



SERVICE BULLETIN

Classification: AT16-004a	Reference: NTB16-068a	Date: September 8, 2016
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2016 TITAN XD; ENGINE RPM FLARE DURING UP SHIFT AND/OR DOWN SHIFT BUMP

This bulletin has been amended. The SERVICE PROCEDURE has been revised, and APPLIED VIN and DATE information has been added. No other changes have been made. Please discard all previous versions.

- APPLIED VEHICLES:** 2016 Titan XD (A61)
- APPLIED VIN & DATE:** 2WD – Vehicles built before:
1N6BA1F1(*)GN 517203 // September 2, 2016
4WD – Vehicles built before:
1N6BA1F4(*)GN 516958 // August 26, 2016
- APPLIED ENGINE:** Cummins 5.0L V8 Diesel
- APPLIED TRANSMISSION:** 6AT: RE6R01A

IF YOU CONFIRM

- When cold (transmission fluid below 140°F [60°C]), there is an engine RPM rise (200 to 500 rpm flare) during the 1-2 shift, 2-3 shift, and/or the 3-4 shift.
- and/or**
- While slowing to a stop, a 2-1 down shift bump is felt just before stopping.

ACTION

1. Compare the vehicle's current TCM part number to the part number listed in **Table A** on page 7.
2. If the current TCM part number matches a part number listed in **Table A**:
 - a. Reprogram the TCM.
 - b. Perform Transmission Calibration.

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.

Nissan 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

NOTE:

- Performing this procedure will completely erase **ALL** of the TCM “adaptive learning values” that have accumulated over time. The transmission will shift differently than it did before the procedure was performed (especially for vehicles that have been driven more than 1,000 miles).
- As the customer drives their vehicle in their normal daily drive patterns, the TCM will again accumulate “adaptive learning values”; shift timing and feel will improve.
- If a Low DEF warning is displayed, the TCM **will not** perform “adaptive learn mode”. Make sure no Low DEF warnings are displayed before releasing the vehicle to the customer.

Reprogram the TCM

NOTE:

- Most instructions for reprogramming with CONSULT-III plus (C-III plus) are displayed on the CONSULT PC screen.
- For the Titan XD Diesel, the GR8 set to ECM power supply mode can be attached to either 12 volt battery.

CAUTION:

- Connect the GR8 to the 12V battery and set to ECM power supply mode. If the vehicle battery voltage goes below 12.0V or 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 plus VI. If Bluetooth® signal waves are within range of the CONSULT PC during reprogramming, reprogramming may be interrupted and the TCM may be damaged.

1. Connect the plus VI to the vehicle and open/start CONSULT-III plus.
2. Confirm the ignition is ON, with engine OFF.
3. Confirm the plus VI is recognized.
 - The **Serial No.** will display when the plus VI is recognized.
4. Select **Re/programming, Configuration**.

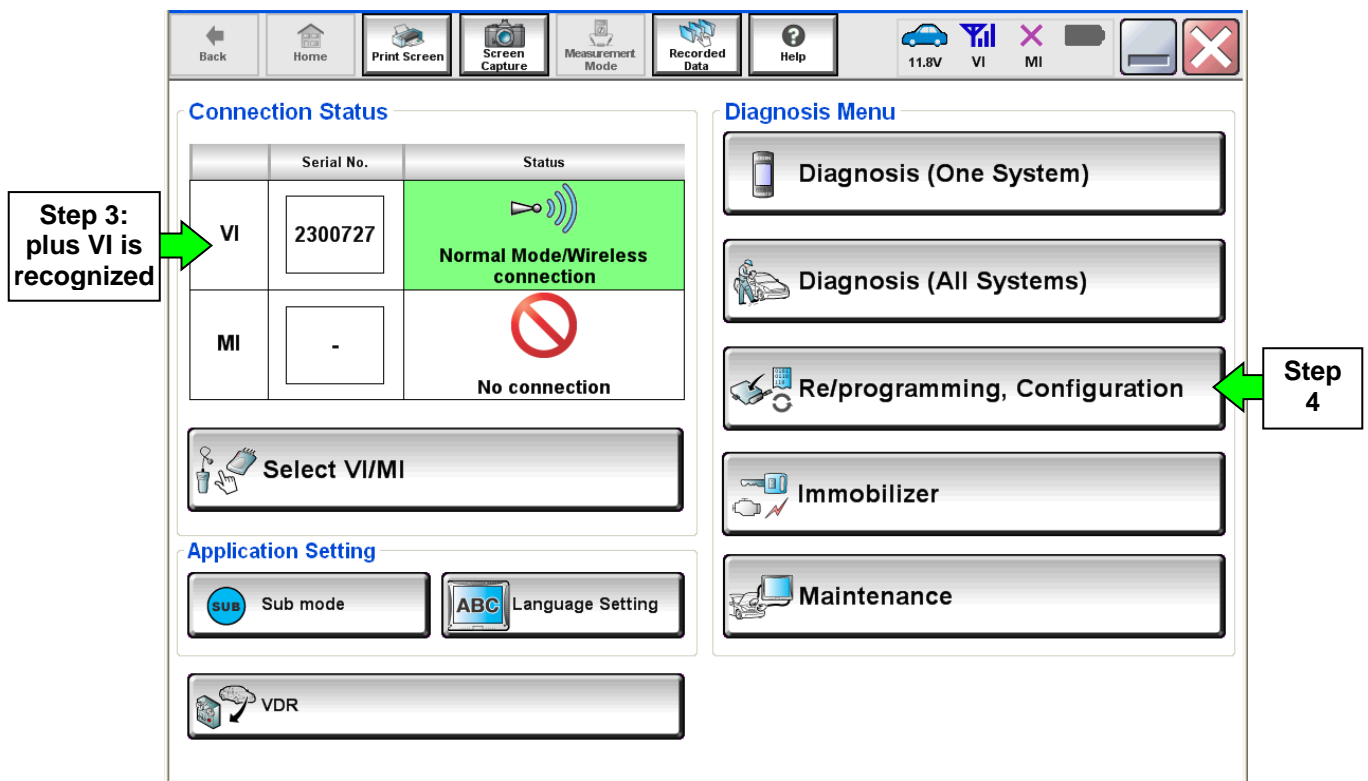


Figure 1A

5. Use arrows (if needed) to view and read all precautions.
6. Check the box confirming the precautions have been read.
7. Select **Next**.

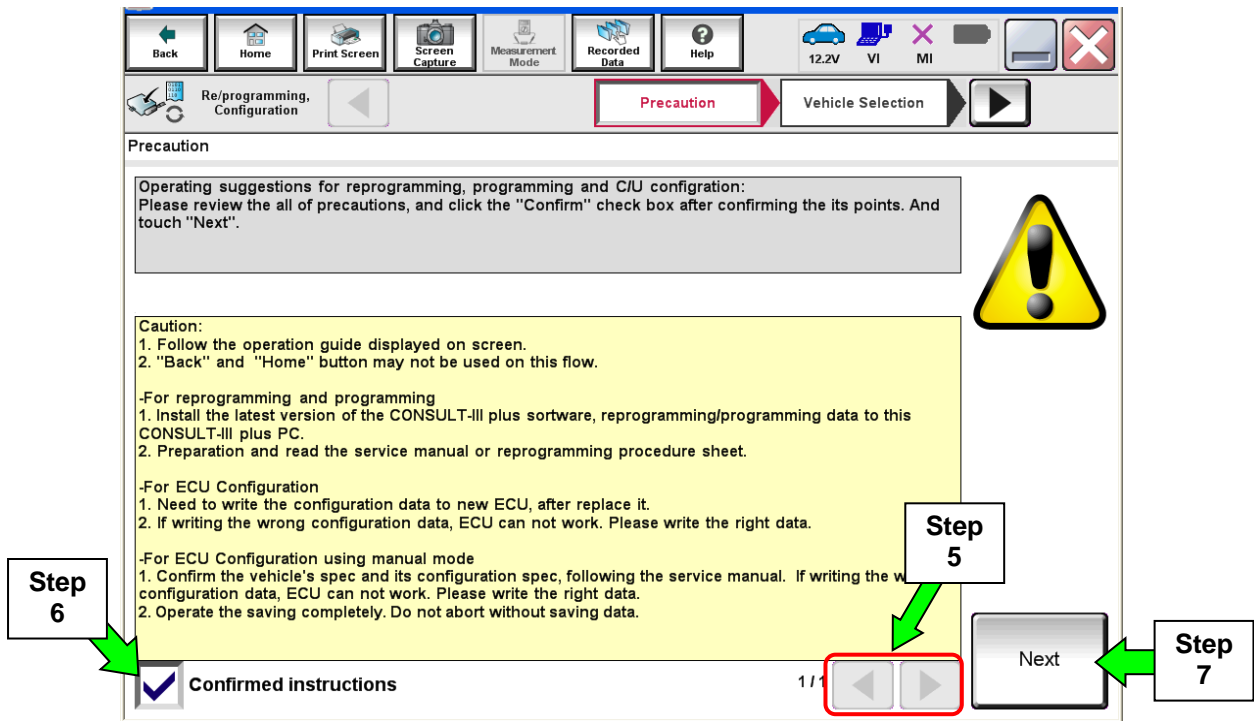


Figure 2A

8. Select **Nissan**, **Vehicle Name**, and then the correct **Model Year**.
 - If the screen in Figure 3A does not display, skip to step 9.

