Technical Bulletin

SERVICE BULLETIN

Classification:	Reference:	Date:
AT21-004	NTB21-086	September 14, 2021

A/T WARNING LIGHT IS ON
WITHOUT PAST OR CURRENT DTC STORED

APPLIED VEHICLES: 2020-2021 Titan/Titan XD (A61)
2020-2021 Frontier (D40)
APPLIED TRANSMISSION: 9 Speed (GE9R01A)

IF YOU CONFIRM

The Automatic Transmission check warning light | AT CHECK | is ON,

AND

There are <u>no</u> TCM related DTCs stored that are PAST or CURRENT.
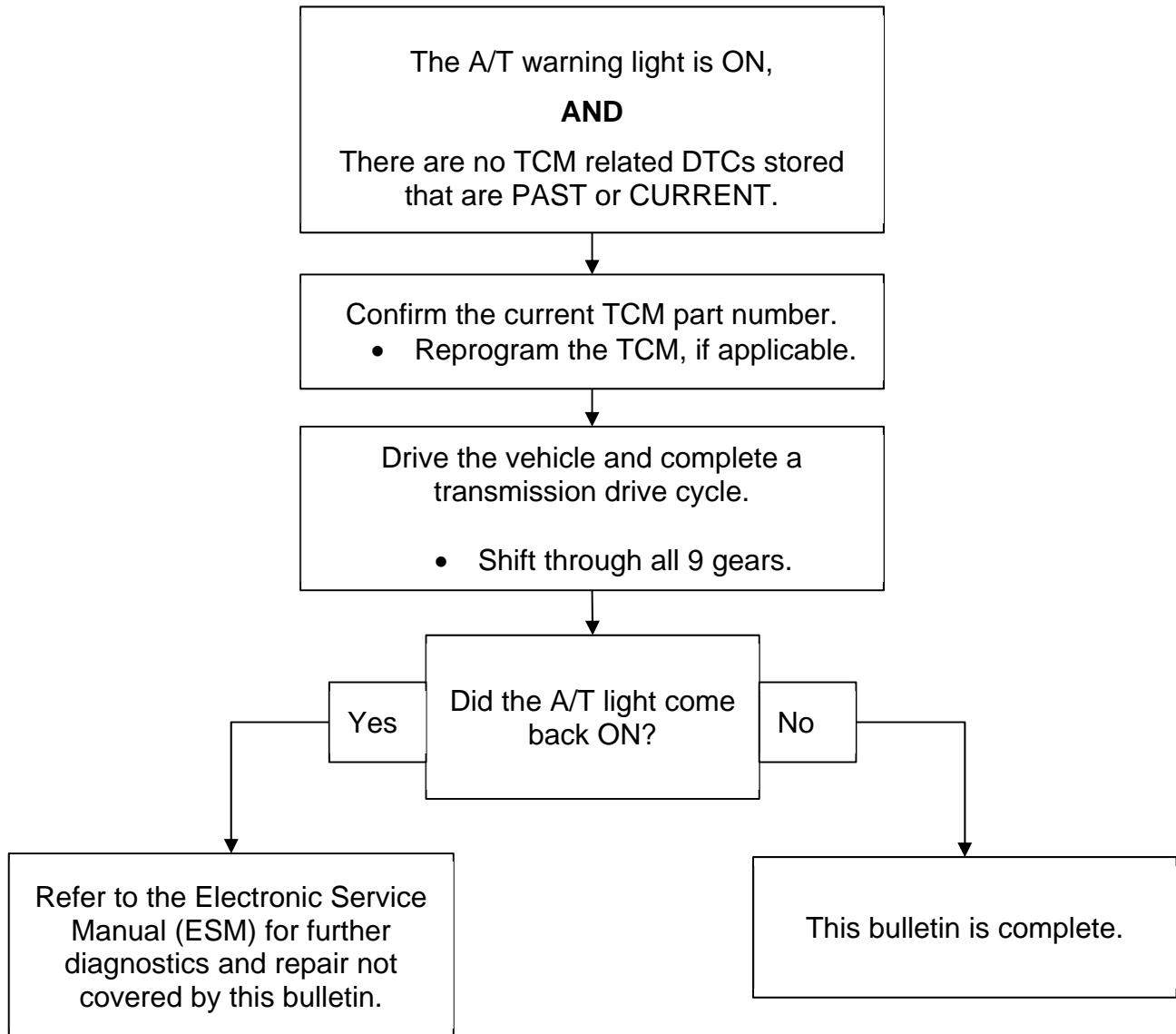
ACTION

1. Confirm the current TCM part number.

2. Reprogram the TCM, if applicable.

3. Drive the vehicle and complete a transmission drive cycle.

4. Confirm that the A/T warning light does not come back ON.
   - See the **Repair Overview** on page 2.

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.

Repair Overview

```
┌─────────────────────────────────────────┐
│       The A/T warning light is ON,       │
│                  AND                     │
│   There are no TCM related DTCs stored   │
│      that are PAST or CURRENT.           │
└─────────────────────────────────────────┘
                    │
                    ▼
┌─────────────────────────────────────────┐
│   Confirm the current TCM part number.   │
│     • Reprogram the TCM, if applicable.  │
└─────────────────────────────────────────┘
                    │
                    ▼
┌─────────────────────────────────────────┐
│   Drive the vehicle and complete a       │
│        transmission drive cycle.         │
│                                          │
│       • Shift through all 9 gears.       │
└─────────────────────────────────────────┘
                    │
                    ▼
         ┌───────────────────────┐
   Yes   │  Did the A/T light come│   No
         │       back ON?         │
         └───────────────────────┘
    │                                    │
    ▼                                    ▼
┌─────────────────────────┐   ┌──────────────────────────┐
│ Refer to the Electronic │   │                          │
│ Service Manual (ESM) for│   │ This bulletin is complete.│
│ further diagnostics and │   │                          │
│ repair not covered by   │   │                          │
│ this bulletin.          │   │                          │
└─────────────────────────┘   └──────────────────────────┘
```

SERVICE PROCEDURE

    IMPORTANT: Before starting, make sure:

- ASIST on the CONSULT PC has been synchronized (updated) to the current date.

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

NOTICE

- Connect a battery maintainer or smart charger set to reflash mode or a similar setting. If the vehicle battery voltage drops below 12.0V or rises above 15.5V during reprogramming, the TCM may be damaged.

- Be sure to turn OFF all vehicle electrical loads.
  If a vehicle electrical load remains ON, the TCM may be damaged.

