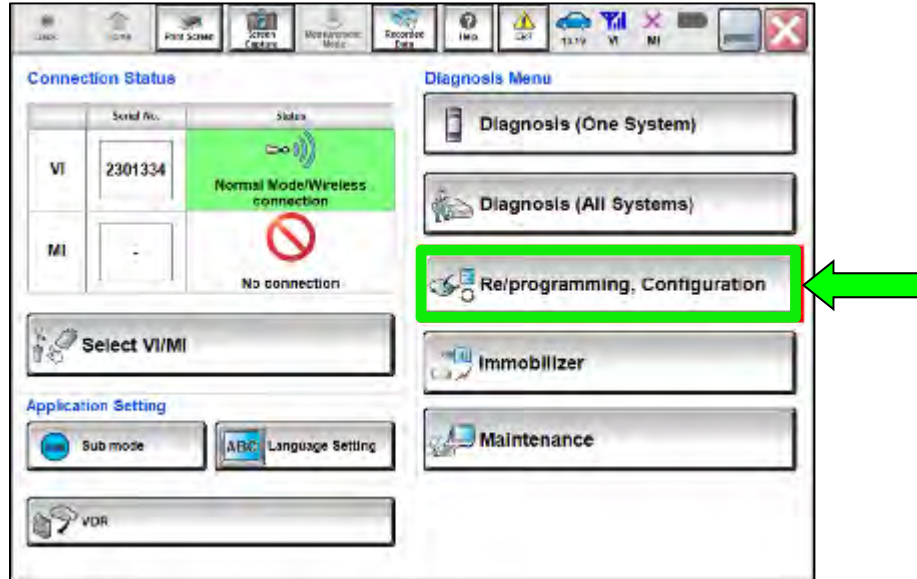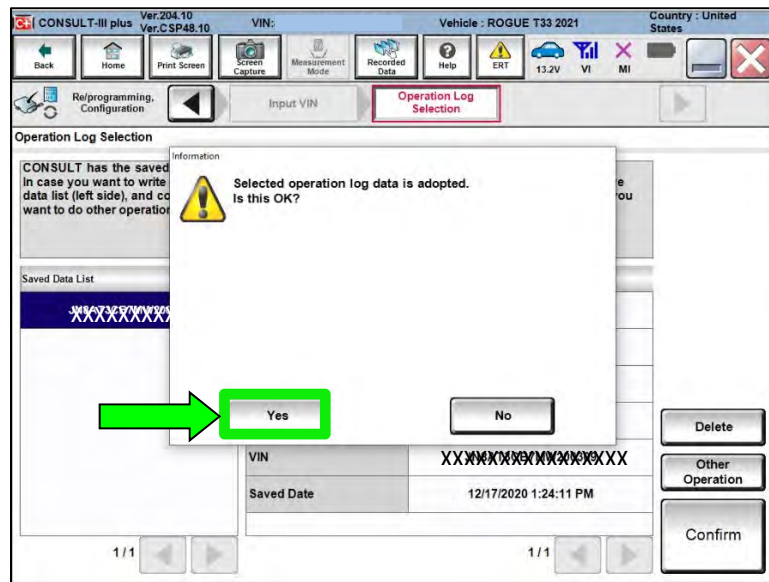

Figure 25

35.   Use the arrows (if needed) to view and read all precautions.
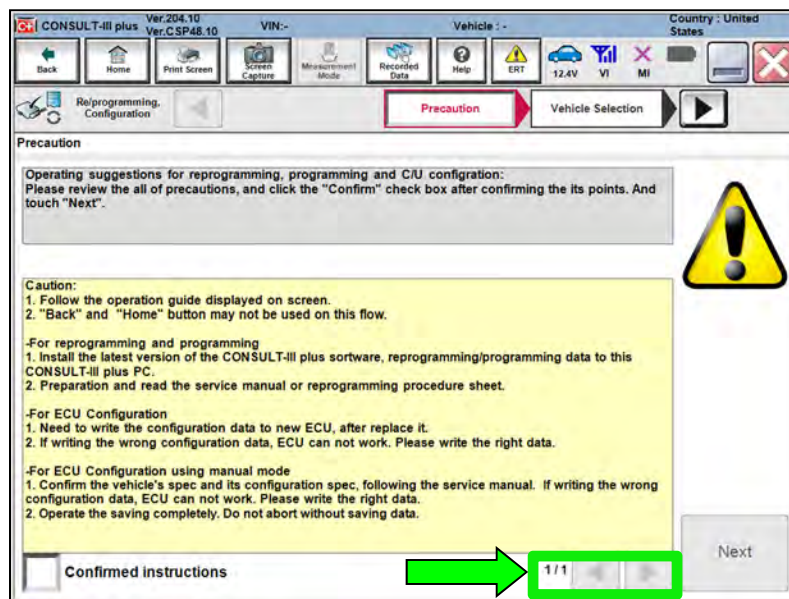
Figure 26

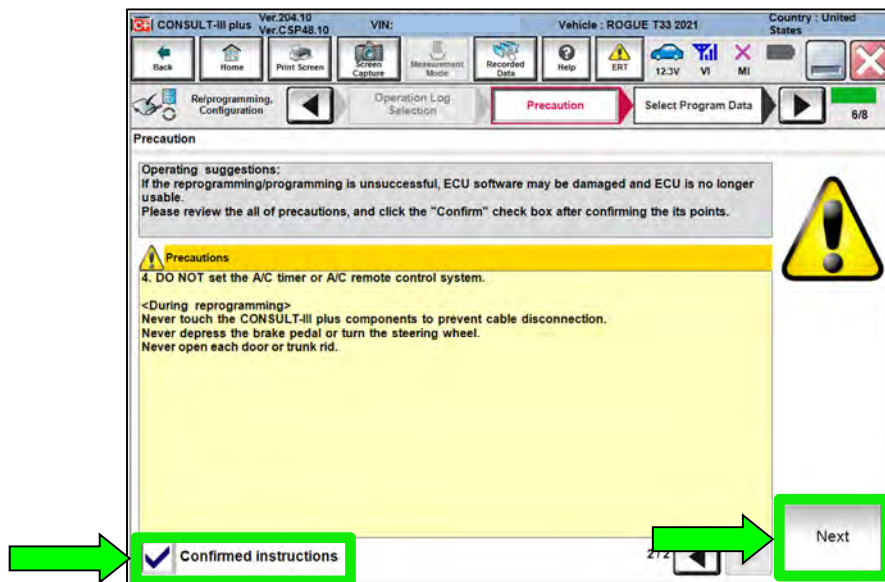36. Select **Confirmed instructions**.