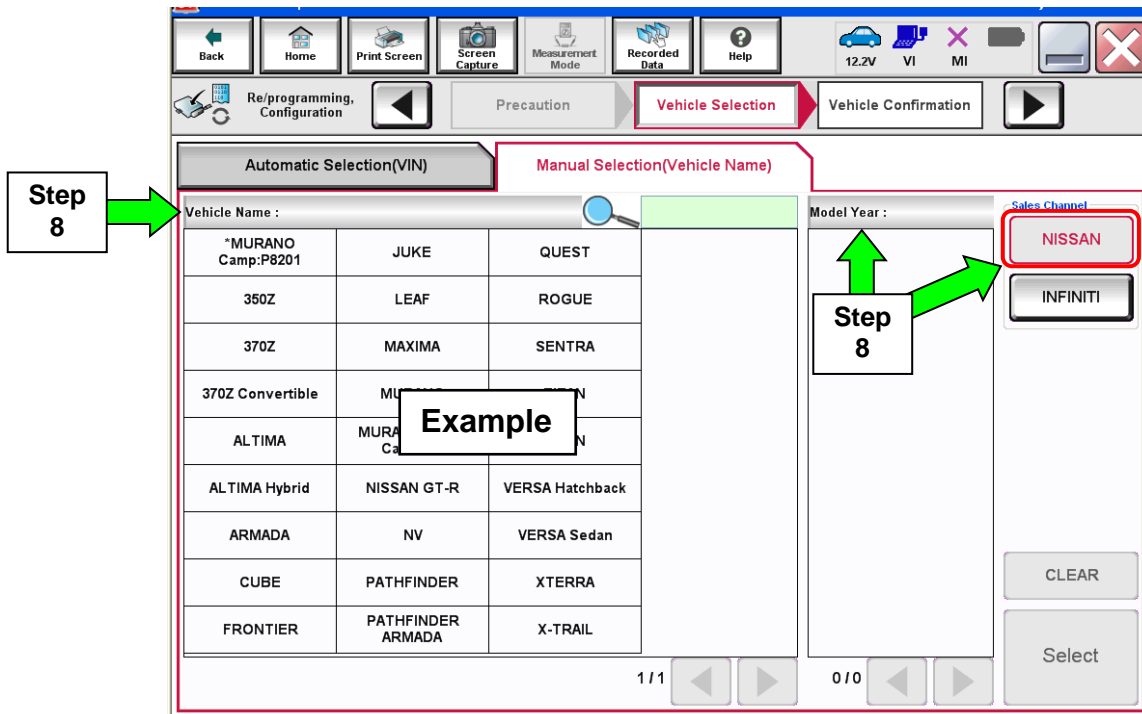


Figure 3A

9. Make sure **VIN or Chassis #** matches the vehicle VIN.

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

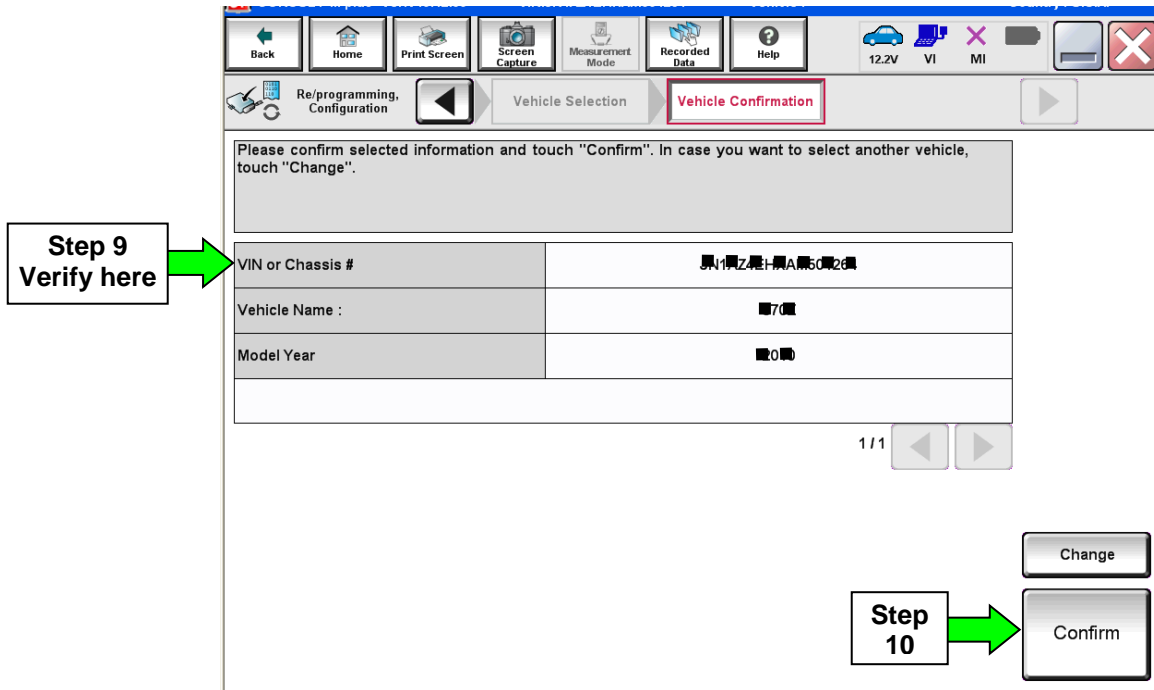


Figure 4A

11. Select **Confirm**.

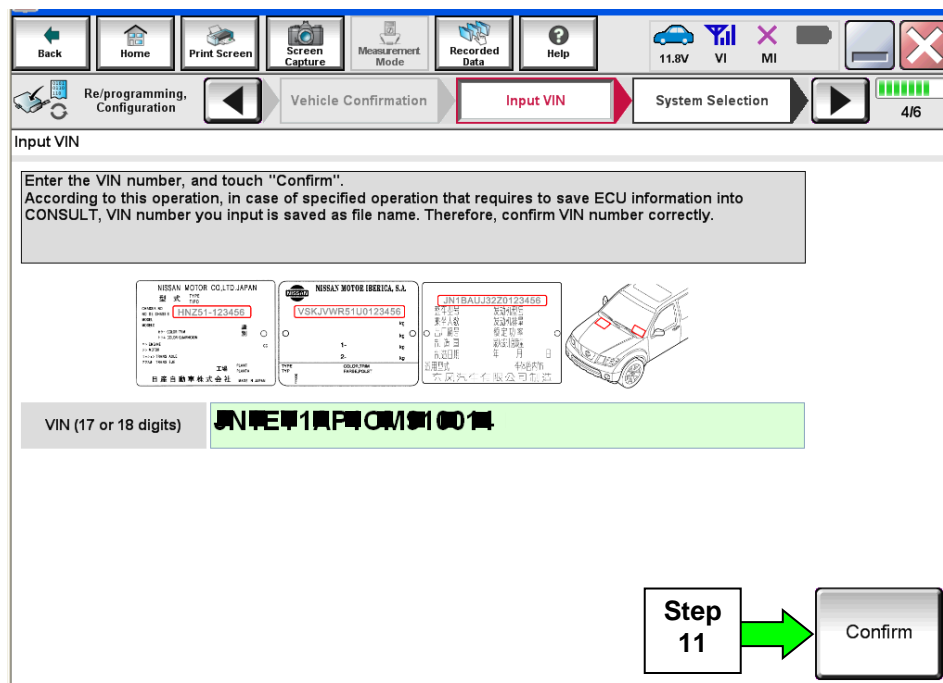


Figure 5A

12. Select **TRANSMISSION** on page 2.

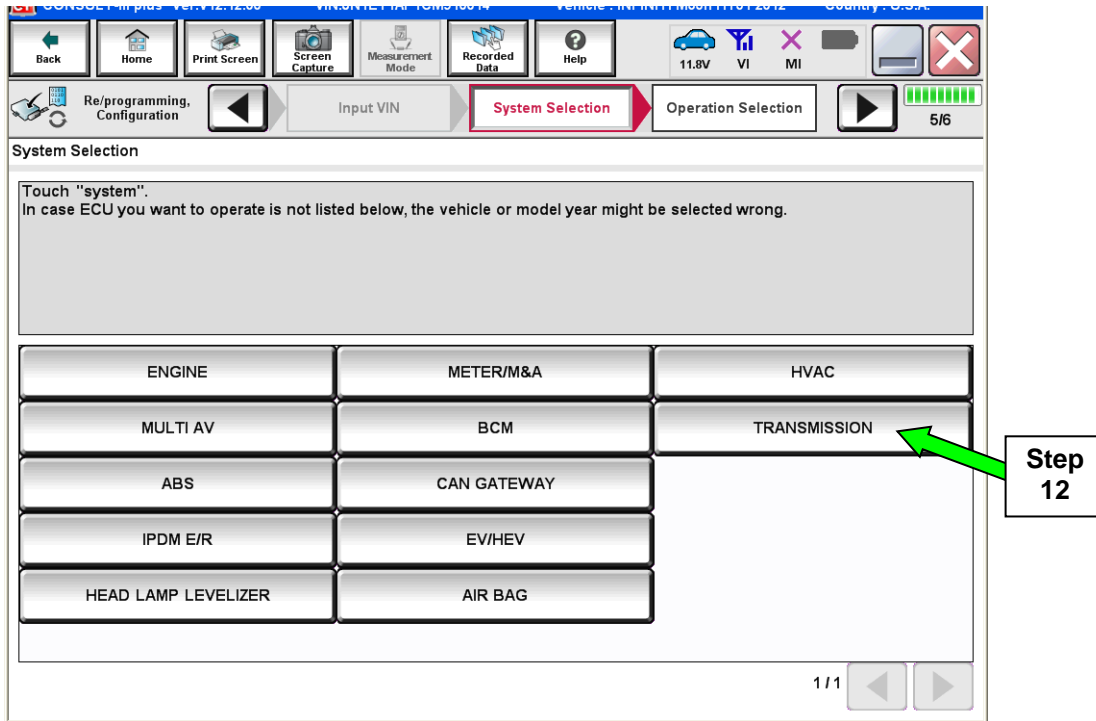


Figure 6A

13. Select **Reprogramming**.

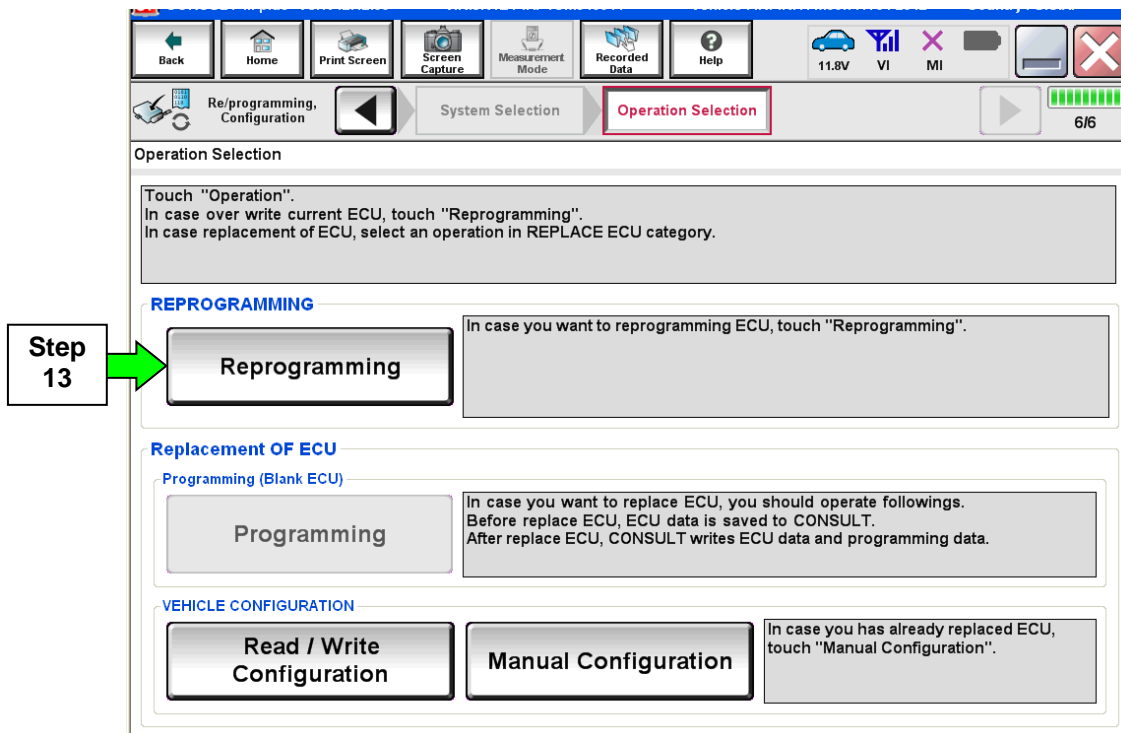


Figure 7A

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

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

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

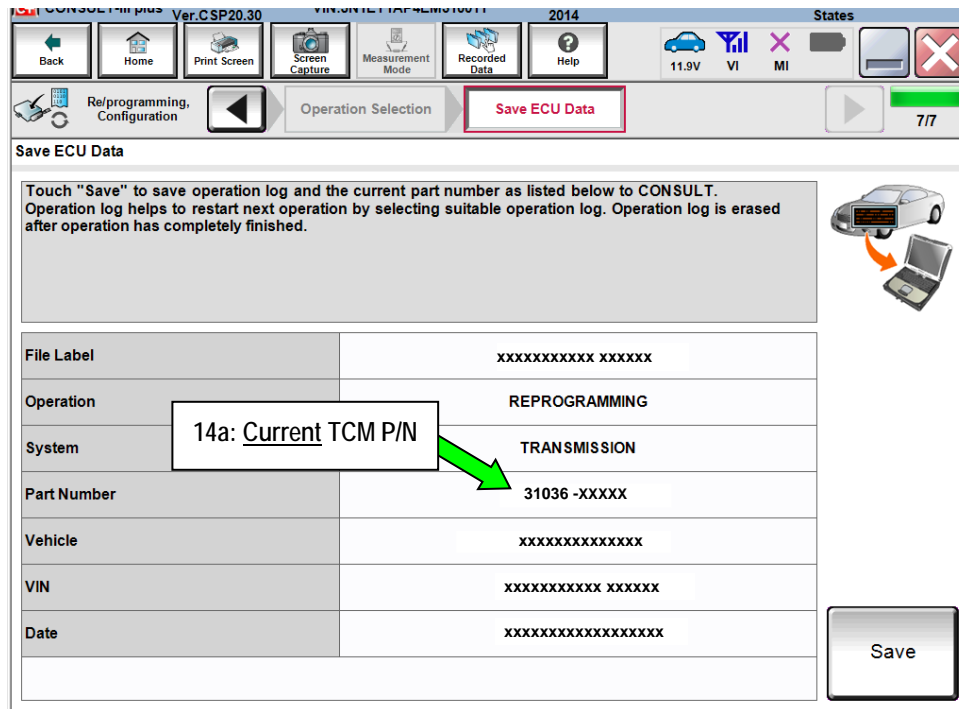


Figure 8A

- b. Compare the P/N you wrote down to the numbers in the **Current TCM Part Number** column in **Table A** below.