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

- 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 or VI during reprogramming, reprogramming may be interrupted and the TCM may be damaged.

1. Connect a battery maintainer/smart charger to the vehicle.

2. Connect the VI to the vehicle.

3. Start C-III plus.

4. Wait for the VI to be recognized.

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

5. Select **Re/programming, Configuration**.
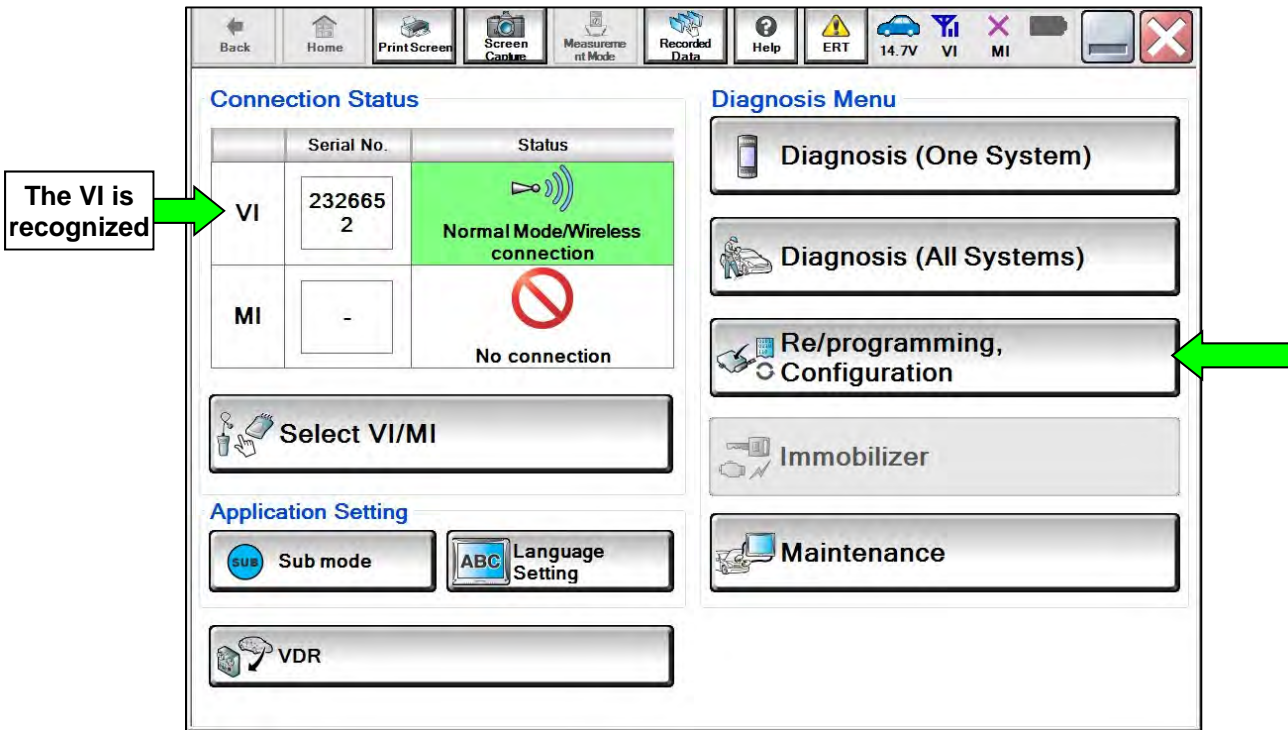
Figure 1

6. Check the box to confirm the precaution instructions have been read, and then select Next.

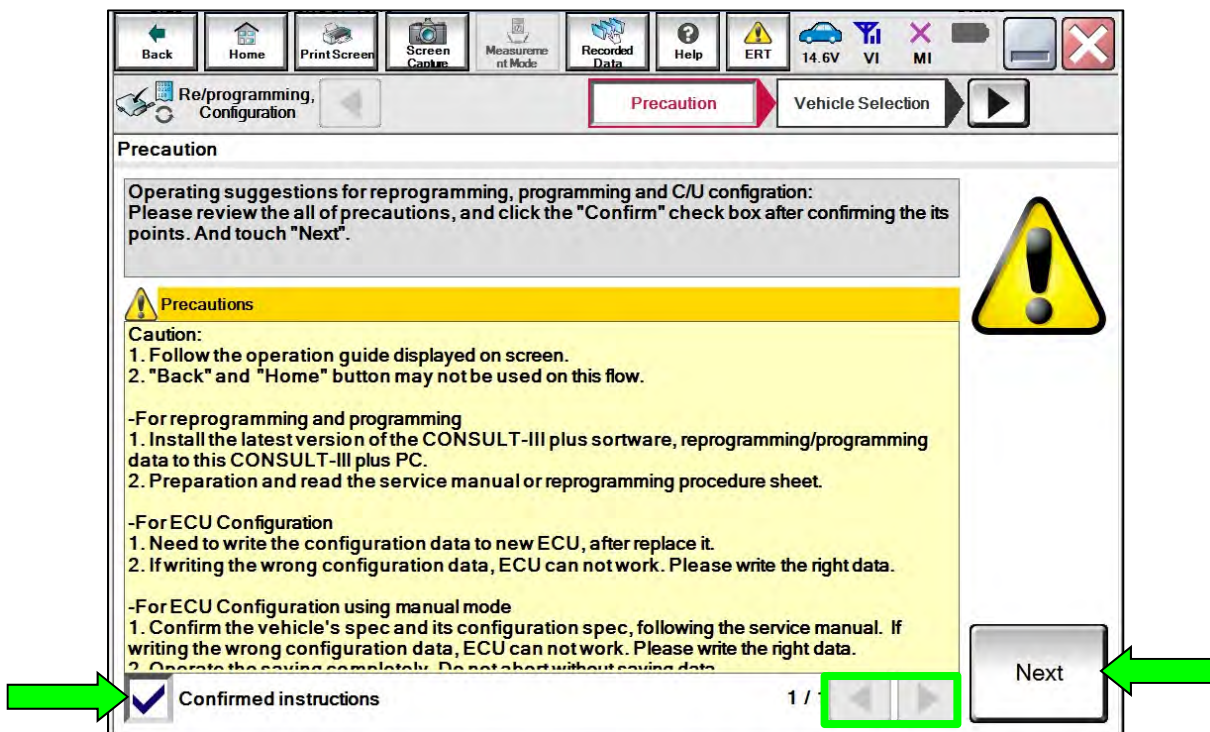   **NOTE:** Use the arrows (if needed) to view and read all the precautions.

