



SERVICE BULLETIN

Classification:	Reference:	Date:
EC16-016	NTB16-048	May 2, 2016

2016 TITAN XD; MIL ON WITH NOX SENSOR DTCs STORED

APPLIED VEHICLES: 2016 Titan XD (A61)
APPLIED VIN / DATE: Vehicles built before 1N6BA1F(*)GN 506505 / March 5, 2016
APPLIED ENGINE Cummins 5.0L V8 Diesel

IF YOU CONFIRM

The MIL is ON with one or more of the following DTCs stored as “current”.

- P22A7 – NOx Sensor Heater Sense Circuit 1/2
- P229E – NOx Sensor 2
- P221A – NOx Sensor 1/2 Correlation Bank 1
- U059F – Can Communication

NOTE: If the above DTCs are stored as “past”, this bulletin does not apply. Refer to the Electronic Service Manual (ESM), section **EC – Engine Control System** for further diagnostic information.

ACTION

1. Replace the Outlet NOx Sensor.
2. Confirm that ECM requires reprogramming. Refer to step 6 on page 7.

If the ECM requires reprogramming:

- a. Perform “Save Computer Data” with CONSULT-III plus (C-III plus).
- b. Reprogram ECM.
- c. Perform “Write Saved Data”.

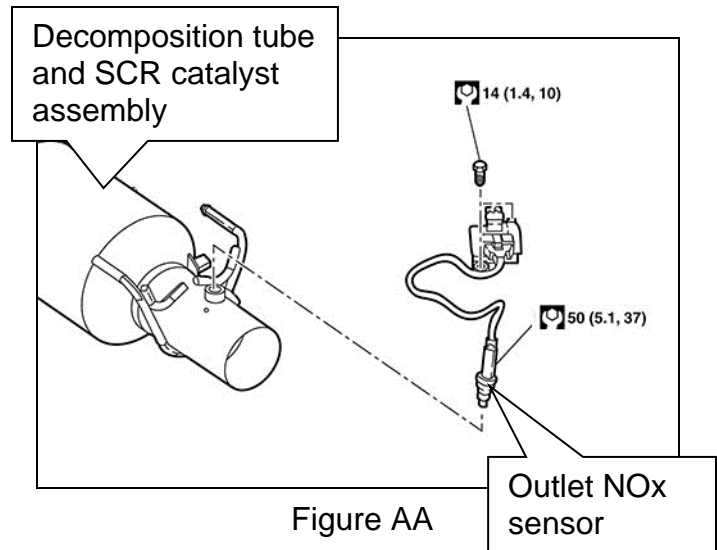
IMPORTANT: The purpose of **ACTION** (above) is to give you a quick idea of the work you will be performing. You **MUST** closely follow the entire **SERVICE PROCEDURE** as it contains information that is essential to successfully completing this repair.

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

Replace the Outlet NOx Sensor

- Refer to the ESM, section **EX – Exhaust System** for removal and installation information.
- See Figure AA for location of the outlet NOx sensor.



REPROGRAM THE ECM

Save Computer Data

1. Connect the CONSULT PC to the vehicle.
2. Open / start C-III plus.
3. Turn the ignition ON, with engine OFF (engine not running).
4. Wait for the plus VI to be recognized.
 - The **Serial No.** will display when the plus VI is recognized.
5. Select **Diagnosis (One System)**.