 - If there is a match, continue with the reprogramming procedure.
 - If there is not a match, this bulletin does not apply. Refer to ASIST for further diagnosis.

Table A

Model	Current TCM Part Number: 31036 -
2016 Titan XD Cummins Diesel w/6AT Transmission	EZ02B, EZ02D, EZ03B, EZ03D

15. Select **Save**.

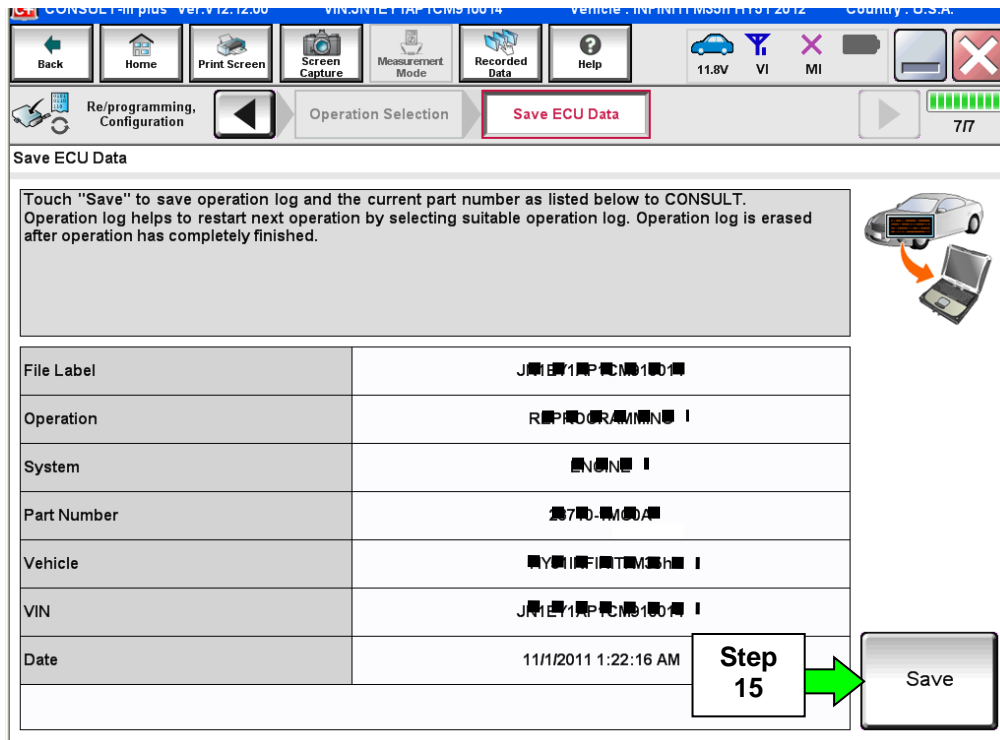


Figure 9A

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

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

18. Select **Next**.

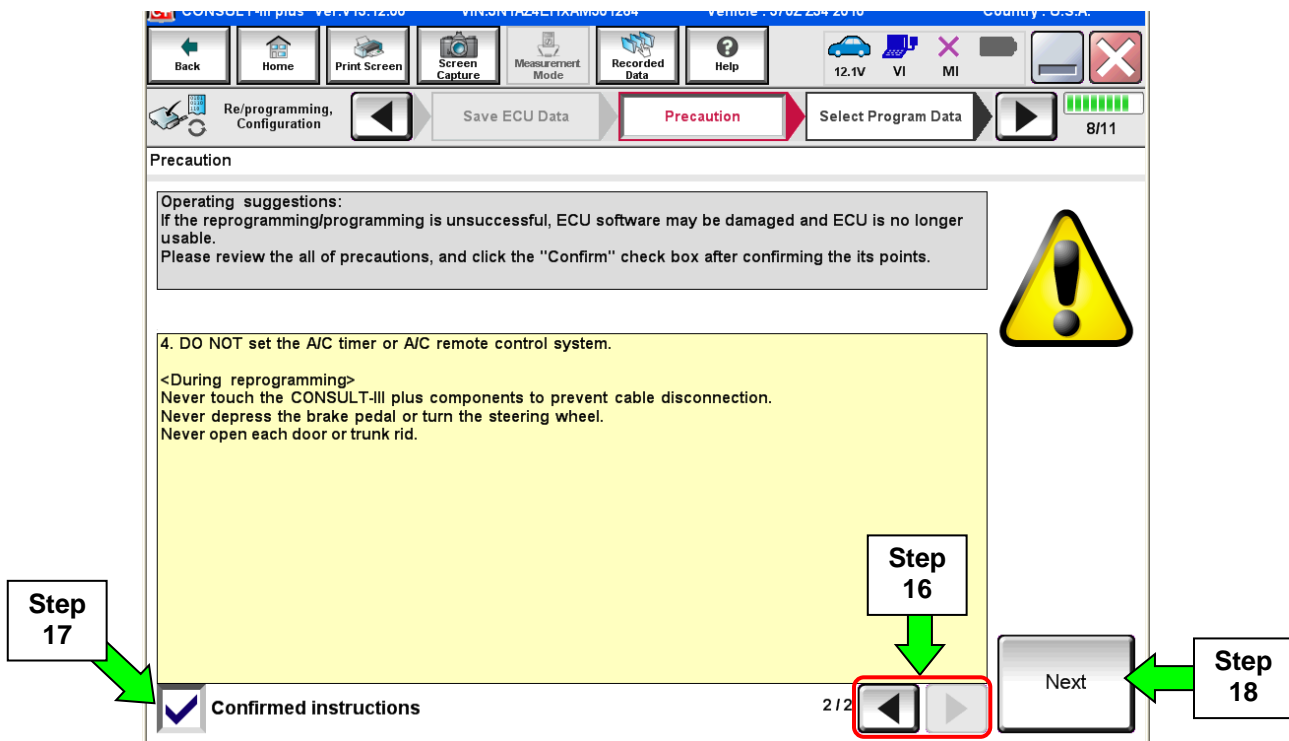


Figure 10A

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

20. Select **Next**.

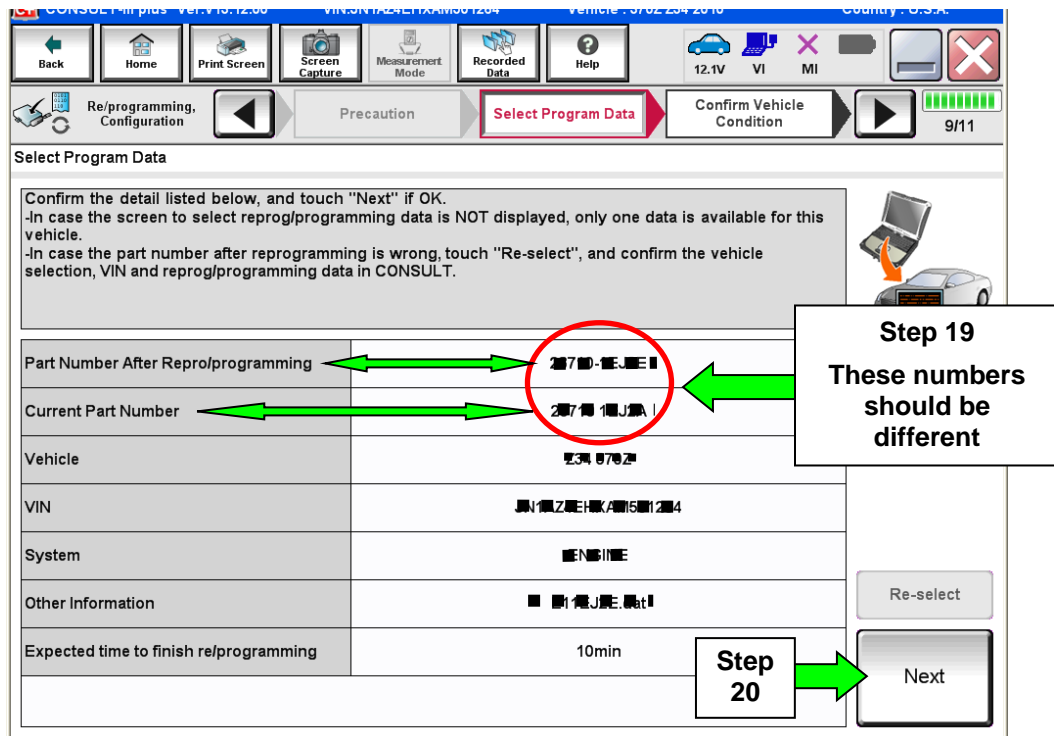


Figure 11A

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 12A 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 C-III plus and refer back to ASIST for further diagnosis.