Figure 2

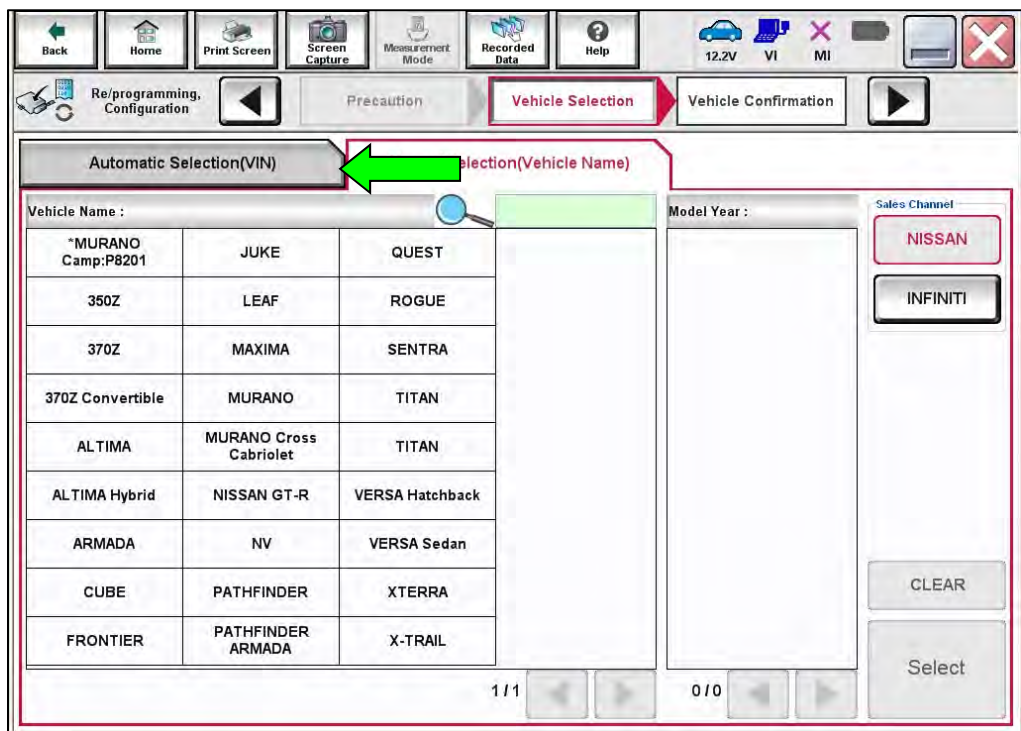7. Select **Automatic Selection(VIN)**.

Figure 3

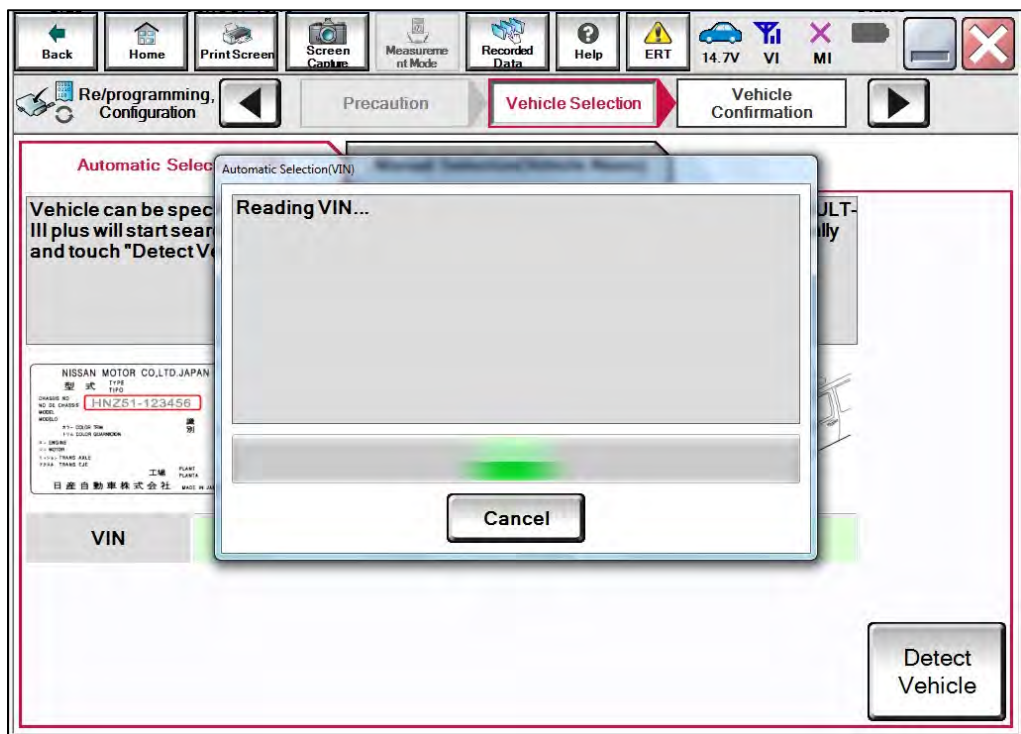8. Allow C-III plus to perform automatic VIN selection.