37. Select **Next**.
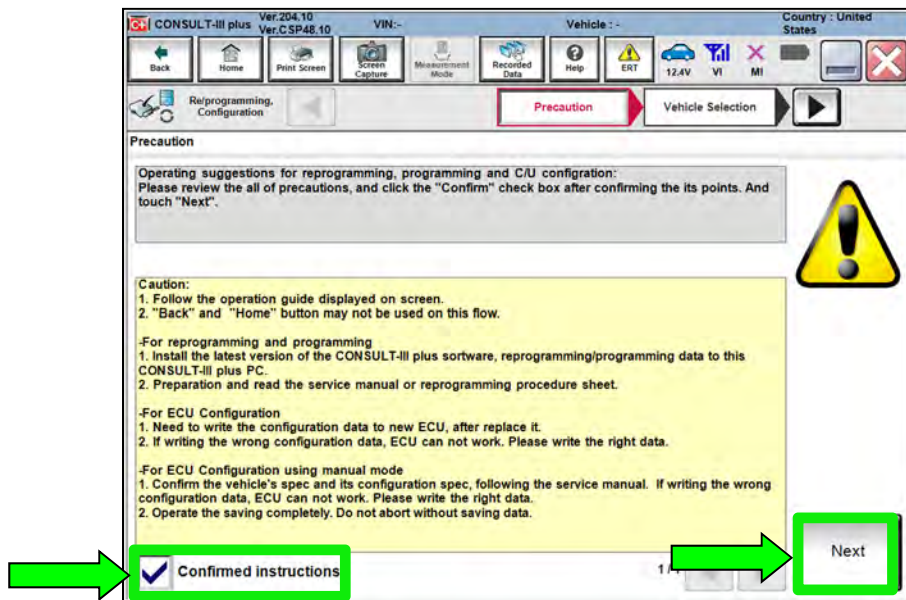
Figure 27

38. Select the correct vehicle information.

39. Select **OK**.
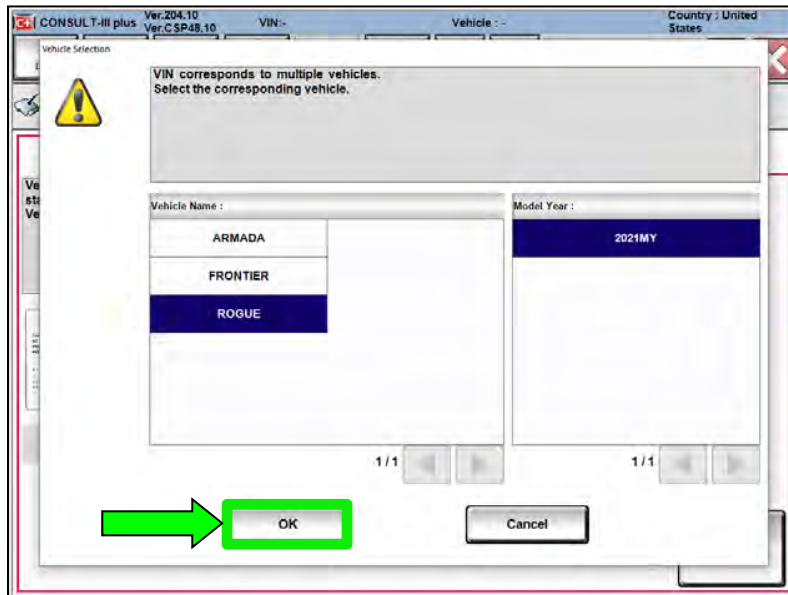
Figure 28

40. Verify the correct VIN is populated.

41. Select **Confirm**.
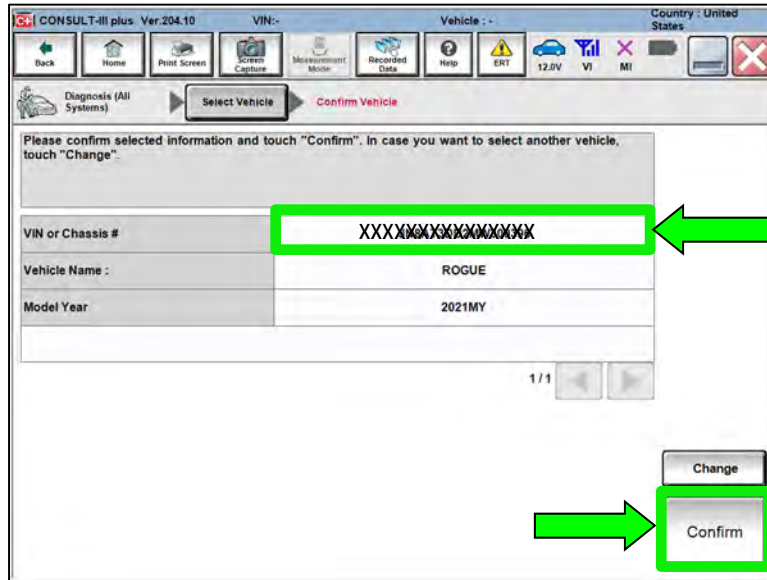
Figure 29

42. Select **Confirm**.
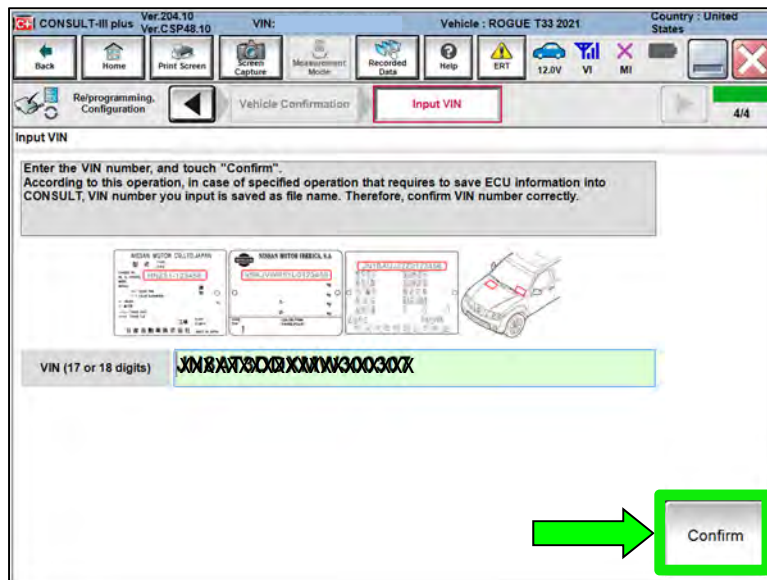
Figure 30

43. Confirm **System** is **ALL MODE AWD/4WD**, then select **Confirm**.
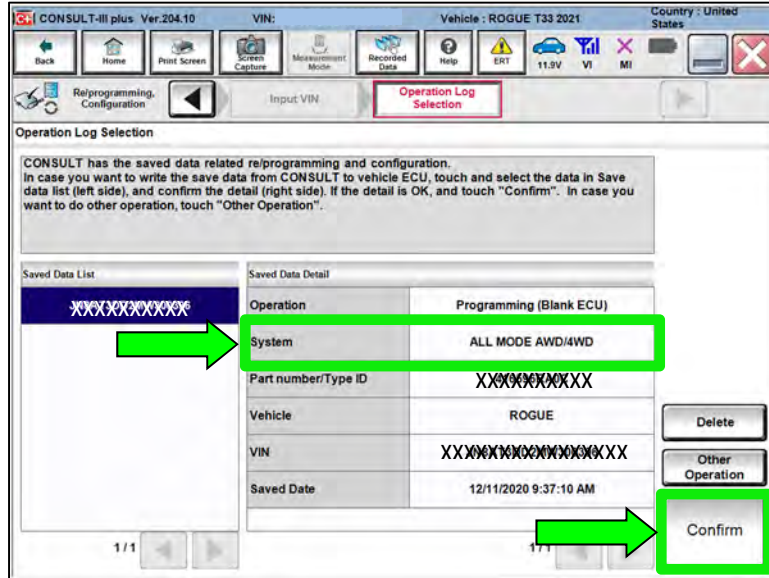
Figure 31

44. Select **Yes**.

Figure 32

45. Use the arrows (if needed) to view and read all precautions.
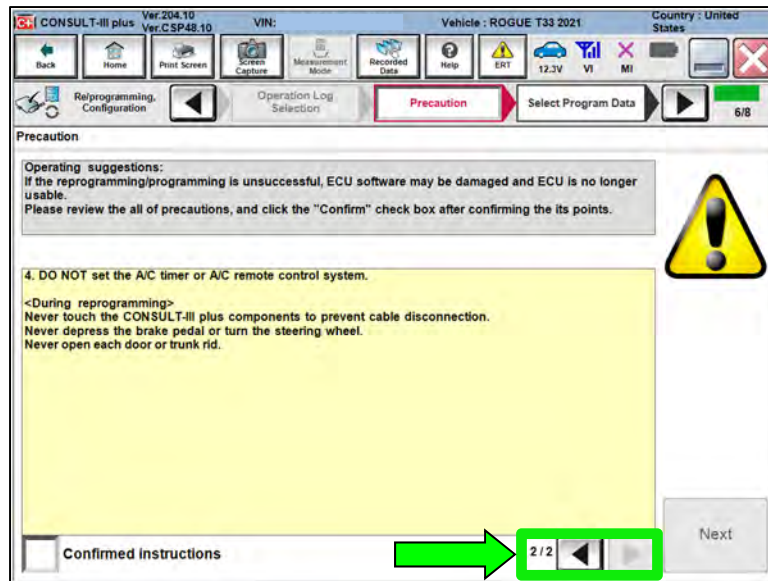
Figure 33

46. Select **Confirmed instructions**.

47. Select **Next**.

Figure 34

48. Review the data on the screen and select **Next**.
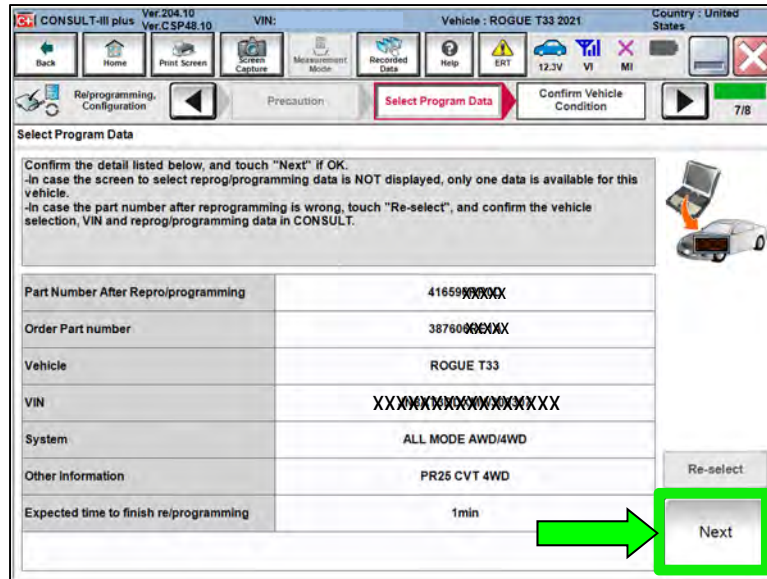
Figure 35

49. Follow the on-screen instructions and select **Next**.
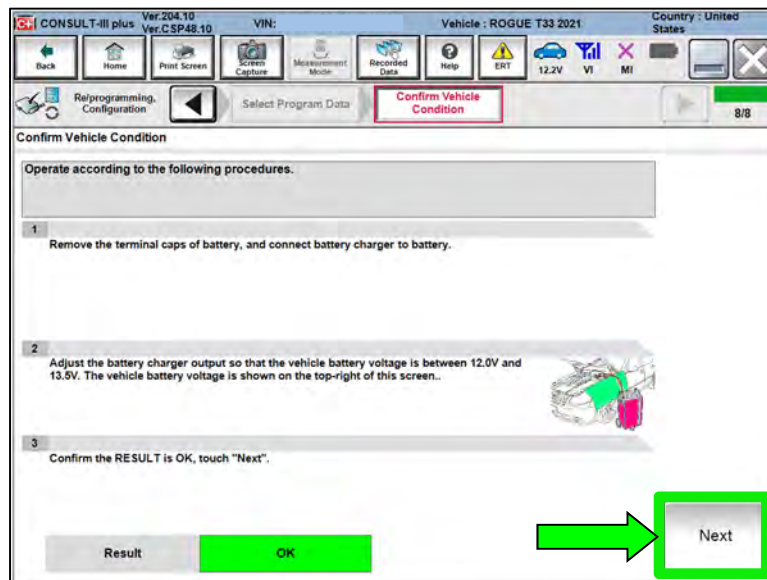
Figure 36

50. Confirm the battery voltage is within acceptable limits, and then select **Start**.
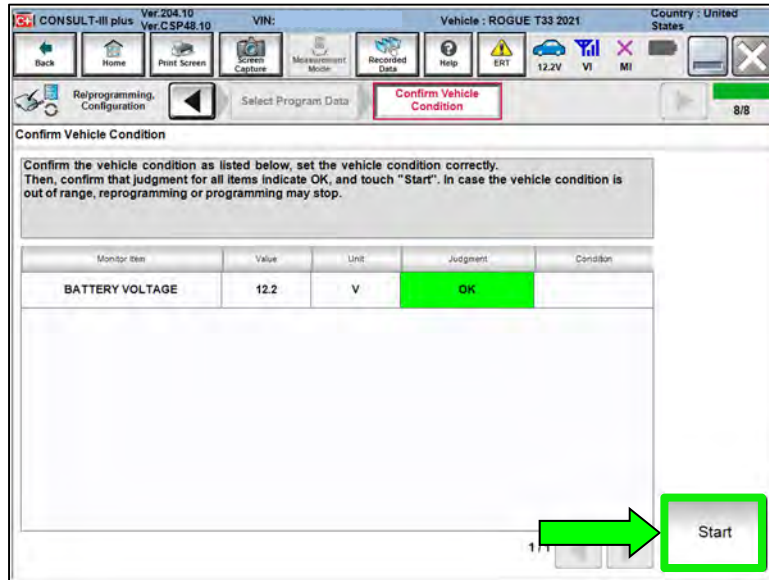
Figure 37

51. Select your user group from the drop down menu, then select **OK**.
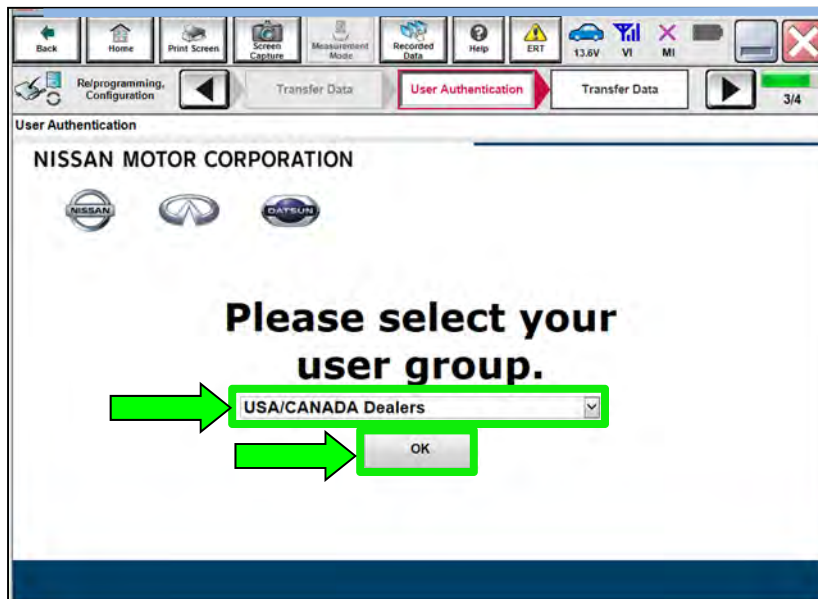
Figure 38