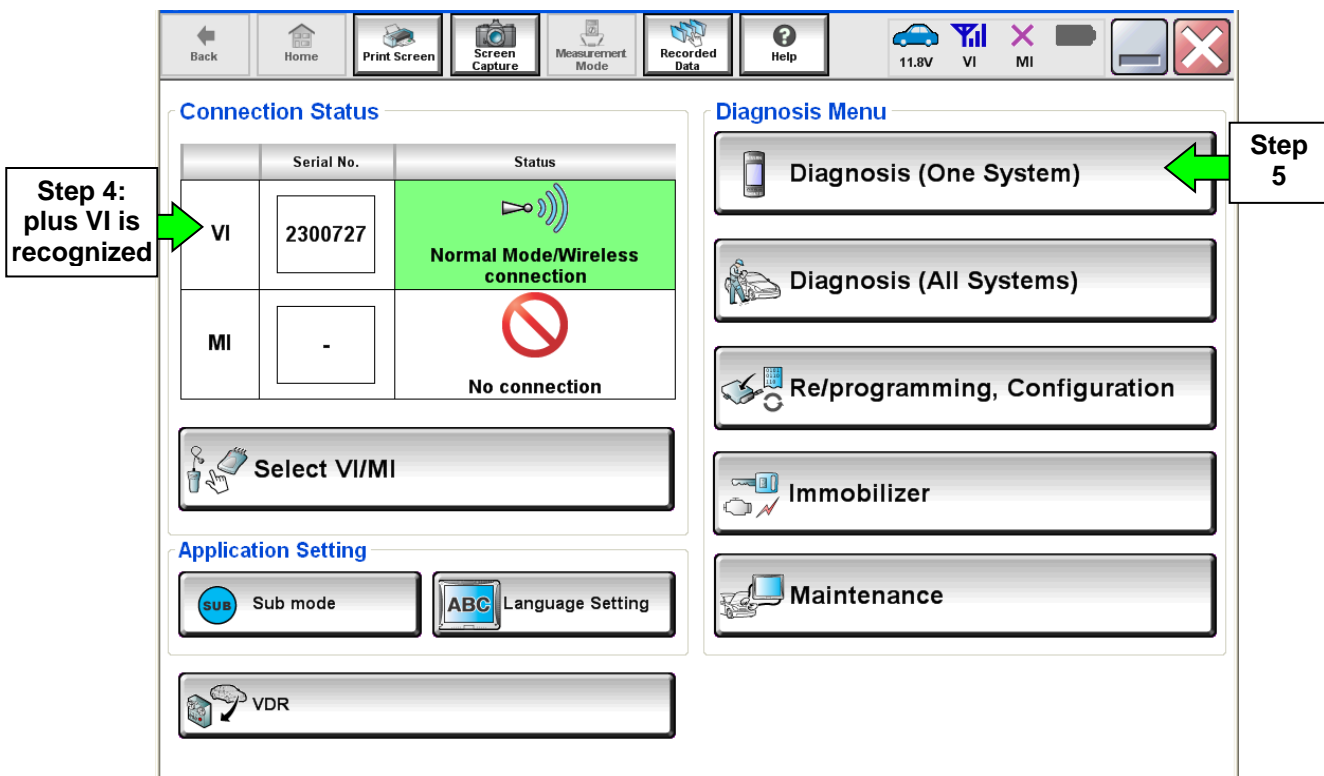


Figure A

6. Navigate C-III plus to Engine > Work Support (see Figure B).
7. Select **SAVE COMPUTER DATA**.
8. Select **Start**.

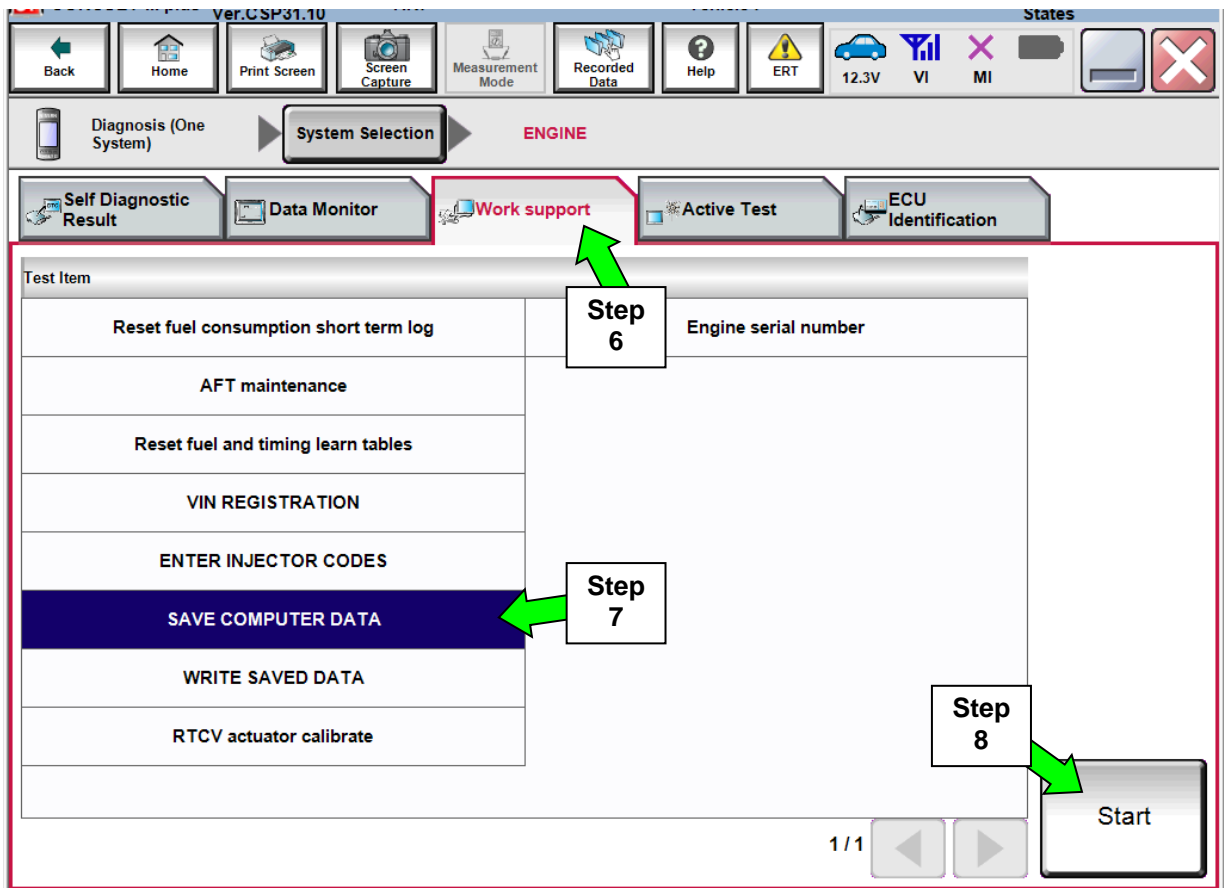


Figure B

NOTE:

- After selecting Start, a screen message may appear that says:

Latest diagnostic tool update must be used before saving the data, otherwise there is a risk that the data entry will not work.

- If the above message appears, select Continue.

