

**Classification:**

EC12-006

Reference:

ITB12-025

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Date:

April 30, 2012

2011-2012 QX56; ENGINE FAN IS NOISY AND VEHICLE HAS POOR ACCELERATION

APPLIED VEHICLE: 2011-2012 QX56 (Z62)**IF YOU CONFIRM:**

- The Engine Cooling Fan is louder than normal.

And

- There is a noticeable lack of power when accelerating in traffic, particularly in HOT weather.

ACTIONS:

1. Perform Engine Fan Coupler function inspection.
 - With engine temperature between 80-95°C (176-203°F), confirm that Cooling Fan speed responds to the commands of the ECM with the procedure starting on page 2.
2. Replace the Fan Coupler if needed.
3. Reprogram the ECM.

IMPORTANT: The purpose of "ACTIONS" (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.

Infiniti 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 Infiniti dealer to determine if this applies to your vehicle.

PARTS INFORMATION

DESCRIPTION	PART #	QUANTITY
Engine Fan Coupler	21082 - 5X20A	1

CLAIMS INFORMATION

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

OPERATION	OP CODE	PFP	SYM	DIAG	FRT
Inspect Fan Coupler and Reprogram ECM	CX16AA	(1)	AE	32	0.9

(1) Refer to the electronic parts catalog (FAST) and use the appropriate Fan Coupler part number as the primary failed part.

Or

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

OPERATION	OP CODE	PFP	SYM	DIAG	FRT
Reprogram ECM	DE97AA	(1)	AE	32	(2)
Replace Fan Coupler	CC14AA				

(1) Refer to the electronic parts catalog (FAST) and use the appropriate Fan Coupler part number as the primary failed part.

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

SERVICE PROCEDURE

Fan Coupler Function Inspection

1. Refer to Electronic Service Manual (ESM) to Diagnose and repair any DTCs **FIRST** before proceeding with Fan Coupling diagnostic.
 - Any DTCs found are not covered by this bulletin. Refer to Warranty Flat Rate Manual for appropriate warranty coding.
2. Use CONSULT III-plus "Active Test" and select "FAN DUTY CONTROL" and then following items to monitor:
 - ENG SPEED
 - COOLANT TEMP/S
 - COOLING FAN SPD

3. Start engine and allow the coolant temperature to reach 80-95°C (176-203°F).
4. With the engine at idle and with the A/C OFF, set the FAN DUTY to 0%.
 - Confirm that the cooling fan speed is below the engine idle speed.

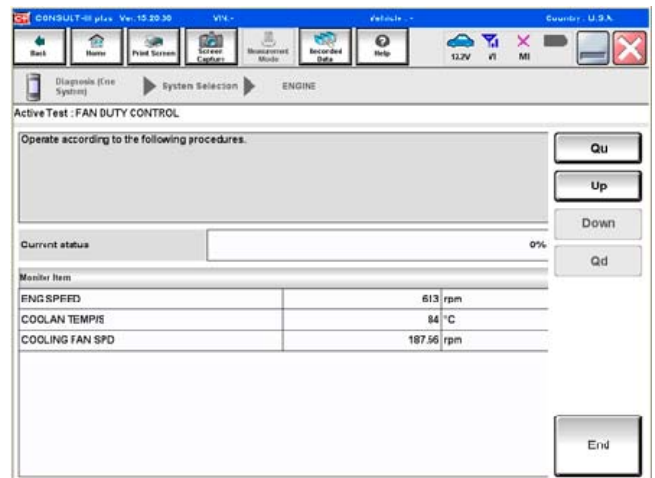


Figure 1

5. Now change the FAN DUTY to 100%.
 - a. Raise the engine speed slowly to 2000 rpm several times and allow it to return to idle, and then confirm that the fan speed increases above engine idle speed (this may take up to 1 minute).
 - b. If the fan speed increases go to step 6.
 - c. If the fan speed **does not** increase go to step 7.

