

**Classification:**

EC11-024a

**Reference:**

ITB11-054a

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## 2011- 2013 QX56 AND 2011- 2012 M56; MIL ON WITH A/F SENSOR RELATED DTC STORED

This bulletin has been amended in the APPLIED VEHICLES section and the SERVICE PROCEDURE.  
Discard all previous versions of this bulletin.

**APPLIED VEHICLES:** 2011- 2013 QX56 (Z62)  
2011- 2012 M56 (Y51)

**APPLIED ENGINE:** VK56VD series V8

### IF YOU CONFIRM:

Any of the following DTCs are stored in the ECM:

- P0031 / P0051, P0032 / P0052, P0130 / P0150, P0133 / P0153, P2A00 / P2A03, P1148 / P1168

### OR

Any of the following DTCs are stored in the ECM as a result of one of the A/F sensors:

- P0300 - P0308, P0171 / P0174, P0172 / P0175

### ACTION:

1. Replace the A/F sensor that relates to the stored DTC(s) (B1 and/or B2).
2. Refer to step 7 in the **SERVICE PROCEDURE** to confirm if ECM reprogramming applies.
3. If it applies, reprogram the ECM.

**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.

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

MODEL	DESCRIPTION	PART NUMBER	QTY
2011 - 2012 M56	SENSOR ASSY AIR FUEL RATIO	22693-1MCOA	1 (per bank)
2011 - 2013 QX56	SENSOR ASSY AIR FUEL RATIO	22693-1LA0C	1 (per bank)

## CLAIMS INFORMATION

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

### Replace A/F Sensor (M56)

One

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Replace A/F sensor	(1)	DE53AA	HD	32	(2)

- (1) Use the appropriate part number listed above in the parts information table.
- (2) Reference the current Infiniti Warranty Flat Rate Manual and use the indicated FRT.

Or

Both

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Replace A/F sensor	(1)	DE55AA	HD	32	(2)

- (1) Use the appropriate part number listed above in the parts information table.
- (2) Reference the current Infiniti Warranty Flat Rate Manual and use the indicated FRT.

### Replace A/F Sensor (QX56)

One

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Replace A/F sensor	(1)	DE53AA	HD	32	(2)

- (1) Use the appropriate part number listed above in the parts information table.
- (2) Reference the current Infiniti Warranty Flat Rate Manual and use the indicated FRT.

Or

Both

DESCRIPTION	PFP	OP CODE	SYM	DIA	FRT
Replace A/F sensor	(1)	DE55AA	HD	32	(2)

- (1) Use the appropriate part number listed above in the parts information table.
- (2) Reference the current Infiniti Warranty Flat Rate Manual and use the indicated FRT.

And on the **same repair line** if the ECM is reprogrammed:

DESCRIPTION	OP CODE	SYM	DIA	FRT
Reprogram ECM	DE97AA	ZE	32	(1) (2)

- (1) Reference the current Infiniti Warranty Flat Rate Manual and use the indicated FRT.
- (2) FRT allows adequate time to access DTC codes and reprogram ECM. No other diagnostic procedures subsequently required. Do NOT claim any Diagnostic Op Codes with this claim.

## SERVICE PROCEDURE

1. Replace the A/F sensor on the affected bank (related to the stored DTC).
  - For replacement procedure, refer to the appropriate Electronic Service Manual (ESM).
2. Next, connect the CONSULT PC to the vehicle to begin the reprogramming procedure.

### 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) ECM 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 A

- 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.

3. Open ASIST on the CONSULT PC and start C-III plus.
4. Wait for the plus VI to be recognized / connected.
  - The serial number will display when the plus VI is recognized / connected.
5. Select **Re/programming, Configuration**.