52. Enter your **Username** and **Password**, and then select **Submit**.
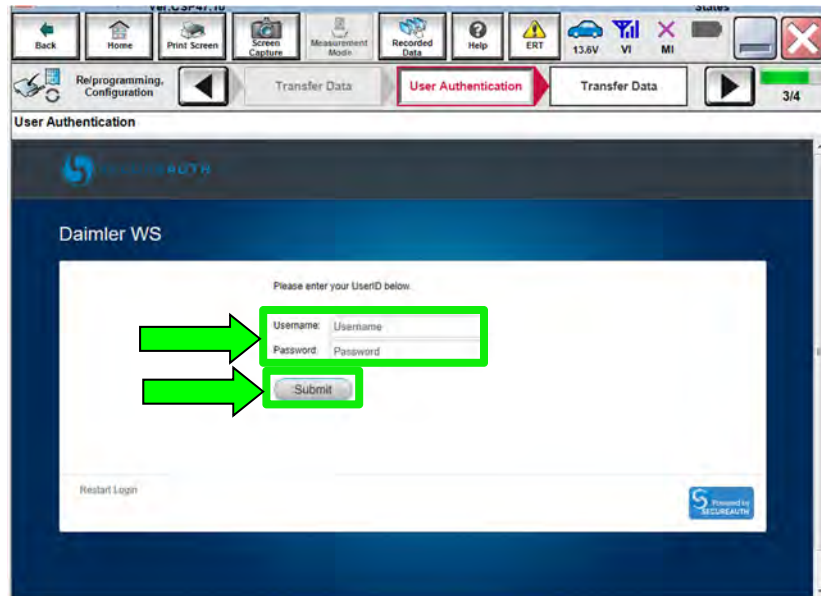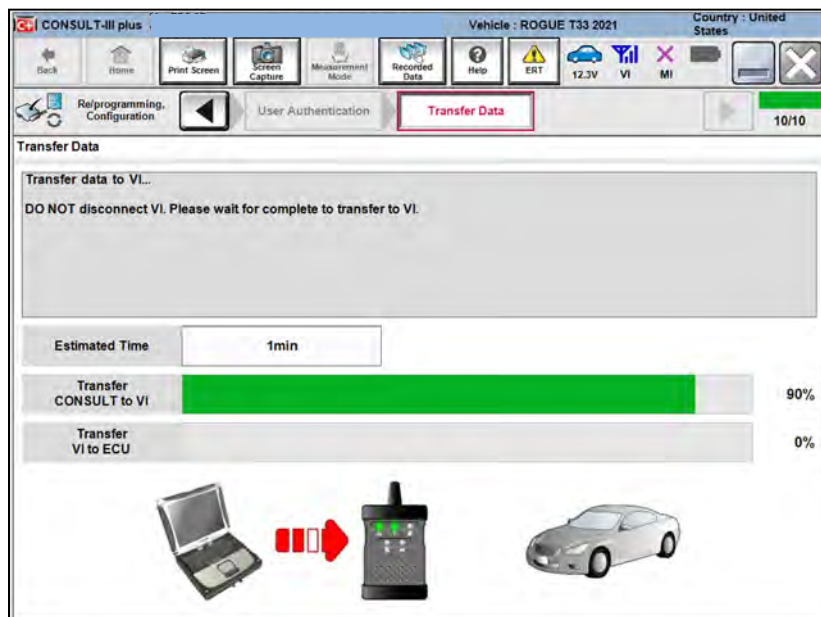

Figure 39

53. Allow **Transfer Data** to complete.

Figure 40

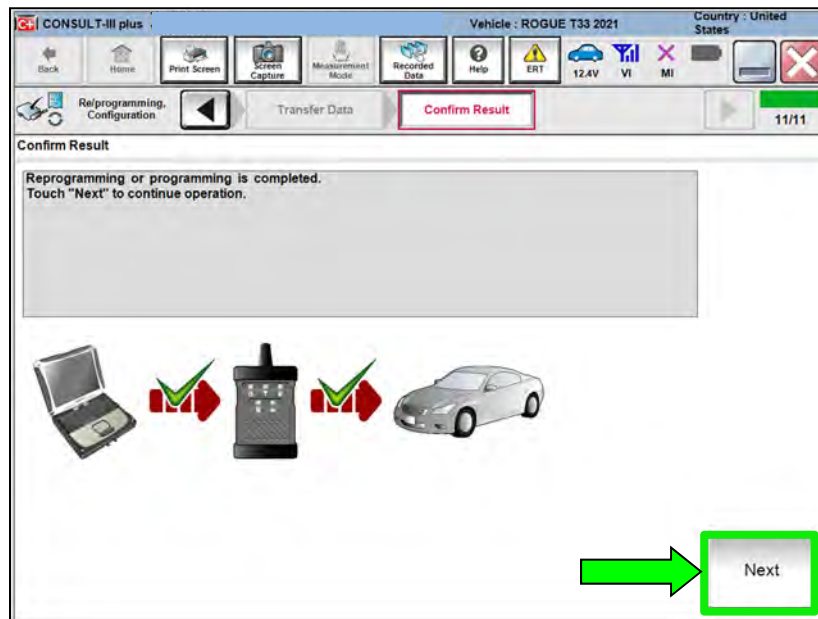54. Once the update completes, select **Next**.

Figure 41

55. Erase All DTCs.

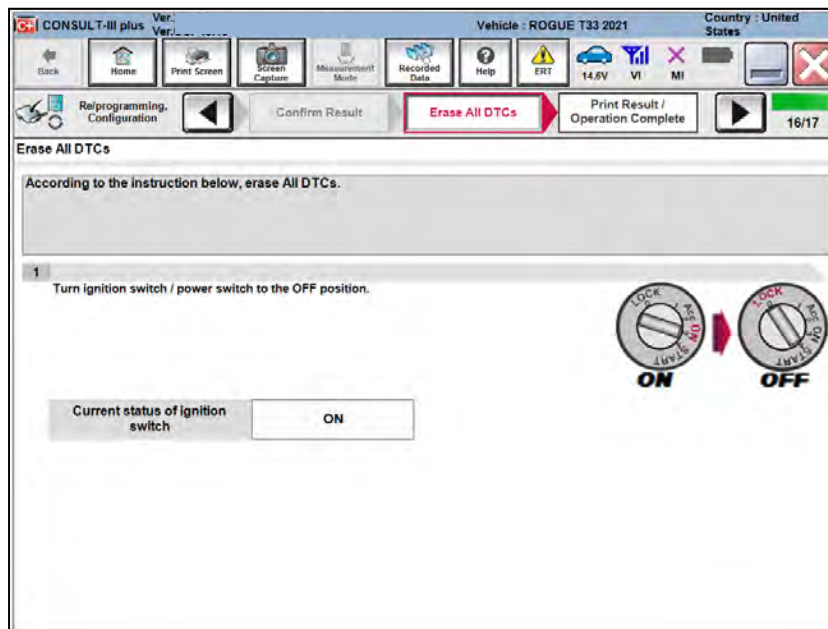- Follow the on-screen instructions as shown in Figure 42 and Figure 43.
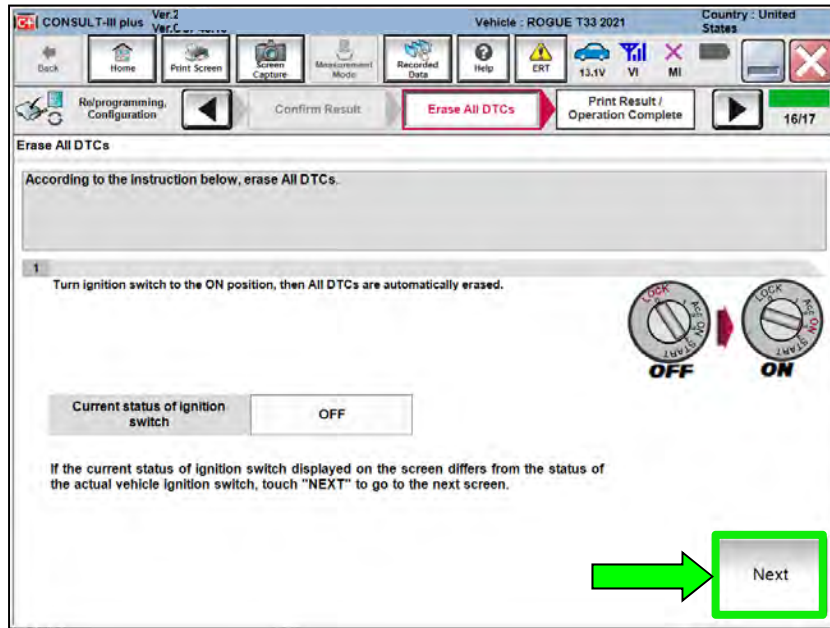

Figure 42

- Select **Next**.
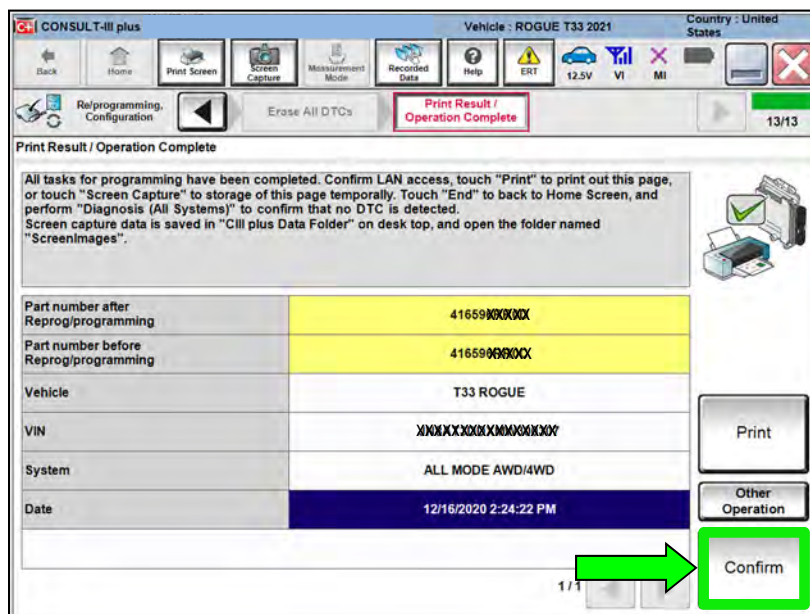

Figure 43

56. Select **Confirm**.

Figure 44

57. If the screen in Figure 45 displays, select **Home**. If the screen in Figure 45 does not display, skip to step 58.
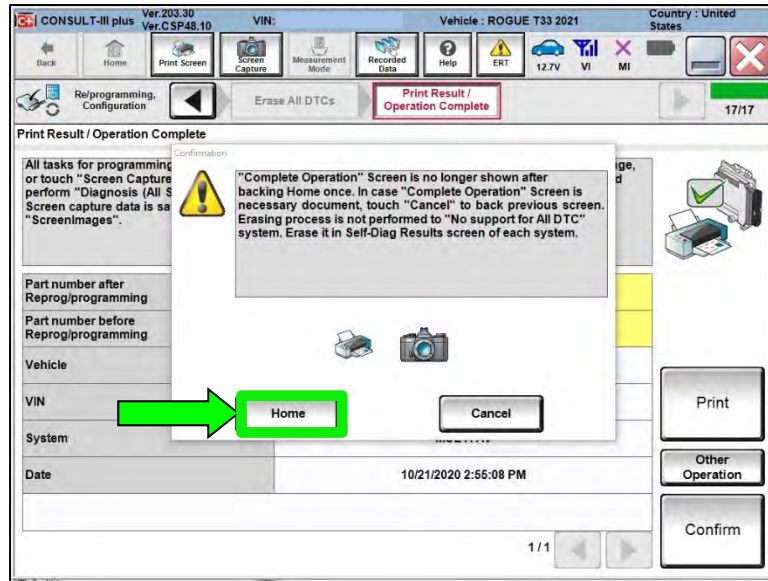