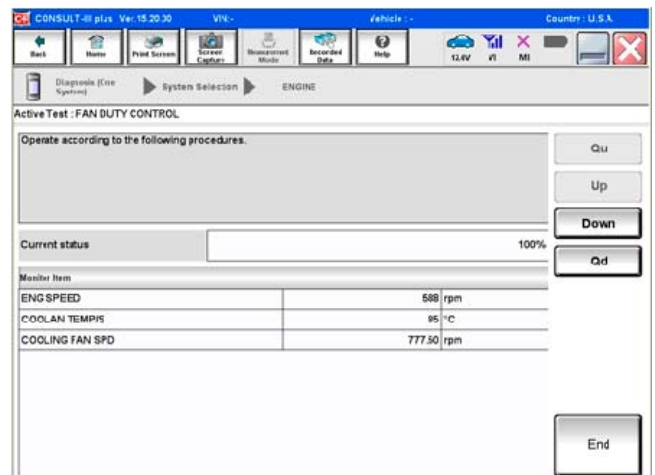


Figure 2

6. Set the FAN DUTY back to 0%.

Slowly raise the engine rpm up to 2000 rpm and hold until the fan speed drops below 600 rpm (this may take up to 1 minute).

- a. If the fan speed decreases go to ECM reprogramming on page 4.
- b. **If the fan speed will not decrease**, return engine to idle and allow at least 3 minutes at idle for the fan speed to decrease below engine idle speed.
- c. If the fan speed **does not** decrease go to step 7.
- d. If the fan speed now does decrease go to ECM reprogramming on page 4.

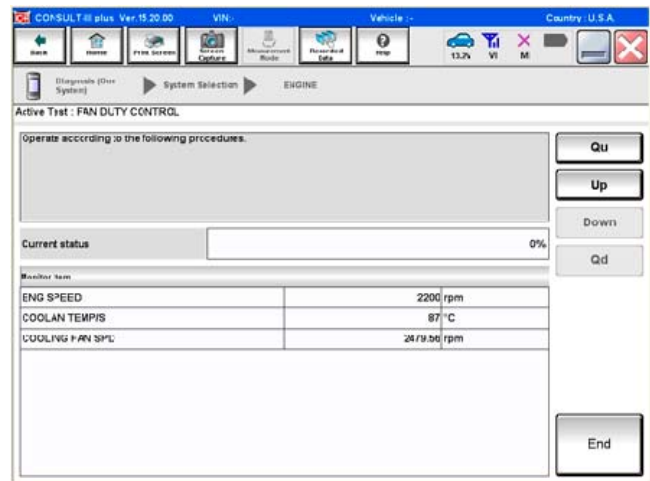


Figure 3

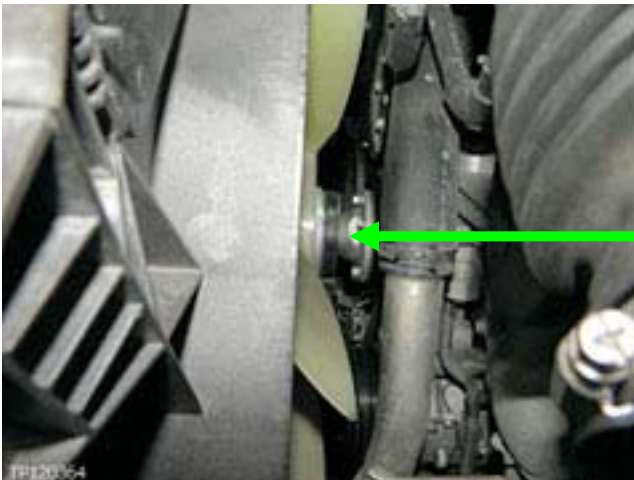


Figure 4

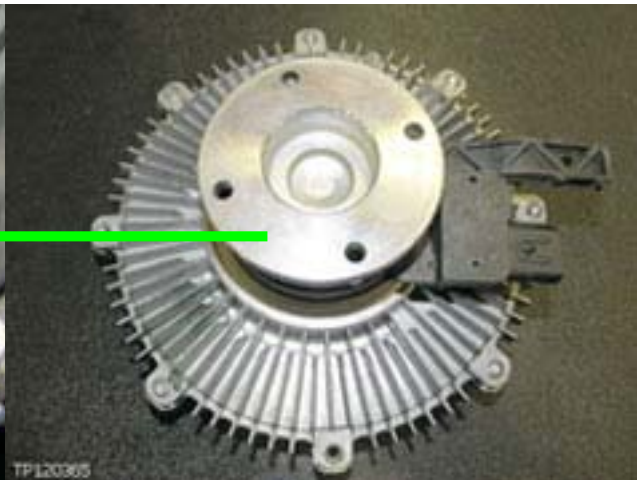


Figure 5

7. If the fan speed will not increase (step 5) or decrease (step 6) using Active Test, replace the fan coupling shown in Figures 4 and 5, then go to step 8 for ECM reprogramming.