Figure 4

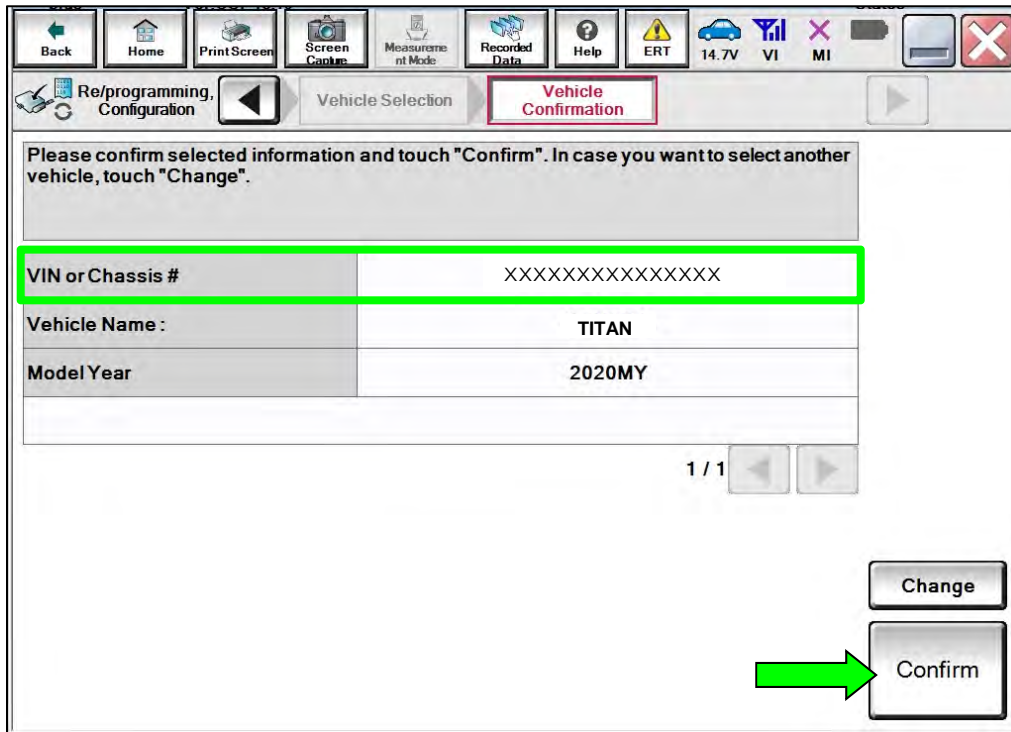9. Confirm the **VIN or Chassis #** is correct, and then select **Confirm**.
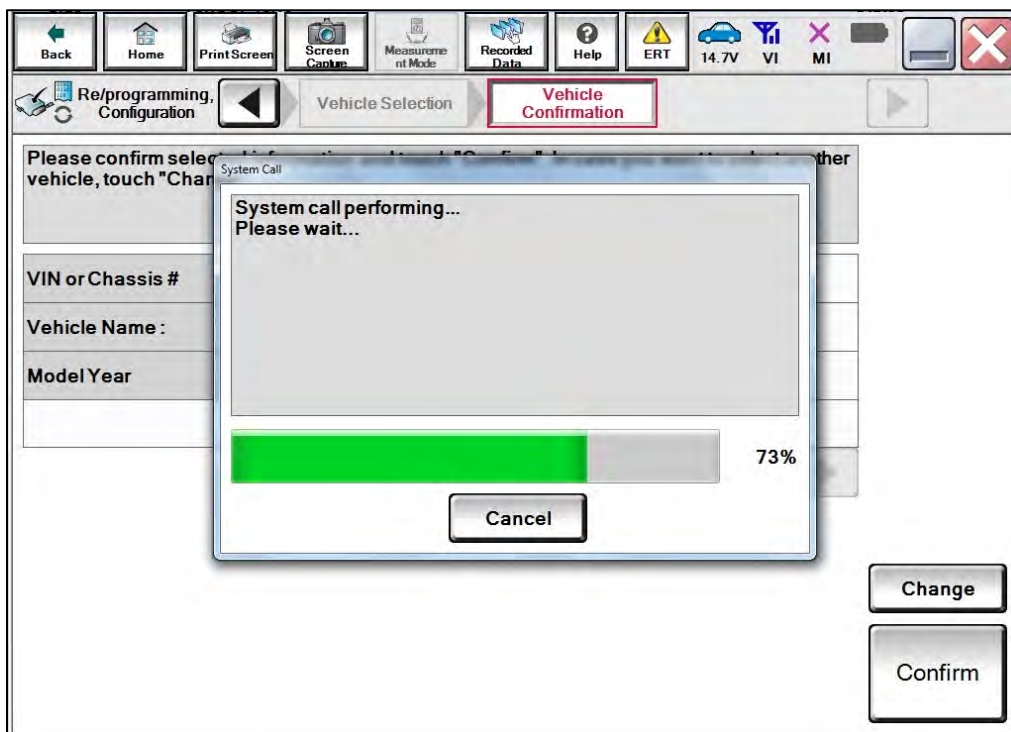

Figure 5

10. Allow the System call to be performed.

Figure 6

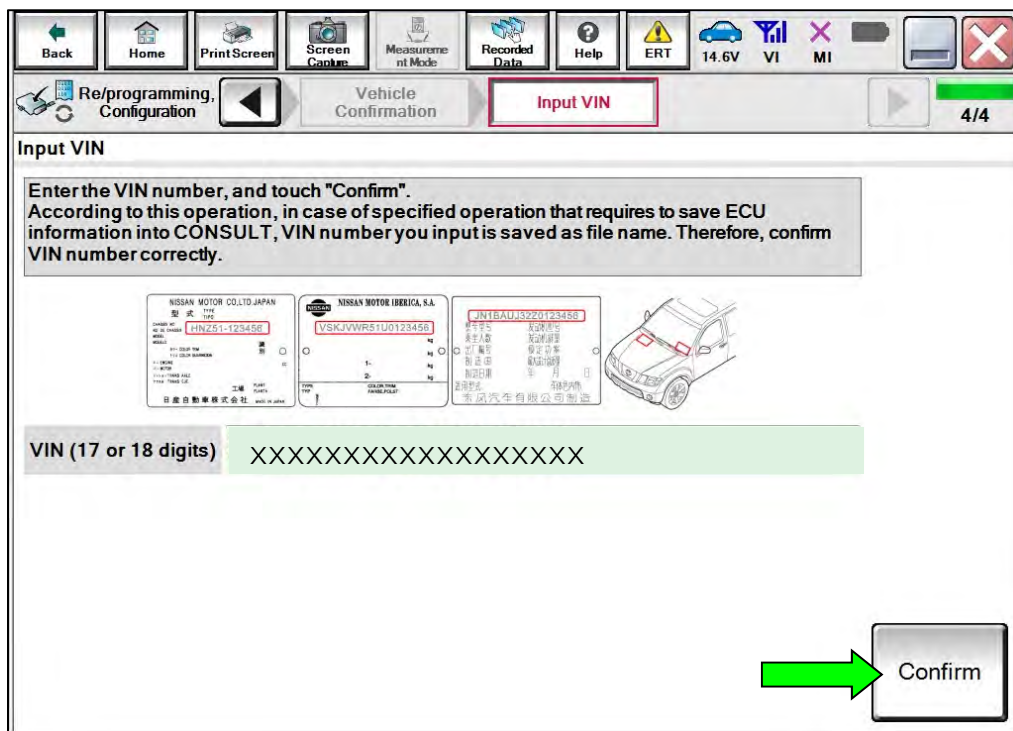11. Confirm the VIN is correct for the vehicle, and then select **Confirm**.