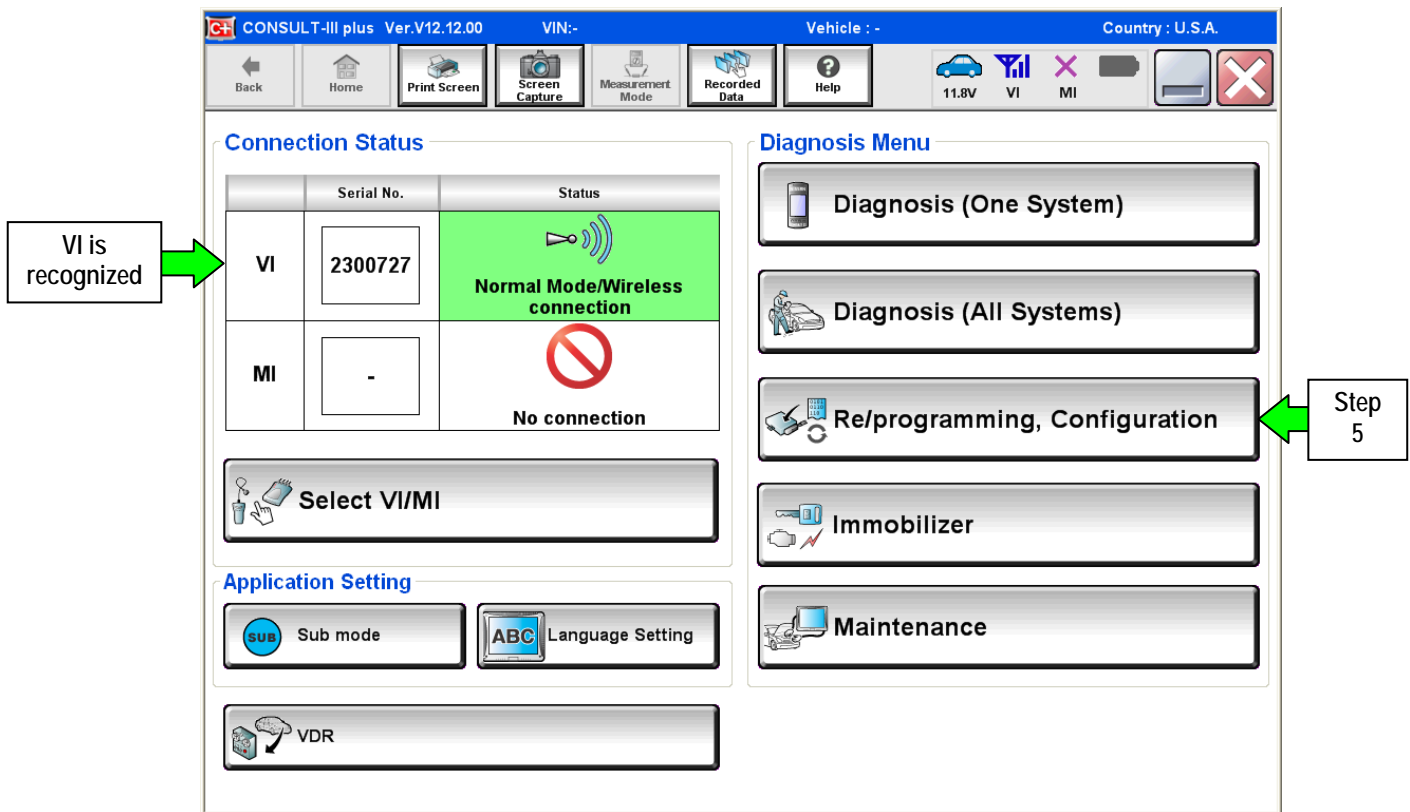


Figure 1

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

7. When you get to the screen shown in Figure 2, confirm ECM reprogramming 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).