9. Make sure the ignition is ON and the engine is OFF (engine not running).

10. Select **Confirm**.

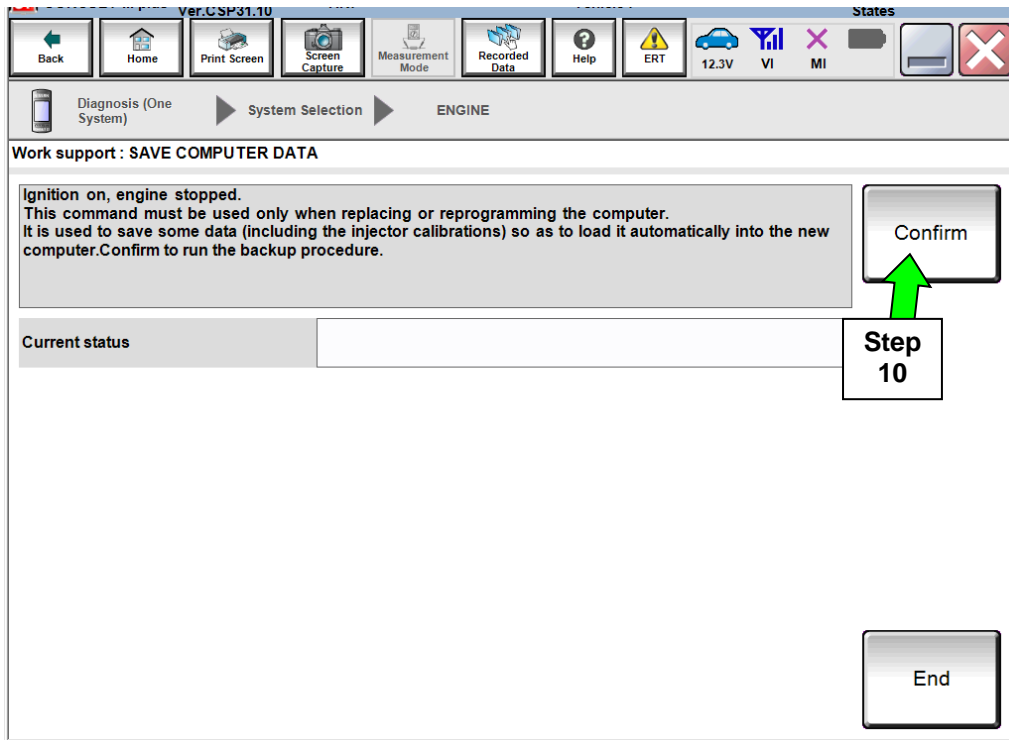


Figure C

11. Select **End**.

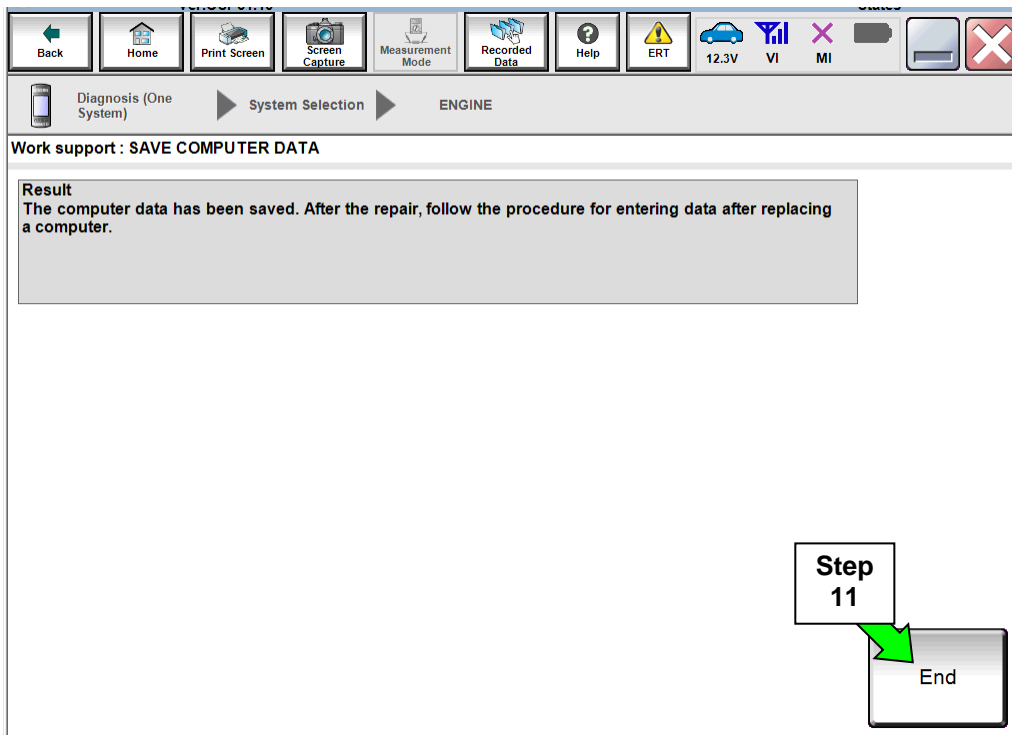


Figure D

ECM Reprogramming

NOTE:

- Most instructions for reprogramming with CONSULT-III plus (C-III plus) are displayed on the CONSULT PC screen.
- If you are not familiar with the reprogramming procedure, [click here](#). This will link you to the "CONSULT- III plus (C-III plus) Reprogramming" general procedure.
- 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 drops below 12.0V or above 15.5V during reprogramming, the ECM may be damaged.
- Be sure to turn OFF all vehicle electrical loads. If a vehicle electrical load remains ON, the ECM 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 ECM 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 ECM may be damaged.