Figure 45
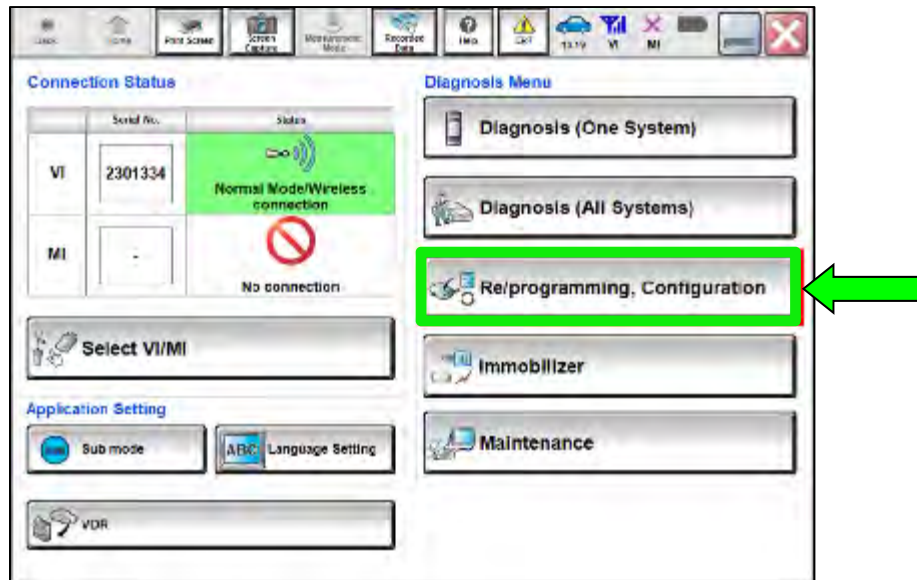
58. Select **Re/programming, Configuration**.

Figure 46

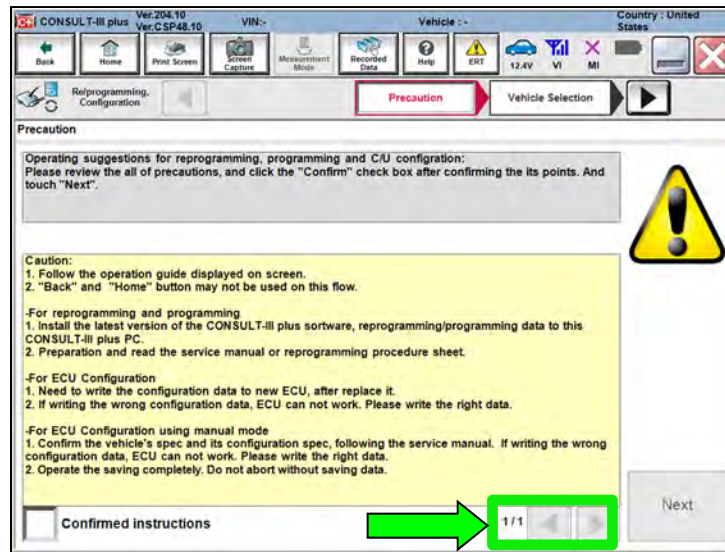59. Use the arrows (if needed) to view and read all precautions.

Figure 47

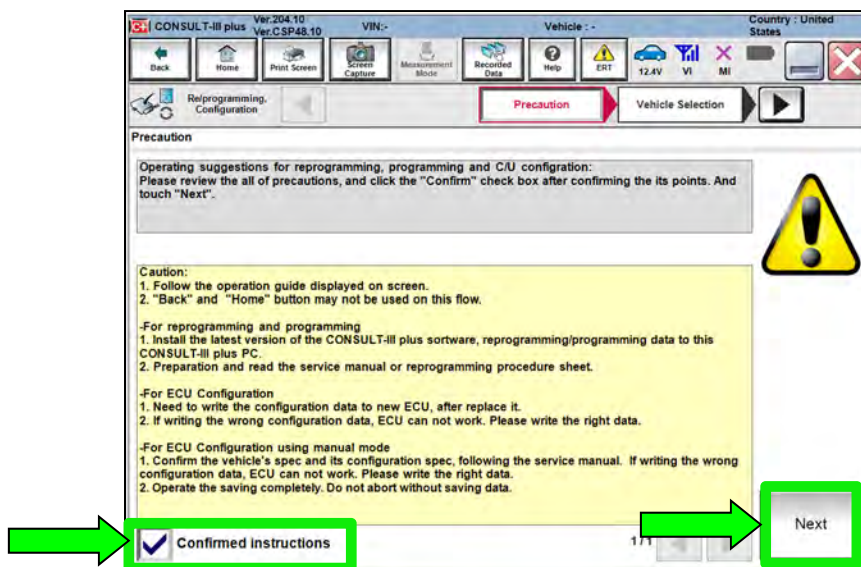60. Select **Confirmed instructions**.

61. Select **Next**.

Figure 48

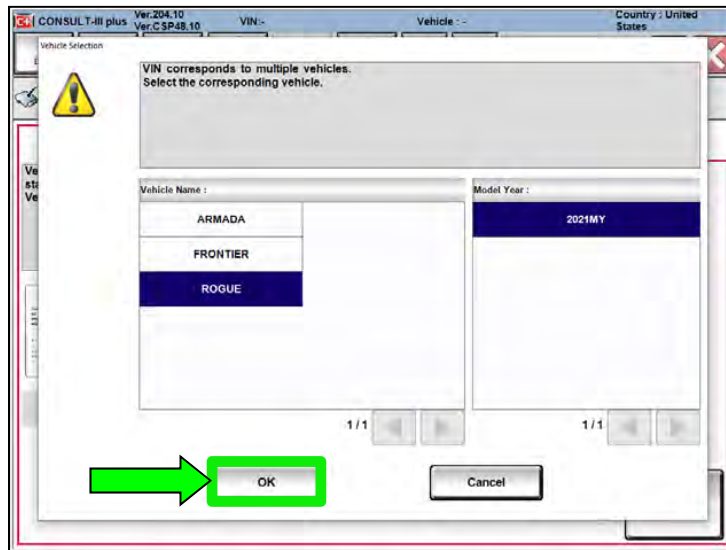62. Select the correct vehicle information.

63. Select **OK**.

Figure 49

64. Verify the correct VIN is populated.
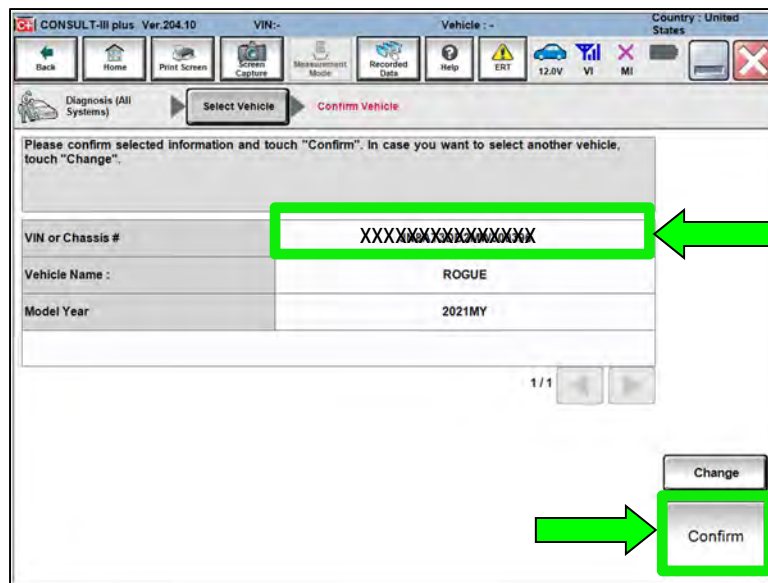
65. Select **Confirm**.

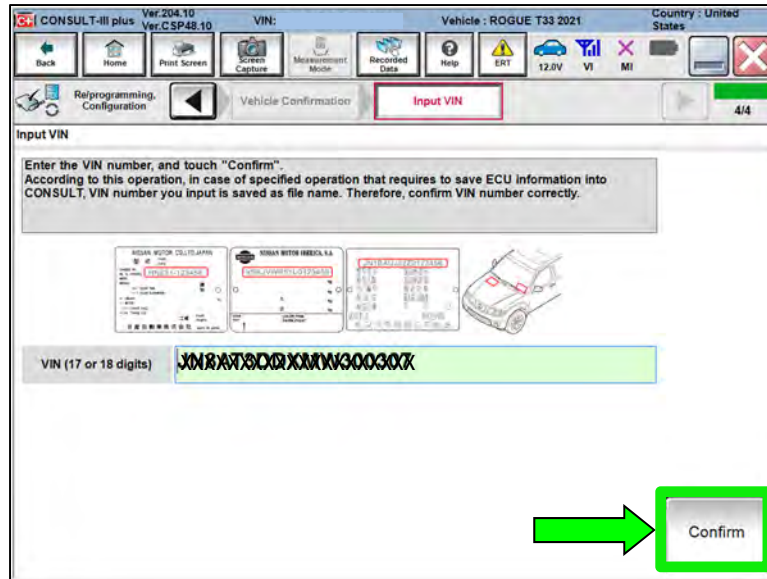Figure 50

66. Select **Confirm**.

Figure 51

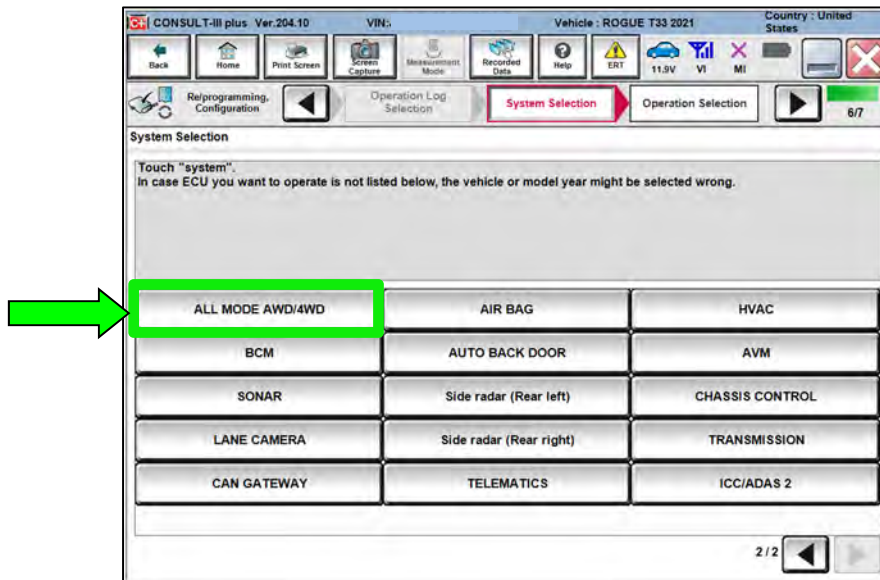67. Select **ALL MODE AWD/4WD**.