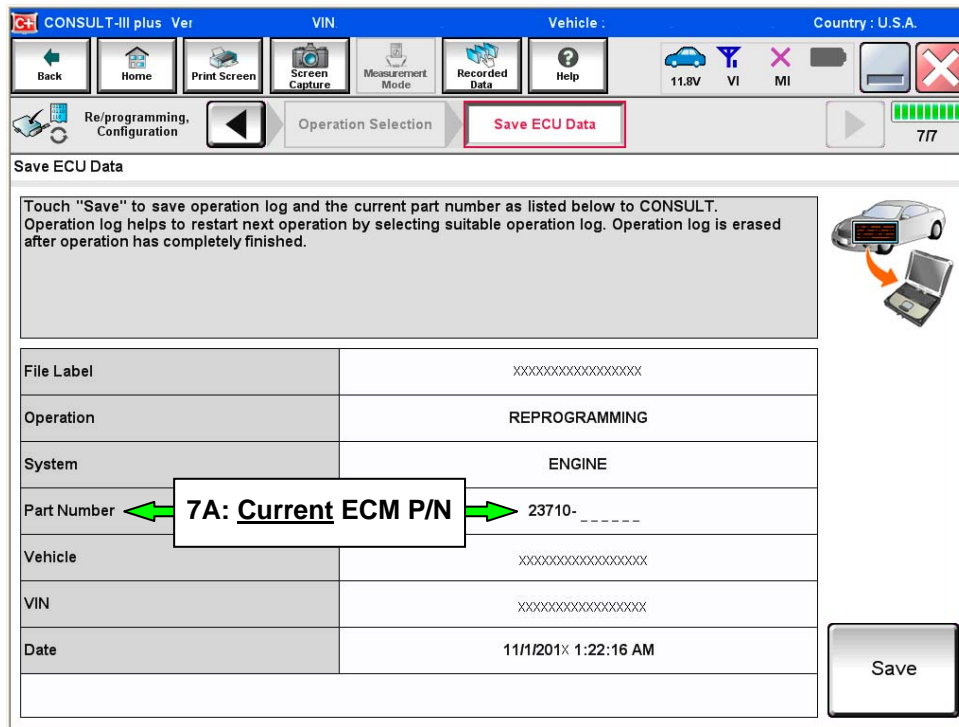


Figure 2

- B. Compare the P/N you wrote down to the numbers in the **Current ECM Part Number** column in **Table A** on the next page.
  - If there is a match, the ECM needs to be reprogrammed. Continue with the reprogramming procedure.
  - If there is not a match, the ECM does not need to be reprogrammed. Close C-III plus – repairs are completed.

Table A

MODEL	VEHICLE CONFIGURATION	Current ECM Part Number: 23710-
2011 M56	2WD_ASCD	1MX0A, 1MX0B, 1MX0C, 1MX0D, 1MX0E
	2WD_ICC	1MX1A, 1MX1B, 1MX1C, 1MX1D, 1MX1E
	2WD_4WAS_ASCD	1MX2A, 1MX2B, 1MX2C, 1MX2D, 1MX2E
	2WD_4WAS_ICC	1MX3A, 1MX3B, 1MX3C, 1MX3D, 1MX3E
	4WD_ASCD	1MX4A, 1MX4B, 1MX4C, 1MX4D, 1MX4E
	4WD_ICC	1MX5A, 1MX5B, 1MX5C, 1MX5D, 1MX5E
2012 M56	2WD_ASCD	1MU0A, 1MU0B
	2WD_ICC	1MU1A, 1MU1B
	2WD_4WAS_ASCD	1MU2A, 1MU2B
	2WD_4WAS_ICC	1MU3A, 1MU3B
	4WD_ASCD	1MU4A, 1MU4B
	4WD_ICC	1MU5A, 1MU5B
2011 QX56	2WD_ASCD	1LA3B, 1LA3C, 1LA3D, 1LA3E, 1LS0A, 1LS0B
	2WD_ICC	1LA4B, 1LA4C, 1LA4D, 1LA4E, 1LS1A, 1LS1B
	4WD_ASCD	1LA5B, 1LA5C, 1LA5D, 1LA5E, 1LS2A, 1LS2B
	4WD_ICC	1LA6B, 1LA6C, 1LA6D, 1LA6E, 1LS3A, 1LS3B
2012 QX56	2WD_ASCD	1ZS0A, 1ZS0B, 1ZS0C, 1ZS0D
	2WD_ICC	1ZS1A, 1ZS1B, 1ZS1C, 1ZS1D
	4WD_ASCD	1ZS2A, 1ZS2B, 1ZS2C, 1ZS2D
	4WD_ICC	1ZS3A, 1ZS3B, 1ZS3C, 1ZS3D
2013 QX56	2WD_ASCD	1V92A
	2WD_ICC	1V93A
	4WD_ASCD	1V90A
	4WD_ICC	1V91A