1. Return to the C-III- plus Home screen (see Figure 1).
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**.

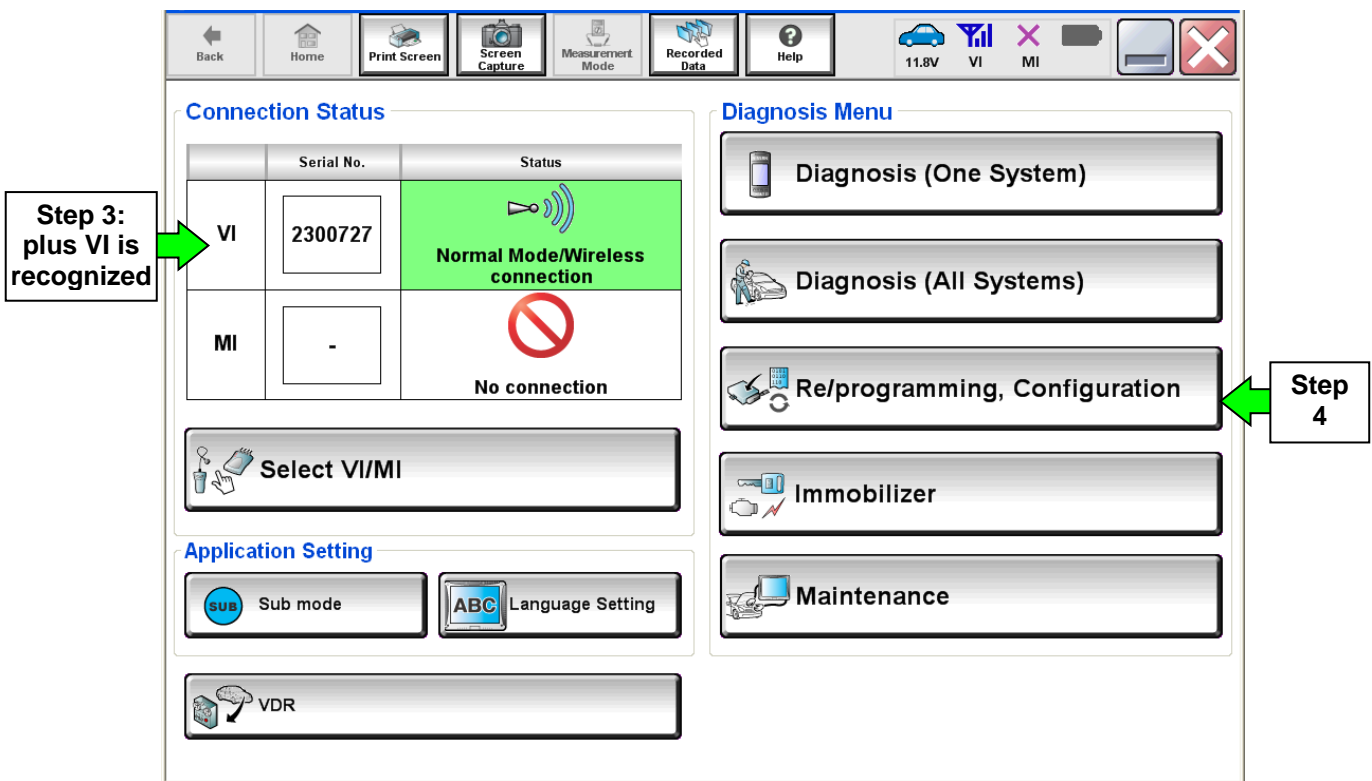


Figure 1

5. Follow the on-screen instructions and navigate C-III plus to the screen shown in Figure 2 on the next page.

6. When you get to the screen shown in Figure 2, confirm this bulletin applies as follows.

A. Find the ECM **Part Number** and write it on the repair order.

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

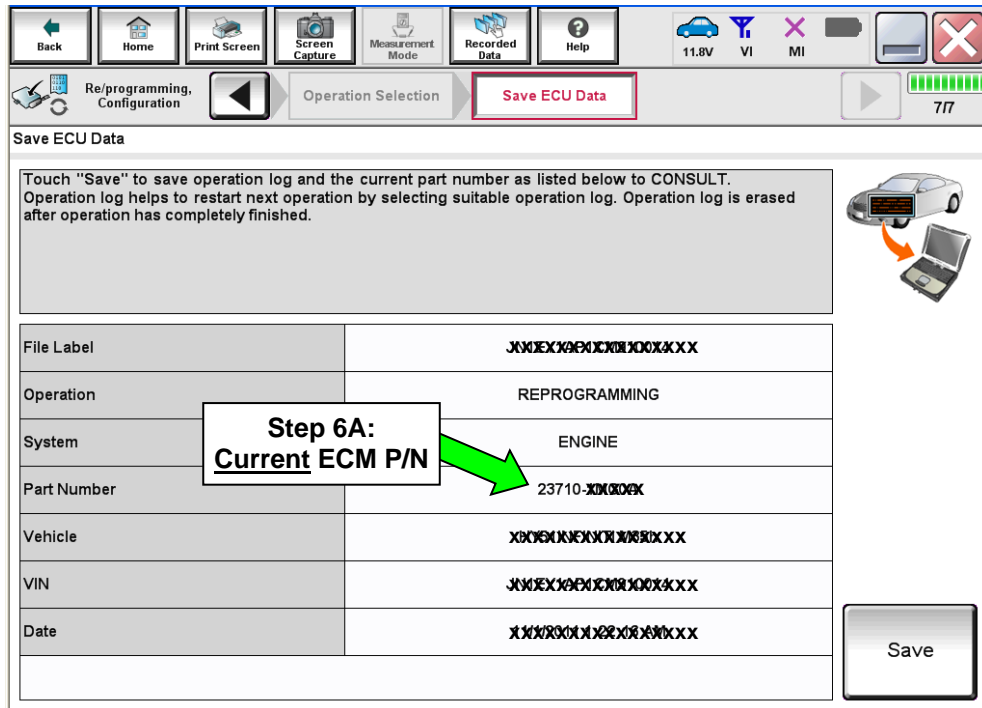


Figure 2

B. Compare the P/N you wrote down to the numbers in the **Current ECM Part Number** column in **Table A** below.

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

Table A

Model	Current ECM Part Number: 23710-
2016 Titan XD Cummins Diesel	EZ41C, EZ41D, EZ41E

7. Follow the on-screen instructions to navigate C-III plus and reprogram the ECM.

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 3 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.

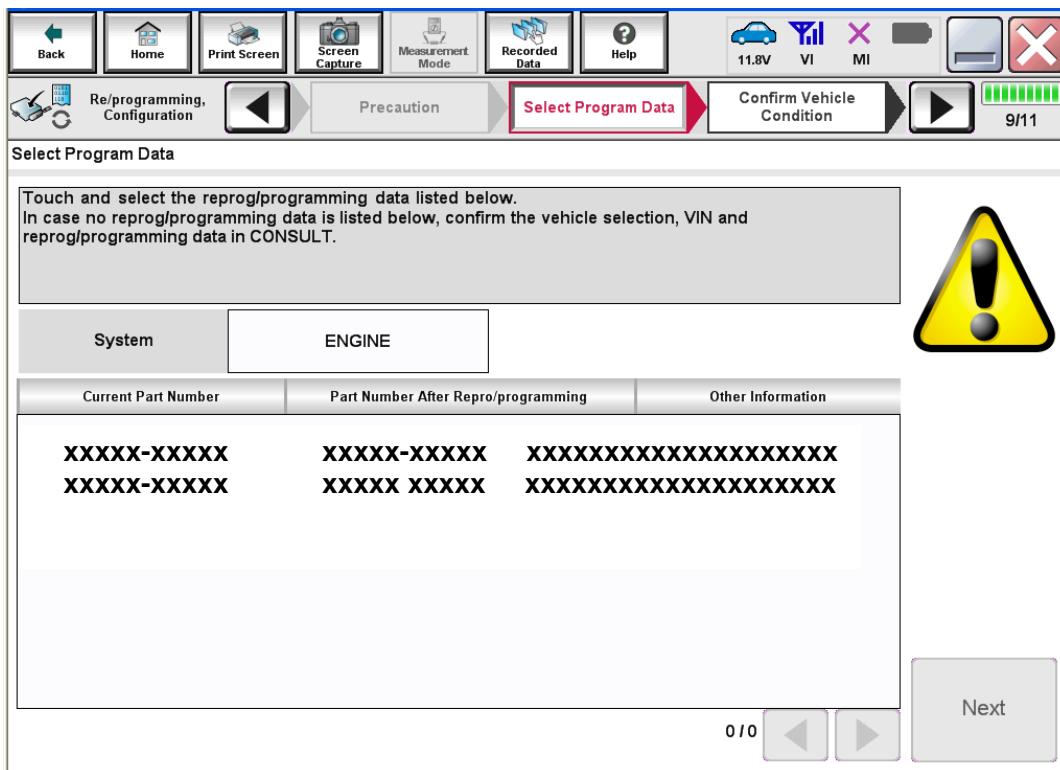


Figure 3

8. When the screen in Figure 4 displays, reprogramming is complete.

NOTE: If the screen in Figure 4 does not display (indicating that reprogramming did not complete), refer to ECM recovery on the next page.