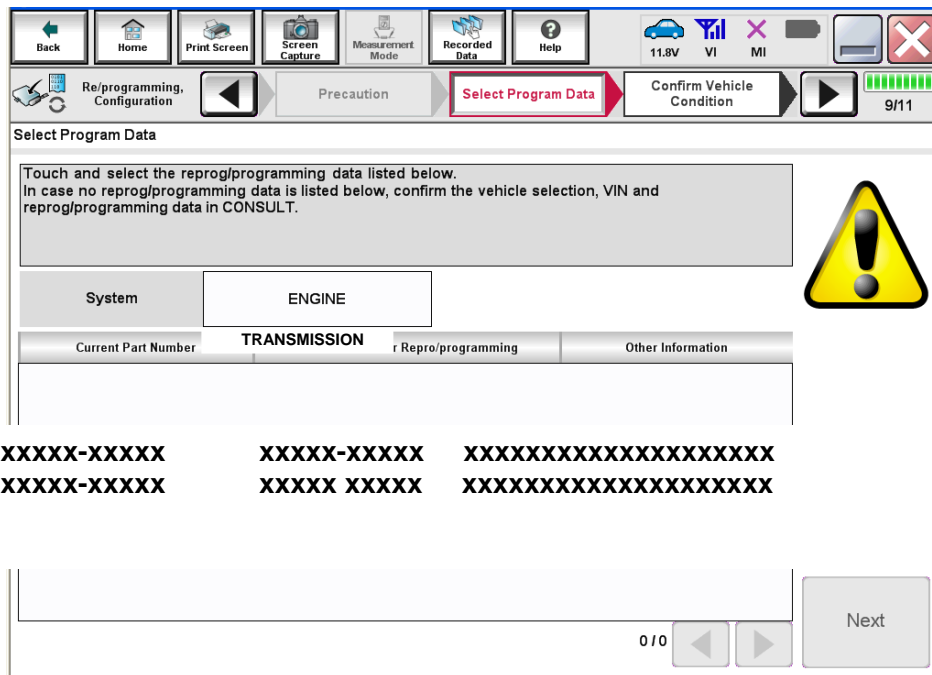


Figure 12A

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

22. Select **Next**.

IMPORTANT: Battery voltage must stay between **12.0 and 15.5 Volts** during reprogramming or ECM reprogramming may be interrupted and ECM may be damaged.

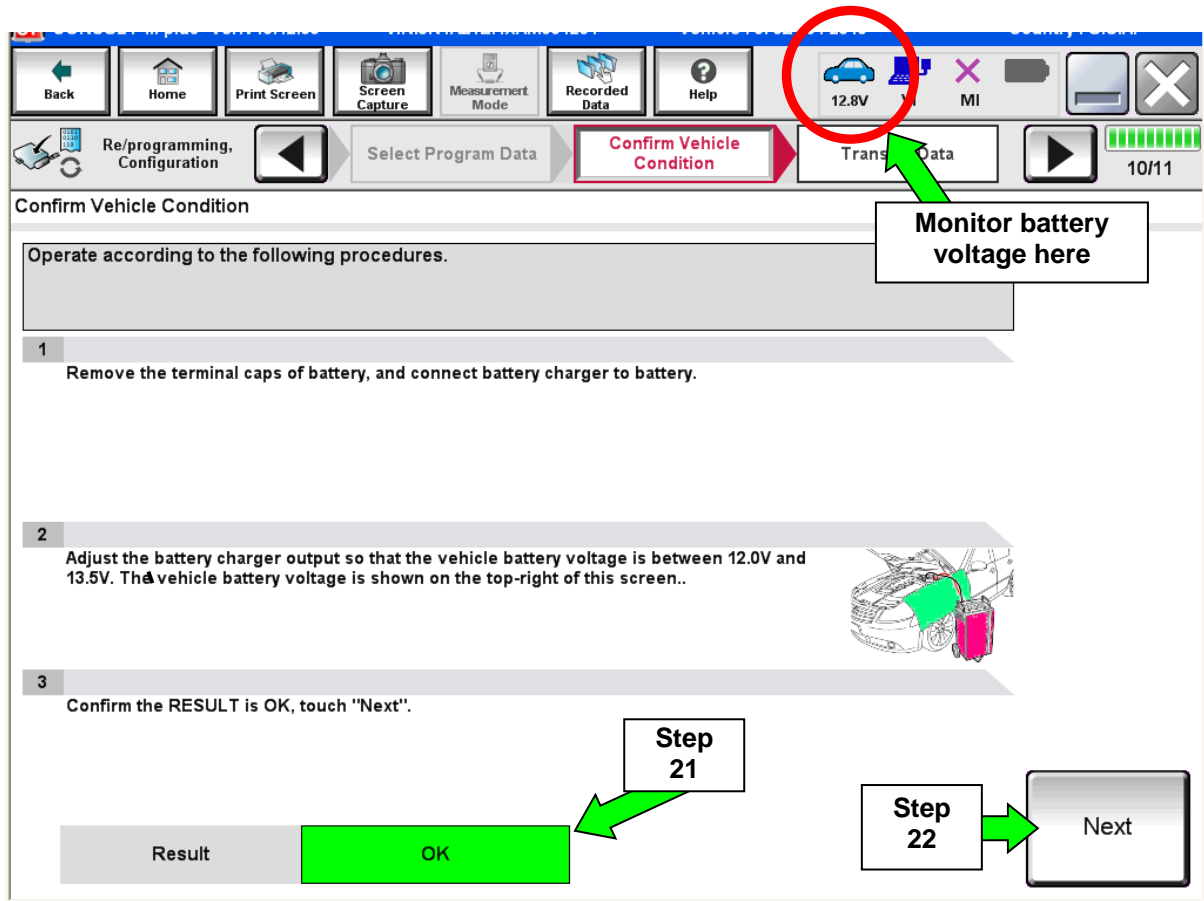


Figure 13A

23. Change the ignition to **ACC mode**.

- Make sure the IGN status judgement changes to **OK**. See Figure 15A.

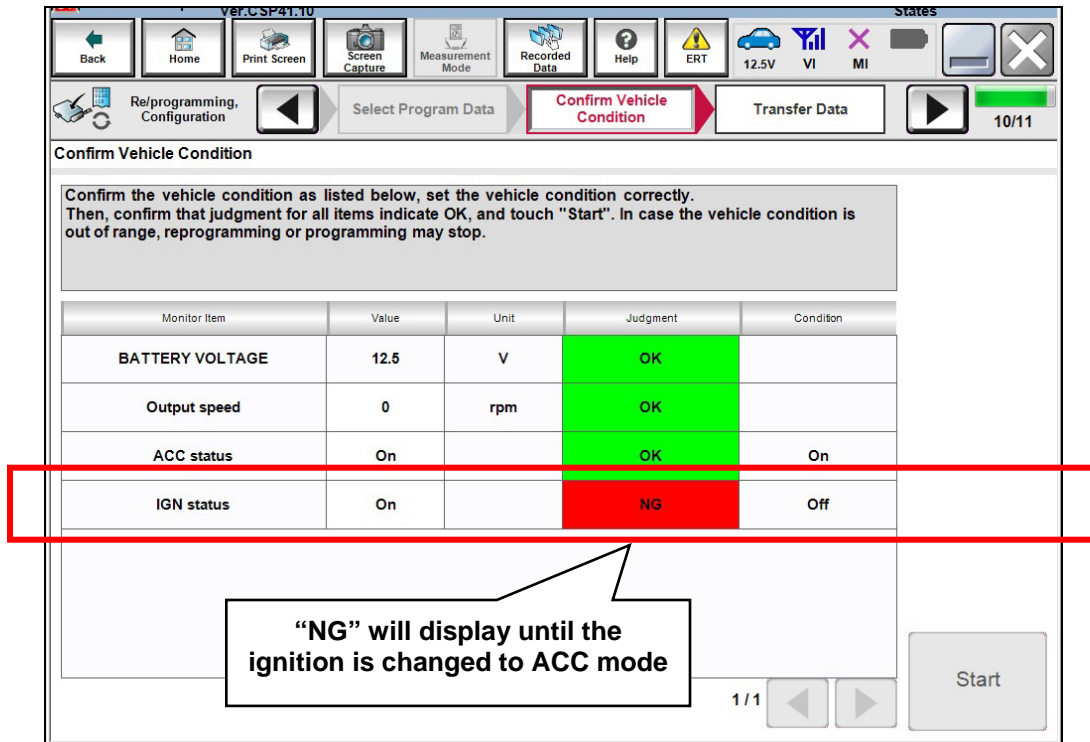


Figure 14A

NOTE: In the next step, the reprogramming process will begin when **Start** is selected.