8. 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 3 displays.
  - Select and use the reprogramming option that **does not** have the message "Caution! Use ONLY with ITBXX-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 – repairs are completed.

**IMPORTANT:** If C-III plus locks up or freezes at this point or displays "*cannot complete reprogramming, CONSULT PC is set up with User Rights. Reprogramming can be completed with Administrator log in*", the TOUGHBOOK settings need to be changed so that Users have full access rights. See your Dealership's IT System Administrator for details.

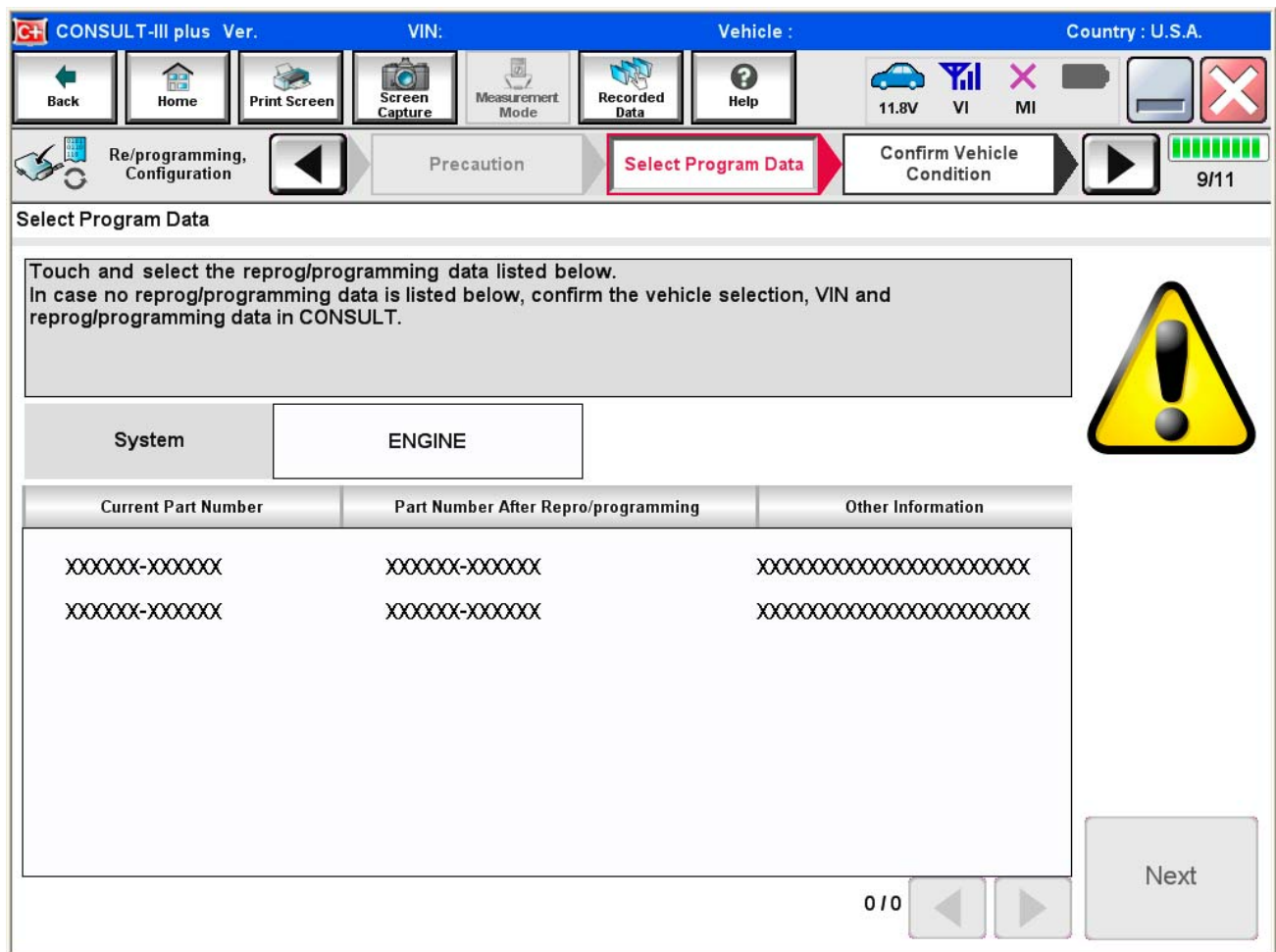


Figure 3

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

**NOTE:** If the screen in Figure 4 does not display (reprogramming does not complete), refer to the information on page 9.