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

10. Select **Next**.

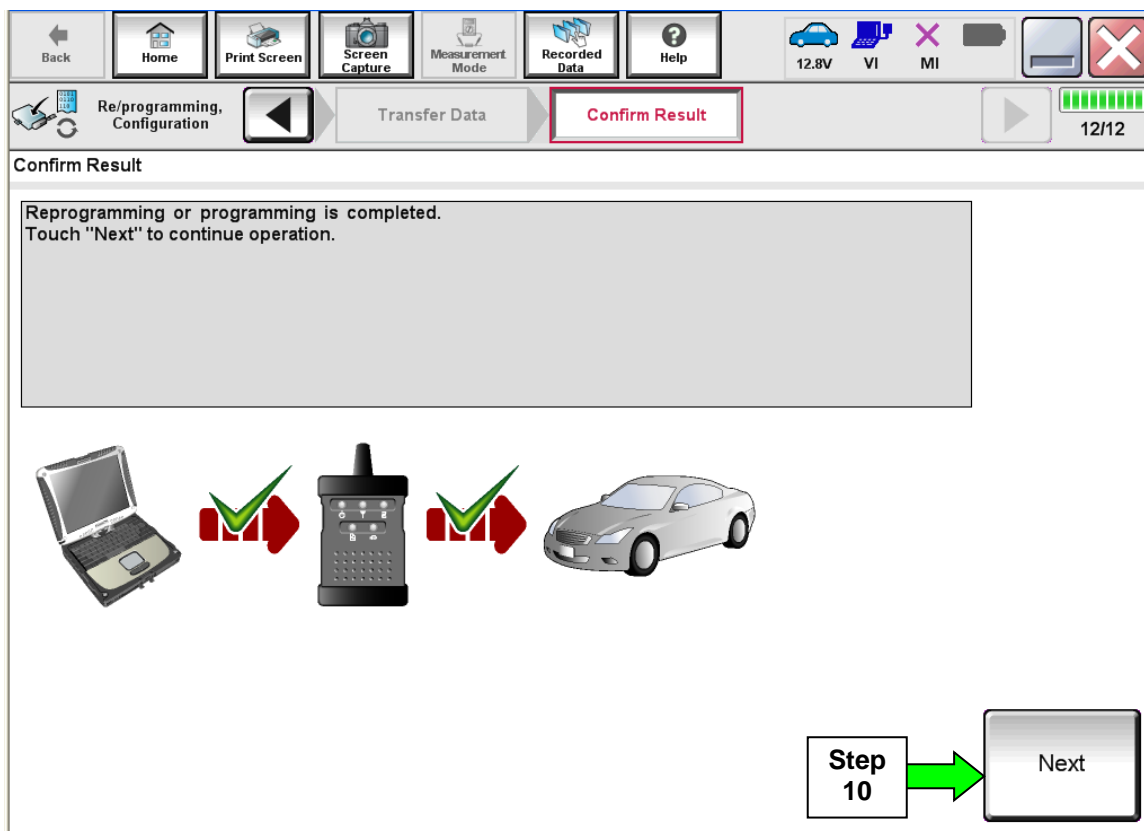


Figure 4

NOTE:

- In the next step (page 11), 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 5:

- 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.

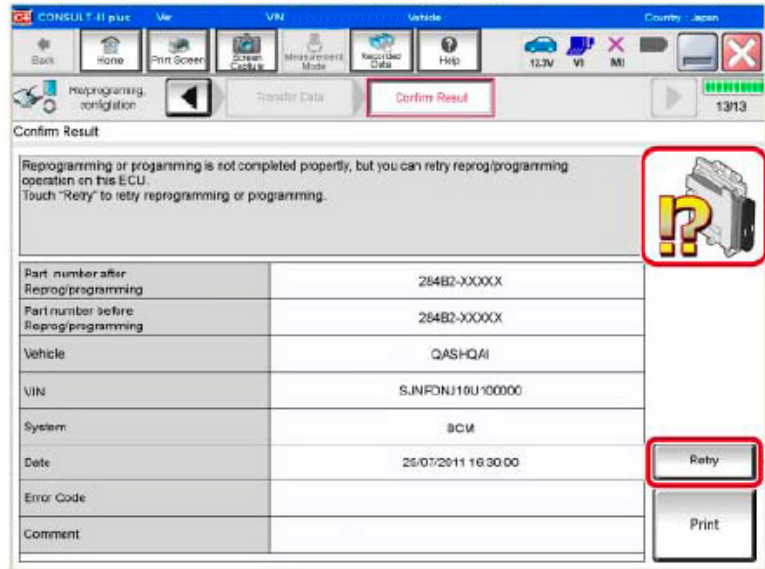


Figure 5

If reprogramming does not complete and the “X” icon displays as shown in Figure 6:

- 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.**

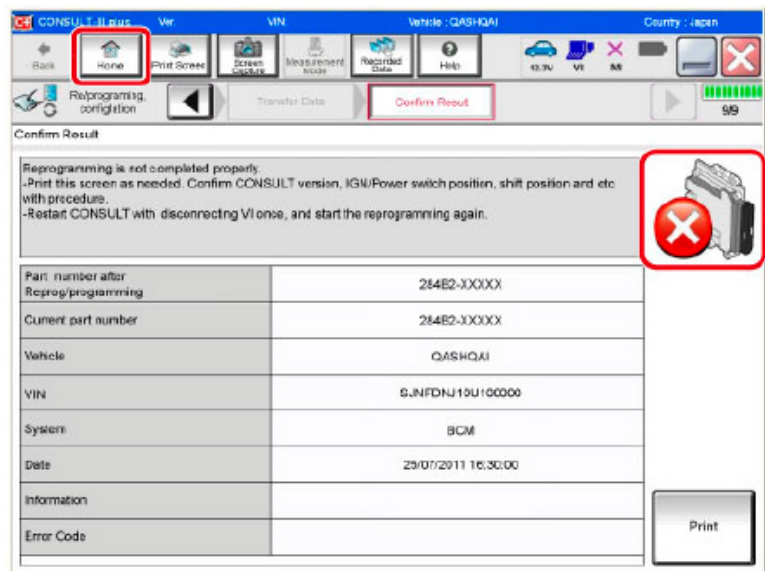


Figure 6

11. Follow the on-screen instructions to **Erase DTCs**.

12. When the entire reprogramming process is complete, the screen in Figure 7 will display.

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

14. Print a copy of this screen (Figure 7) and attach it to the repair order for warranty documentation.

15. Select **Confirm**.

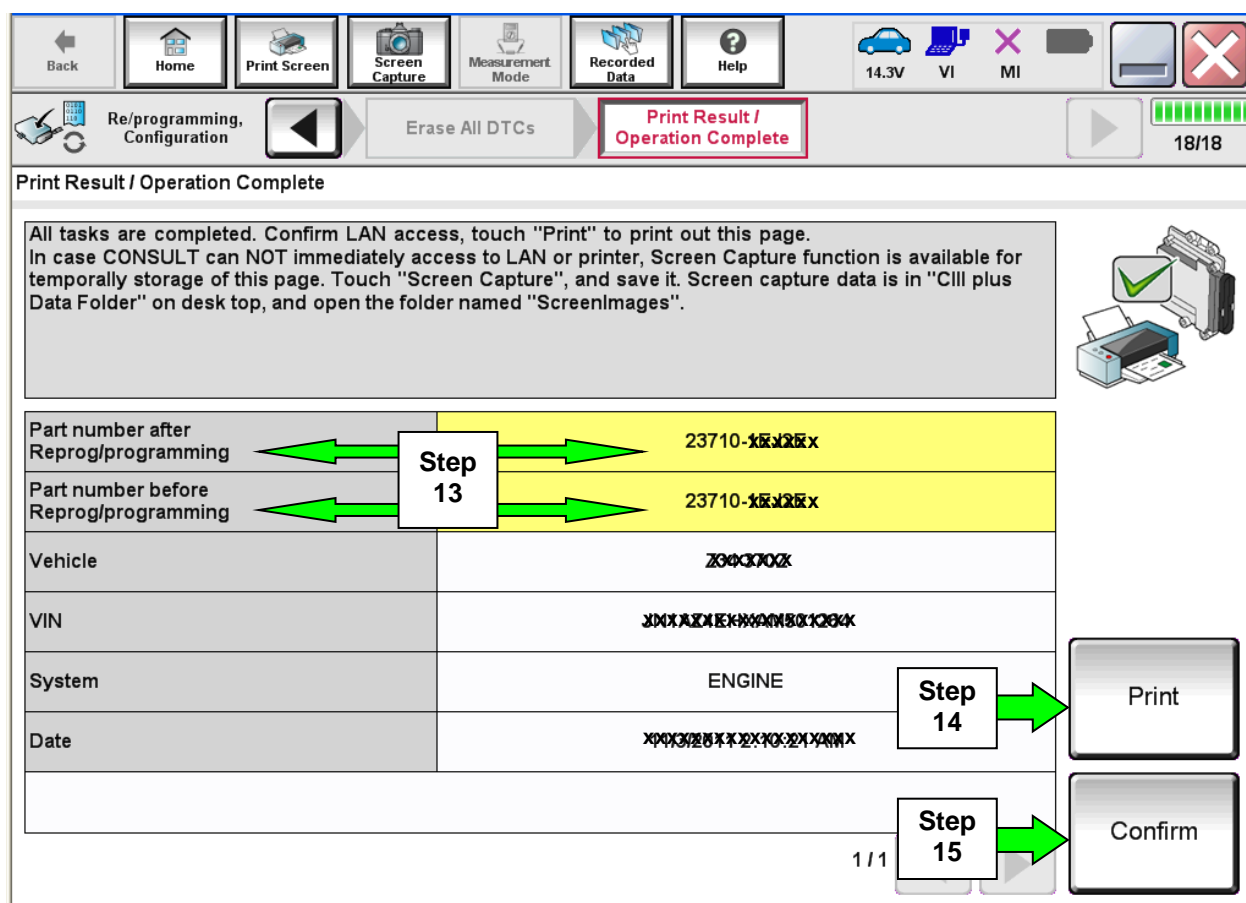


Figure 7

Continue to the next page.

Write Saved Data

1. Return to the C-III- plus Home screen (see Figure 1A).
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 **Diagnosis (One System)**.