Figure 52
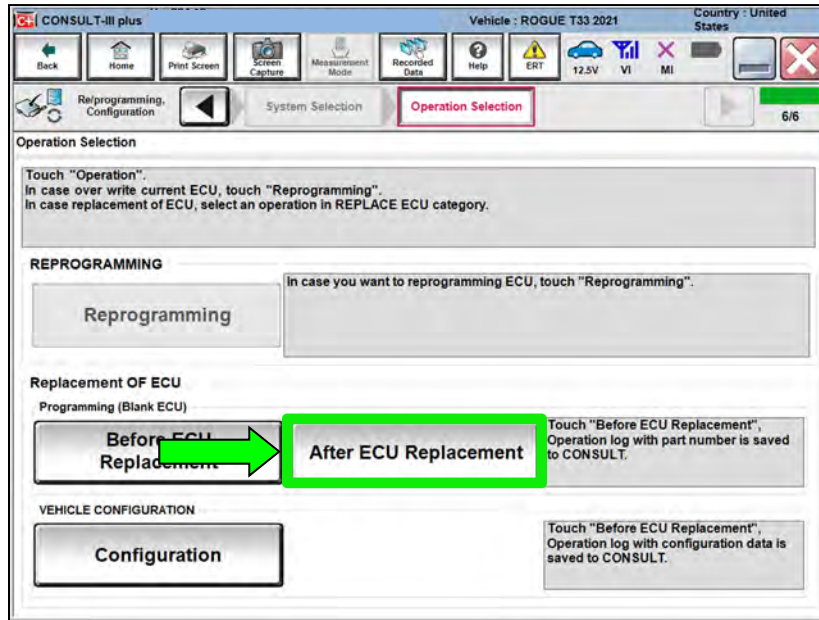
68.   Select **After ECU Replacement**.

Figure 53

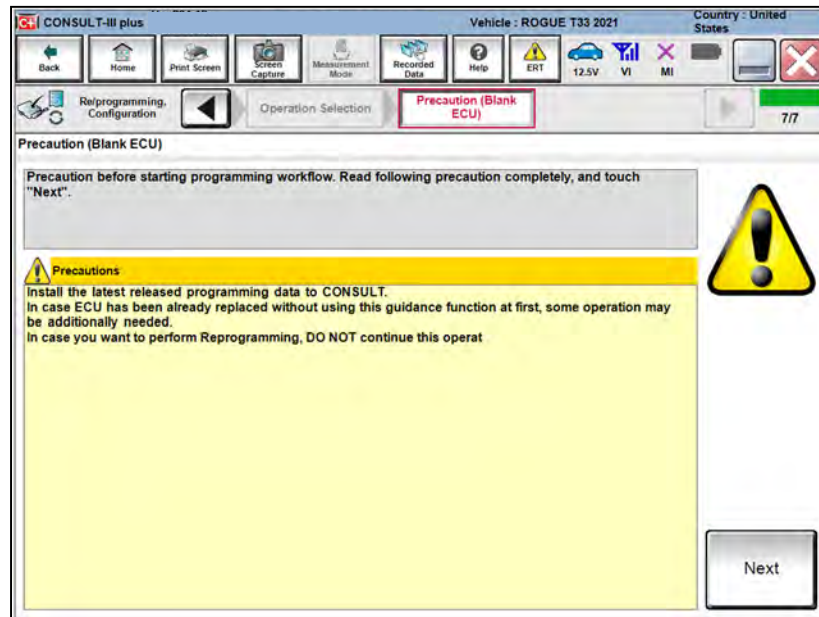69.   Read the precautions.

Figure 54

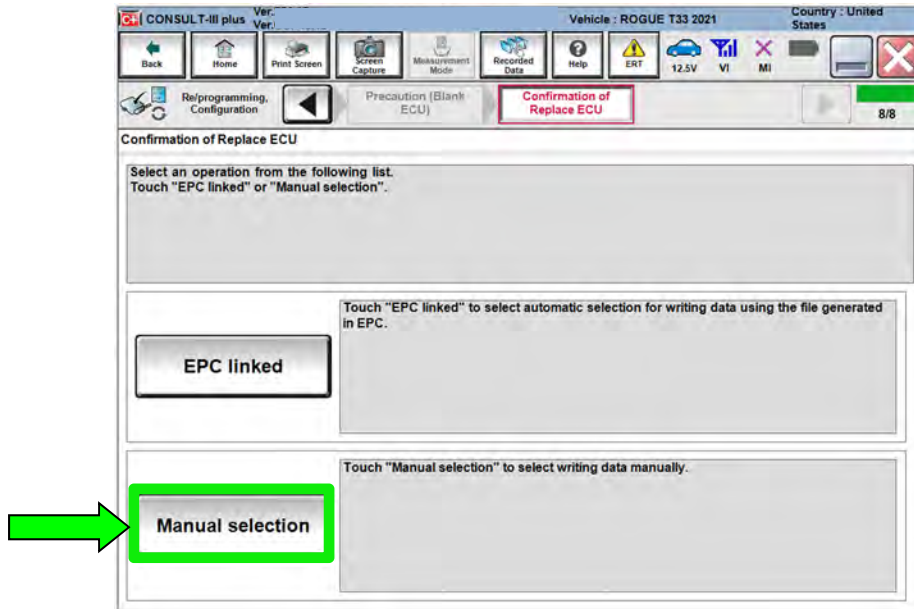70. Select **Manual selection**.

Figure 55

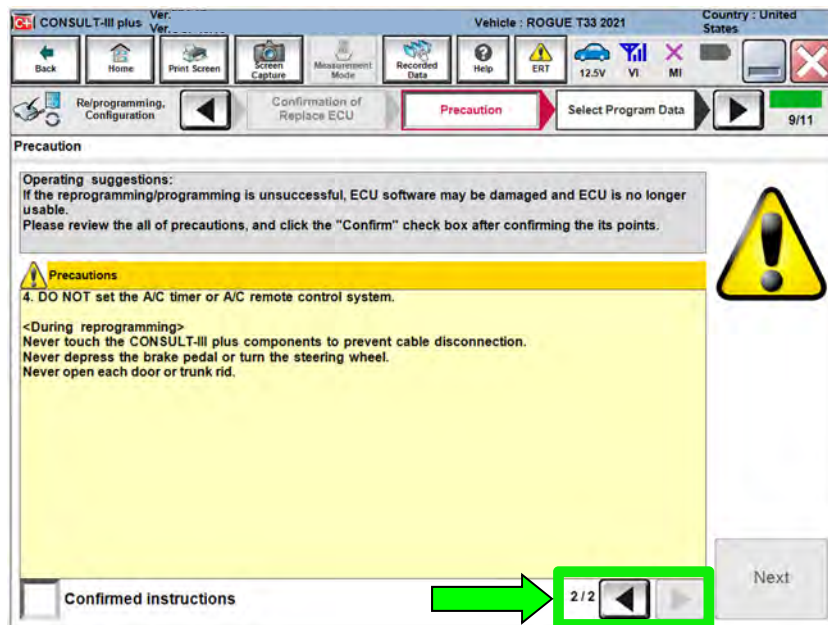71. Use the arrows (if needed) to view and read all precautions.