NOTE: Refer to ESM Engine Cooling Section for procedure to replace fan coupler.

ECM Reprogram

8. Refer to Electronic Service Manual (ESM) to Diagnose and repair any DTCs **first** before proceeding with 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.
- Take the vehicle for a 10 minute drive in order to meet the following Idle Air Volume Learn (IAVL) conditions:
 - Engine coolant temperature: 70 -100°C (158 - 212°F)
 - Battery voltage: More than 12.9V (At idle)
 - Transmission: Warmed up



Figure 6

- After reprogramming is complete, you will be required to perform Throttle Valve Closed Position, Idle Air Volume Learn, Accelerator Closed Position, and DTC erase.

CAUTION:

- Connect a battery charger to the vehicle battery.
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 VI. If Bluetooth® signal waves are within range of the CONSULT PC during reprogramming, reprogramming may be interrupted and the ECM may be damaged.

- 9 Connect the CONSULT PC to the vehicle to begin the reprogramming procedure.
10. Open ASIST on the CONSULT PC and start C-III plus.
11. Wait for the plus VI to be recognized / connected.
 - Serial number will display when the plus VI is recognized / connected.
12. Select **Re/programming, Configuration**.

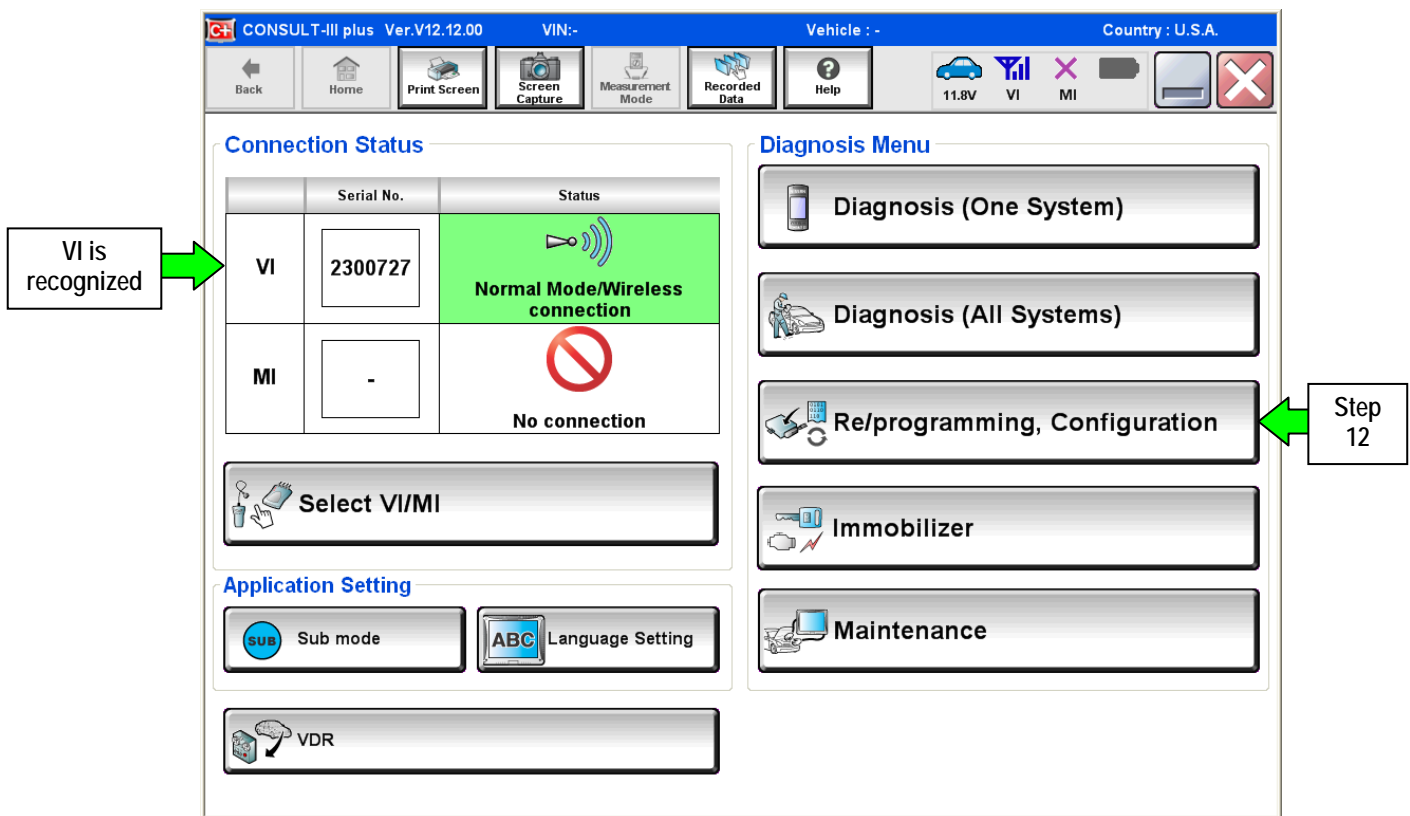


Figure 7

13. Follow the on-screen instructions and navigate the C-III plus to the screen shown in Figure 8 on the next page.

14. When you get to the screen shown in Figure 8, 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).

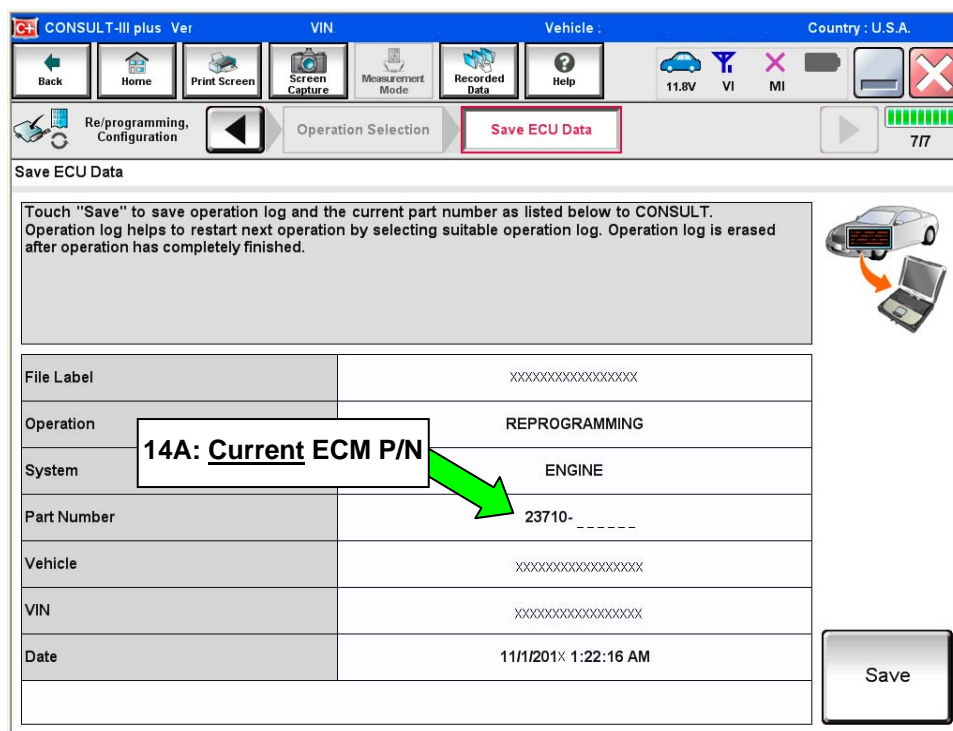


Figure 8

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, close C-III plus and refer to ASIST for further diagnostic information.

Table A

Model	Vehicle Configuration	Current ECM P/N: 23710 -
2011 Q56 (Z62)	2WD ASCD	1LS0A, 1LA3E, 1LA3D, 1LA3C, 1LA3B
	2WD ICC	1LS1A, 1LA4E, 1LA4D, 1LA4C, 1LA4B
	4WD ASCD	1LS2A, 1LA5E, 1LA5D, 1LA5C, 1LA5B,
	4WD ICC	1LS3A, 1LA6E, 1LA6D, 1LA6C, 1LA6B
2012 Q56 (Z62)	2WD ASCD	1ZS0B, 1ZS0A
	2WD ICC	1ZS1B, 1ZS1A
	4WD ASCD	1ZS2B, 1ZS2A
	4WD ICC	1ZS3B, 1ZS3A

15. 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.
 - In this case, the screen in Figure 9 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.