24. Select **Start**.

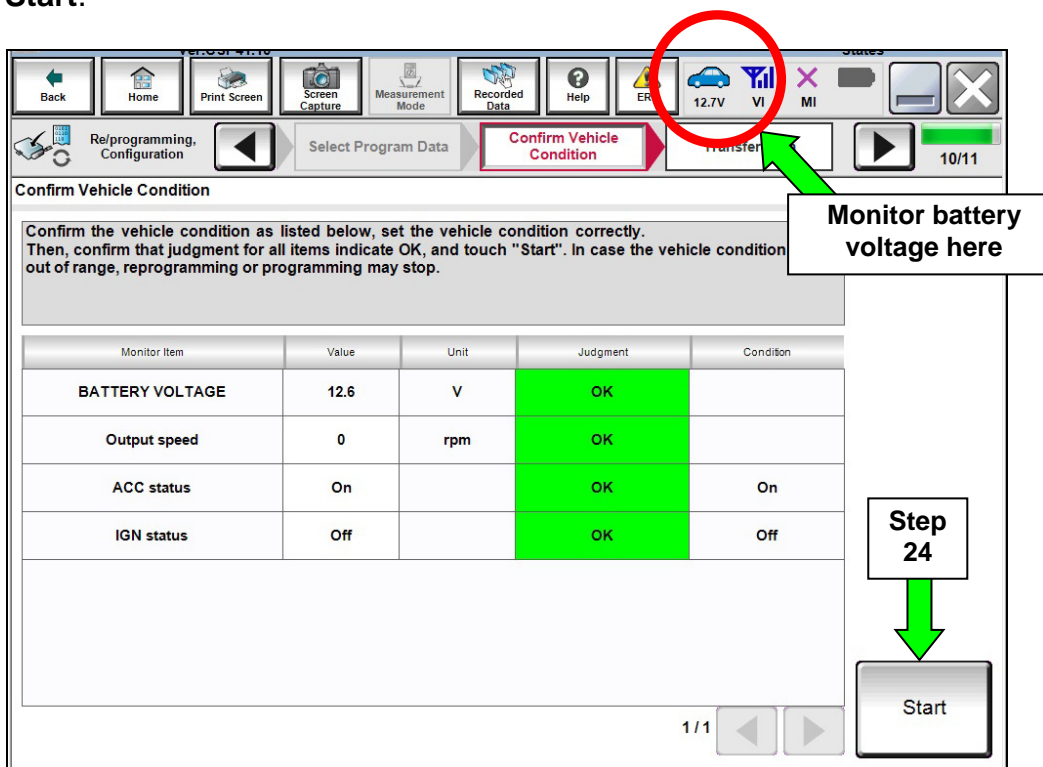
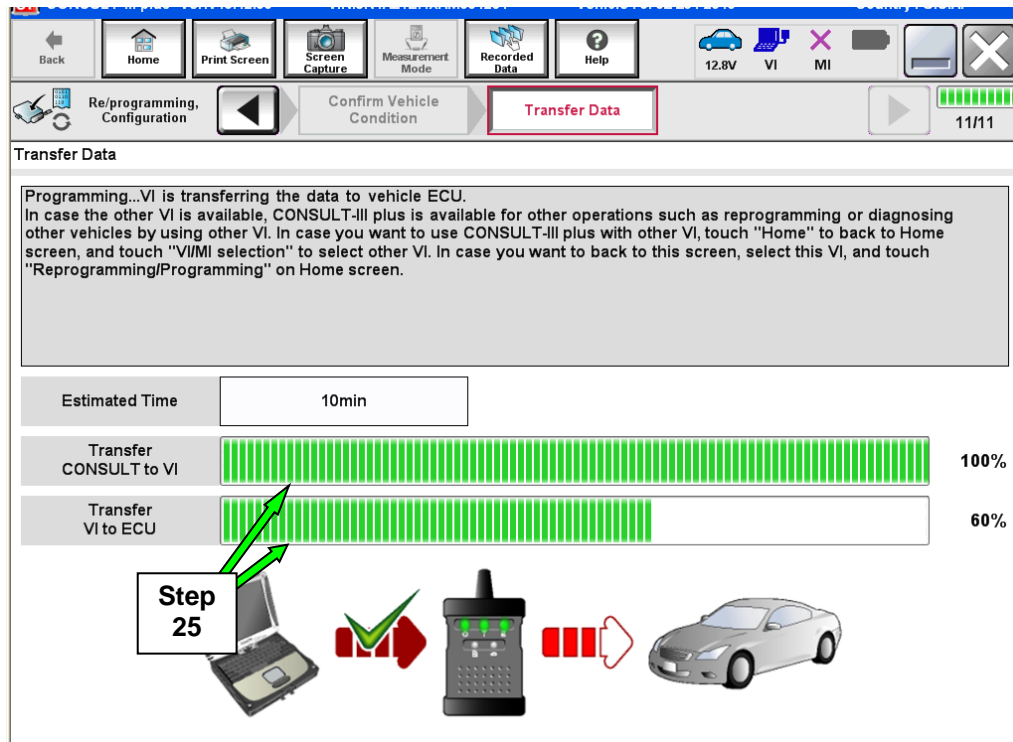
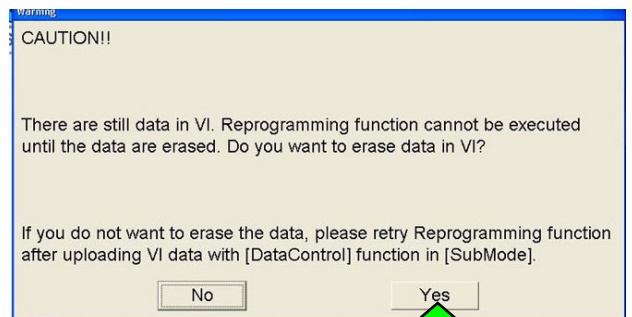


Figure 15A

25. Wait for both progress bars to complete.



NOTE: If the message shown in Figure 17A appears, there is data stored in the plus VI. Select "Yes" to proceed with reprogramming.



26. When the screen in Figure 18A displays, reprogramming is complete.

NOTE: If the screen in Figure 18A does not display (indicating that reprogramming did not complete), refer to ECM recovery on the next page.

27. Disconnect the GR8 (battery charger) from the vehicle.

28. Select **Next**.

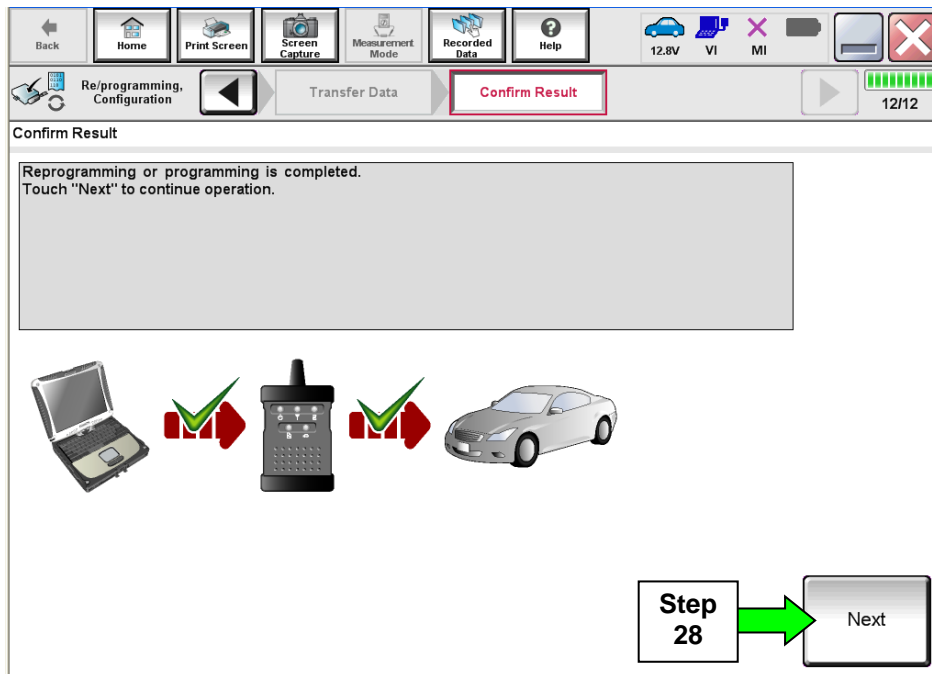


Figure 18A

29. Follow the on-screen instructions and change the ignition to **ON mode**.

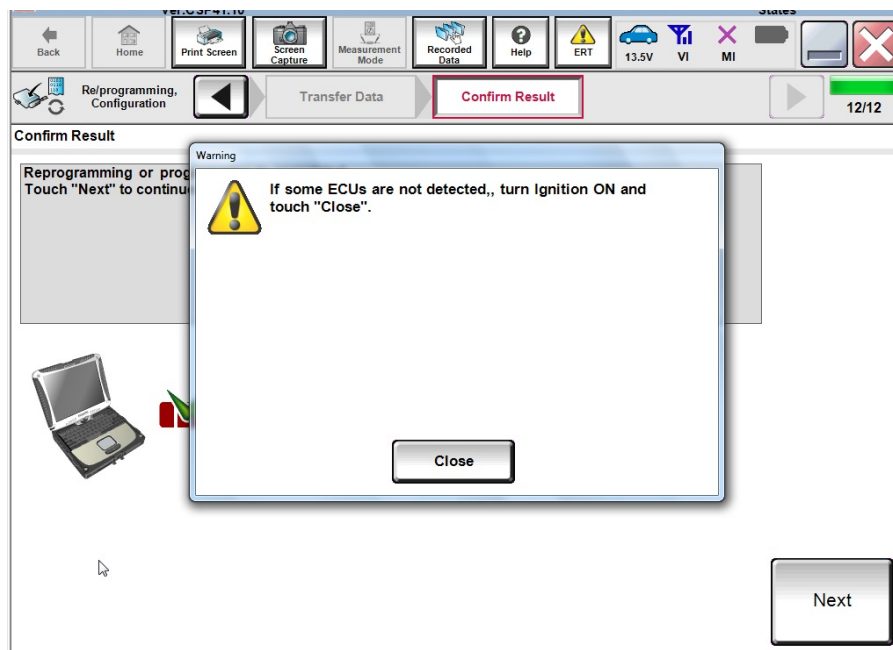


Figure 19A

NOTE:

- In the next step (page 16), you will perform DTC erase.
- This operation is required before C-III plus will provide the final reprogramming confirmation report.

ECM Recovery

Do not disconnect the plus 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 20A:

- 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.