Figure 56

72. Select **Confirmed instructions**.
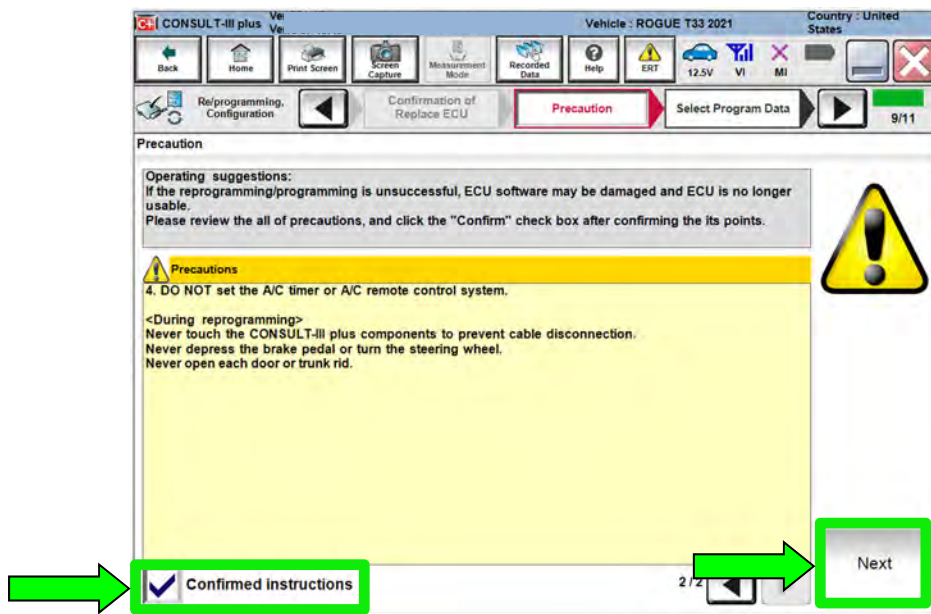
73. Select **Next**.

Figure 57

74. Under **ROM Data ID**, select **416596RR0D**.
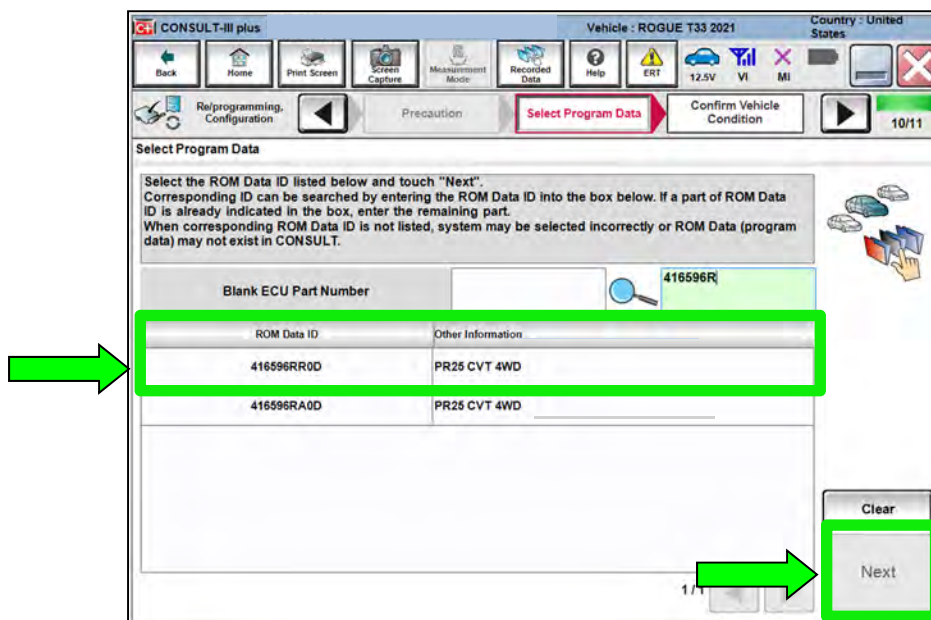
75. Select **Next**.

Figure 58

76. Review the data on the screen and select **Next**.
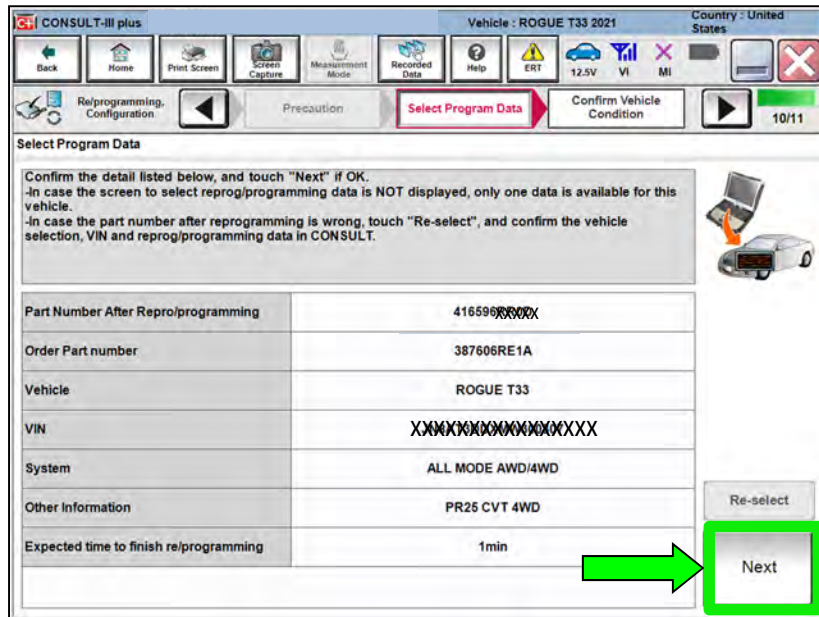
Figure 59

77. Follow the on-screen instructions and select **Next**.
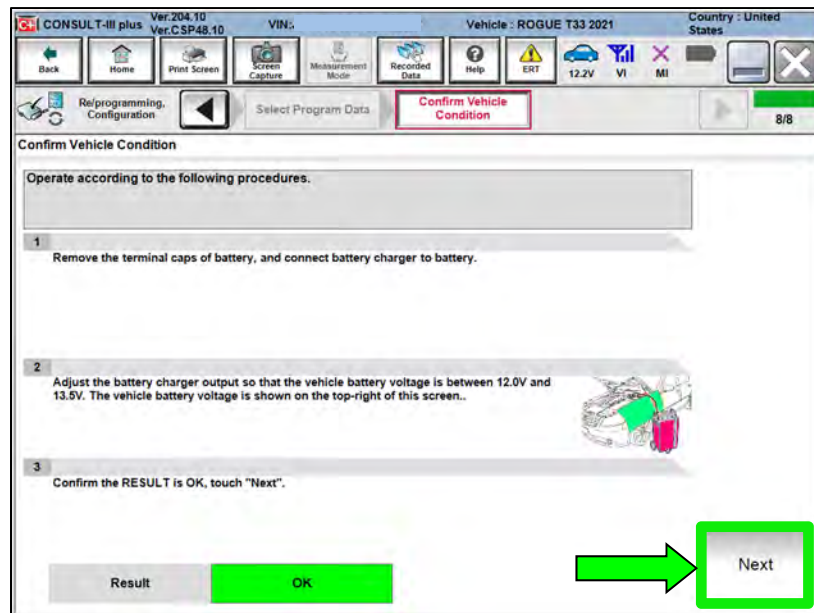

Figure 60

78. Confirm the battery voltage is within acceptable limits, and then select **Start**.
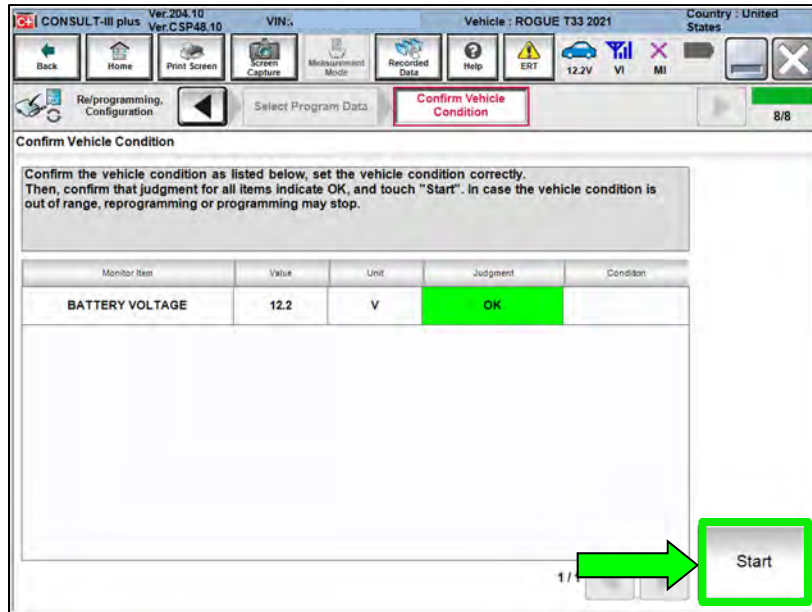
Figure 61

79. Allow **Transfer Data** to complete.
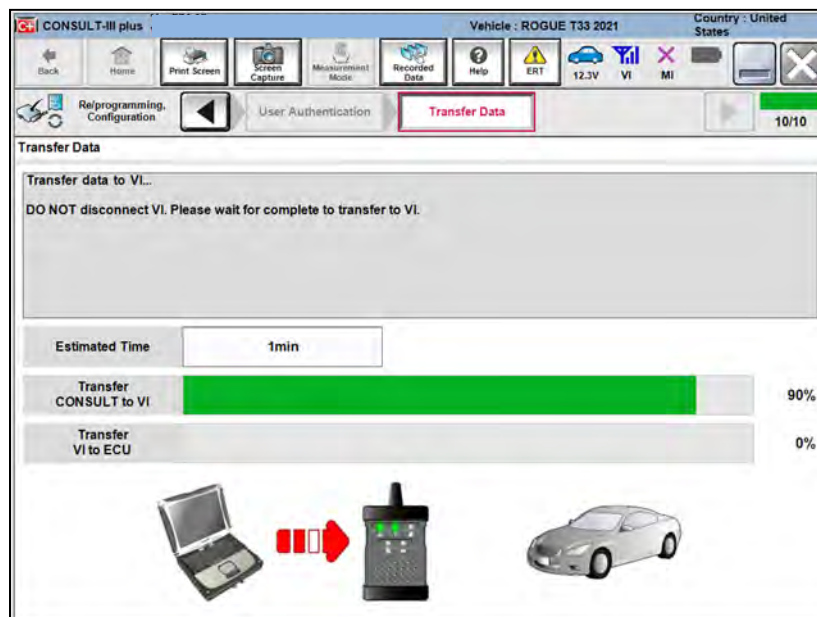
Figure 62

80. Once the update completes, select **Next**.
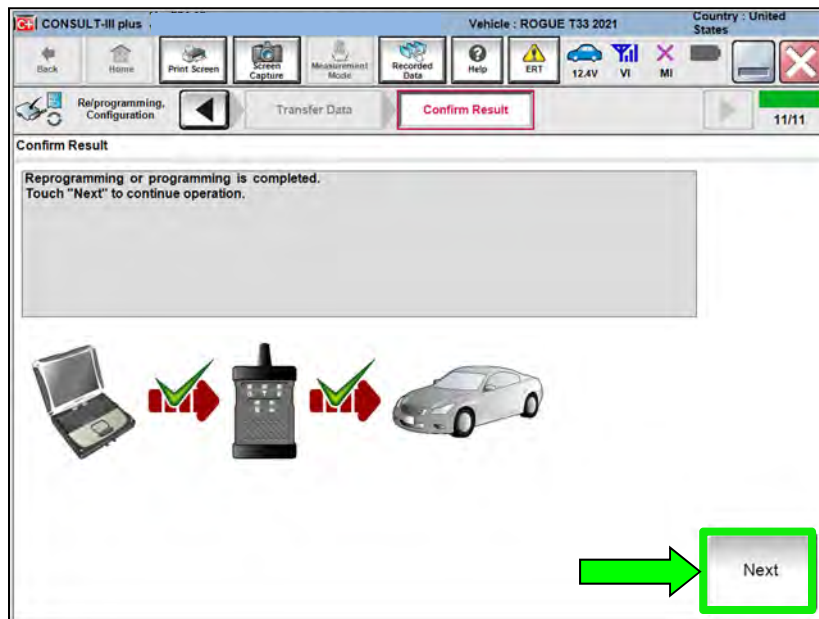
Figure 63

81. Erase All DTCs.

- Follow the on-screen instructions as shown in Figure 64 and Figure 65.
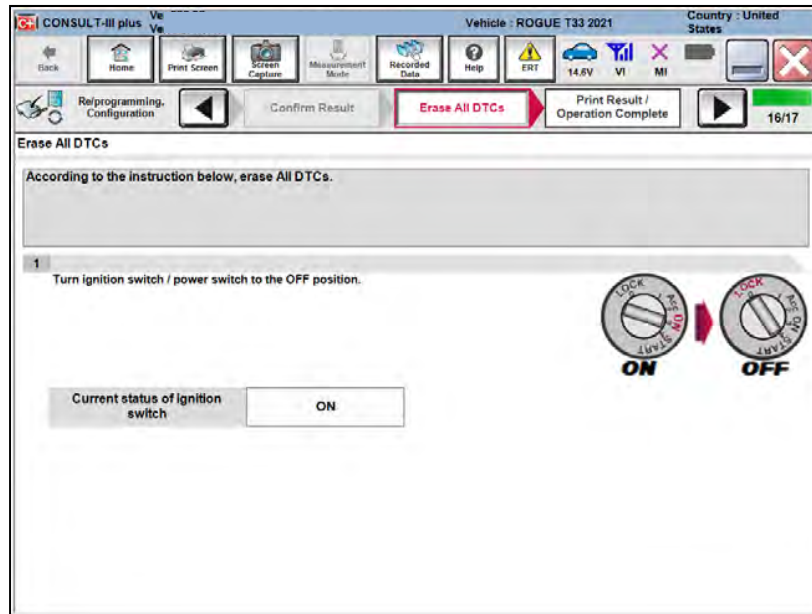
Figure 64