10. Disconnect the battery charger from the vehicle.

11. Select **Next**.

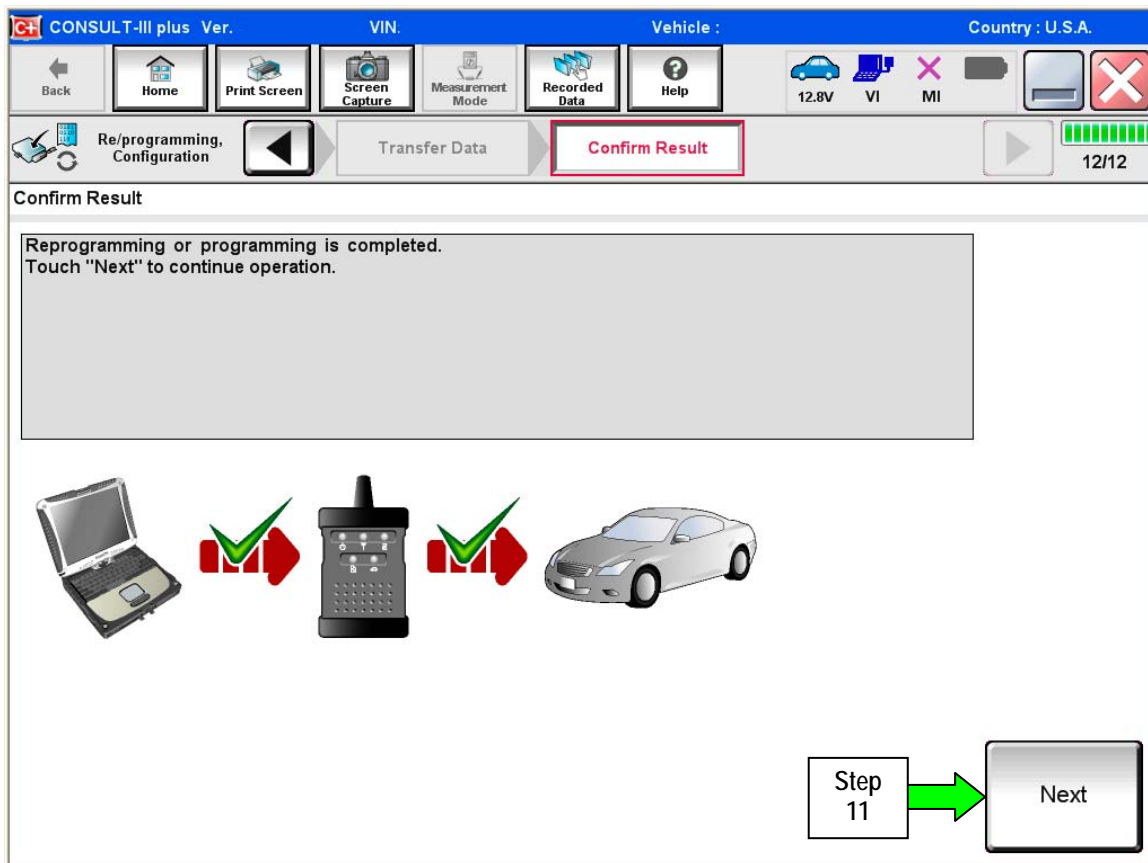


Figure 4

**NOTE:**

- In the next steps, starting on 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 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 