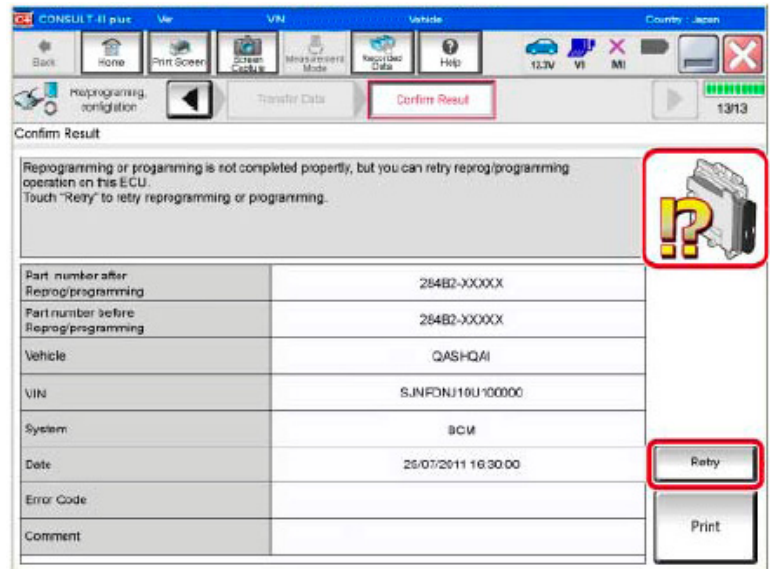


Figure 20A

If reprogramming does not complete and the “X” icon displays as shown in Figure 21A:

- 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 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.**

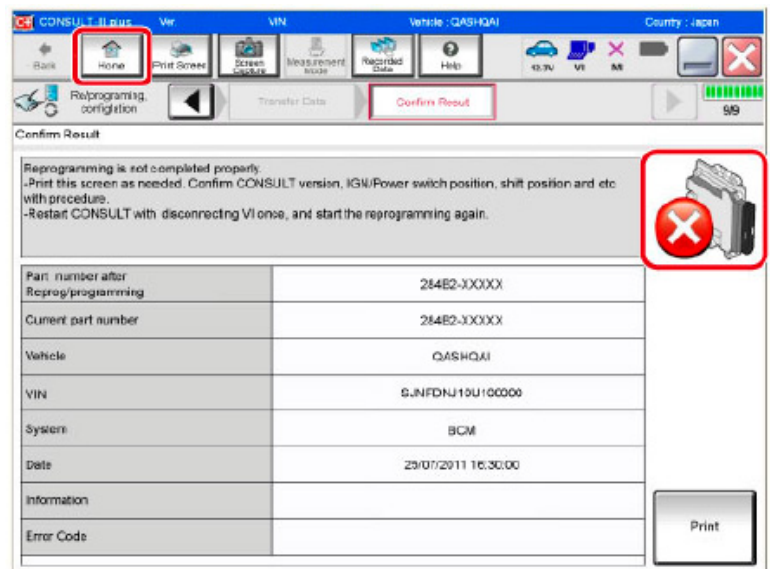


Figure 21A

30. Follow the on-screen instructions to **Erase DTCs**.
31. When the entire reprogramming process is complete, the screen in Figure 22A will display.
32. Verify the before and after part numbers are different.
33. Print a copy of this screen (Figure 22A) and attach it to the repair order for warranty documentation.
34. Select **Confirm**.

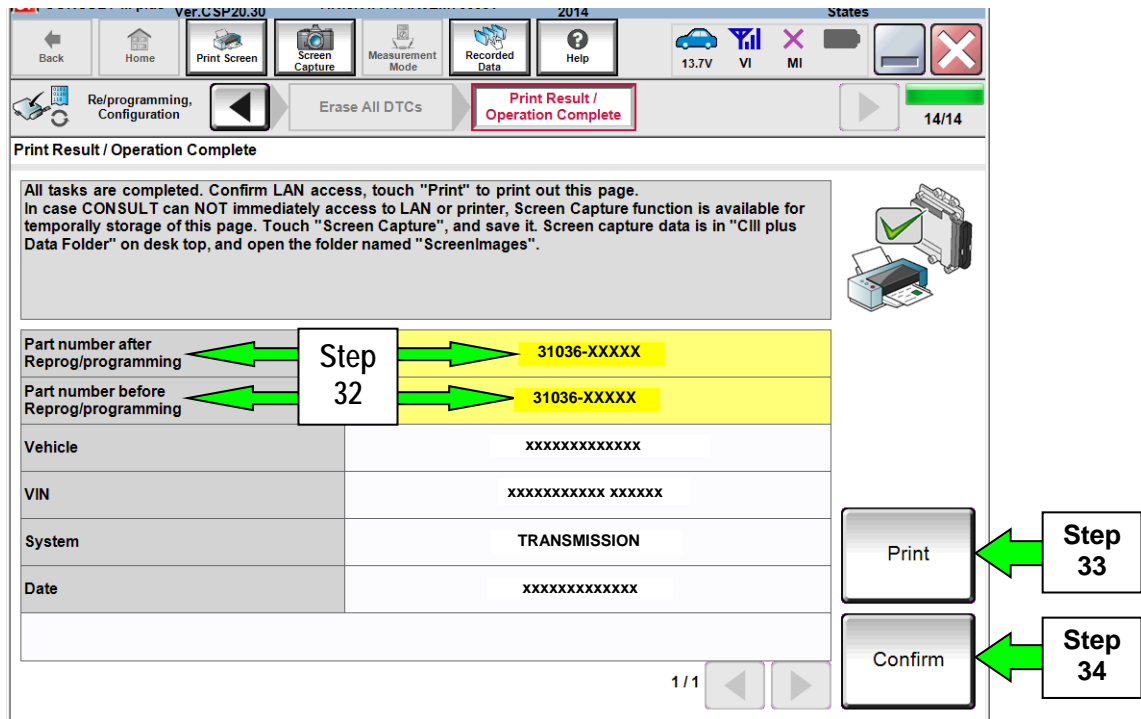


Figure 22A

Continue to the next page.

Transmission Calibration

1. Make sure the transmission is warm.
 - It may be helpful to take the vehicle for a drive (approximately 10 minutes) to warm the transmission.

2. Confirm the transmission fluid level is correct.
 - Follow the procedure for Checking the AT Fluid Level in the Electronic Service Manual (ESM), section TM-Transaxle & Transmission.

3. Set the parking brake.

4. Chock the wheels.

5. Connect the CONSULT PC to the vehicle with the plus VI.

6. Start the engine.

7. Turn the A/C system OFF.

8. Start CONSULT-III plus (C-III plus).

9. When the VI is recognized, select **Diagnosis (One System)**.

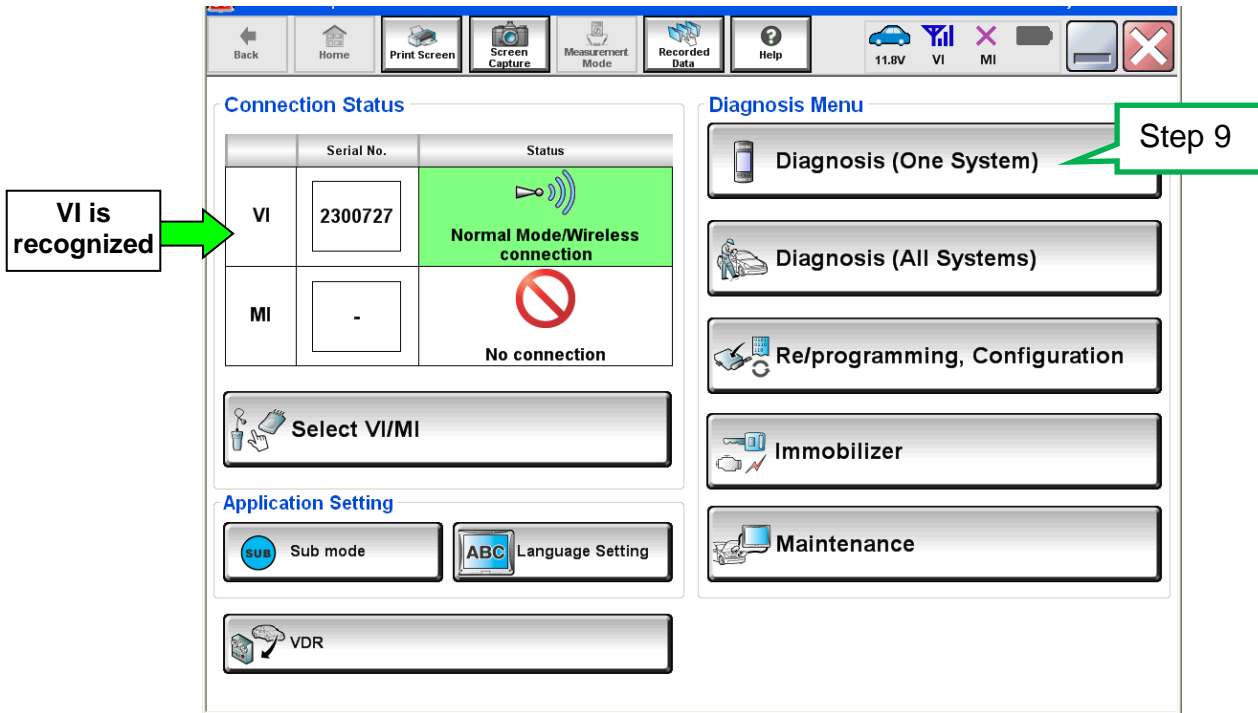


Figure 1B

10. Navigate C-III plus to **Transmission > Work support** (see Figure 2B).

11. Select **Transmission adjustment**.

12. Select **Start**.

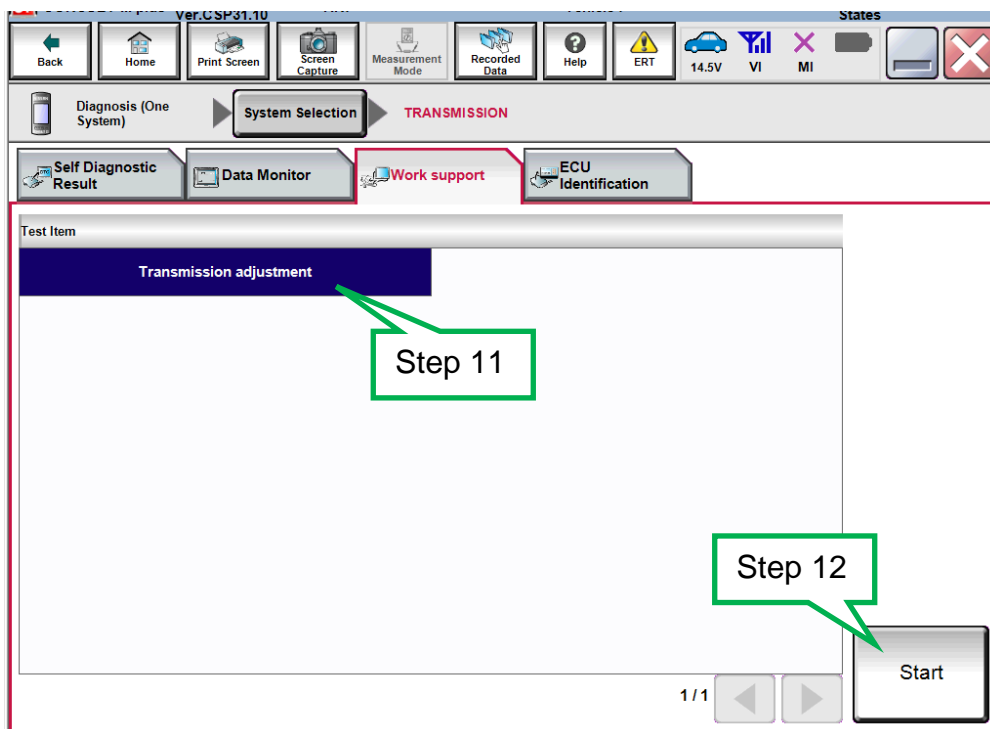


Figure 2B

NOTE:

- While performing the Transmission Adjustment procedure, a screen like the one in Figure 3B will display.
- Review the call outs in Figure 3B explaining the information on this screen.
- This information will be helpful as you perform the Transmission Adjustment procedure.
- While C-III plus is performing automatic adjustments, you will hear and feel the transmission changing gear position.