- Select **Next**.
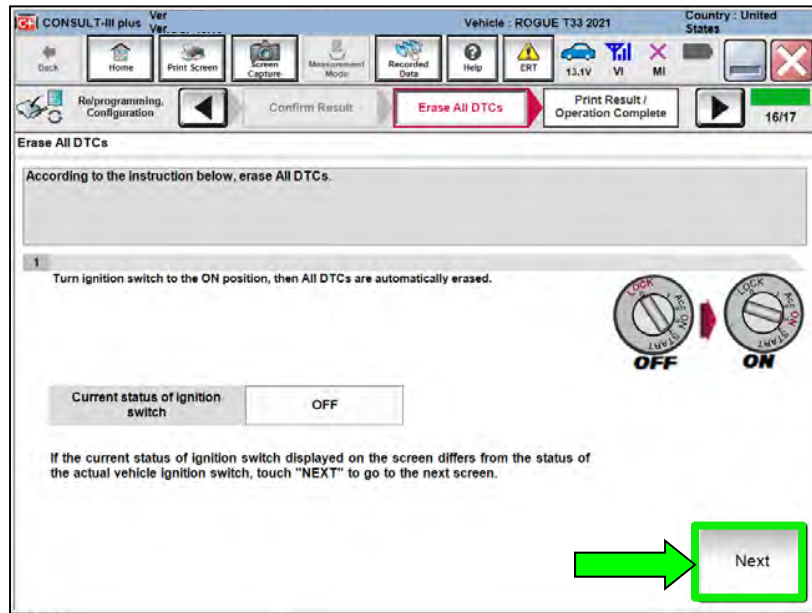
Figure 65

82. Select **Confirm**.
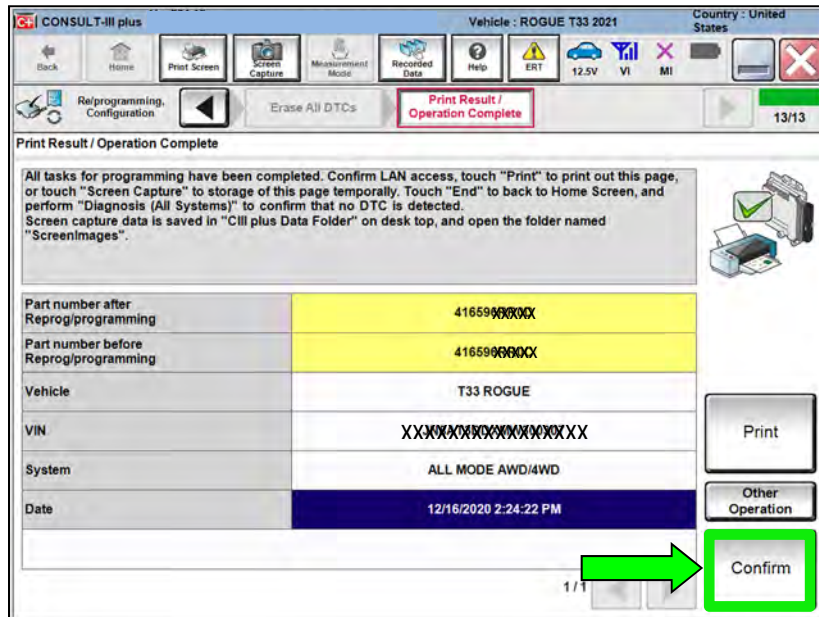
Figure 66

83. If the screen in Figure 67 displays, select **Home**. If the screen in Figure 67 does not display, skip to step 84 on page 36.
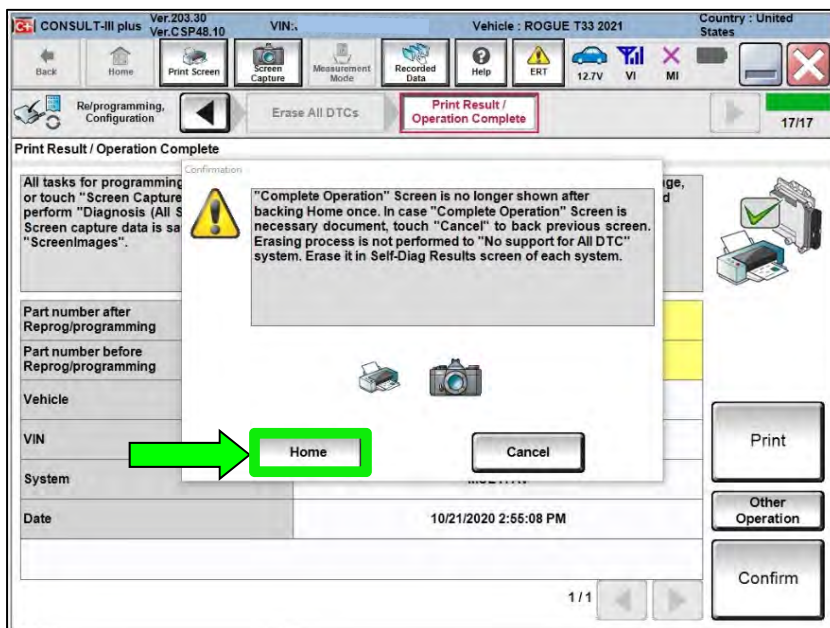
Figure 67

Bleed Air & Initialize Oil Deterioration Level

84. Select **Diagnosis (One System)**.
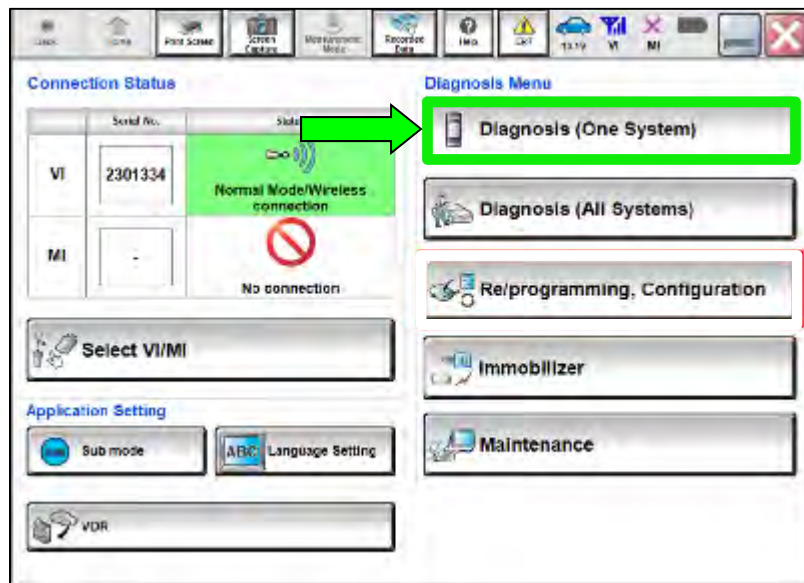
Figure 68

85. Select **ALL MODE AWD/4WD**.
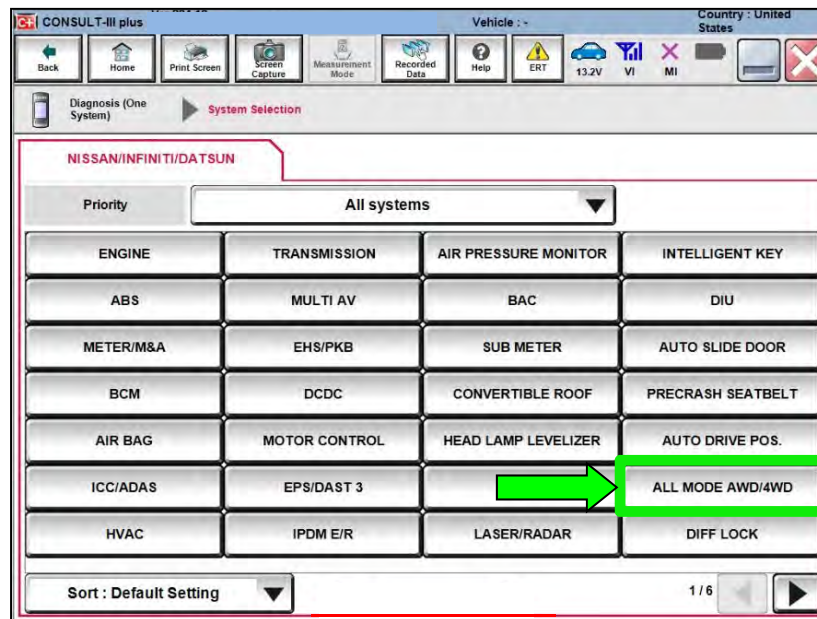
Figure 69

86.   Select **Work support**.

- Ensure Can Gateway (CGW Information) is green.
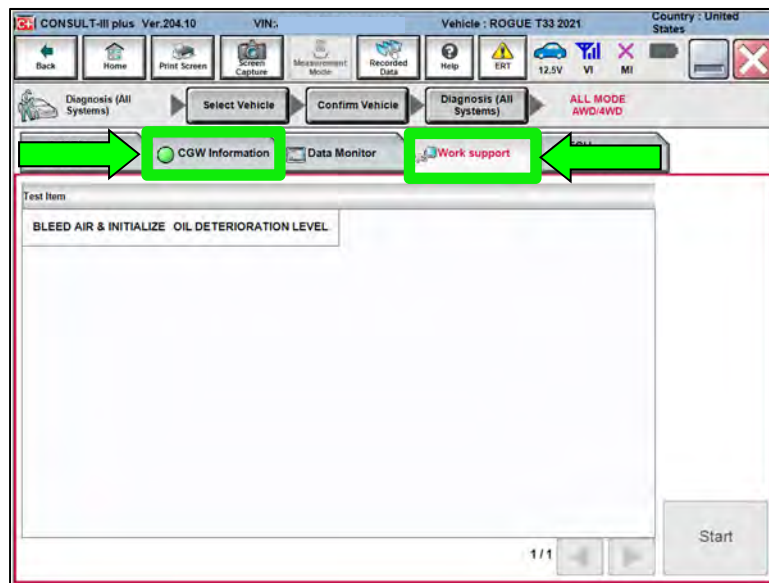
Figure 70