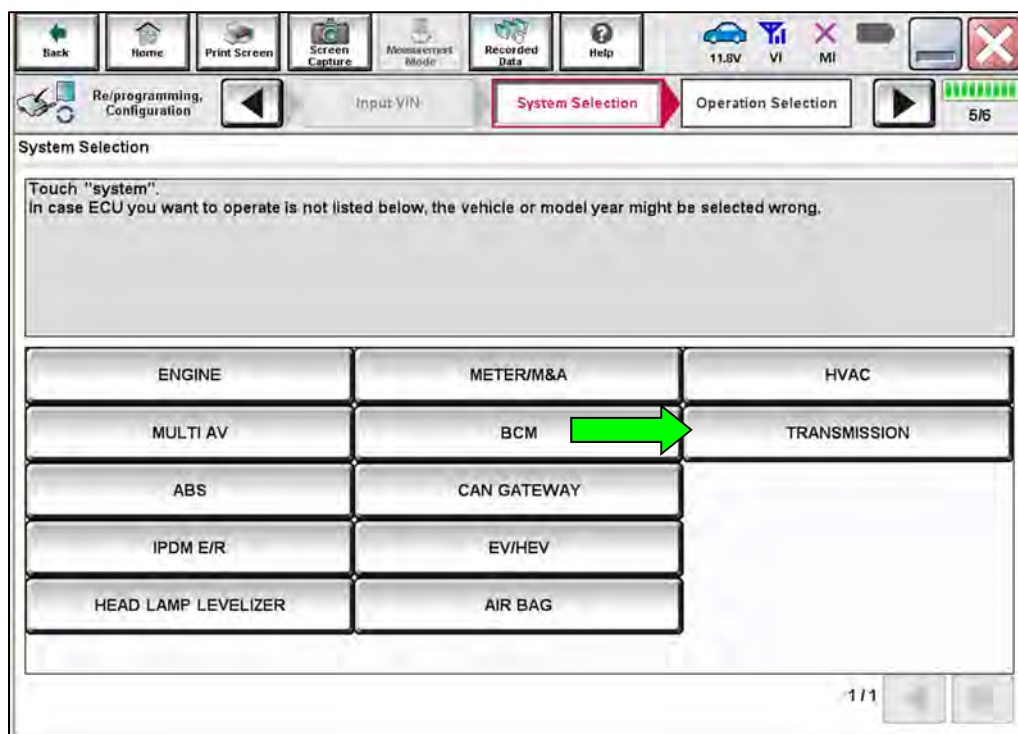
Figure 7

12. Select **TRANSMISSION**.
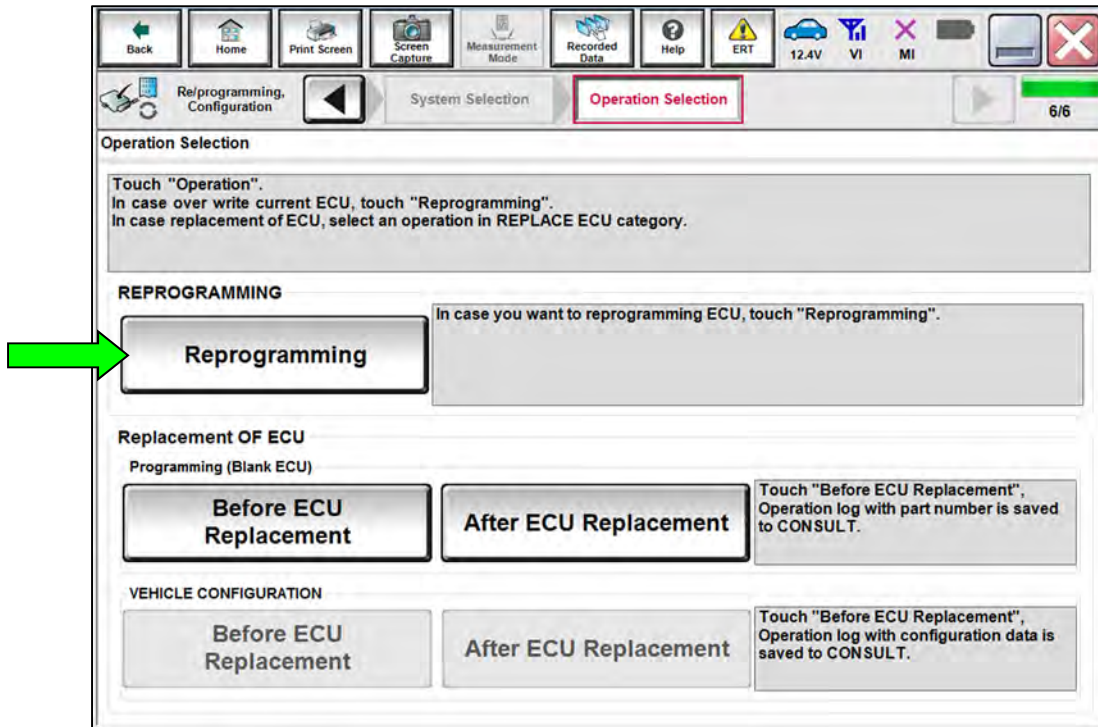

Figure 8

13. Select **Reprogramming**.

Figure 9

14. Find the TCM **Part Number** and write it on the repair order, and then select **Save**.

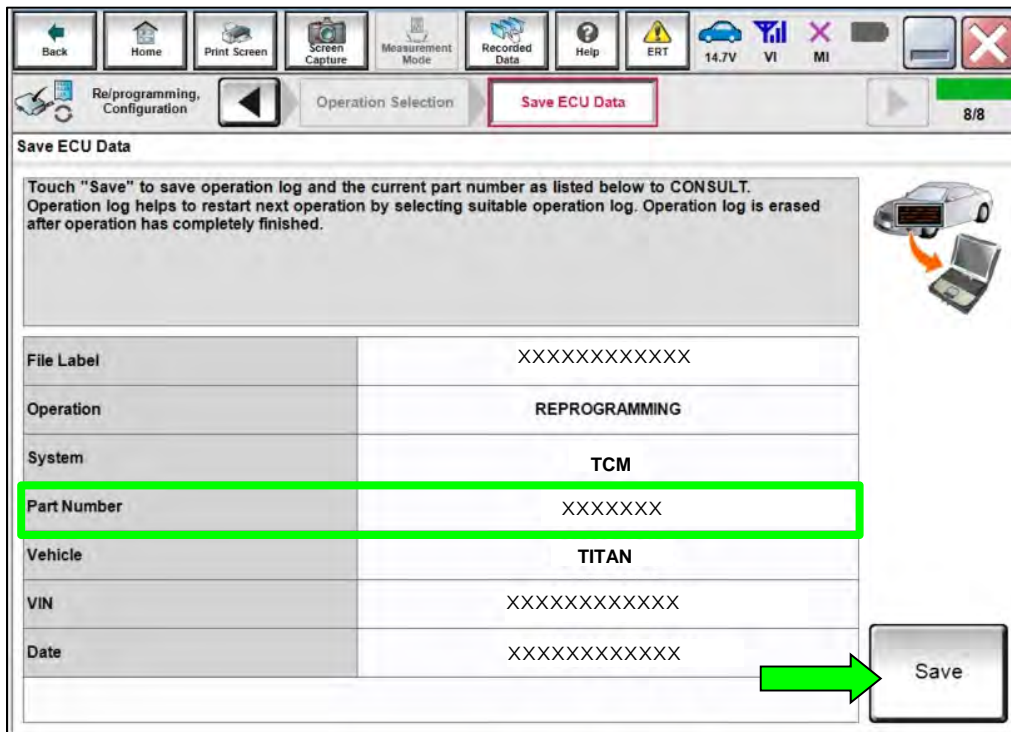   **NOTE:** This is the current Part Number (P/N).

Figure 10

15. Compare the Part Number you wrote down in step 14 on page 8 to the numbers in the **Current TCM Part Number** column in **Table A** below.

- If there is a <u>match</u>, skip to step 16, below, to continue the reprograming procedure.

- If there is <u>not a match</u>, this TSB does not apply. Refer to the ESM for further diagnostic information.

Table A

MODEL	CURRENT TCM PART NUMBER: 31039 -
2020 Titan/Titan XD	9FV1A, 9FV1B, 9FV1D, 9FV1E 9FV3A, 9FV3B, 9FV3D, 9FV3E 9FV4D, 9FV4E 9FV5C 9FV7A, 9FV7B, 9FV7D, 9FV7E