The screenshot shows a diagnostic tool interface for a Transmission Adjustment procedure. At the top, there are navigation buttons: Back, Home, and Print Screen. Below these are system status icons (car, signal strength, battery, etc.) and a 'States' menu. The main content area is titled 'Work support : Transmission adjustment' and contains instructions: 'Four adjustment procedures will be performed. Satisfy the following conditions during adjustment. - Output speed: 0 rpm - Brake switch: ON - Transmission fluid temperature: 50°C (122°F) - 90°C (194°F) To next page.' A 'Start' button is on the right. Below the instructions is a 'Current status' section with a 'MONITOR' table. The table shows: Shift position (P), Transmission fluid temp (49 °C), Output speed (0 rpm), Engine speed (control) (625 tr/min), and Brake switch (control) (Off). The status is 'Waiting'. At the bottom is a procedure progress diagram showing engine speed starting at 650 rpm, shifting from P to D, then to R, and back to P, with engine speed reaching 1500rpm and staying there for 30 seconds. A blue arrow points to the 'Press Start' step. An 'End' button is on the right.

Instructions for current step or action.

If the procedure stops or is interrupted, the action needed to continue the procedure will be displayed here.

Scroll to see all instructions for current step or action.

Waiting indicates input or action from you is needed. Executing indicates C-III plus is performing actions.

Other items indicating status such as engine speed not ready, or brake switch not ready may be displayed here.

Figure 3B

Arrow will turn blue indicating procedure progress.

NOTE: There are 4 adjustment procedures within the Transmission Adjustment.

First Adjustment Procedure

13. Confirm the following conditions (refer to the C-III plus screen):

- Shift position: D
- Transmission fluid temperature: 75°C (167°F) – 90°C (194°F)
- Output speed: 0 rpm
- Engine speed (control): 600 tr/min (rpm) or more
- Brake switch (control): On

14. When the above conditions are met, select **Start**.

- Current status will change from Waiting to **EXECUTING**.

NOTE: If current status indicates EXECUTING, wait (about 3 minutes) for the first adjustment procedure to complete.

15. Wait for the first adjustment procedure to complete (about 3 minutes).

- When complete, current status will change to **Waiting**.

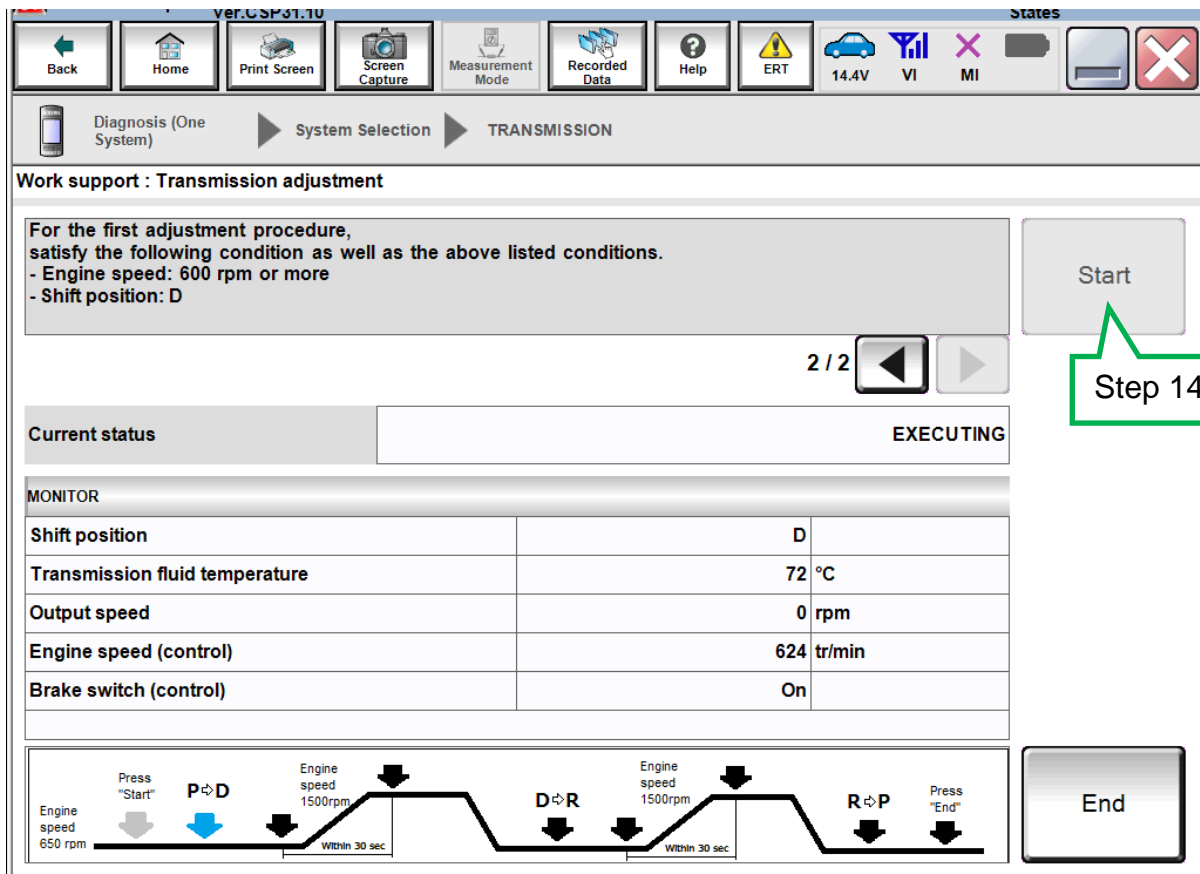


Figure 4B

Second Adjustment Procedure

16. Confirm the following conditions (refer to the C-III plus screen):

- Shift position: D
- Transmission fluid temperature: 75°C (167°F) – 90°C (194°F)
- Output speed: 0 rpm
- Engine speed (control): 1,250 – 1,750 tr/min (rpm)
- Brake switch (control): On

17. When the above conditions are met:

- Current status will change from Waiting to **EXECUTING**.
- **Keep the rpm about 1,600** so that when the rpm drops, caused by transmission shifts, it will not interrupt the procedure.
- If the procedure is interrupted, follow the on screen instructions (which includes turning the ignition OFF and back ON) and then start from the beginning (step 13).

NOTE: Keeping the rpm in the correct range is a bit challenging, and may take a few tries (practice) to get it right.

18. Wait for the second adjustment procedure to complete.

- When complete, current status will change to **Waiting**.

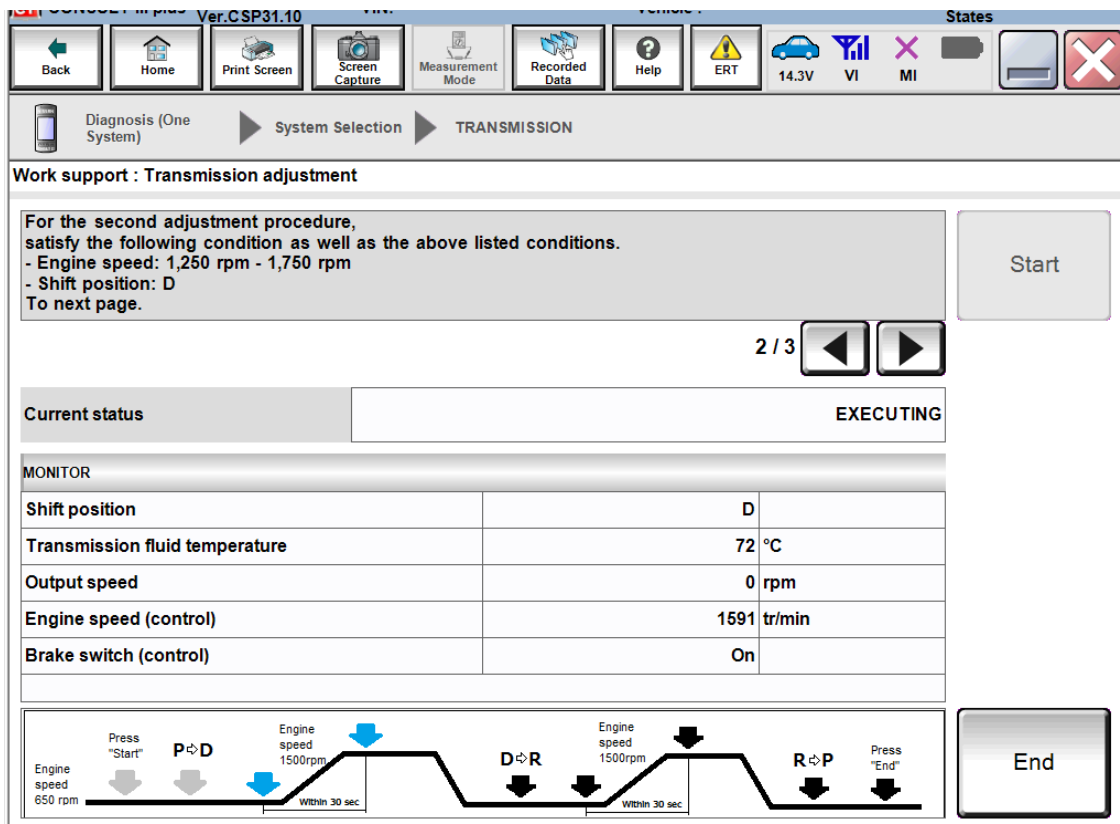


Figure 5B

Third Adjustment Procedure

19. Confirm the following conditions (refer to the C-III plus screen):

- Shift position: **R**
- Transmission fluid temperature: 75°C (167°F) – 90°C (194°F)
- Output speed: 0 rpm
- Engine speed (control): 600 tr/min (rpm) or more
- Brake switch (control): On

20. When the above conditions are met:

- Current status will change from Waiting to **EXECUTING**.

21. Wait for the third adjustment procedure to complete.

- When complete, current status will change to **Waiting**.