87.   Select **BLEED AIR & INITIALIZE OIL DETERIORATION LEVEL**.

88.   Select **Start**.
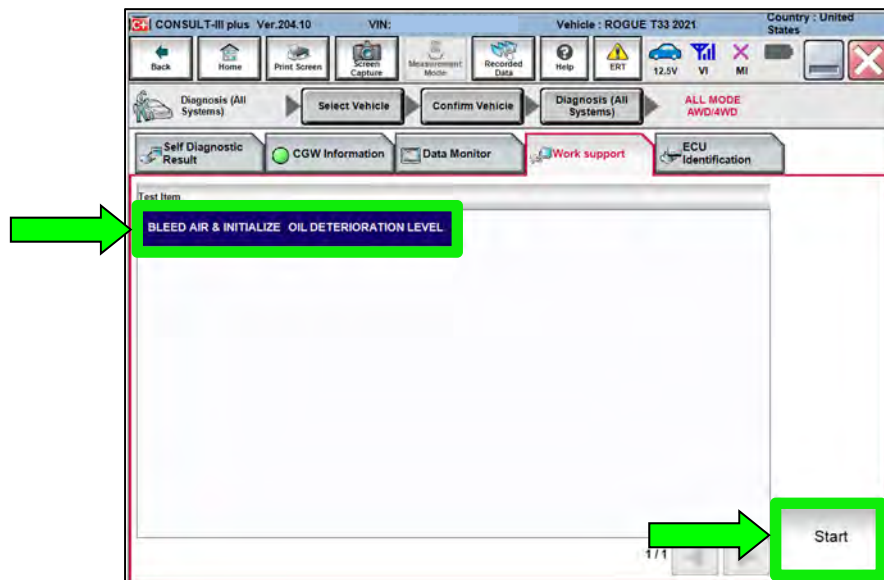
Figure 71

89. Start the engine and select **Start**.
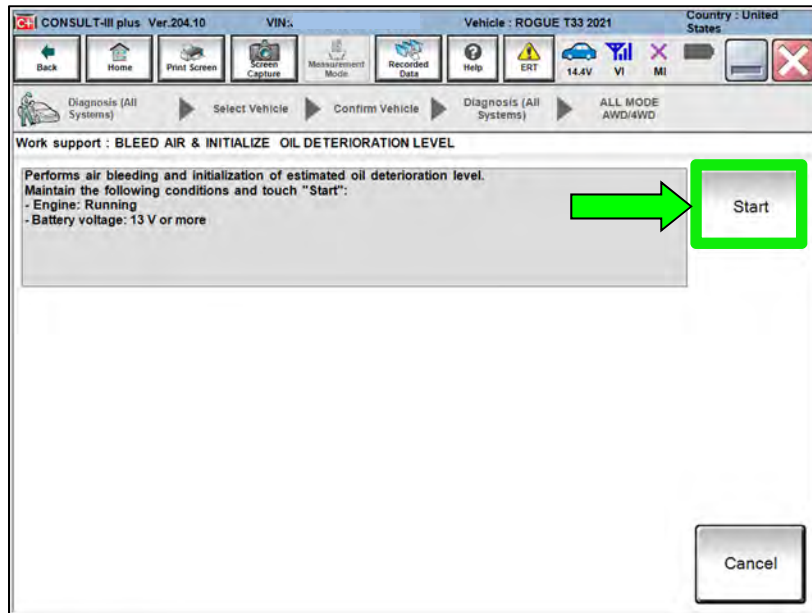
Figure 72

90. Allow **BLEED AIR & INITIALIZE OIL DETERIORATION LEVEL** to complete.

Figure 73

91. Select **End**.

Figure 74

92. Close C-III plus.

93. Turn the ignition OFF.

- It may be necessary to hold the start button in for several seconds for the ignition to turn OFF.

94. Disconnect the battery maintainer or smart charger.

Recheck AWD Coupler Fluid Level

⚠ WARNING

To prevent serious burns, avoid contact with hot metal parts. Perform the operation after the exhaust system has fully cooled down because the system will be hot just after engine stops.

95. Raise and support vehicle.

96. Place a drain pan under the AWD coupler filler hole.
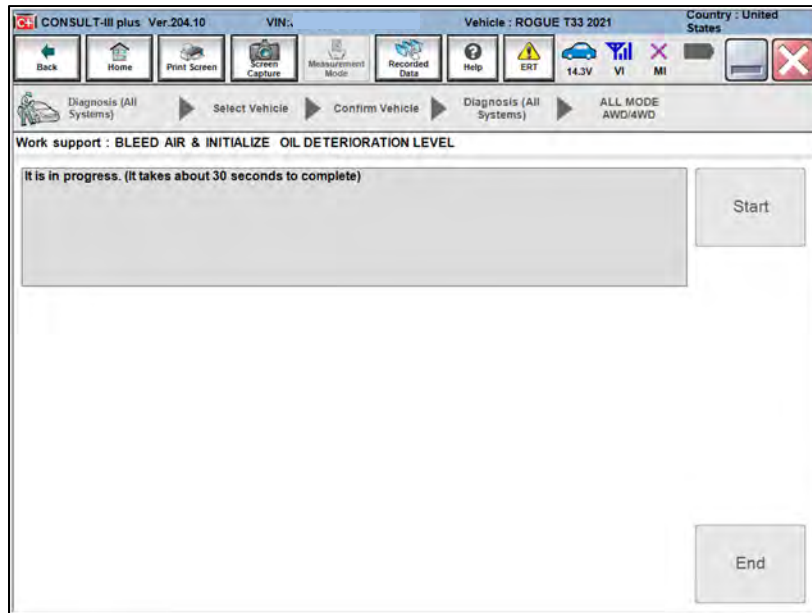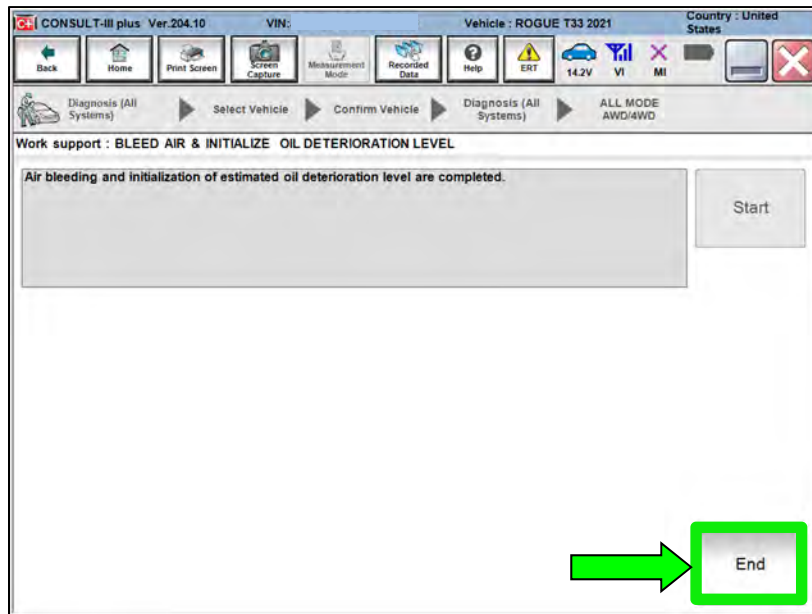
97. Remove the AWD coupler filler plug using a 10 mm hex socket.

AWD coupler filler plug
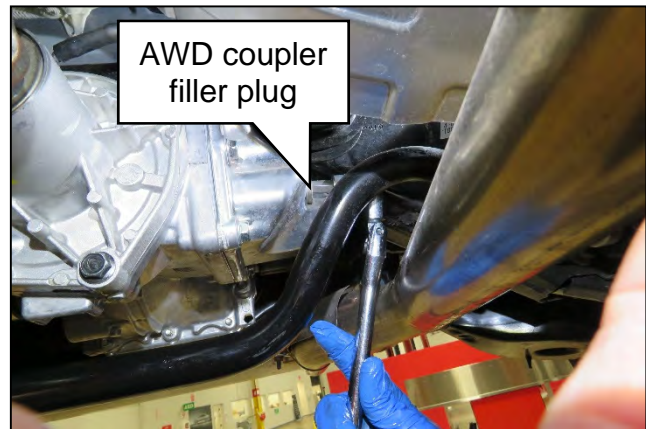
Figure 75

98. Fill the AWD coupler with fluid.

   • Only use a dedicated fluid pump that has not been used for other types of fluids.
   • See **PARTS INFORMATION** for coupling fluid information.
   • Fill the AWD coupler until fluid starts to come out of the filler hole.
   • Reinstall the filler plug using a new sealing washer.
   • Torque the filler plug to 35 N●m (26 ft-lb).

Fluid pump

Figure 76

99. Lower the vehicle.

100. Test drive the vehicle including a figure eight to evaluate for any noise and/or vibration concerns.
   • If any noise and/or vibration concerns exist during the figure eight test drive, follow the All Wheel Drive Coupler Clutch Break-In Procedure in NTB20-081.

PARTS INFORMATION

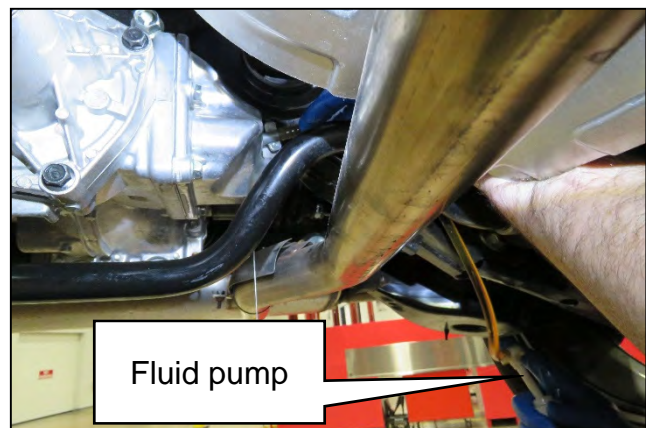| DESCRIPTION	PART NUMBER	QUANTITY
COUPLING ASSEMBLY-ELECTRICAL (AWD Coupler)	38760-6RE0A	1
GASKET-PLUG (Filler Plug Sealing Washer)	11026-4N200	1
COUPLING FLUID (1)	999MP-LSCTRF	(2)
BOLT-FLX PROP (3) (Propeller Shaft Rear Flange Bolts)	37120-7S00A	4
NUT-FIX PROP SFT (3) (Propeller Shaft Rear Flange Nuts)	37171-7S00A	4

(1) Order this item through the Nissan Maintenance Advantage program: Phone 877-NIS-NMA1 (877-647-6621). Website order via link on the dealer portal; www.NNAnet.com and click on the "Maintenance Advantage-Tire/Battery/Chemical" link.
(2) As needed.
(3) These are single use parts.

CLAIMS INFORMATION

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

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Replace Electronic Control Coupling and Reprogram ECU	(1)	LX11AA	ZE	32	1.7

(1) Reference the electronic parts catalog and use the Electric Coupling Assembly (38760-*****) as the Primary Failed Part (PFP).

AMENDMENT HISTORY

PUBLISHED DATE	REFERENCE	DESCRIPTION
December 22, 2020	NTB20-095	Original bulletin published