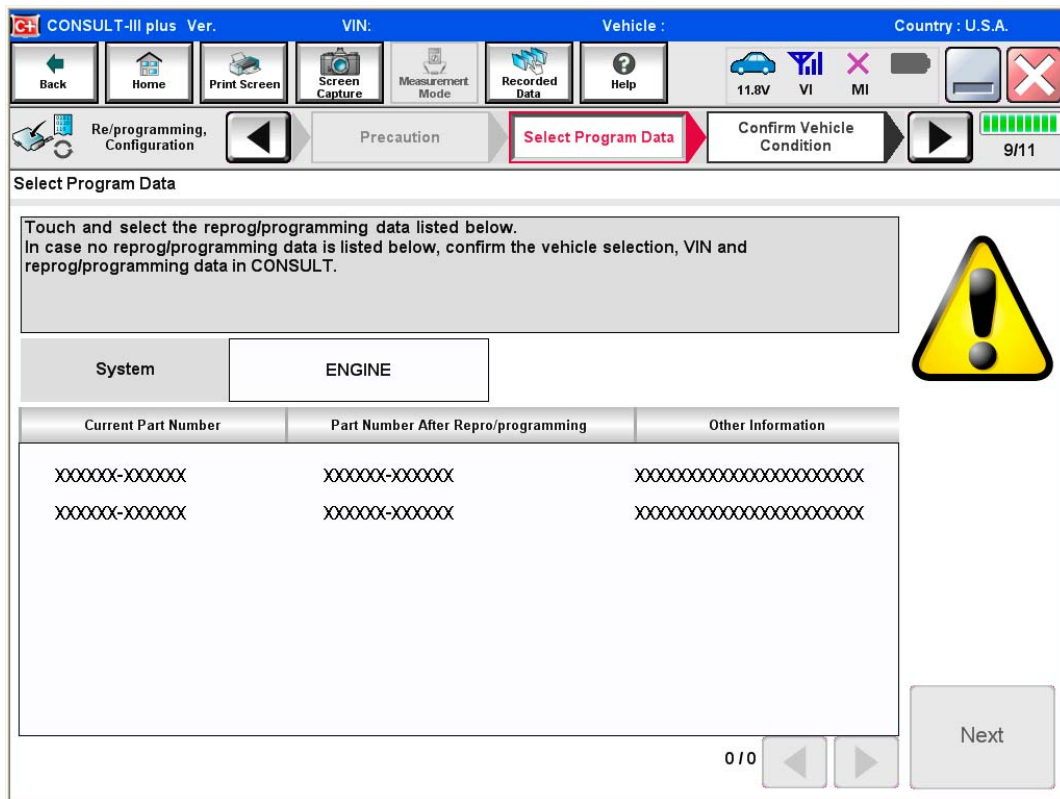


Figure 9

16. When the screen in Figure 10 displays, reprogramming is complete.

NOTE: If the screen in Figure 10 does not display (reprogramming does not complete), refer to the information on the next page.