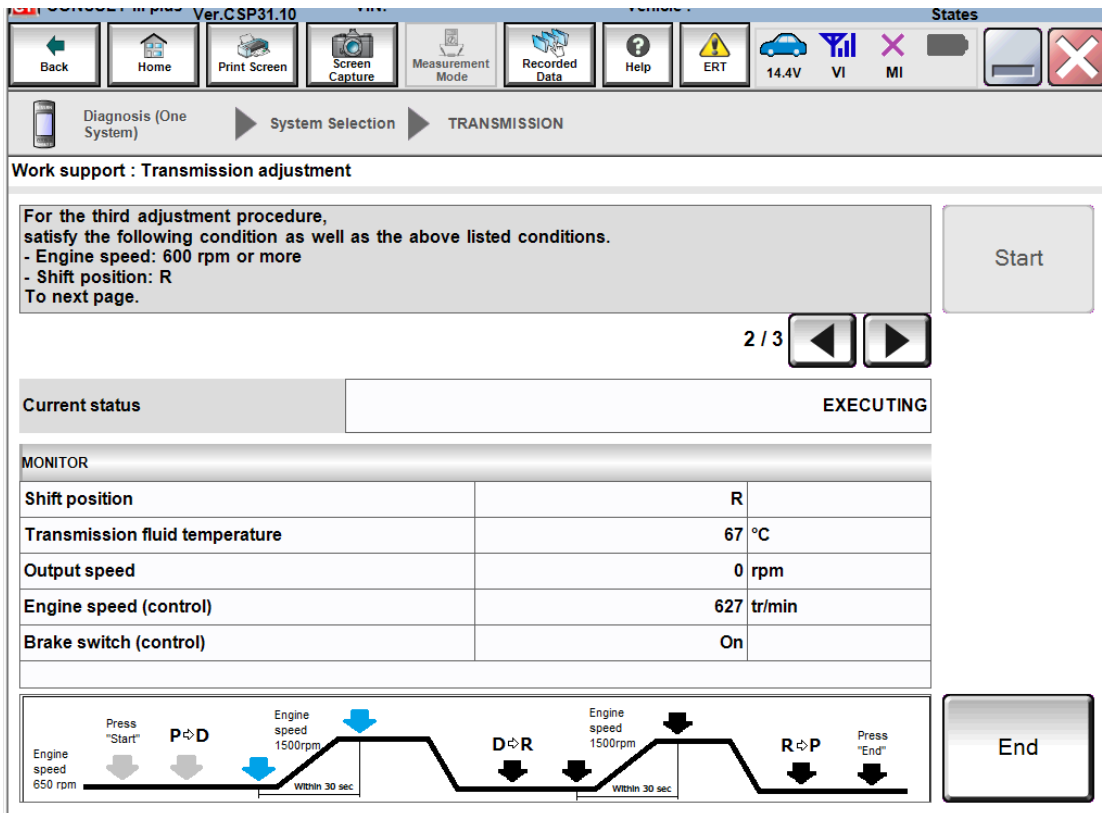


Figure 6B

Fourth Adjustment Procedure

22. Confirm the following conditions (refer to the C-III plus screen):

- Shift position: R
- Transmission fluid temperature: 75°C (167°F) – 90°C (194°F)
- Output speed: 0 rpm
- Engine speed (control): 1,250 – 1,750 tr/min (rpm)
- Brake switch (control): On

23. When the above conditions are met:

- Current status will change from Waiting to **EXECUTING**.
- **Keep the rpm about 1,600** so that when the rpm drops, caused by transmission shifts, it will not interrupt the procedure.
- If the procedure is interrupted, follow the on screen instructions and start from the beginning (step 13).

24. Wait for the fourth adjustment procedure to complete.

- When complete the screen in Figure 8B (next page) will display.

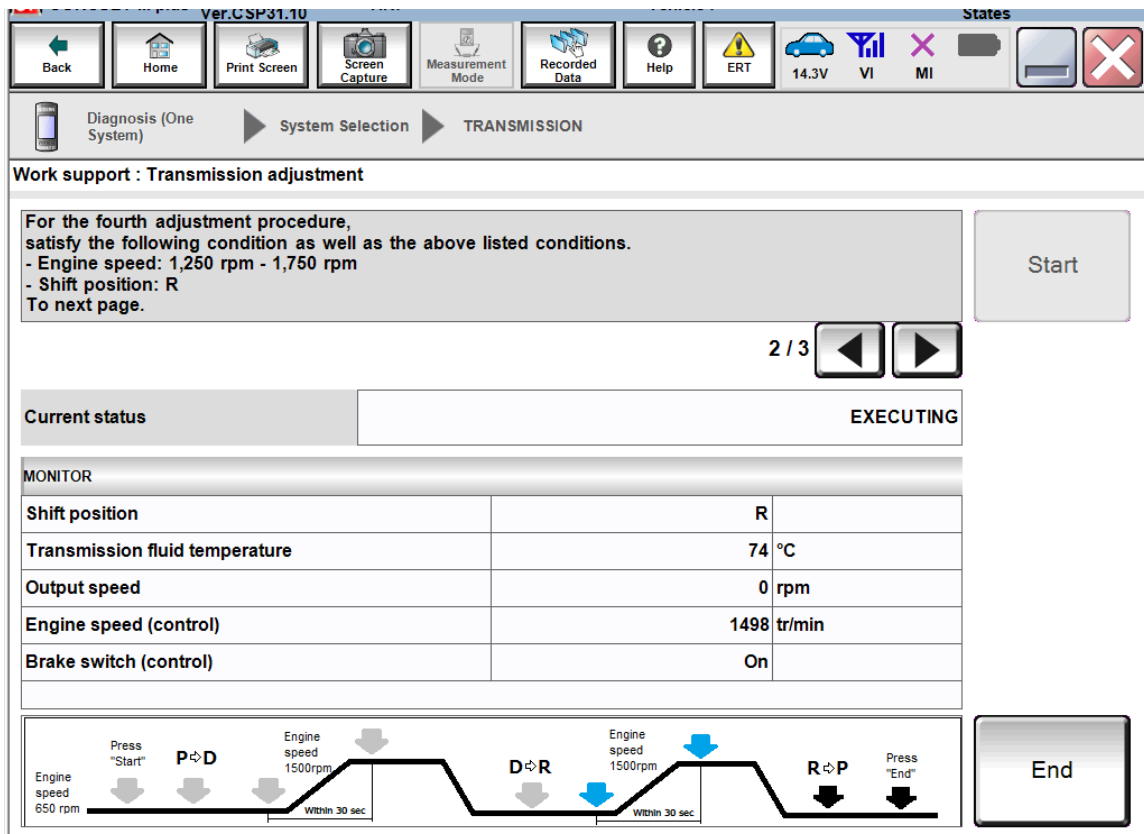


Figure 7B

25. When the Transmission Adjustment has completed (see Figure 8B), shift the transmission to Park.

26. Turn the ignition OFF.

27. Select **End**.

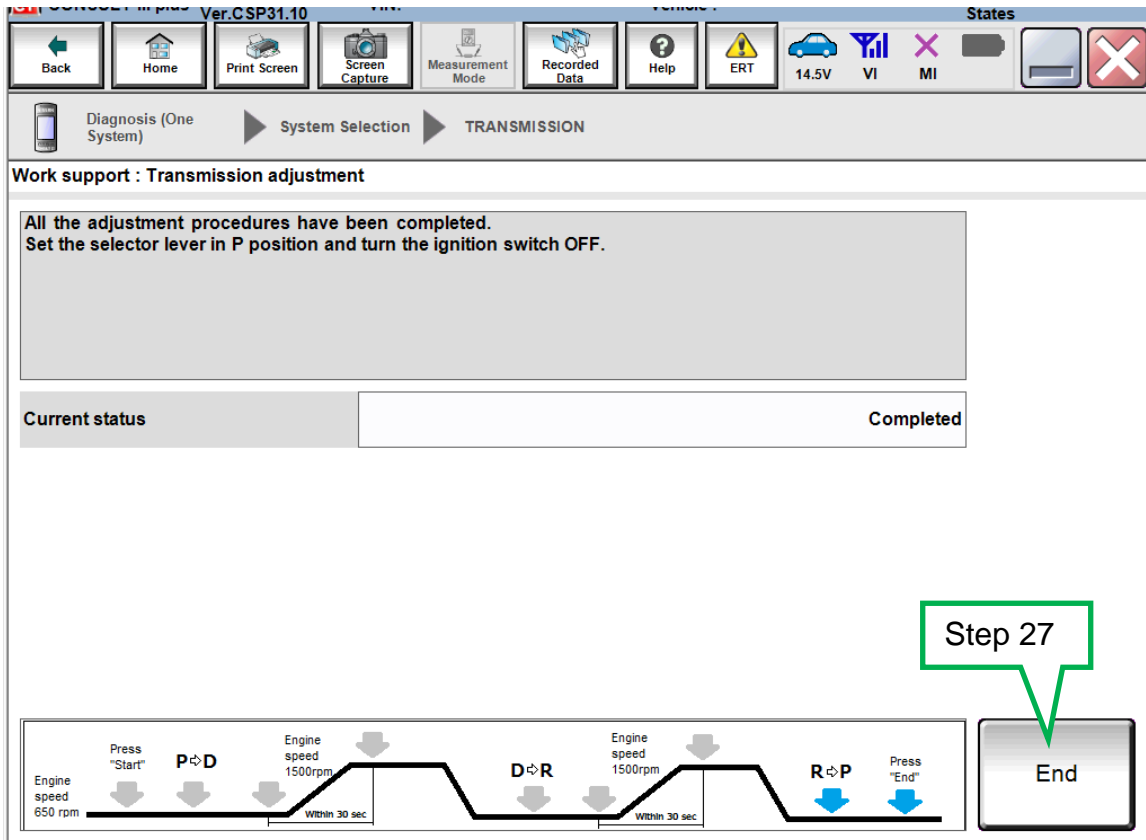


Figure 8B

NOTE:

- Completing this procedure has completely erased **ALL** of the TCM “adaptive learning values” that have accumulated over time. The transmission will shift differently than it did before this procedure was performed (especially for vehicles that have been driven over 1,000 miles).
- As the customer drives their vehicle in their normal daily drive patterns, the TCM will again accumulate “adaptive learning values”; shift timing and feel will improve.
- If a Low DEF warning is displayed, the TCM **will not** perform “adaptive lean mode”. Make sure no Low DEF warnings are displayed before releasing the vehicle to the customer.

CLAIMS INFORMATION

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

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Reprogram Transmission Control Module	(1)	JE99AA	ZE	32	(2) (3)

- (1) Refer to the electronic parts catalog (FAST) and use the TCM assembly part number (31036 - XXXXX) as the Primary Failed Part (PFP).
- (2) Reference the current Nissan Warranty Flat Rate Manual and use the indicated FRT.
- (3) FRT allows adequate time to access DTC codes and reprogram TCM. No other diagnostic procedures subsequently required. Do NOT claim any Diagnostic Op Codes with this claim.