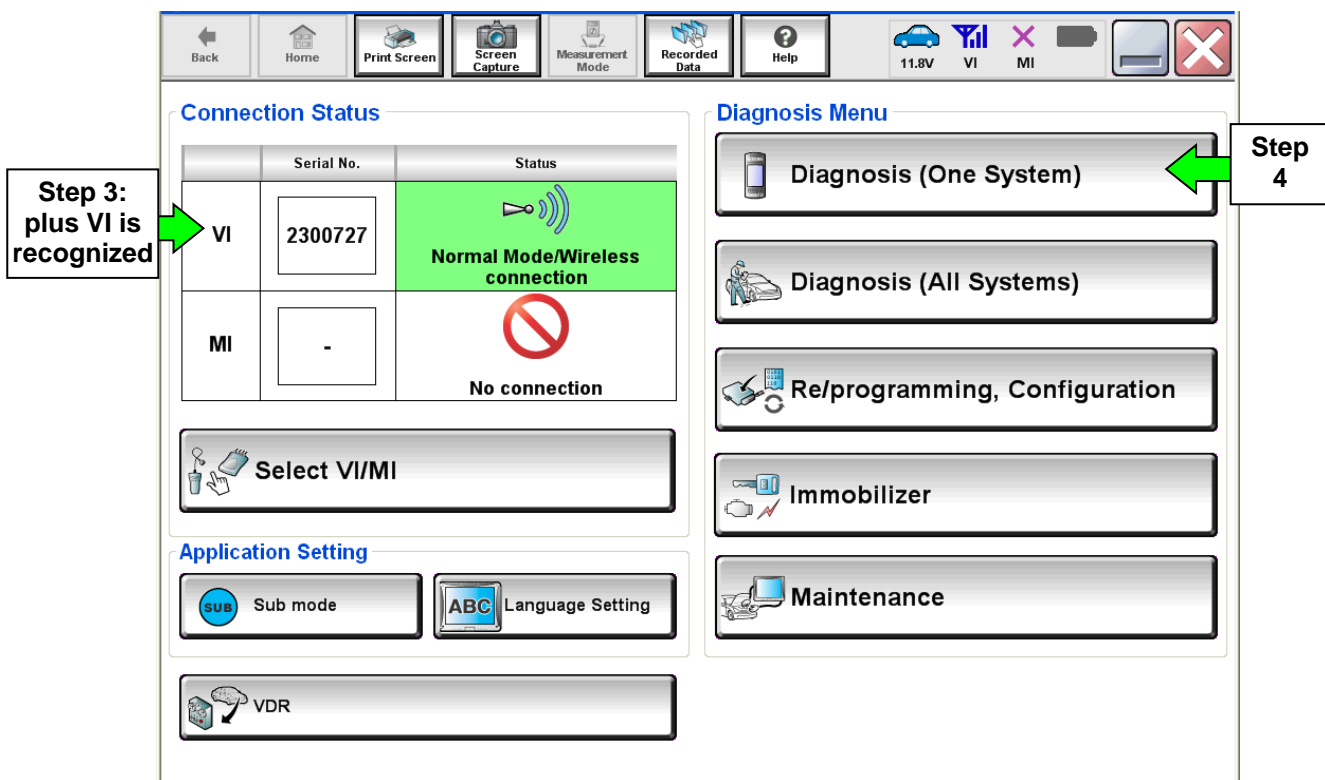


Figure 1A

5. Navigate C-III plus to Engine > Work Support (see Figure 2A).
6. Select **WRITE SAVED DATA**.
7. Select **Start**.

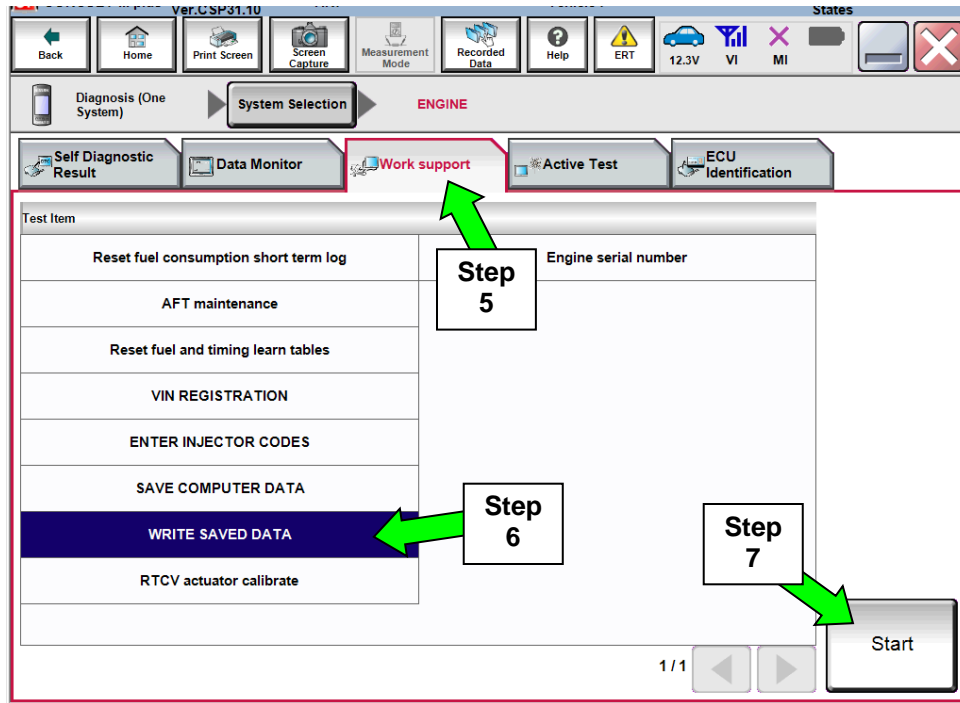


Figure 2A

8. Make sure the ignition is ON and the engine is OFF (engine not running).
9. Select **Confirm**.

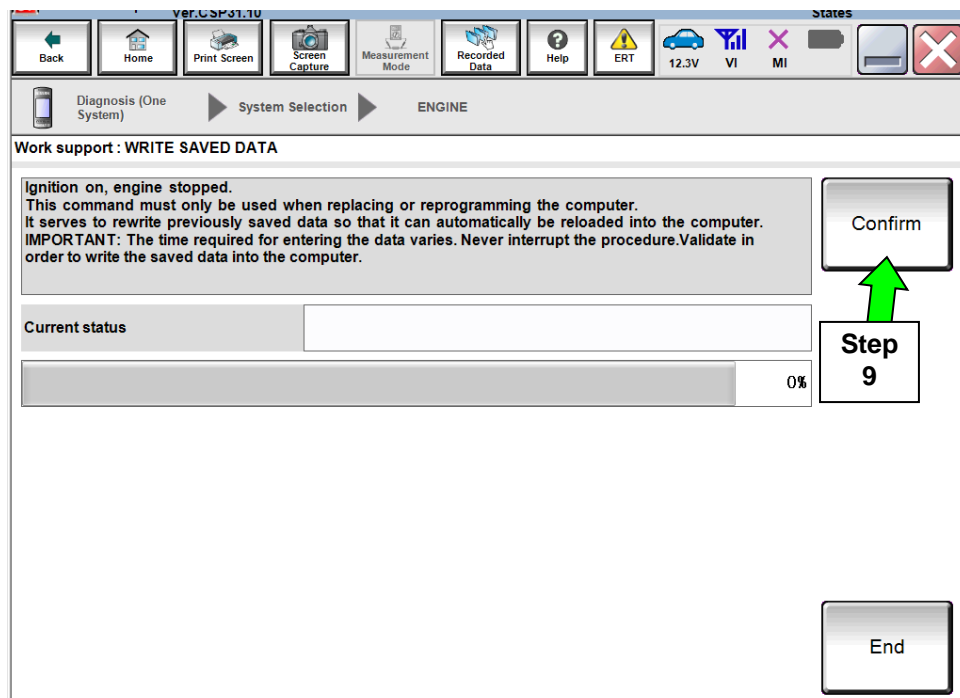


Figure 3A

10. Wait for the procedure to complete.

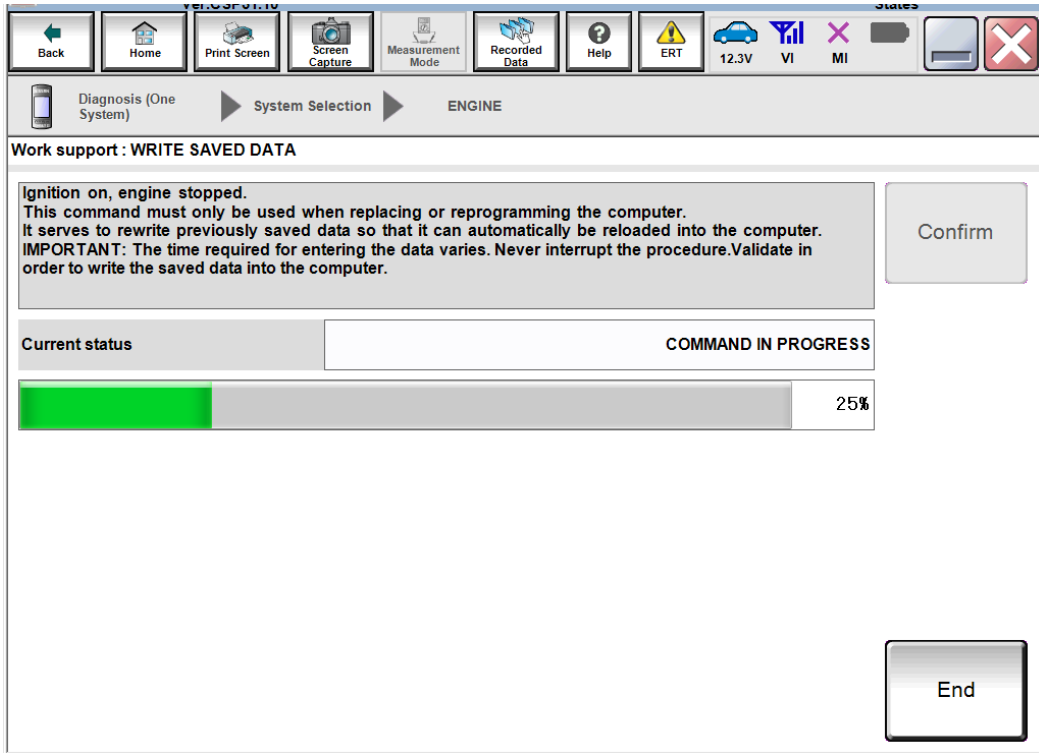


Figure 4A

11. Select **End**.

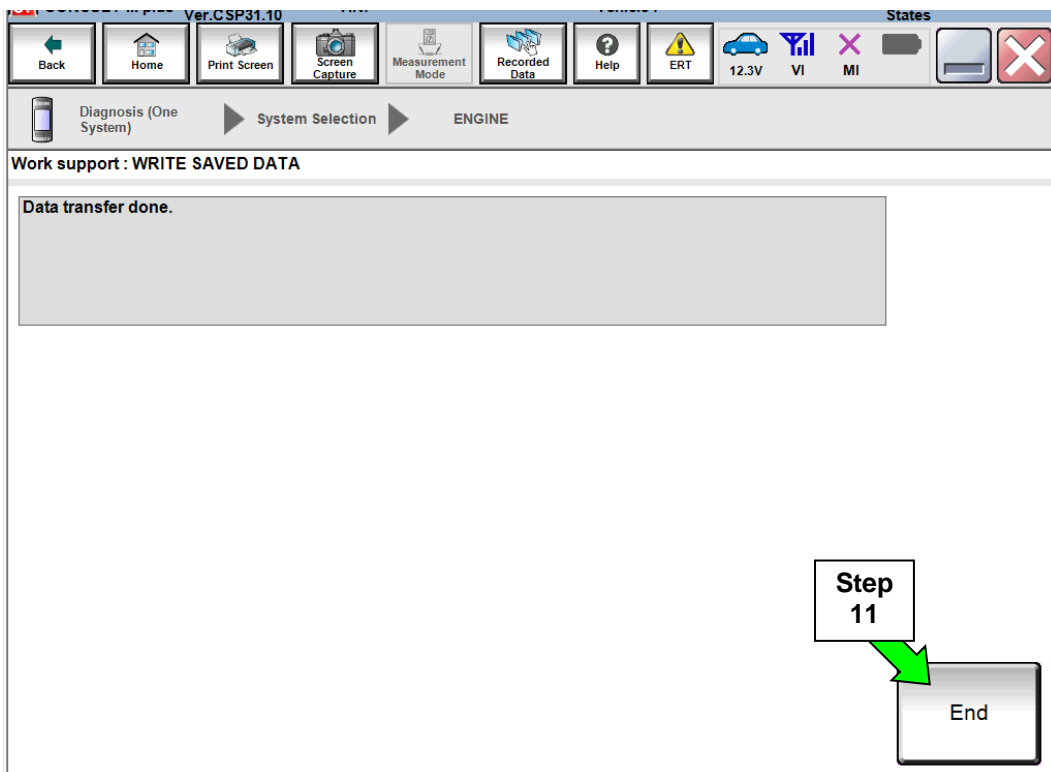


Figure 5A

12. Close C-III plus.

13. Turn the ignition OFF.

14. Disconnect the plus VI from the vehicle.

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

- If the MIL comes ON, go back to ASIST for further diagnostic information.
- Diagnosis and repairs beyond ECM reprogramming are not covered by this bulletin.

PARTS INFORMATION

DESCRIPTION	PART NUMBER	QUANTITY
Sen Assy-NOx (Outlet NOx sensor)	22790-EZ41A	1

CLAIMS INFORMATION

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

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
RPL NOX SENSOR 2ND	22790-EZ41A	FD67HA	ZE	32	(1)

(1) Reference the current Nissan Warranty Flat Rate Manual and use the indicated flat rate time.

or

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

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
RPL NOX SENSOR 2ND	22790-EZ41A	FD67HA	ZE	32	(1)
Engine Control Module		DE97AA			

(1) Reference the current Nissan Warranty Flat Rate Manual and use the indicated flat rate time.