2021 Titan/Titan XD	9FV1D, 9FV1E 9FV3D, 9FV3E 9FV4B, 9FV4C 9FV5A, 9FV5B 9FV7D, 9FV7E 9FV8B, 9FV8C
2020 Frontier	9BT1B, 9BT1C 9BT3B, 9BT3C 9BT5A 9BT6A

Reprogram the TCM

16. Follow the on-screen instructions to navigate C-III plus and reprogram the TCM.

    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 11 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 <u>blank</u> (no reprogramming listed), it means there is no reprogramming available for this vehicle.
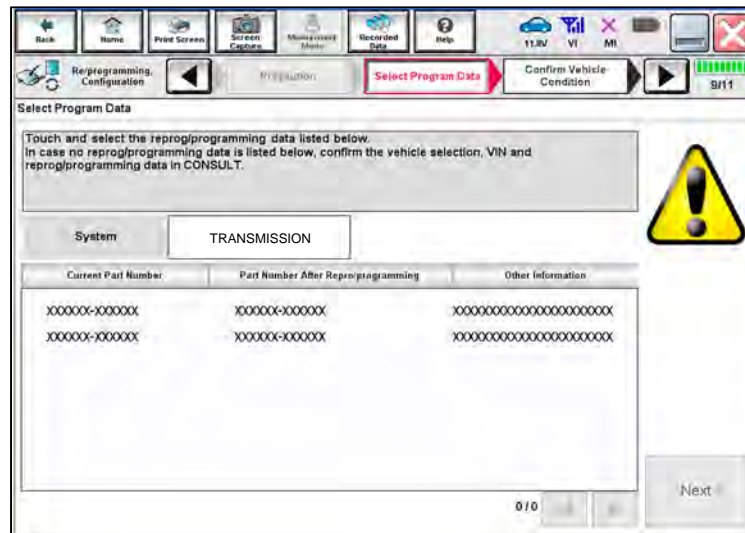

Figure 11

17. Select **USA/CANADA Dealers** from the drop down menu, and then select **OK**.
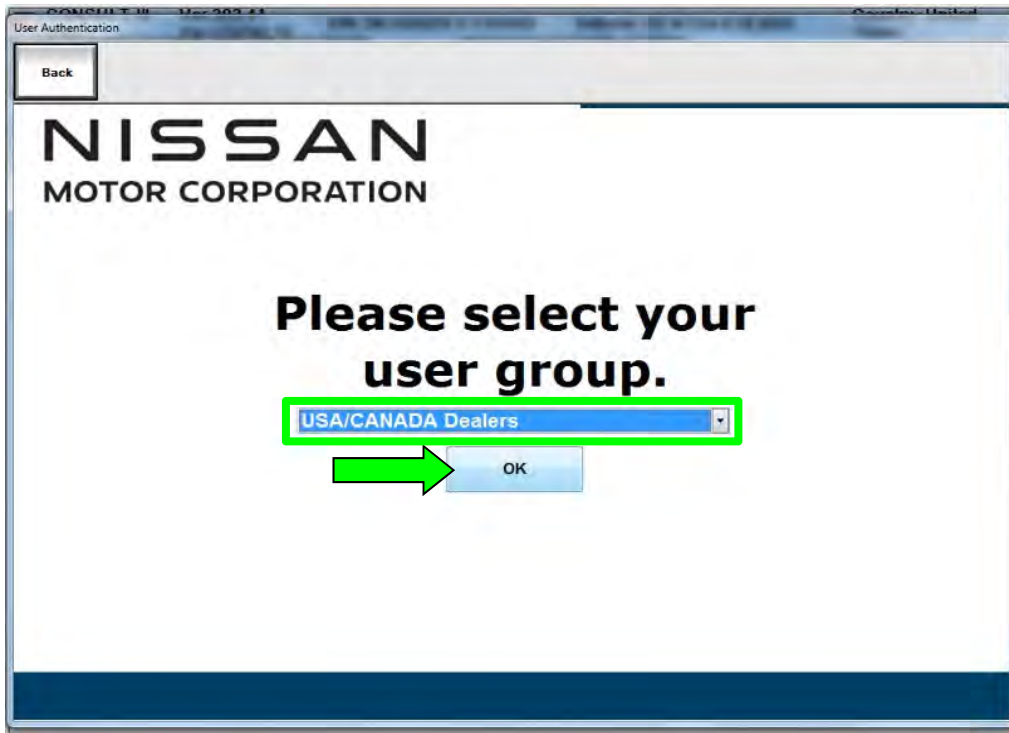

Figure 12

18. Login using your NNAnet credentials.

 • The CONSULT PC must be connected to the Internet (Wi-Fi or cable).