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.

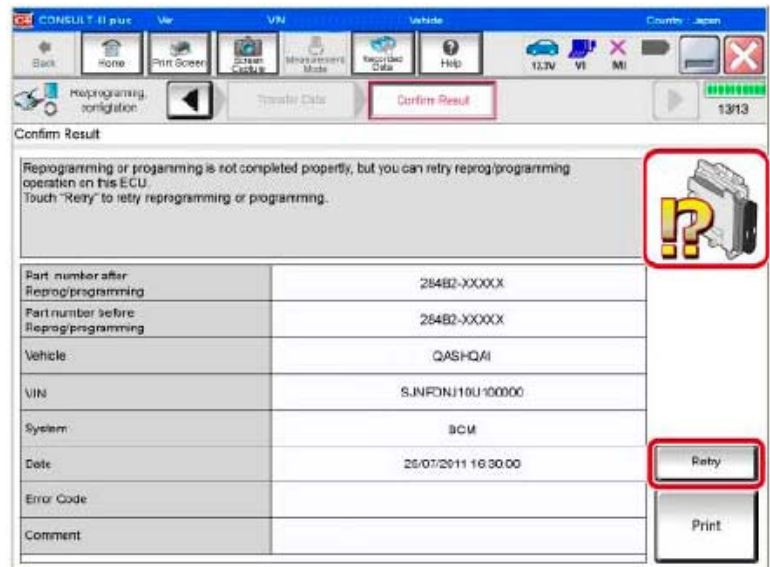


Figure 5

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.**

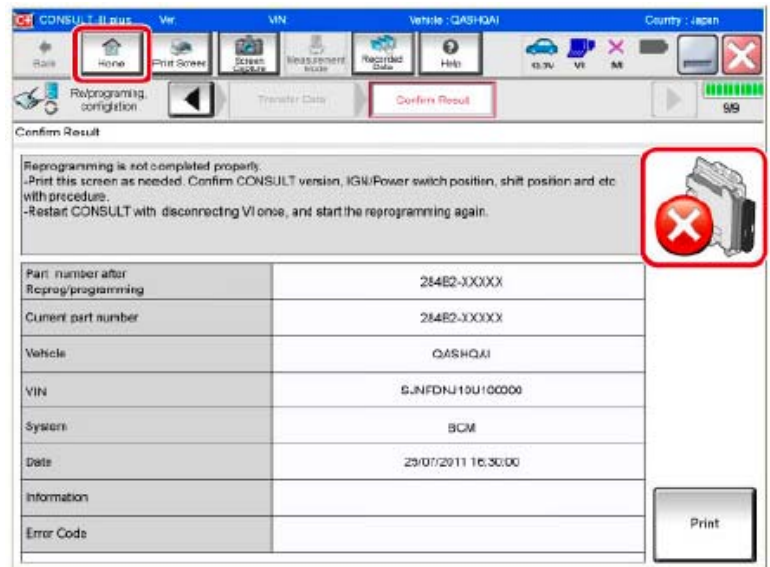


Figure 6

12. 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.