17. Disconnect the battery charger from the vehicle.

18. Select **Next**.

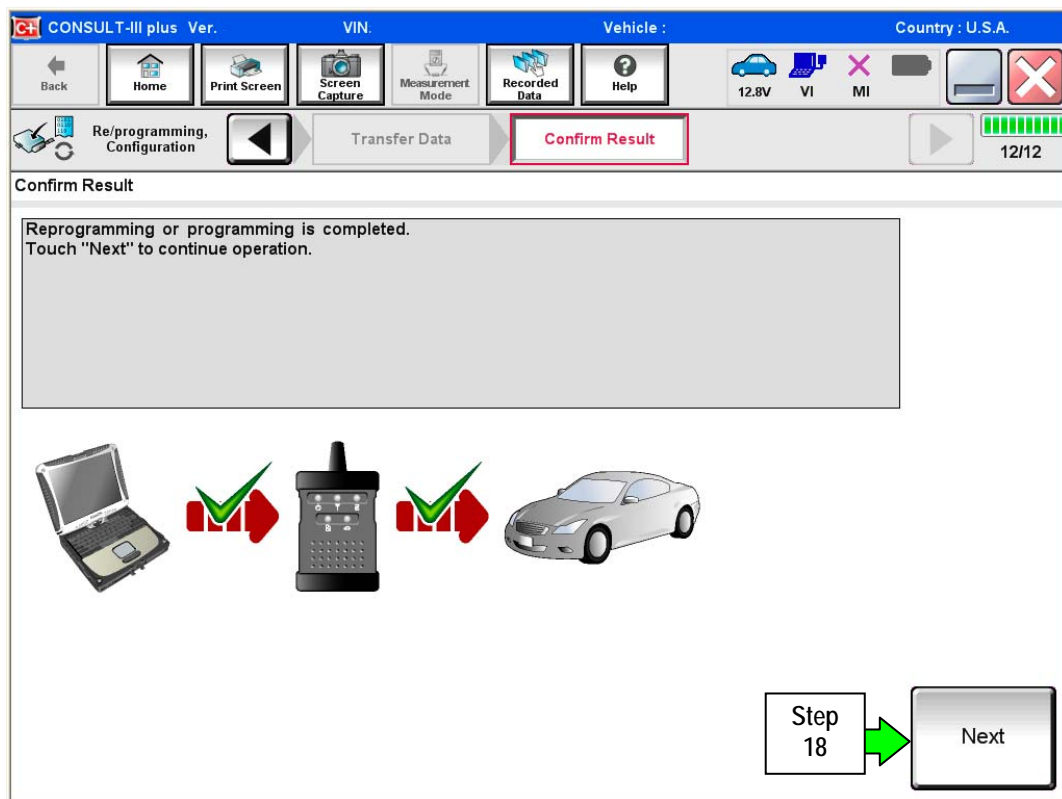


Figure 10

NOTE:

- In the next steps (page 10), you will perform Throttle Valve Closed Position, Idle Air Volume Learn, Accelerator Closed Position, and DTC erase.
- These operations are required before C-III plus will provide the final reprogramming confirmation report.

ECM/TCM recovery:

Do not disconnect plus VI or shut down Consult III plus if reprogramming does not complete.

If reprogramming does not complete and the “!?” icon displays as shown in Figure 11:

- 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.

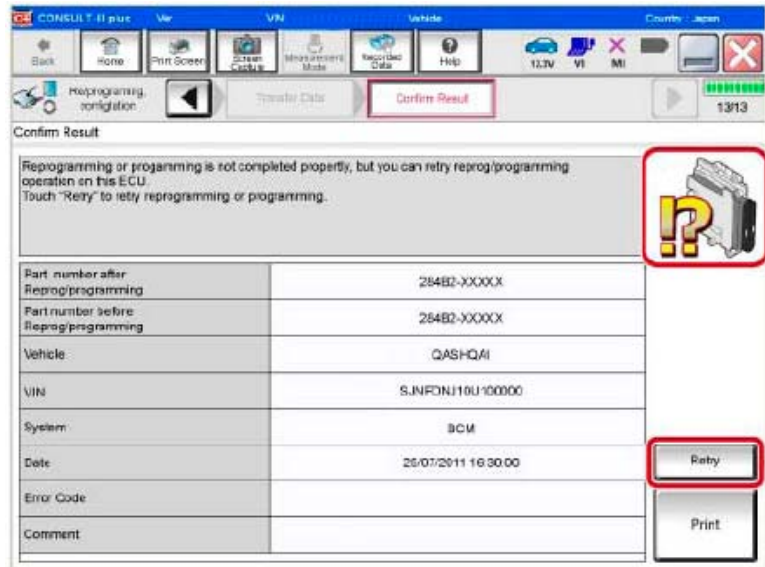


Figure 11

If reprogramming does not complete and the “X” icon displays as shown in Figure 12:

- 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.

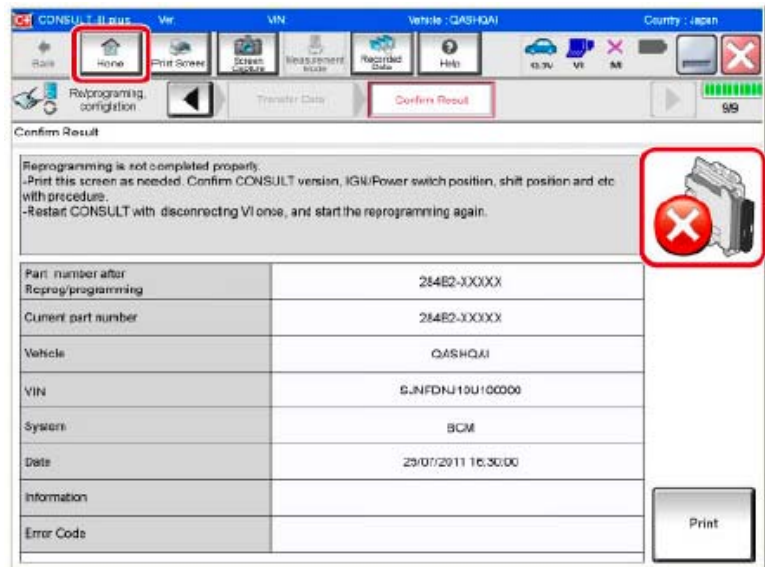


Figure 12

19. Follow the on-screen instructions to perform the following:

- **Throttle Valve Closed Position**
- **Idle Air Volume Learn (IAVL)**

NOTE:

- Listed below are common conditions required for IAVL to complete.
- If IAVL does not complete within a few minutes, a condition may be out of range.
- Refer to the appropriate Electronic Service Manual (ESM) for specific conditions required for the vehicle you are working on.
 - Engine coolant temperature: 70 -100° C (158 -212°F)
 - Battery voltage: More than 12.9V (At idle)
 - Selector lever: P or N
 - Electric load switch: OFF (Air conditioner, headlamp, rear window defogger)
 - Steering wheel: Neutral (Straight-ahead position)
 - Vehicle speed: Stopped
 - Transmission: Warmed up
- **Accelerator Pedal Close Position Learning**
- **Erase DTCs**

Continue to the next page.

20. When the entire reprogramming process is complete, the screen in Figure 13 will display.
21. Verify the before and after part numbers are different.
22. Print a copy of this screen (Figure 13) and attach it to the repair order for warranty documentation.
23. Select **Confirm**.

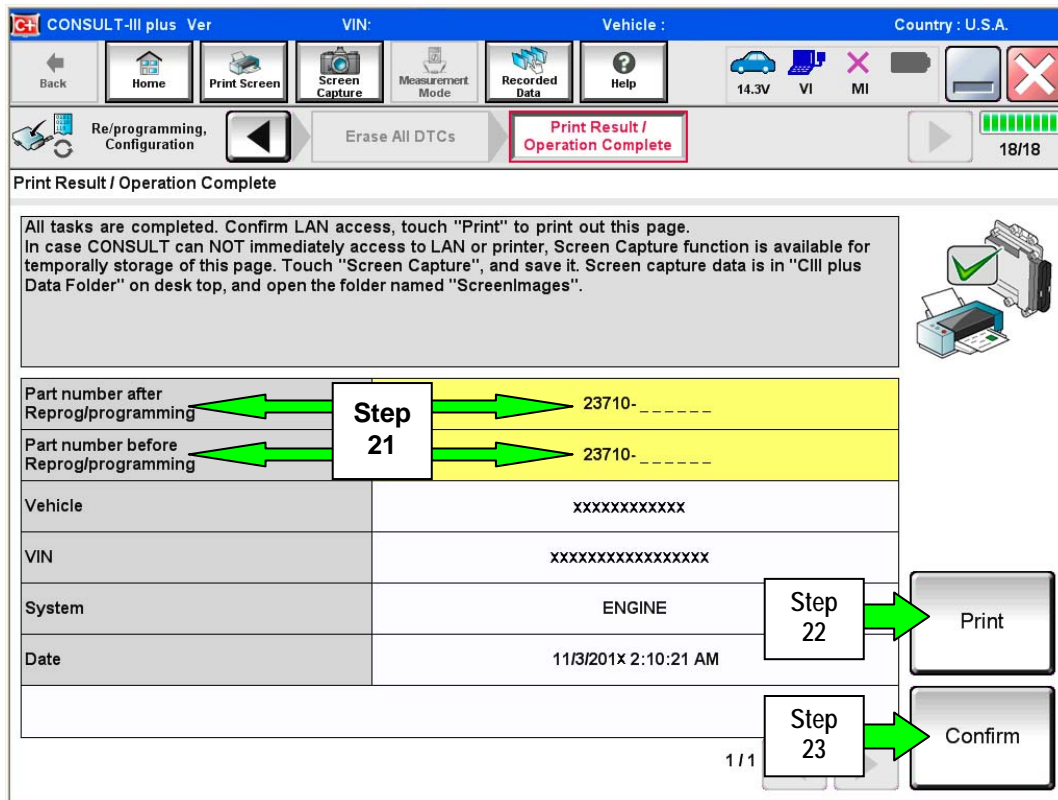


Figure 13

24. Close C-III plus.
25. Turn the ignition OFF.
26. Disconnect the plus VI from the vehicle.
27. 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.