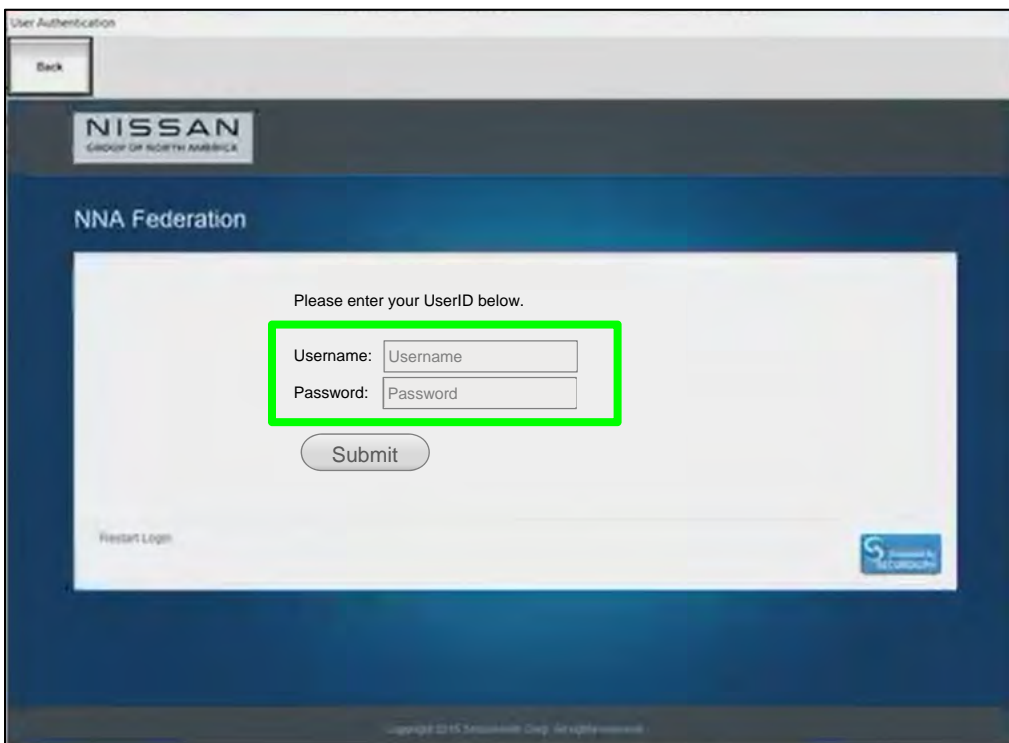 • If you do not know your Username and Password, contact your service manager.

Figure 13

19. Select **Next**, and then proceed to step 20 on page 13.

   NOTE: When the screen in Figure 14 displays, TCM reprogramming is complete. If the screen in Figure 14 does <u>not</u> display (indicating that reprogramming did <u>not</u> complete), refer to the information on the next page.
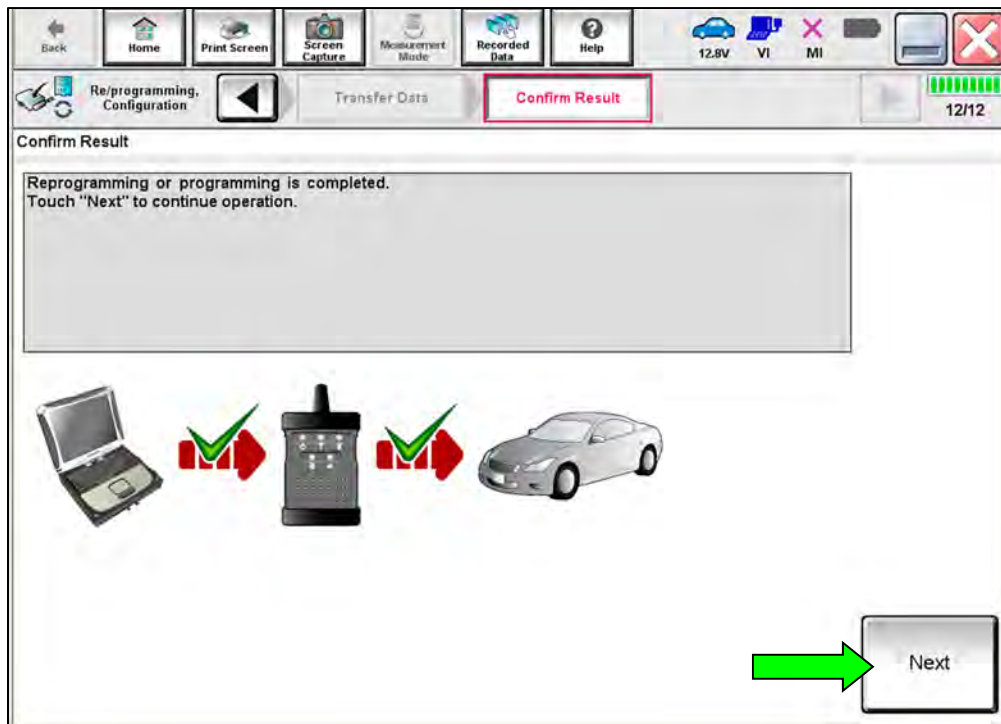

Figure 14

TCM Recovery:

Do not disconnect the 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 15:

- Check battery voltage (12.0 V – 15.5 V).

- Ignition is ON, engine is OFF.

- External Bluetooth® devices are OFF.

- All electrical loads are OFF.

- Select retry and follow the on screen instructions.