13. When the entire reprogramming process is complete, the screen in Figure 7 will display.
14. Verify the before and after part numbers are different.
15. Print a copy of this screen (Figure 7) and attach it to the repair order for warranty documentation.
16. Select **Confirm**.

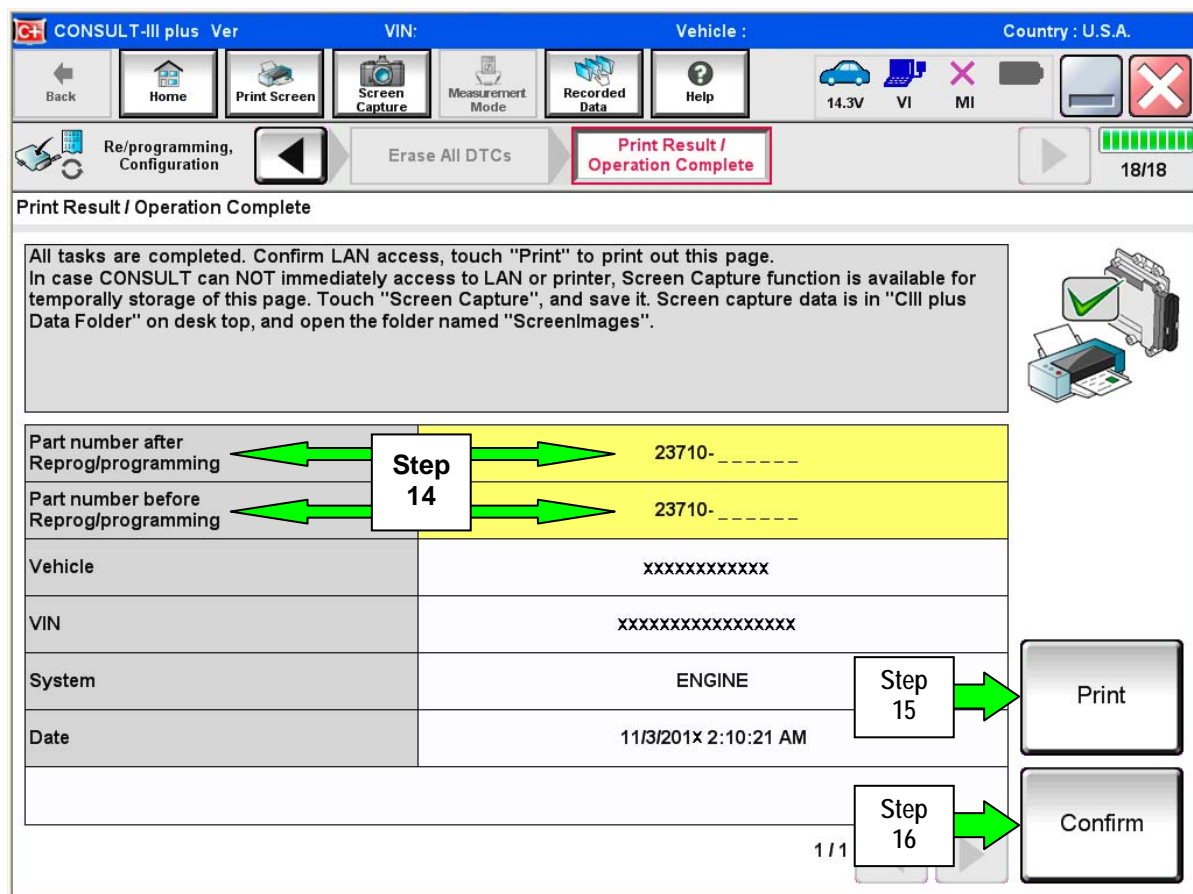


Figure 7

17. Close C-III plus.
18. Turn the ignition OFF.
19. Disconnect the plus VI from the vehicle.
20. 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.