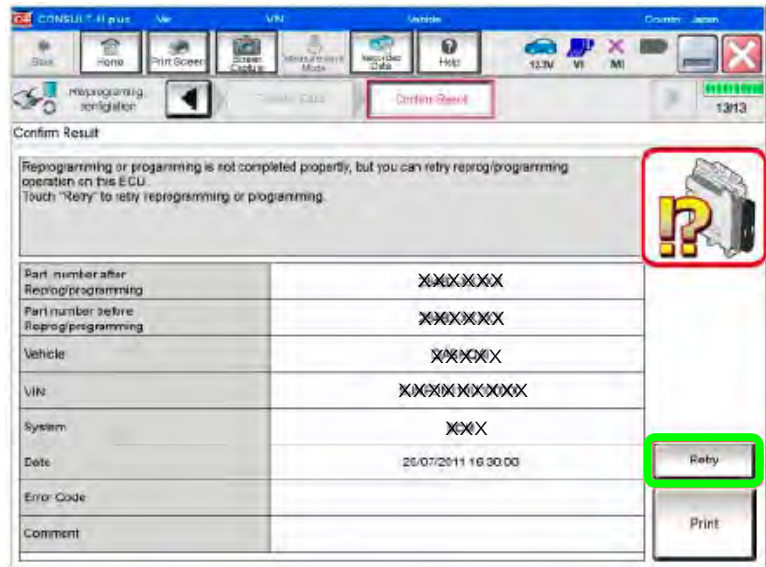- "Retry" may not go through on first attempt and can be selected more than once.

Figure 15

If reprogramming does not complete and the "X" icon displays, as shown in Figure 16:

- Check battery voltage (12.0 V – 15.5 V).

- CONSULT A/C adapter is plugged in.

- Ignition is ON, engine is OFF.

- Transmission is in Park.

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

- All C-III plus updates are installed.

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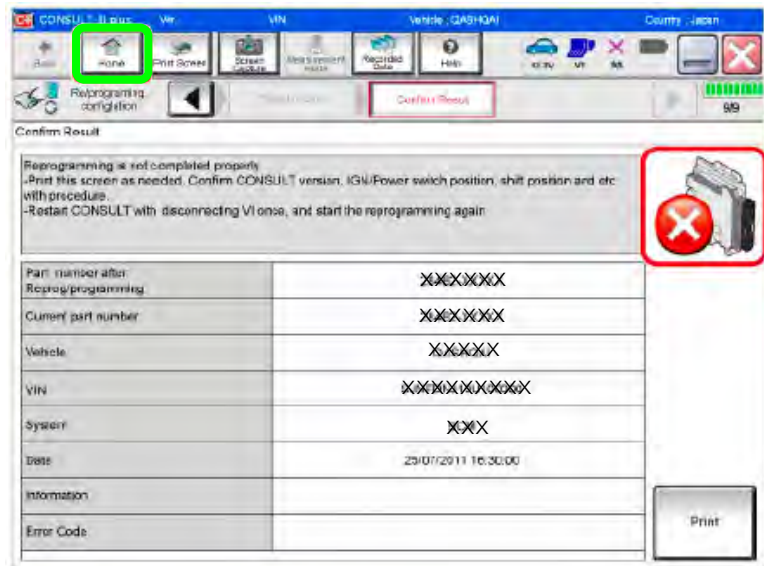

Figure 16

20. Follow the on-screen instructions to **Erase All DTCs**.

    - When the entire reprogramming process is complete, the screen in Figure 17 will display.

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

22. Print a copy of this screen (Figure 17) and attach it to the repair order for warranty documentation.
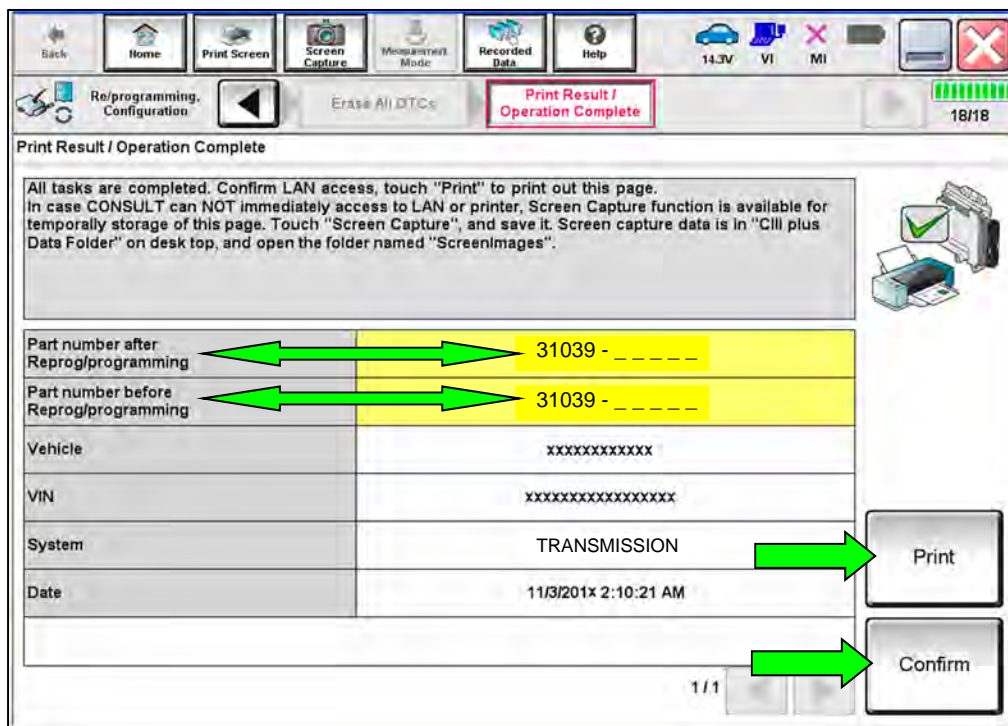
23. Select **Confirm**.

Figure 17

24. Drive the vehicle and complete the following drive cycle:

    - Drive in each gear (1st - 9th) for a minimum of 10 seconds while maintaining a vehicle speed above 7 mph (10 kph). Use either a normal drive shift schedule or manual mode shifting.

        o If the A/T warning light comes ON, end the drive cycle, check for stored DTCs, and refer to the Electronic Service Manual (ESM) for further diagnostic information not covered by this bulletin.

        o If the A/T warning light does not come ON, this bulletin is complete.

CLAIMS INFORMATION

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

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Reprogram A/T Control Unit (TCM)	(1)	JX95AA	ZE	32	0.6
Perform Transmisssion Shift Drive Cycle		JX96AA			0.2

(1)   Reference the electronic parts catalog and use the Valve Control Assy (31705-*****) as the Primary Failed Part (PFP).

AMENDMENT HISTORY

PUBLISHED DATE	REFERENCE	DESCRIPTION
September 14, 2021	NTB21-086	Original bulletin published